



NI Strategic Planning Policy Statement Strategic Environmental Assessment Final Environmental Report

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1 Introduction

1.1 Purpose of this Report

- 1.1.1 ADAS has been instructed by the Department of Environment (DOE) to carry out a Strategic Environmental Assessment (SEA) for the Strategic Planning Policy Statement (SPPS) for Northern Ireland (NI).
- 1.1.2 SEA is a systematic process for evaluating the environmental consequences of proposed plans or programmes to ensure environmental issues are fully integrated and addressed at the earliest appropriate stage of decision making, with a view to promoting sustainable development. The process of SEA was introduced under European Directive 2001/42/EC12 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive), and came into force in 2001.
- 1.1.3 The Directive requires the DOE, as the programming authority, to assess the likely significant effects of its plans and programmes on:
- “the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship of the above factors” including “secondary, cumulative, synergistic, short, medium, and long-term, permanent and temporary positive and negative effects”.*
- 1.1.4 The requirements of the SEA Directive are transposed into Northern Irish domestic law through the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (SR 280/2004). Also of relevance are the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 1633/2004) (the UK Regulations) and, in Ireland, the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Irish SI 435/2004 and SI 200/2011), and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (Irish SI 436/2004 and SI 201/2011).
- 1.1.5 The purpose of this report is to carry out an evaluation of the likely environmental effects of implementation and non-implementation of the SPPS as per the requirements of the Directive and Regulations. This includes an assessment of realistic strategic alternative approaches and options, as well as the suggestion of mitigation and enhancement measures to prevent, reduce and offset any significant adverse effects on the environment of implementing the SPPS.
- 1.1.6 A draft version of this report was issued to the statutory consultation bodies by DOE and was made available to view and comment on by other interested organisations and members of the public for a period of twelve weeks from 4 February to 29 April 2014.

1.2 Structure of this Report

- 1.2.1 The areas considered in this Final Environmental Report, and their location in the document, are as follows:

- Summary of the SPPS – Section 1.3;
- SEA Objectives and assessment methodology – Chapter 2;
- Summary of scoping consultation responses – Section 3.2 and Appendices A and B;
- Relationship with other plans, programmes and conservation objectives – Sections 3.3 and 6.15 and Appendix C;
- Relevant aspects of the current state of the environment – Section 3.4 and Appendix D;
- Existing environmental problems and the likely evolution of the environment without the SPPS – Section 3.5;
- Consideration of alternatives – Chapter 4 and Appendices E, F and G;
- How environmental considerations have been integrated into the SPPS – Chapter 5 and Appendix H;
- Identification and assessment of likely significant effects on the environment – Chapter 6 and Chapter 7;
- Mitigation and enhancement measures – Chapter 8; and
- Proposed monitoring programme and next steps regarding the adoption process – Chapter 9.

1.2.2 A non-technical summary of the information provided in this report has been provided separately.

1.3 The Strategic Planning Policy Statement

1.3.1 The SPPS has been prepared in the context of wider planning and local government reforms which involves the establishment of a new 11 Council model and the transfer of the majority of planning functions from DOE to local councils on 1 April 2015. The SPPS will have a key role in the future implementation of these reforms by explaining the core planning principles of the reformed two tier planning system and key concepts such as sustainable development, well-being, place making and community planning. It also provides a statement on the purpose for planning. The intention is to ensure that regional planning policy is pitched at a higher, more strategic level. The SPPS provides a shorter, more simple and more accessible statement of planning policy for all users of the planning system. It will be used by Planning Authorities to inform the content of development plans, and be a material consideration in decisions on individual planning applications and appeals.

1.3.2 Existing planning policies, as contained within the current Planning Policy Statements (PPSs), are detailed and operational in nature. However, in preparing for the introduction of the two-tier planning system these have been largely consolidated and updated in a strategic way in the SPPS. The policy provisions in the Planning Strategy for Rural Northern

Ireland (PSRNI; 1993), which remain in force presently have also been consolidated into the SPPS.

- 1.3.3 The primary purpose of this exercise has been to re-format and reconfigure existing policy provisions so that central government policies are more proportionate and appropriate to the new two-tier planning system. However, additional provisions including minor policy updates, revisions, and revocations have also been made where appropriate. In the case of PPS 5 (published in 1996), existing policy on Retailing and Town Centres has been replaced with new retail policy through the SPPS.

Aims and Objectives

- 1.3.4 The objective of the planning system, which is at the heart of the SPPS is 'Furthering Sustainable Development', consistent with the provisions of the Planning Act (Northern Ireland) 2011. To assist with the achievement of this objective the SPPS sets out what is meant by 'sustainable development' in the particular context of planning for this region, and includes an explanation of the core planning principles that give expression to it. The SPPS also provides an overview of the new Development Plan and Development Management system requirements; and provides strategic subject planning policies which must to be taken into account in plan-making and decision-taking. More detail on furthering sustainable development, core principles and subject policies follows:

Furthering Sustainable Development:

- Furthering Sustainable Development– Planning authorities should deliver on all three pillars of sustainable development (society, economy and environment) in formulating policies and plans and in determining planning applications and appeals in order to further sustainable development and improve well-being.
- Mitigating and Adapting to Climate Change – A central challenge in furthering sustainable development is mitigating and adapting to climate change, whilst improving air quality. This includes the need to reduce emissions of greenhouse gases that contribute to climate change and to respond to the impacts brought about by climate change, such as extreme heat or flood risk.
- The Importance of Ecosystem Services – The careful management, maintenance and enhancement of ecosystem services are an integral part of sustainable development. Where appropriate, identifying the condition of ecosystems, the provision of services and their relationship to human well-being should be integrated into plan-making and decision-taking processes.

Core Planning Principles:

- Improving Health and Well-being – Planning authorities should contribute positively to health and well-being in plan-making and decision-taking by: safeguarding and facilitating open space, sport and outdoor recreation; providing for safe and secure age-friendly environments; encouraging and supporting quality, environmentally sustainable design; better connected communities with safe pedestrian environments; better integration between land-use planning and transport;

facilitating the protection and provision of green and blue infrastructure; supporting the provision of jobs, and services, and economic growth; supporting delivery of homes to meet the full range of housing needs, contributing to balanced communities; and supporting broader government policy aimed at addressing for example obesity, and health and well-being impacts arising through pollution.

- **Creating and Enhancing Shared Space** – Planning authorities should utilise development planning, regeneration and development management powers to contribute to the creation of an environment that is accessible to all and enhances opportunities for shared communities, has a high standard of connectivity, and supports shared use of public realm.
- **Supporting Sustainable Economic Growth** – Planning authorities should take a positive approach to development proposals, and proactively support and enable growth generating activities. The environment is an asset for economic growth in its own right and planning authorities must balance the need to support job creation and economic growth with protecting and enhancing the quality of the natural and built environment. Economic growth can also contribute to higher social standards and improve the health and well-being of our society overall.
- **Supporting Good Design and Positive Place-Making** – Good design can change lives, communities and neighbourhoods for the better. Design is an important material consideration in the assessment of all proposals and good design should be the aim of all those involved in the planning process and must be encouraged across the region. Particular weight should be given to the impact of development on existing buildings, and on the character of areas recognised for their landscape or townscape value. Appropriate and adequate amenity space, especially in residential developments, is an important element of good design. Place-making is a people-centred approach to the planning, design and stewardship of new developments and public spaces that seeks to enhance the unique qualities of a place, how these developed over time and what they will be like in the future. Key to successful place-making is identifying the assets of a particular place as well as developing a vision for its future potential.
- **Preserving and Improving the Built and Natural Environment** – The planning system plays an important role in conserving, protecting and enhancing the environment (including landscape, heritage assets and biological diversity) whilst ensuring it remains responsive and adaptive to the everyday needs of society. Plans and proposals should be rigorously assessed for their environmental impacts, e.g. through SEA, EIA and HRA, as appropriate.

Subject Planning Policies:

- **Archaeology and Built Heritage** – Objectives are to: secure the protection, conservation and, where possible, the enhancement of built and archaeological heritage; promote sustainable development and environmental stewardship with regard to built and archaeological heritage; and deliver economic and community

benefit through conservation that facilitates productive use of built heritage assets and opportunities for investment, whilst safeguarding their historic or architectural integrity.

- Coastal Development – Objectives are to: conserve the natural character and landscape of the undeveloped coast and to protect it from excessive, inappropriate or obtrusive development; and facilitate appropriate development in coastal settlements and other parts of the developed coastline (subject to all other relevant planning policies) that contributes to a sustainable economy and which is sensitive to its coastal location.
- Control of Outdoor Advertisements – Objectives are to: ensure that outdoor advertisements respect amenity and do not prejudice public safety, including road safety; and help everyone involved in the display of outdoor advertisements contribute positively to the appearance of a well-cared for and attractive environment in cities, towns, villages and the countryside.
- Development in the Countryside – Objectives are to: manage growth to achieve appropriate and sustainable patterns of development which supports a sustainable rural economy and vibrant rural community; conserve the landscape and natural resources of the rural area and to protect it from excessive, inappropriate or obtrusive development and from the actual or potential effects of pollution; facilitate development which contributes to a sustainable rural economy; and promote high standards in the design, siting and landscaping of development.
- Economic Development, Industry and Commerce – Objectives are to: promote sustainable economic development in an environmentally sensitive manner; tackle disadvantage and facilitate job creation by ensuring the provision of a generous supply of land suitable for economic development and a choice and range in terms of quality; sustain a vibrant rural community by supporting rural economic development of an appropriate nature and scale; support the re-use of previously developed economic development sites and buildings where they meet the needs of particular economic sectors; promote mixed-use development and improve integration between transport, economic development and other land uses, including housing; and ensure a high standard of quality and design for new economic development.
- Flood Risk – Objectives are to: prevent inappropriate new development in areas known to be at risk of flooding, or that may increase the flood risk elsewhere; ensure that the most up to date information on flood risk is taken into account in decisions; adopt a precautionary approach to the identification of land for development where there are uncertainties; manage development in ways that are appropriate to the four main sources of flood risk in NI; protect development that is permitted within flood risk areas by ensuring that adequate and appropriate measures are employed to mitigate and manage the flood risks; retain and restore natural flood plains and natural watercourses as a form of flood alleviation and an important environmental and social resource; encourage the use of sustainable drainage for new development and redevelopment / regeneration schemes; promote public awareness of flood risk

and the flood risk information that is available; and promote an integrated and sustainable approach to the management of development and flood risk.

- Housing in Settlements – Objectives are to: manage housing growth to achieve sustainable patterns of residential development; support urban and rural renaissance; and strengthen community cohesion.
- Minerals – Objectives are to: facilitate sustainable minerals development through balancing the need for specific minerals development proposals against the need to safeguard the environment; minimise the impacts of minerals development on local communities, landscape quality, built and natural heritage, and the water environment; and secure the sustainable and safe restoration, including the appropriate re-use of mineral sites, at the earliest opportunity.
- Natural Heritage – Objectives are to: protect, conserve, enhance and restore the abundance, quality, diversity and distinctiveness of the region’s natural heritage; ensure that natural heritage and associated diversity is conserved and enhanced as an integral part of social, economic and environmental development; assist in meeting international, national and local responsibilities and obligations; contribute to rural renewal and urban regeneration by ensuring developments take account of the role and value of natural heritage in supporting economic diversification and contributing to a high quality environment;; and take actions to reduce our carbon footprint and facilitate adaptation to climate change.
- Open Space, Sport and Outdoor Recreation – Objectives are to: safeguard existing open space and sites identified for future such provision; provide open space as an integral part of new residential development to be managed and maintained in perpetuity; facilitate appropriate outdoor recreational activities in the countryside that do not negatively impact on the amenity of existing residents; and ensure that new open space areas and sporting facilities are convenient and accessible for all sections of society, achieve high standards of siting, design and landscaping, and help sustain and enhance biodiversity.
- Renewable Energy – Objectives are to: ensure that the environmental, landscape, visual and amenity impacts associated with or arising from renewable energy development are adequately addressed; ensure adequate protection of the region’s built, natural, and cultural heritage features; and facilitate the integration of renewable energy technology into the design, siting and layout of new development and promote greater application of the principles of Passive Solar Design.
- Telecommunications and Other Utilities – Objectives are to: ensure that where appropriate new telecommunications development is accommodated by mast and site sharing; ensure that the visual and environmental impact of telecommunications and other utility development is kept to a minimum; minimise undue interference that may be caused to radio spectrum users by new telecommunications development; and encourage appropriate provision for telecommunications systems in the design of other forms of development.

- Tourism – Objectives are to: facilitate sustainable tourism development in an environmentally sensitive manner; contribute to the growth of the regional economy by facilitating tourism growth; safeguard tourism assets from inappropriate development; utilise and develop the tourism potential of settlements by facilitating tourism development of an appropriate nature, location and scale; sustain a vibrant rural community by supporting tourism development of an appropriate nature, location and scale in rural areas; and ensure a high standard of quality and design for all tourism development.
- Town Centres and Retailing – Objectives are to: secure a town centres first approach for the location of future retailing and other main town centre uses; adopt a sequential approach to the identification of retail and main town centre uses; ensure decisions are informed by robust and up to date evidence in relation to need and capacity; protect and enhance diversity in the range of town centre uses appropriate to their role and function, such as leisure, cultural and community facilities, housing and business; promote high quality design to ensure that town centres provide sustainable, attractive, accessible and safe environments; and maintain and improve accessibility to and within the town centre.
- Transportation – Objectives are to: promote sustainable patterns of development which reduce the need for motorised transport, encourages active travel, and facilitate travel by public transport in preference to the private car; ensure accessibility for all; promote the provision of adequate facilities for cyclists in new development; promote parking policies that will assist in reducing reliance on the private car and help tackle growing congestion; protect routes required for new transport schemes including disused transport routes with potential for future reuse; restrict the number of new accesses and control the level of use of existing accesses onto Protected Routes; and promote road safety.
- Waste Management – Objectives are to promote development of waste management and recycling facilities in appropriate locations; ensure that detrimental effects on people, the environment, and local amenity associated with waste management facilities are avoided or minimised; and secure appropriate restoration of proposed waste management sites for agreed after-uses.

1.4 Characterisation of the SPPS Area

- 1.4.1 The reform of local government will see the reduction of 26 councils to 11; the process will be completed by April 2015. Legislation to finalise the boundaries of the new 11 local government districts was approved by the NI Assembly on 12th June 2012. The legislation sets the boundaries of the new local government districts as well as the number, boundaries and names of the wards into which each district will be divided.
- 1.4.2 The geographic area covered by the SPPS comprises the whole of NI. With key functions such as planning, urban regeneration, local economic development and local tourism being transferred from central government to these 11 local councils in 2015, it is considered

useful to show these new local authority districts graphically in the SEA. These can be seen in Figure 1.1 below.

- 1.4.3 NI is one of four administrative regions of the UK. It is a predominantly rural region, with 80% of the landmass in agricultural and forestry use. Almost two fifths of the urban population live within the Belfast Metropolitan Area with another sizeable concentration of population around Derry/Londonderry. The region has a distinctive cultural heritage and retains strong rural dimensions through the importance of agriculture, tourism and their interactions with the landscape.
- 1.4.4 Whilst a marine planning and licensing regime will be in place from 2015 (enacted through the Marine Act 2013), the coastal zone is also important and should form the transition between the terrestrial and marine regimes (dealing with issues such as sea level change, tourism and renewable energy). The majority of NI's 650km coastline is protected for its nature conservation interest, whilst the Antrim coast is considered to be of very high seascape value. In addition, the NI coast has highly productive and biologically diverse ecosystems with features that serve as critical natural defences against storms, floods and erosion.

NEW MODEL FOR LOCAL DEMOCRACY



11 New Local Authority Districts

- Derry and Strabane
- Causeway Coast and Glens
- Mid and East Antrim
- Antrim and Newtownabbey
- Belfast
- Lisburn and Castlereagh
- North Down and Ards
- Newry, Mourne and Down
- Armagh, Banbridge and Craigavon
- Mid Ulster
- Fermanagh and Omagh

Area Planning Offices

- Planning Area Border

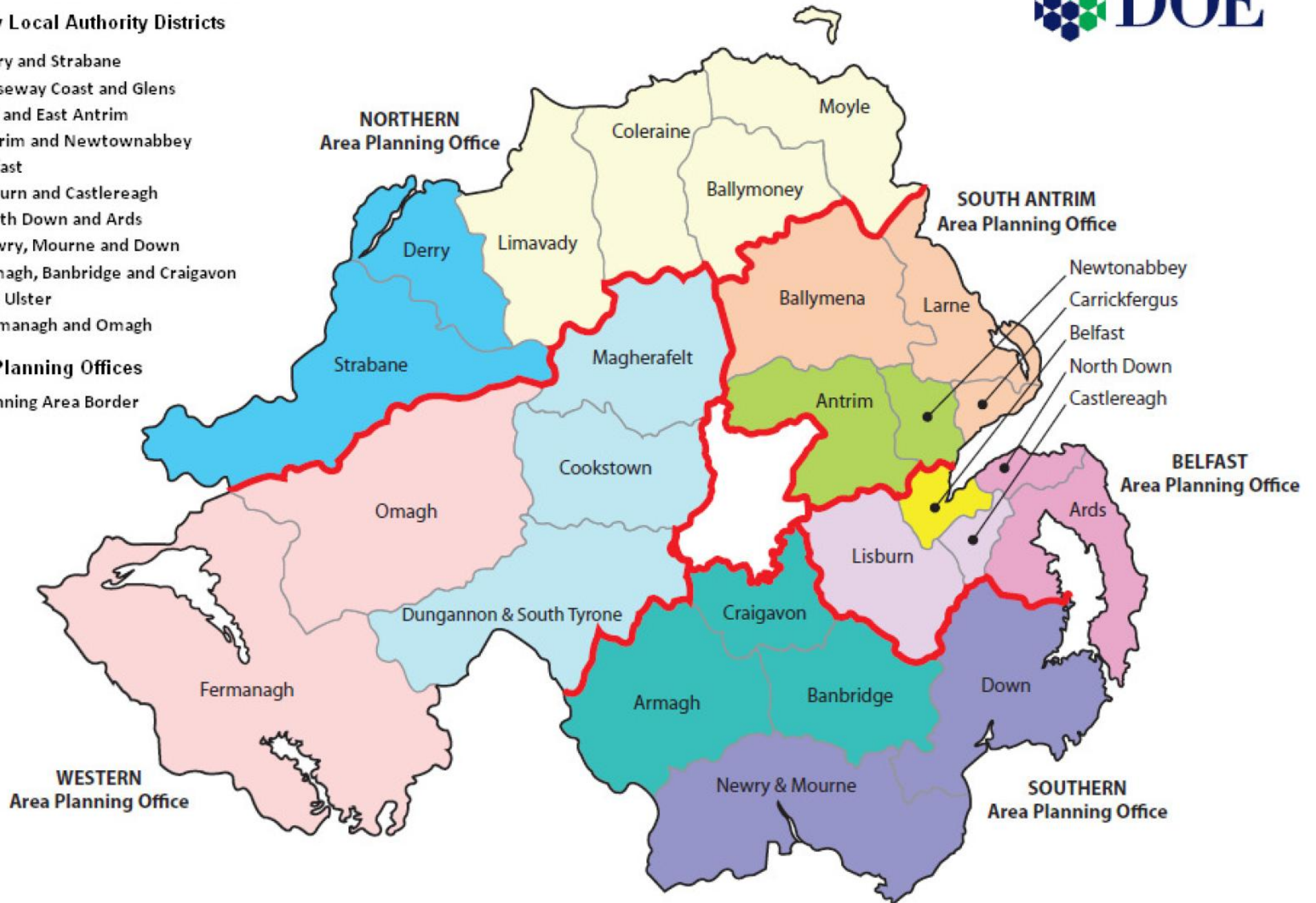


Figure 1.1: Geographic Coverage of the Strategic Planning Policy Statement

1.4.5 Table 1.1 below provides statistics on the land area, population size and population density of the new local government districts included in the SPPS as well as for NI as a whole.

Table 1.1: Area and Population of NI (Source: DOE)

Local Authority District (2015)	Area (km ²)	Population (2011)	Population Density (people/km ²)
Antrim and Newtownabbey	571	138,567	243
Armagh, Banbridge and Craigavon	1,399	200,702	143
Belfast	109	280,962	2,568
Causeway Coast and Glens	1,980	140,877	71
Derry and Strabane	1,237	147,720	119
Fermanagh and Omagh	2,847	113,161	40
Lisburn and Castlereagh	527	187,407	356
Mid and East Antrim	1,046	135,338	129
Mid Ulster	1,848	139,903	76
Newry, Mourne and Down	1,541	169,211	110
North Down and Ards	458	157,015	343
NI	13,562	1,810,863	134

1.4.6 There are a number of nature conservation, landscape and cultural heritage designations in NI. These are designated as either statutory (protected by law) or non-statutory (a material planning consideration), and can be of international, national or local importance. Information on local and/or non-statutory designations is held by individual planning authorities and has not been obtained for this strategic level assessment.

1.4.7 The number and/or area of statutory nature conservation, landscape and cultural heritage designated sites in NI are provided in Table 1.2 below (obtained from various GIS data sets and NI Government websites, and correct as at February 2014). Additional information on what these designations mean is provided in Chapter 2. It should be noted that there is significant overlap between designations, e.g. all SACs and most SPAs are also designated as ASSI.

Table 1.2: Designated Sites in NI

Designation	Number	Area
Special Protection Areas (SPA)	16	114,052
Special Areas of Conservation (SAC)	54 (+3 not yet designated)	85,903
Ramsar sites	21	88,258
Marine Conservation Zone	1	16,500
Areas of Special Scientific Interest (ASSI)	360	104,414
National Nature Reserves (NNR)	8	5,403
Local Nature Reserves (LNR)	25	822
Sites of Local Nature Conservation Interest (SLNCI)	209	n/a
Scheduled Monuments	1,901	n/a
Monuments in State Care	190	n/a
Listed Buildings	8,497	n/a
Historic Parks, Gardens and Demesnes	248	21,014
Conservation Areas	60	n/a
Areas of Townscape Character and Areas of Village Character	100 (+109 proposed)	n/a
World Heritage Sites (WHS)	1	236
Areas of Outstanding Natural Beauty (AONB)	8	341,180
Country Parks	7	n/a

2 SEA Framework and Assessment Methodology

2.1 The SEA Process

2.1.1 The SEA Guide produced by ODPM (now DCLG), the Welsh Assembly Government and DOE in 2005, in common with other SEA guidance documents, sets out a five stage process for carrying out SEA. These stages are summarised in Table 2.1 below.

Table 2.1: Stages in the SEA Process

Stage	Tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	A1: Identifying other relevant plans, programmes and environmental protection objectives
	A2: Collecting baseline information
	A3: Identifying environmental problems
	A4: Developing SEA objectives
	A5: Consulting on the scope of SEA
Stage B: Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives
	B2: Developing strategic alternatives
	B3: Predicting the effects of the plan or programme, including alternatives
	B4: Evaluating the effects of the plan or programme, including alternatives
	B5: Mitigating adverse effects
	B6: Proposing measures to monitor the environmental effects of plan or programme implementation
Stage C: Preparing the Environmental Report	C1: Preparing the Environmental Report
Stage D: Consulting on the draft plan or programme and the Environmental Report	D1: Consulting the public and Consultation Bodies on the draft plan or programme and the Environmental Report
	D2: Assessing significant changes
	D3: Making decisions and providing information

Stage E: Monitoring the significant effects of implementing the plan or programme on the environment	E1: Developing aims and methods for monitoring
	E2: Responding to adverse effects

2.1.2 This Final Environmental Report is the main output of Stage D of the SEA process presented above, incorporating Stages B and C. Chapter 9 discusses in more detail the subsequent stages and outputs of the SEA process.

2.2 Sustainability Topics and SEA Objectives

2.2.1 The baseline data, key environmental issues and SEA Objectives have been presented through a series of sustainability topics derived from Annex I(f) of the SEA Directive, namely: biodiversity, flora and fauna; population; human health; soil; water; air; climatic factors; material assets; cultural heritage (including architectural and archaeological heritage); landscape; and the inter-relationship between these.

2.2.2 The topics considered in the SEA will be in accordance with these requirements, updated to align more closely with the requirements of the SPPS, and expanded for clarity (see Table 2.2 below). In order to address recently highlighted concerns on the effects that human activities have had on the world’s ecosystems, and on the public benefits that ecosystems provide, we have included an additional sustainability topic as part of our ecosystems approach to this SEA.

2.2.3 The purpose of the SEA Objectives is to ensure that the assessment process is transparent and robust and that the SPPS considers and addresses potential environmental effects. SEA Objectives (including more detailed sub-objectives) have been set for each of the eleven sustainability topics.

Table 2.2: SEA Objectives

SEA Objective	Sub-objective (Will the SPPS...?)
1. Ecology and Nature Conservation – Protect, enhance and manage biodiversity assets and ecosystems	<ul style="list-style-type: none"> a. Maintain and enhance internationally and nationally designated sites b. Maintain and enhance locally designated sites c. Maintain and enhance priority habitats and species d. Benefit protected species e. Restore or enhance wider habitats and populations of species under the public body Duty to Conserve Biodiversity f. Maintain and enhance the amount, variety and quality of ecosystems

	<ul style="list-style-type: none"> g. Protect the marine and coastal environment h. Prevent, minimise or address the spread of invasive species
2. Socio-Economics – Reduce deprivation and improve social cohesion of the community	<ul style="list-style-type: none"> a. Improve accessibility to education, employment, housing and community facilities/services b. Reduce deprivation, inequality and social exclusion c. Improve crime rates and road safety d. Help achieve a balanced population in terms of size, density and structure
3. Health and Quality of Life – Improve health and quality of life	<ul style="list-style-type: none"> a. Improve long-term health and wellbeing b. Encourage walking, cycling and other physical activity c. Facilitate access to the natural environment or urban greenspace c. Reduce health deprivation d. Minimise the number of people and species exposed to and levels of noise and vibration pollution e. Improve the quality of living, working and recreational environments
4. Soil and Land Use – Protect and enhance soil quality	<ul style="list-style-type: none"> a. Safeguard and improve the highest quality soil and agricultural land b. Reduce soil pollution and degradation c. Protect soil, especially coastal areas (e.g. using managed retreat), from erosion d. Encourage local production of food and renewable fuel e. Prioritise use of previously developed land and limit conversion of agricultural grassland to housing f. Remediate contaminated land
5. Water – Protect, enhance and manage water resources and flood risk	<ul style="list-style-type: none"> a. Protect water resources from over-abstraction b. Protect water resources from pollution c. Improve the quality of surface water, groundwater and the sea d. Protect and enhance the status of aquatic and wetland ecosystems e. Minimise exposure to flood risk and droughts
6. Air Quality – Reduce air pollution and ensure continued improvements to	<ul style="list-style-type: none"> a. Improve air quality b. Minimise the effects of ammonia emissions from agricultural activities on designated sites and priority habitats c. Reduce the need to travel

air quality	d. Encourage use of sustainable transport
7. Climate Change – Minimise contribution to climate change and adapt to its predicted effects	<ul style="list-style-type: none"> a. Improve energy conservation and energy efficiency of buildings b. Encourage use of renewable energy c. Reduce greenhouse gas emissions from transport and agriculture d. Encourage land management that protects and captures carbon, particularly from peatlands e. Minimise vulnerability of the natural and built environment and improve its resilience to the impacts of climate change (including support for future proofing of new development and adaptation to coastal erosion)
8. Material Assets – Conserve natural resources and reduce waste production	<ul style="list-style-type: none"> a. Safeguard natural resources (including minerals and peatland) and minimise unsustainable use b. Increase recycling rates and re-use of materials c. Minimise production of waste and quantity sent to landfill d. Improve waste management in terms of its financial costs and environmental and health impacts e. Maximise use of the existing built environment f. Maximise opportunities for ecological restoration of redundant mineral sites
9. Cultural Heritage – Protect, enhance and manage archaeological and cultural heritage	<ul style="list-style-type: none"> a. Preserve and enhance designated and non-designated built heritage b. Preserve and enhance designated and non-designated archaeological sites and areas c. Preserve and enhance the settings of archaeological and architectural assets d. Encourage urban renewal and improve the quality and character of the townscape / villagescape
10. Landscape and Seascape – Protect, enhance and manage the character and quality of the landscape	<ul style="list-style-type: none"> a. Maintain and enhance the quality and character of landscape, seascape and coastal areas b. Maintain and enhance designated sites c. Provide protection for World Heritage Sites and their settings (buffer zones) d. Create, maintain and enhance public open space and green infrastructure assets e. Improve visual aesthetics f. Minimise light pollution and light spill

11. Green Infrastructure and Ecosystem Services	<ul style="list-style-type: none"> a. Preserve and enhance the ability of an area to provide ecosystem services such as carbon sequestration b. Encourage multifunctionality of greenspace to provide numerous ecosystem services simultaneously c. Encourage biophysical changes such as restoration of degraded land and enhanced connectivity of habitats and greenspace d. Strengthen positive natural connections and interactions between different areas and regions e. Encourage cultural and outdoor recreational tourism that is landscape and nature based f. Improve knowledge and understanding of and connection with the natural environment
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2.3 Ecosystems Approach

2.3.1 An ecosystem is a dynamic complex of plant, animal, and microorganism communities and the nonliving environment, interacting as a functional unit; humans are an integral part of ecosystems. Ecosystem services are defined as goods and services provided by the natural environment that benefit people. These include:

- Provisioning services – the products obtained from ecosystems, such as food and water;
- Regulating services – the benefits obtained from the regulation of ecosystem processes, such as flood and disease control; and
- Cultural services – the non-material benefits people obtain from ecosystems, such as spiritual, recreational and aesthetic benefits.
- Supporting services – necessary for the production of all other ecosystem services (these are intermediate services rather than final services, and are increasingly being excluded from ecosystem services valuation so as to avoid the problem of ‘double counting’.)

2.3.2 In 2000, the United Nations requested an investigation into the consequences of ecosystem change for human well-being. Carried out from 2001 to 2005, the Millennium Ecosystem Assessment (MA) comprehensively demonstrated the importance of ecosystems and the services that they provide to human well-being, and found that, at a global scale, many of these services are being degraded or lost.

2.3.3 Identifying the condition of ecosystems, the provision of services and their relation to human well-being requires an integrated approach. The mostly widely-used definition of an ecosystem approach, from the Convention on Biological Diversity, is:

“a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way... humans, with their cultural diversity, are an integral component of many ecosystems”.

- 2.3.4 At a national or regional scale, this enables decision makers to determine which ecosystem services are valued most highly and how to ensure that society can maintain a healthy and resilient natural environment now and for future generations. This can then be carried out through land use planning at the local level.
- 2.3.5 In order for this SEA to incorporate an ecosystems approach, the assessment will also consider to what extent the SPPS (and its reasonable alternatives) delivers or affects the ecosystem services listed in Table 2.3 below.

Table 2.3: Ecosystem Services

Service	Definition	Examples of goods and services
Provisioning Services		
Food	This includes the vast range of food products derived from plants, animals, and microbes.	Crops, livestock, wild fish, aquaculture products, wild foods.
Fibre	Products made from trees harvested from natural forests, plantations, or nonforested lands, and other materials extracted from the natural environment.	Timber, paper, textiles, cordage.
Fuel	Biological material derived from living or recently living organisms - both plant and animal - that serves as a source of energy	Wood, charcoal, grain, dung.
Fresh water	Inland bodies of water, groundwater, rainwater, and surface waters for household, industrial, and agricultural uses	Freshwater for drinking, cleaning, cooling, industrial processes, electricity generation, or mode of transportation.
Biochemicals, natural medicines, pharmaceuticals	Medicines, biocides, food additives, and other biological materials derived from ecosystems for commercial or domestic use	Ginseng, garlic, paclitaxel as basis for cancer drugs, tree extracts used for pest control.
Genetic	This includes the genes and	Genes used to increase crop

resources	genetic information used for animal and plant breeding and biotechnology	resistance.
Ornamental resources	Animal and plant products are used as ornaments, although the value of these resources is often culturally determined.	Skins, shells, flowers.
Regulating Services		
Air quality maintenance	Ecosystems both contribute chemicals to and extract chemicals from the atmosphere, influencing many aspects of air quality.	Vegetation can remove atmospheric pollutants.
Water regulation	The timing and magnitude of runoff, flooding, and aquifer recharge can be strongly influenced by changes in land cover, including, in particular, alterations that change the water storage potential of the ecosystem or landscape.	Permeable soil facilitates aquifer recharge; river floodplains and wetlands retain water—which can decrease flooding during runoff peaks—reducing the need for engineered flood control infrastructure.
Water purification	Ecosystems can be a source of impurities in water, but can also help to filter out and decompose organic wastes and pollutants introduced into inland waters and coastal and marine ecosystems.	Wetlands remove harmful pollutants from water by trapping metals and organic materials.
Climate regulation	Ecosystems influence climate both locally and globally.	Land cover can affect local temperature and precipitation; globally ecosystems affect greenhouse gas sequestration and emissions.
Natural hazard protection	Capacity for ecosystems to reduce the damage caused by natural disasters such as hurricanes, fires, storms, floods and landslides.	Vegetated saltmarsh and mudflats protect coastlines from storm surges; biological decomposition processes reduce potential fuel for wildfires.
Waste treatment	Bioremediation of waste i.e. removal of pollutants through	Soil microbes degrade organic waste, rendering it less

	storage, dilution, transformation and burial	harmful.
Erosion control	Vegetative cover plays an important role in soil retention.	Vegetation such as grass and trees prevents soil loss due to wind and rain and siltation of waterways; forests on slopes hold soil in place, thereby preventing landslides.
Pollination	Ecosystem changes affect the distribution, abundance, and effectiveness of pollinators and seed dispersers.	Bees from nearby meadows transferring pollen from male to female flower parts.
Disease regulation	Changes in ecosystems can directly change the abundance of human pathogens, such as cholera, and can alter the abundance of disease vectors, such as mosquitoes.	Some intact forests reduce the occurrence of standing water - a breeding area for mosquitoes - which lowers the prevalence of malaria.
Pest regulation	Ecosystem changes affect the prevalence of crop and livestock pests and diseases.	Predators from nearby forests - such as bats, toads, and snakes - consume crop pests.
Cultural Services		
Cultural heritage values	Many societies place high value on the maintenance of historically important landscapes.	Reflected in the support for ancient sites such as the giant's causeway.
Recreation & ecotourism	Recreational pleasure people derive from natural or cultivated ecosystems.	Hiking, camping, and bird watching
Aesthetic value	The beauty and aesthetic values of nature, including inspiration and sense of place.	Reflected in the support for parks, "scenic drives," and the selection of housing locations. Ecosystems provide a rich source of inspiration for art, folklore, national symbols, architecture, and advertising.
Spiritual, religious and ethical values	Spiritual, religious, aesthetic, intrinsic, existence, or other values people attach to ecosystems,	Spiritual fulfilment derived from sacred lands and rivers; belief that all species are worth protecting regardless of their

	landscapes, or species.	utility to people - biodiversity for biodiversity's sake
Educational value	Ecosystems and their components and processes provide the basis for both formal and informal education in many societies.	Subject matter of education both on location and via other media.
Social relations	Ecosystems affect the types of social relations that are established in particular cultures.	Fishing societies, for example, differ in many respects in their social relations from agricultural societies.

Supporting Services

Soil formation and retention	Because many provisioning services depend on soil fertility, the rate of soil formation influences human well-being in many ways.	Stores and buffers soil nutrients.
Primary production	The production of chemical energy in organic compounds by living organisms. It principally occurs through the process of photosynthesis; plants require water, CO ₂ , nutrients and usually light to produce atmospheric oxygen, energy and nutrients necessary for most living organisms.	Ecosystems with high levels of productivity include estuaries, swamps, marshes and forests, with agricultural land, shrubland, grassland, lakes and rivers also fairly productive. Worldwide, most primary productivity comes from the ocean.
Nutrient cycling	Approximately 20 nutrients essential for life, including carbon, nitrogen and phosphorous, cycle through ecosystems (through either biological or geological processes) and are maintained at different concentrations in different parts of ecosystems.	Decomposition of organic matter contributes to soil fertility.
Water cycling	Water cycles through ecosystems and is essential for living organisms.	Hydrological regime in floodplains, flooded forests and tidal wetlands.
Habitat provision	Habitats provide everything that an individual plant or animal	Provides habitat for pollinators and ecotourism.

needs to survive: food, water and shelter. Each ecosystem provides different habitats that can be essential for a species' lifecycle. Habitat also protects existing gene pools at healthy levels.

Adapted from the World Resources Institute (2003)

2.4 Assessment Methodology

- 2.4.1 This stage of the SEA process involves the identification and evaluation of the likely significant effects on the environment of implementing the SPPS and its reasonable alternatives. This follows a matrix approach and has been carried out in several stages to include high level and detailed matrix assessments, and a descriptive cumulative effects assessment.

High Level Matrix Assessment

- 2.4.2 The first step of the assessment process, the high level assessment, is used to identify the likely adverse, beneficial, neutral and uncertain effects of the SPPS on the environment. Presented in matrix format, the assessment ascertains how well each of the core planning principles and planning policies meet each of the SEA Objectives. A descriptive summary of the likely effects is provided alongside the matrix.
- 2.4.3 A high level matrix assessment has also been carried out on the different alternatives, including the 'retain existing policy framework' option and the 'fundamental review' option. This enables comparisons to be drawn between how well each alternative option correlates with the SEA Objectives. Each different alternative has also been assessed in terms of to what extent it delivers or affects ecosystem services, again using a high level matrix.
- 2.4.4 The high level matrix assessment is not a conclusive tool or model; its purpose is to identify those principles or policies for which uncertainties or potential adverse effects may arise. These particular principles or policies would then typically undergo further scrutiny e.g. via the detailed matrix assessment stage. However, as the SPPS is largely a consolidation of existing PPSs, potential adverse effects are already being experienced and so these are reflected in the baseline. Going forwards, these known types of impacts will be addressed directly through mitigation and/or enhancement measures as set out in Chapter 8 of this report.

2.4.5 The key used in the high level matrices is as follows:

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
--	Likely strong adverse effect
+/-	Uncertain effect

Detailed Matrix Assessment

2.4.6 The second step of the assessment process is typically used to scrutinise the potential adverse or uncertain effects that have been identified by the high level assessment. In order to determine the likely significance of effects, this process addresses the range of criteria identified in Annex II of the SEA Directive (reproduced below).

Characteristics of the effects and of the area likely to be affected, having regard, in particular, to

- *the probability, duration, frequency and reversibility of the effects,*
- *the cumulative nature of the effects,*
- *the transboundary nature of the effects,*
- *the risks to human health or the environment (e.g. due to accidents),*
- *the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),*
- *the value and vulnerability of the area likely to be affected due to:*
 - *special natural characteristics or cultural heritage,*
 - *exceeded environmental quality standards or limit values,*
 - *intensive land-use,*
- *the effects on areas or landscapes which have a recognised national, Community or international protection status.*









2.4.7 The detailed SEA matrices include consideration of the duration, frequency, permanence and geographic extent of effects (including transboundary effects) which feed into the consideration of magnitude (i.e. the degree of change that the proposed scheme would have on the environment). This is then correlated with the value and vulnerability of the receiving environment, which includes consideration of

the protected status of the area. Table 2.4 below shows how significance of effect is determined.

Table 2.4: Significance of Effects Matrix

		MAGNITUDE OF CHANGE			
		High	Medium	Low	Negligible
VALUE / VULNERABILITY	High	Major	Major/ Moderate	Moderate	Moderate/ Minor
	Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor
	Low	Moderate	Moderate/ Minor	Minor	Minor/ Negligible
	Negligible	Moderate/ Minor	Minor	Minor/ Negligible	Negligible

2.4.8 The significance of effect can be either adverse or beneficial. The key used in the detailed matrices is therefore as follows:

Key for Significance of Effect	
	Major or Major/Moderate beneficial effect
	Moderate or Moderate/Minor beneficial effect
	Minor or Minor/Negligible beneficial effect
	Negligible beneficial/adverse effect or neutral effect
	Minor or Minor/Negligible adverse effect
	Moderate or Moderate/Minor adverse effect
	Major or Major/Moderate adverse effect
	Uncertain beneficial/adverse effect

2.4.9 As mentioned above, because the SPPS is largely a consolidation of existing PPSs, the potentially adverse effects identified through the high level assessment are already being experienced. No detailed assessment is therefore required; these adverse effects have been addressed directly through mitigation and/or enhancement measures (see Chapter 7).

2.4.10 The exception to this is for new policy, i.e. the Town Centres and Retailing planning policy. A detailed matrix assessment has been carried out to analyse the policy content against the SEA Objectives in more detail; this can be seen in Chapter 6. A descriptive summary of the significance of likely effects for each SEA objective and an overall verdict on the policy assessed is provided alongside the matrix.

Cumulative Effects Assessment

- 2.4.11 The SEA Directive (in Annex I) also requires identification and evaluation of likely secondary, cumulative and synergistic effects of the SPPS. Cumulative effects are best considered by looking at the SPPS as a whole, as the insignificant effects of principles or policies may combine with one another to create a significant effect. Synergistic effects go beyond this, producing a total effect that is greater than the sum of the individual effects. Secondary effects are those that are not a direct result of the SPPS, but where, over time the original effects lead to additional impacts. These terms are not mutually exclusive, and often the term 'cumulative effects' is taken to include secondary and synergistic effects.
- 2.4.12 In order to ensure that cumulative effects are considered throughout the SEA and SPPS preparation process, some consideration has been given through the SEA Objective 'Green Infrastructure and Ecosystem Services', which is a broad topic that looks at the inter-relationship between all of the other sustainability topics. Such effects have also been considered through the review of other plans and programmes carried out during the scoping process.
- 2.4.13 The main purpose of the cumulative effects assessment is to report on the identified significant cumulative effects in a transparent and accessible way. This is done in descriptive format, with particular focus on analysis of effects on selected environmental resources; past impacts and future impacts relating to these resources; cumulative impact pathways (including cause-effect relationships); uncertainties and assumptions; and in-combination effects (of SPPS principles or policies identified as having potentially adverse effects in the high level or detailed matrix assessments) with the plans and programmes identified in Section 3.3.

Uncertainties, Data Gaps and Technical Deficiencies

- 2.4.14 It is recognised that as an overarching statement of national geographic scale, the precise environmental impacts occurring as a result of the SPPS will often depend on the specific policies implemented at planning authority level. These will emerge from 2015 onwards, and hence at this level some impacts may be recorded as uncertain in the matrices. Where this is the case, further discussion is provided in the relevant commentaries.
- 2.4.15 For uncertain effects, the need to undertake a more detailed assessment can be appropriate; this is likely to be in the form of SEAs (as well as Habitats Regulations Assessment (HRA) screening and Appropriate Assessment if deemed necessary) of local development plans to be produced in due course by the 11 new councils.
- 2.4.16 As with strategic level assessments, these local level assessments will require evidence of baseline conditions in order to identify whether a plan will improve the baseline environment or not. In some cases this data may be unavailable or out of date, and the SEA should identify where this is the case.

3 Findings of the Scoping Process

3.1 Preliminary Stakeholder Seminars

3.1.1 During the w/c 30 September 2013, DOE embarked on a series of five seminars with stakeholders from groups representing: business and industry interests; central government interests; environment interests; community interests; and local government interests. These seminars (which were independently facilitated by the Royal Town Planning Institute) presented an opportunity for early engagement with interested and potentially affected parties prior to the drafting of the SPPS. A set of seven broad questions was used to guide discussion; these were as follows:

- Question 1: What are your views on the proposed approach to preparing a Strategic Planning Policy Statement summarised in DOE's Discussion Paper?
- Questions 2: Do you agree that the proposed core planning principles are appropriate for the new two-tier and reformed planning system?
- Question 3: What are your views on bringing forward new planning policy provisions for town centres and retail?
- Question 4: How might the SPPS deal with the issue of how economic considerations are taken into account in planning policy, development plans and in making planning decisions? How should economic considerations be balanced with other planning considerations such as environmental protection, design, amenity etc?
- Question 5: What are your views on the level of detail to be provided in the SPPS as part of the process of consolidating extant planning policies?
- Question 6: What are your views on transitional arrangements?
- Question 7: Do you have any comments in relation to the Strategic Environmental Assessment (SEA) of the SPPS?

3.1.2 ADAS staff attended each of these seminars, presenting the results of the scoping process and setting out key priorities for the SEA going forward and the next steps in the process. Environmental stakeholders were provided with additional detail on SEA Objectives and the proposed high level matrix assessment, and asked questions such as:

- Are there any important aspects that have been missed from the SEA?
- Is the SEA Framework comprehensive and relevant to the SPPS?
- What are the key environmental issues the SPPS should address?
- What is outside of the scope/ influence of the SEA/SPPS?

- Which provisioning, regulating, cultural and supporting ecosystem services are people in NI benefitting from? How does this differ between geographic area / economic sector / social group?
 - Which ecosystem services should be emphasised through the SEA / SPPS?
 - Do you have any reports / GIS data that would be of use?
 - Do you have any suggestions of other plans and programmes that should be assessed for in-combination effects?
 - Do you have any suggestions for an effective environmental monitoring programme?
- 3.1.3 The main SEA-related points arising from the seminars were implications of economic development being prioritised over environmental and social considerations; a need to emphasise the importance of marine and coastal areas; and a concern over lack of protection from development for NI's important landscapes. Meeting notes from the 'Environmental Interests' stakeholder seminar, held on 2 October 2013, are provided in Appendix A.

3.2 Scoping Consultation Responses

- 3.2.1 A Scoping Report outlining the proposed approach and key issues to be considered in the SEA was prepared and submitted to DOE on 11th October 2013. The SEA Directive requires authorities with "environmental responsibilities" (hereafter referred to as the Consultation Bodies) to be consulted on the scope and level of detail of the information which must be included in the Environmental Report (Article 5(4)). The Directive does not require full consultation with the public or bodies other than Consultation Bodies until the Environmental Report on the programme is finalised.
- 3.2.2 The Scoping Report was issued to the Consultation Bodies on 11th October 2013. This included, in NI, the Northern Ireland Environment Agency (NIEA) on behalf of the DOE. Due to the likelihood of transboundary effects, it also included the following Irish Consultation Bodies: the Environment Protection Agency (EPA), the Department of the Environment, Communities and Local Government (DECLG), the Department for Communications, Energy and Natural Resources (DCENR) and the Department of Arts, Heritage and the Gaeltacht. The Scoping Report was also published on the DOE website (for information only).
- 3.2.3 Consultation Bodies must provide a view, once consulted, within five weeks. Responses were received from the NIEA and EPA, as well as from the Northern Ireland Environment Link, Council for Nature Conservation & the Countryside, Causeway Coast & Glens Heritage Trust, RSPB, the National Trust and the Geological Survey of Ireland. Consultation responses on the Scoping Report are reproduced in Appendix B, along with a comment on how they have been accounted for in the preparation of this Final Environmental Report.

3.3 Other Plans, Programmes and Environmental Protection Objectives

- 3.3.1 Assessing the relationship of the SPPS with the existing International, European and National framework of plans and programmes and identifying gaps and conflicts is a key part of the SEA process. This includes the consideration of statutory and non-statutory environmental protection objectives.
- 3.3.2 The scoping process involved an initial review of plans, programmes and environmental protection objectives. This revealed that, in many cases the SPPS is expected either to support the other plans and programmes through similar objectives or to have no relationship with them.
- 3.3.3 Plans and programmes containing environmental protection objectives which are relevant to the SPPS are listed below in Table 3.1 (correct as at February 2014). An indication is given as to whether the plan or programme *directly* supports (or is supported by), *indirectly* supports, or has potential conflicts with the SPPS. Further information on how these environmental protection objectives will be supported through the SPPS is given in Appendix C.

Table 3.1: Relationship with other plans and programmes

Plan or Programme directly supports / is supported by the SPPS	
DARD (2012) Rural White Paper Action Plan	Northern Ireland Executive (2011) Programme for Government 2011-15
DARD (2012) Tackling Rural Poverty and Social Isolation	Northern Ireland Executive (2010) Sustainable Development Strategy
DARD (2010) Renewable Energy Action Plan	DECLG (2012) National Climate Change Adaptation Framework: Building Resilience to Climate Change
DETI (2012) Sustainable Energy Action Plan 2012-2015	Defra, Scottish Government, Welsh Assembly Government and DOE (2010) Air Pollution: Action in a Changing Climate
DETI (2011) Draft Onshore Renewable Electricity Action Plan	Defra, Scottish Executive, Welsh Assembly Government and DOE (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland
DOE (2013) Prioritised Action Framework for Natura 2000	HMSO (2005) Sustainable Development Strategy
DOE (2012) Draft Northern Ireland Marine Position Paper	IHPC (2010) Review of Local Air Quality Management: A report to Defra and the devolved administrations

DOE (2012) Draft Revised Northern Ireland Waste Management Strategy: Delivering Resource Efficiency	EC (2013) Adaptation Strategy
DOE (2012) Northern Ireland Greenhouse Gas Emissions Reduction Action Plan	EC (2011) Biodiversity Strategy
DOE (2002) Biodiversity Strategy	EC (2010) Europe 2020 Economic Strategy
NIEA (2012) Strategic Priorities 2012-2022	EC (2009) Sustainable Development Strategy
Plan or Programme indirectly supports / is supported by the SPPS	
DARD (2012) Strategic Plan 2012-2020	DAHG (2011) A National Landscape Strategy for Ireland
DARD (2011) Greenhouse Gas Reduction Strategy and Action Plan: Efficient Farming Cuts Greenhouse Gases	DCENR (2012) Strategy for Renewable Energy: 2012-2020
DARD (2007) Flood Mapping Strategy for Northern Ireland	DCMNR (2007) Delivering a Sustainable Energy Future for Ireland: The Energy Policy Framework 2007-2020
Defra and DOE (2012) A Climate Change Risk Assessment for Northern Ireland	DECLG (2012) A Resource Opportunity: Waste Management Policy in Ireland
DOE (2006) An Integrated Coastal Zone Management Strategy for Northern Ireland 2006 – 2026	DECLG (2012) Guidelines for Planning Authorities 21: Spatial Planning and National Roads
DOE (2006) Water Framework Directive Monitoring Plans	DECLG and Marine Institute (2012) Ireland's Marine Strategy Framework Directive Implementation
NIEA (2009) Neagh Bann International River Basin Management Plan	DEHLG (2009) Guidelines for Planning Authorities 20: The Planning System and Flood Risk Management
NIEA (2009) North Eastern River Basin Management Plan	DEHLG (2007) Ireland National Climate Change Strategy 2007-2012
NIEA (2009) North Western International River Basin Management Plan	EPA (2009) Shannon International River Basin Management Plan
OFMDFM (2013) Together: Building a United Community Strategy	NPWS (2011) Actions for Biodiversity 2011-2016 - Ireland's National Biodiversity Action Plan

DOE (2014). Northern Ireland Climate Change Adaptation Programme	HM Government, Northern Ireland Executive, Scottish Government and Welsh Assembly Government (2011) UK Marine Policy Statement
Border Regional Authority (2010) Regional Planning Guidelines 2010-2022	EC (2013) Action Plan for a Maritime Strategy in the Atlantic Area
DAFM (2012) Our Ocean Wealth: An Integrated Marine Plan for Ireland	EC (2007) EU Floods Directive
Plan or Programme has potential conflicts with the SPPS	
DOE (2013) Draft Strategy for Marine Protected Areas in the Northern Ireland Inshore Region	DCENR (2010) Draft Offshore Renewable Energy Development Plan (OREDP) for Ireland

3.3.4 The plans and programmes listed above that have the potential to conflict with the SPPS are assessed further through the in-combination assessment in Section 6.15. Additional plans and programmes (without environmental protection objectives) identified through the scoping process as potentially likely to have adverse in-combination effects with the SPPS (which are also assessed in Section 6.15 of this report where relevant), are:

- Agri-Food Strategy Board (2013) Strategic Action Plan;
- DCAL (2009) The Northern Ireland Strategy for Sport & Physical Recreation 2009 – 2019;
- DETI (2012) Offshore Renewable Energy Strategic Action Plan 2012-2020;
- DETI (2010) Energy: A Strategic Framework for Northern Ireland;
- DETI (2010) A Draft Tourism Strategy for Northern Ireland;
- DRD (2012) Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation;
- DRD (2010) Regional Development Strategy 2035;
- DSD (2013) Urban Regeneration and Community Development Policy Framework;
- DSD (2012) Facing the Future: Housing Strategy for Northern Ireland;
- Northern Ireland Executive (2012) Economy and Jobs Initiative;
- Northern Ireland Executive (2012) Northern Ireland Economic Strategy;

- Northern Ireland Executive (2008) Investment Strategy for Northern Ireland 2008-2018;
- DCENR (2013) Ireland's second National Energy Efficiency Action Plan to 2020;
- Department of the Taoiseach (2008) Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal 2009-2014;
- EC (2010) Europe 2020 Economic Strategy.

3.4 Summary of Baseline Data

3.4.1 Schedule 2 of the NI SEA Regulations specifies that the Environmental Report must contain the following information in respect of baseline conditions:

"2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.

3. The environmental characteristics of areas likely to be significantly affected.

4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Council Directive 79/409/EEC on the conservation of wild birds and the Habitats Directive."

3.4.2 A summary of the current state of the environment in NI (correct as at February 2014), in respect of each of the sustainability topics is provided below; maps are provided in Appendix D. A more detailed baseline description is provided in the Scoping Report. Analysis of baseline information has been carried out to provide an evidence base for current and likely future environmental conditions without the SPPS (it must be noted that DOE does not have responsibility for all environmental issues, some lie outwith its remit). Key environmental and sustainability issues for NI have also been identified.

3.4.3 Information for this section has been obtained from the DOE, NIEA and Northern Ireland Statistics and Research Agency (NISRA) websites. Information has also been drawn from Strengths, Weaknesses, Opportunities and Threats (SWOT) analyses carried out by the Department for Agriculture and Rural Development (DARD) and the Special EU Programmes Body (SEUPB) for various 2014-2020 EU funded programmes for NI, and other documents as referenced in the final chapter of this report.

3.5 Ecology and Nature Conservation

Strengths and Opportunities

- NI has a large area of land of international nature conservation value, including 16¹ Special Protection Areas (SPAs) designated under the EC Birds Directive (9 of which are designated for marine components); 57² Special Areas of Conservation (SACs) designated under the EC Habitats Directive (9 of which with marine components); and 21 Ramsar sites designated under the Convention on Wetlands (7 with marine components). SPAs and SACs are known collectively as Natura 2000 sites.
- NI has 360 Areas of Special Scientific Interest (ASSIs), defined as being NI's very best wildlife and geological sites, as well as eight National Nature Reserves and one Marine Conservation Zone at Strangford Lough (re-designated from Marine Nature Reserve under the NI Marine Act 2013).
- NI has a special responsibility as it is at the western edge of the range of European habitats and species. Peatland, in the form of upland blanket bogs (10% of NI's land cover) and lowland raised bogs, is particularly well represented, as are montane heath and fen. Species of particular importance in NI include the Irish Hare (*Lepus timidus hibernicus*), Chough (*Pyrrhocorax pyrrhocorax*), Curlew (*Numenius arquata*) and Red Squirrel (*Sciurus vulgaris*). NI also has the highest density of hedgerows in the UK (though they are generally newer, having been planted between 1750 and 1850).
- Coastal and marine habitats are also important; NI has a significant proportion of the UK's large shallow inlets and bays (8%) and its Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) (13%). NI's seas support around half of its wildlife, including many threatened marine animal and plant species, some of which are found nowhere else in the world.
- Measures taken to ensure coherence of the Natura 2000 Network during 2007-2013 (set out in the JNCC's Article 17 General Implementation Report) in NI included: integration with other measures for example Agri-environment schemes; a biodiversity research programme aimed at understanding the status and management needs of priority habitats and species; and Habitat and Species Action Plans.

¹ Swan Island has now been subsumed into the larger Larne Lough designation.

² This figure includes one Site of Community Importance (SCI; adopted by the EC but not yet formally designated by the NI Government) and two Candidate SACs (cSACs; submitted to the EC, but not yet formally adopted).

Weaknesses and Threats

- The UK NEA report (2011) reveals that there has been recent loss of urban wildlife habitats in NI due to planning decisions, as well as significant impact of development in rural areas.
- The Northern Ireland Countryside Survey (NICS) carried out in 2007 revealed continued loss of semi-natural habitat by agricultural conversion and building, though at a slower rate than pre-1998. This is a particular concern in lowland landscapes, where semi-natural habitats are already small and fragmented. No data is yet available for the rate of habitat loss since 2007; however, it is likely to have slowed again due to the decline in construction during the global recession.
- The majority of protected sites in NI are at risk of damage from ammonia emissions and nitrogen deposition arising from agricultural activities, specifically manure handling, storage and spreading. This is a significant issue for sensitive habitats (e.g. peatland and lichens in ancient woodland) in NI as background levels are already higher than the critical loads for some habitats. Eutrophication of water bodies caused by e.g. polluted run-off from farms is also affecting habitats and species.
- A significant proportion of NI's habitats and species are in unfavourable condition. The Natura 2000 Prioritised Action Framework revealed that 31% of ASSI habitat features and 22% of species features are classed as unfavourable, with only an additional 3% of habitat features found to be recovering.
- Bird populations are considered to be a good indicator of the broad state of the wildlife and the countryside; NI's wetland bird population decreased by a substantial 23% between 1994/95 and 2010/11. Approximately 50% of NI's honeybees were lost in 2008 due to colony collapse disorder, whilst half of the 100 bumble bee and solitary bee species present on the island of Ireland are also in decline due to habitat loss/fragmentation, pests/diseases and climate change. Priority species are declining in general across the UK.
- Few protected nature conservation sites have management plans or detailed mapping of habitats, suggesting a lack of co-ordinated / forward-thinking management across the Natura 2000 network in NI.
- The focus of conservation policy in NI is mainly on protecting and managing high-value habitats. Intermediate-value habitats, which contain much of the species diversity in the countryside and provide ecosystem services including food, materials, water, flood control and carbon storage are only protected through good agricultural and environmental condition (GAEC) standards (part of Cross Compliance requirements for those in receipt of Single Payment Schemes) and through the Environmental Impact Assessment Regulations. They are thus more vulnerable to land use change, disturbance and pollution.

- Increased movement of biological materials around the world for trade is leading to introduction of new pests and diseases such as *Phytophthora* spp which affects crops and other plants, whilst invasive species are affecting both rural and urban land, for example Himalayan balsam (*Impatiens glandulifera*) which is spreading along watercourses. This trend will continue with the changing climate.
- Defra's 2010 assessment of the UK's seas revealed that the following elements of NI's marine environment are experiencing many problems and/or a trend of deterioration: intertidal rock; intertidal, shallow subtidal and shelf subtidal sediments; commercial fish stocks; estuarine fish; and seabirds (Atlantic area only).
- Coastal habitats are at risk from poor water quality, connecting offshore renewable energy to the electricity grid, oil exploration and possible exploitation, sea-level change and coastal protection including managed retreat and flood defence schemes, and tourism-related developments.
- The second report of the NI Biodiversity Group on delivery of the Biodiversity Strategy set out predicted impacts of climate change (warming of land and seas, wetter winters, drier summers, increased frequency of extreme events, shifts in prevailing winds and sea level rise) affecting biodiversity through changes in phenology, impacts on migrations, changes in trophic relationships, spatial shifts and altitudinal changes in species/habitat distributions, responses to hydrological changes and influence on invasive species. This would then have implications for agriculture, fisheries and forestry due to impacts on pollination, changing species and increased incidence of diseases, parasites and pests.

3.6 Socio-Economics

Strengths and Opportunities

- Rural areas exhibit a strong sense of community and local identity with a strong and well developed community infrastructure. The rural economy is based primarily on the SME sector with a variety of strong indigenous businesses.
- NI has access to a broad range of world class telecommunication services. In 2005 NI became the first region in Europe to have 100% access to first generation broadband (512kbps). There is an opportunity to improve broadband speed however, as NI is now lagging behind other nations, with availability of fast broadband being particularly patchy.
- European member states with an Atlantic coastline are best placed to significantly boost the 'blue economy' through emerging sectors, such as

offshore renewable energy, but also through revitalising traditional maritime industries.

Weaknesses and Threats

- NI remains one of the most economically deprived regions of the UK, with a tendency for more deprived areas to the west, north and south and in Belfast. In 2010/2011, 20% of the NI population were in relative poverty (the UK average was 17%) and 13% in absolute poverty (9% for the UK).
- NI continues to have the highest economic inactivity rate of all 12 UK regions, and equal lowest for the employment rate; in 2013, 27.4% of those aged 16-64 were economically inactive (compared to the UK average of 22.4%) whilst the employment rate was estimated at 66.6% (compared to the UK average of 71.4%). NI also has a much larger share of persons in long term unemployment (44.3%) in comparison with the UK average (33.5%).
- 18% of people of working age in NI still have no formal level of education; this is twice that of the UK average and the highest of all UK regions. In addition, 78% of NI farm operators surveyed in 2008 had no formal agricultural qualification (though those working on larger, full time farms tended to have higher qualifications and this is reflected in the return received). DARD's SWOT analysis also found a lack of environmental knowledge transfer and innovation in NI agriculture.
- There are particular problems of fair and equitable access to services and public transport frequency and connectivity for rural dwellers throughout NI, which has subsequent impacts on vulnerable groups such as low income households, the elderly, children and young people, and those with disabilities.
- NI is still emerging from a conflict, the consequences of which continue to impact on the socio-economic climate. .
- As reported by Climate Northern Ireland in March 2013, extreme weather events such as the 'Big Freeze' in December 2010 and the major October 2011 and June 2012 floods, have disrupted a wide range of businesses and their operations; impacting on staff, premises, insurance and disrupting supply chains and critical infrastructure such as energy, water and transport. For example, burst pipes in the 'freeze/thaw' of 2010 cost £40 million in insurance in NI.

3.7 Health and Quality of Life

Strengths and Opportunities

- NI's staffing levels for hospital and community health services per head of population still compare favourably with the rest of the UK; 2011 data suggests that hospital activity per staff member is 19% lower than the UK average.

- In terms of information technology capacity, comparative data from a survey of GPs in 2006 indicated that NI surgeries were better equipped than in the rest of the UK.
- There is less disparity in life expectancy between the most and least deprived areas of NI compared to the rest of the UK.
- DOE is currently preparing a Noise Policy Statement (NPS) for NI³. Through the effective management and control of environmental, neighbour and neighbourhood noise the NPS aims to: avoid significant and mitigate and minimise other adverse impacts on health and quality of life, and where possible, contribute to the improvement of health and quality of life.
- Recent development and promotion of health and exercise trails encourage recognition of the benefits of the natural environment on health.

Weaknesses and Threats

- NI has the highest level of fuel poverty (defined as when a household has to pay more than ten per cent of its income to maintain an acceptable level of temperature in the home) of any UK region (44% in 2011 compared to a UK average of 24%). According to the NI Consumer Council, 50% of people in fuel poverty are aged over 60 and 42% of households in fuel poverty include children; these are particularly high risk groups.
- Since 2003, infant mortality has been higher in NI than in the rest of the UK, whilst the UK has higher rates than much of Europe.
- Obesity (largely determined by modifiable lifestyle behaviours such as low physical activity levels, sedentary behaviour and consumption of energy dense diets) continues to be one of the most important public health challenges facing the UK and Ireland, with significantly higher rates than the rest of Europe. In 2012, 61% of adults in NI were classed as overweight or obese, and 24% as obese.
- Physical activity is also poor; the proportion of people meeting the government's recommended 30 minutes a day in NI is less than one in two for men and just one in three for women, though these are slightly better than the UK average. The RSPB's Wellbeing through Wildlife report reveals that "physical inactivity is a major preventable health risk, which affects about 60% of the (UK) population... In terms of physical health, inactivity costs the UK over £8 billion a year. It leads directly to chronic disease and lack of independence in the elderly".

³ This was published in final form in September 2014.

- The RSPB further states that there is evidence (e.g. from the World Health Organisation amongst others) that green space in an urban environment can improve life expectancy and decrease health complaints. This is particularly important in a changing climate, as UKCIP states there is increasing evidence that vulnerable older people make up the bulk of the fatalities from flooding, heatwaves, cold snaps, air pollution and storms. Urban green space can help to reduce the effects of flooding and urban heat islands.
- The Council for Nature Conservation and the Countryside (CNCC) has suggested that the lack of public access to green space is a 'serious issue' in NI. There is no public footpath network, no access to unenclosed land and no right of coastal access, all of which are now available in Great Britain. Access to woodland for exercise, mental health and educational purposes in NI is below its full potential, as though 72% of NI's woodland is now publicly accessible, most are located far from where people live. For example, only 7.2% of the population has access to a 2ha+ woodland site within 500m of their home (rising to 40.2% for a 20ha+ site within 4km of home). The UK average figures are 15.6% and 64.8% respectively.
- The 2010-2011 Noise Complaint Statistics for NI revealed that the number of noise complaints has risen by 38% since 2003/04, with domestic noise accounting for 87% of all complaints in 2010/11 (predominantly dog barking and loud music/TV). The noise implications of a particular policy, development or other activity are typically not considered at an early enough stage to avoid impacts. The health effects of noise range from discomfort and annoyance to psychological and pathological conditions; in particular, noise can affect sleep, circulation, communication, concentration, productivity and mental wellbeing.

3.8 Soil and Land Use

Strengths and Opportunities

- NI has significant natural resources such as carbon rich peaty soils (NI's soils have an average carbon content of 5% compared to 2-3% in the rest of the UK) and high quality grassland cover available to capture carbon. One of the most valuable services provided by peatland is its carbon sequestration and storage capacity (as well as water purification).
- Soil quality in NI has improved slightly in recent years (based on an AFBI study into phosphorous concentration for managed grassland) and degradation is low compared with the rest of the UK. In 2010/11, there were fewer soils that were either under or over-enriched with phosphorus compared to 2005/06.
- The island of Ireland is, for its size, one of the most geologically and geomorphologically diverse regions in the world and has substantial mineral deposits. Notable sites in NI include the karst landscape and caves at Marble

Arch, the Giant's Causeway and its basalt cliff backdrop, the Antrim Coast road, the Ring of Gullion, the drowned drumlin landscape of Strangford Lough and the Mountains of Mourne.

Weaknesses and Threats

- The Northern Ireland Countryside Survey (NICS) carried out in 2007 revealed a large increase in the area of agricultural grassland lost to rural building, though the rate of conversion has slowed compared to that reported by NICS in 1998. Despite a policy requirement for brownfield⁴ development at strategic level within the Regional Development Strategy and existing PPSs, and also at local level within the more recently adopted Area Plans, in the more rural parts of NI greenfield development still prevails. In 2006 there were more single dwellings in the countryside approved for NI than for all of Great Britain.
- There is limited information on the current status of peatland in NI, particularly with regards to soil structure, pH and nutrient profiles. It is thought that 90% of lowland raised bogs have been degraded due to peat extraction, forestry and drainage (which also affect upland bogs), particularly during the 1980s-1990s.
- Agriculture is already being impacted by climate change, with prolonged periods of heavy rain and drought affecting land quality and crop production. Soil and land use are likely to be impacted further through waterlogging and landslides, affecting other land uses.
- NI is the least wooded country in the EU, with only 8% cover (compared to 12% in the rest of the UK and an EU average of 44%). Only 0.04% of NI is woodland that can be classified as ancient (continuously present since at least 1600), compared with 2% in Britain.
- Woodland is not seen as an economically viable use of land by NI's farmers, and thus the small wood industry (e.g. charcoal, timber and woodfuel) is far less developed than in the rest of the UK. NI woodlands are typically unmanaged, inaccessible, small and fragmented, whilst woodland creation rates are declining.
- As revealed by DARD, abandonment of upland farms due to an aging farming demographic is resulting in landscape dereliction and loss of habitat quality for those habitats that are dependent on farming.

⁴ Defined in the RDS 2035 as "land that is, or was occupied by a permanent structure within a defined settlement limit. The term may encompass vacant or derelict lands, infill sites, land occupied by redundant or underused buildings, a piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated. The following are excluded from the definition of previously development land: open space of public value as defined in Planning Policy Statement 8 'Open Space, Sport and Outdoor Recreation'; and the gardens of dwellings and apartments (broadly defined as those areas within the curtilage of a dwelling not containing buildings)".

- As mentioned by the NI Environment Link, landscape scale improvements are sometimes difficult due to the land tenure system in NI – a very large number of small owner-occupied farms, a lack of tenant farming, and the letting of about one third of farm area through conacre (11 month) agreements.
- As mentioned by the RSPB, there is a risk that the total land under agri-environment schemes (currently approximately 41% of the total farmed land) will fall to around 10% as the Environmentally Sensitive Areas Scheme and Countryside Management Schemes 1 and 2 come to an end in 2015. Furthermore, the Council for Nature Conservation and the Countryside (CNCC) has suggested that agri-environment schemes in the past have not had clear environmental targets, and most have not been well monitored to ensure that they produce genuine environmental outcomes.

3.9 Water

Strengths and Opportunities

- The chemical quality of NI's rivers has improved over the last decade; industrial discharge quality has improved in recent years; whilst drinking water quality remains at the highest level of compliance since 2004, at 99.8%.
- Groundwater is currently of a high quality, with 65 of NI's 67 groundwater bodies at "good" status following Water Framework Directive (WFD) quantitative and qualitative classification. Almost 90% of marine water bodies around NI's shores are classified as high or good environmental status (under the Marine Strategy Framework Directive), with the remainder classified as moderate.
- Water storage in intact peatlands can contribute to flood alleviation, whilst peatlands also filter run-off thus improving water quality.

Weaknesses and Threats

- In 2011, only 23% of river waterbodies in NI were classed as having "good" overall ecological quality, and there has been no improvement in recent years (of NI's three main river basins, the North East is particularly bad with only 9% of its river water bodies classed as "good"). The proportion needs to increase to 72% by 2015 if NI is to meet the requirement of the WFD.
- Historically, manure management practice, particularly timing of manure spreading, and over application of chemical fertilisers containing phosphorus had caused pollution of many of NI's lakes and rivers. However a series of actions including the Nitrates Action Programme Regulations, capital grant schemes and advisory support have been implemented since 2006 to address this. There remains evidence of ammonia, a common agricultural pollutant, causing negative impact on Natura 2000 and ASSI designated sites.

- For the coastal environment, concerns go beyond water quality to the bringing ashore of offshore renewable energy, oil exploration and possible exploitation, and tourism-related developments. Sea-level change and coastal protection, including necessary 'managed retreat' are likely to have a significant effect on many parts of the coast and will have major implications for planning. The absence of Shoreline Management Plans in NI is a particular concern.
- Much of NI is low-lying and many rivers and streams have gentle gradients in their lower reaches. With lowland soils that are mostly clay rich and of low permeability there is widespread potential for localised flooding, a situation reflected in the Region's long history of arterial land drainage. Localised flood events caused by intense and/or prolonged rainfall and local conditions have been experienced across the Region with increasing frequency. In addition, Strabane, Omagh, Castlederg and Newcastle have all suffered from river flooding in recent years, whilst estuarine flooding or coastal inundation has occurred on the Roe at Limavady, on the Lagan at Belfast, and at Portrush, Rostrevor and Newtownards.
- Less summer rainfall, as predicted for the future by the 2012 UK Climate Change Risk Assessment, may lead to a reduction in river flows, affecting public water supplies and increasing the risk of water pollution.

3.10 Air Quality

Strengths and Opportunities

- Air quality monitoring in NI shows that standards for key pollutants, sulphur dioxide (SO₂), lead, and particulate matter (PM₁₀) were met at the key automatic monitoring sites in 2011. Ammonia emissions from agriculture have reduced slightly (by 6%) during 2001-2011.

Weaknesses and Threats

- Though performing better than much of the rest of the UK and Europe, in 2011, three urban monitoring sites in NI failed to meet standards for nitrogen dioxide (NO₂), whilst average levels of NO₂ have not declined over the past decade. All three sites where polycyclic aromatic hydrocarbons (PAH) are monitored exceeded objectives in 2011 which are believed to be predominantly due to the domestic burning of bituminous (smoky) coal, where natural gas is unavailable.
- Twelve of the 26 planning authorities in NI have declared a combined total of 28 AQMAs, largely for NO₂ but also PM₁₀ which are primarily due to road transport (domestic heating has resulted in AQMAs in Ballymena and Strabane). National compliance assessment modelling of nitrogen dioxide levels show that limit values in the Air Quality Directive along certain busy

roads are exceeded. Access to public transport services in rural areas is poor, leading to a high dependency on cars.

- NI's ammonia emissions have reduced only slightly (by 6%) between 1990 and 2011 and, in 2011, accounted for 10% of total UK ammonia emissions. In 2011, 95% of NI's ammonia emissions were from agriculture, with 80% coming from manure management alone. Ammonia emissions from agricultural activities represent a significant pressure on sensitive habitats in NI and current background ammonia levels are above the carrying capacity of many of these habitats. The emissions from agriculture could increase further due to greater farm intensification as planned under the Agri-Food Strategy.
- Increases in temperature as the climate changes will lead to changes in the chemistry associated with ozone formation. According to the Air Quality Expert Group (2007), the greatest effect will be on the concentration of water vapour, which will lead to decreases in background ozone levels, but increases in more polluted regions where there are higher nitrogen oxides concentrations. An increase in ground level ozone can cause breathing problems (reduced lung function and triggering of asthma) whilst it can also seriously damage crops and vegetation.

3.11 Climate Change

Strengths and Opportunities

- NI's total greenhouse gas (GHG) emissions have reduced by 17.5% since 1990 whilst carbon dioxide (CO₂) emissions (which accounted for 69.1% of all GHG emissions in NI in 2011) have reduced by 17%. In 2011/12, 14.3% of electricity in NI was produced from indigenous renewable sources, up from 1.5% in 2001/02.
- Significant natural resources are potentially available for renewable energy generation in NI, including offshore wind to the north and off the east coast, tidal energy within Strangford Narrows, around the Copeland Islands and Rathlin Island and off the northeast coast between Fair Head and Runaby Head, and wave energy off the north coast. Research undertaken by DETI identified that NI has a number of relatively strong growth sectors which offer significant possibilities with regard to developing low carbon technologies.
- NI's peat has high carbon content, and bogland vegetation sequesters carbon and represents a substantial carbon store, especially where the hydrology of pristine sites is maintained and that of degraded sites restored. NI's perennial grassland is also a valuable carbon store, whilst DARD's strategic aim to double the area of tree cover over the next 50 years will mean that NI's forest will have good potential for carbon storage into the longer term.

- The agro-forestry sector has taken significant steps to address GHG emissions in the past two years, setting up a GHG Implementation Partnership to put a mitigation strategy into practice. Such measures include better nutrient management, better livestock management, improved fuel efficiency, production of renewable energy, and locking in carbon in grass, soil, peatland and woodland.
- According to the UK Climate Change Risk Assessment, NI's grass and wheat yields are projected to increase significantly as a result of increased temperatures, creating potentially valuable opportunities for agriculture (assuming water or nutrient availability do not act as limiting factors).
- Part 4 of the UK Climate Change Act 2008 sets out the duties of NI in relation to the impact of and adaptation to climate change. This is addressed through the Cross Departmental Working Group (CDWG) which reports annually on progress towards the NI target of a reduction in GHG emissions of at least 35% by 2025 based on 1990 levels. The remit of the CDWG was extended to encompass climate change adaptation which involves supporting the preparation of assessment of the risks for the UK of the current and predicted impact of climate change, reporting annually on progress, and preparing a NI Adaptation Programme (which is due for publication in 2013/14).

Weaknesses and Threats

- GHG emissions are not falling as quickly in NI as in the rest of the UK; a decrease of 29% on 1990 levels has been recorded for the UK as a whole (by 2011), but only 17.5% for NI.
- Total GHG emissions from the transport sector in NI have increased by 25% during 1990-2011 despite improvements in efficiency of transport vehicles; this is compared to a slight decrease for the UK as a whole. Increased car use is in part attributable to planning policies that have favoured single dwellings in the countryside despite poor access to and provision of public transport in NI. GHG emissions from land use change in NI have increased by 83% during 1990-2011 (though still represents less than 1% of the country's total emissions).
- The push for renewable energy may be weakened due to the availability of shale gas (currently being investigated in County Fermanagh) and oil (which is already found in North Antrim, with further exploration taking place around Rathlin Island).
- Climate change and extreme weather events such as prolonged periods of rainfall, drought and snow are of particular concern for agriculture and infrastructure (e.g. roads, railways, sewage treatment works, electricity substations and hospitals). There is a declining return period for extreme water levels and flooding may become the greatest climate change concern for people, property, critical infrastructure and important natural habitats.

- Changing climatic conditions may increase the threat from pests and diseases (particularly in forest environments), as well as from invasive non-native species.
- Warming since the mid-1980s has been more pronounced in the seas surrounding NI compared to other areas of the UK, whilst ocean acidity is increasing as carbon dioxide is absorbed. The average sea level around the UK coast rose by about 14cm during the 20th century. Combined with the declining return period for extreme water levels, for this has implications for flood risk areas and coastal erosion, and thus coastal planning, understanding of coastal processes and managed retreat.
- Homogenous and fragmented landscapes created by intensive farming will restrict the ability of people and wildlife to adapt to climate change.

3.12 Material Assets

Strengths and Opportunities

- NI has significant natural resources such as water, carbon rich soils and high quality grassland, whilst natural resources are also available for renewable energy generation, particularly wind, tidal power, and wave energy. In addition a major geothermal resource has recently been identified in North Antrim.
- NI is underlain by extensive deposits of economically valuable minerals (e.g. salt which is exported to Ireland, the UK and the USA). Civil unrest over the past three decades means that much of NI's mineral resources have yet to be extracted.
- The proportion of waste sent to landfill in NI has declined from 90% in 2002 to 56.7% in 2011/12, whilst the total amount of local authority collected (LAC) municipal waste arising declined by 7.2% over this period. In 2011/12, almost 40% of household waste and over 38% of LAC municipal waste was sent for recycling.

Weaknesses and Threats

- NI's extensive deposits of coal, peat and lignite (the latter has potential for future production and power generation estimated at over 1 billion tonnes), along with shale gas and oil as mentioned earlier, may put the necessary move away from fossil fuel production towards renewable energy generation (in order to be compatible with climate change commitments) under jeopardy.
- NI has the lowest recycling rates of Local Authority collected municipal waste in the UK, at 38.4% in 2011/12 (rates for electronics, textiles, plastics and food are particularly low). EU Member States are required to recycle 50% of municipal solid waste by 2020.

- There is a continued reliance on landfill in NI, with just over 58% of municipal waste in 2011/12 landfilled.
- NI's natural resources, infrastructure and waste management are likely to be impacted on by climate change, for example through the disruption of services and other activities caused by flooding.

3.13 Cultural Heritage

Strengths and Opportunities

- NI has a rich cultural heritage of archaeological sites, monuments and buildings (totalling more than 35,000) providing evidence of settlement, agricultural, industrial and ritual activity from 9,000 years ago. These are either protected by law (statutory) or through the planning system (non-statutory). NI has a total of 190 single, groups or complexes of sites and monuments in state care representing some of the premier examples of monument types in NI (these are subject to an ongoing conservation programme, though only modest funds are currently available).
- The rural, largely undeveloped nature of NI has helped preserve its archaeological sites and built heritage better than in other countries.
- NI's centralised heritage recording system has created a unified, standardised and advanced baseline data set, in particular for industrial heritage, post-medieval/modern defence heritage, Listed Buildings and non-listed buildings of historical interest (e.g. compared to the ROI).

Weaknesses and Threats

- The NI Environment Link revealed that built and archaeological heritage in NI has inherited a legacy of neglect and mistreatment, which undermines its value among society. In addition, new build is currently often preferred to renovation/restoration of an existing building, which can be seriously deleterious to the cultural heritage.
- Other pressures on cultural heritage include coastal, fluvial and pluvial flooding and erosion related to a changing climate, changing land use, agricultural practices, vandalism/theft, renewable energy, funding, visitors, skills, materials and maintenance.
- The Built Heritage at Risk Northern Ireland Register of 2011/12 lists 487 buildings and monuments of architectural and historic interest whose future seems threatened. The Programme for Government 2006 set a target of 200 eligible removals (e.g. through restoration/repair) by 2016, but this target is unlikely to be met with only 80 removed so far.

- Enforcement of heritage legislation and planning policy in NI has generally been under resourced and has not always been carried out in the past (University College Dublin, 2006), whilst there is a lack of awareness and inherent difficulties in identifying some forms of cultural heritage.
- There is a lack of coordination across the rural tourism sector, with many opportunities for sharing and promoting NI's exceptional cultural heritage being missed.
- There is a lack of coordination and co-operation between the cultural heritage recording systems of NI and RoI.

3.14 Landscape and Seascape

Strengths and Opportunities

- The Giant's Causeway and Causeway Coast is a spectacular area of global geological importance on the sea coast at the edge of the Antrim plateau in Northern Ireland. The most characteristic and unique feature of the site is the exposure of some 40,000 large, regularly shaped polygonal columns of basalt, formed around 60 million years ago. The quality of the exposed columns in the cliff and on the Causeway led to its designation in 1986 as a UNESCO World Heritage Site (natural landscape designation). As such it has 'outstanding universal value' and belongs 'to all the peoples of the world, irrespective of the territory on which they are located'. In addition, the setting of the WHS is a material planning consideration – the 'Distinctive Setting' covers an additional 2,033ha and the 'Supportive Setting' an additional 8,671ha.
- There are eight areas designated as Areas of Outstanding Natural Beauty (AONB) in NI, making up 22% of its total land area. These are: Antrim Coast and Glens; Causeway Coast; Binevenagh; Sperrin; Mourne; Ring of Gillon; Strangford and Lecale; and Lagan Valley. Under the 1985 Nature Conservation and Amenity Lands Order the DOE may formulate proposals for: conserving or enhancing the natural beauty or amenities of that area; conserving wildlife, historic objects or natural phenomena within it; promoting its enjoyment by the public; or providing or maintaining public access to it. However, this is an aspiration rather than a statutory duty.
- Major rural tourism attractions in NI include the Giant's Causeway, the Mourne Mountains and the Glens of Antrim, whilst the Antrim coast is considered to be of very high seascape value, particularly along the Causeway Coast. The NI chapter of the UK National Ecosystem Assessment stated that in 2007, 26% of total tourist spend in NI was from trips to The Causeway Coast and Glens.

Weaknesses and Threats

- Though NI's WHS and its important wider setting receive some protection through PPS6 (though not PPS2) and the Draft Northern Area Plan (still not formally adopted), it receives no special protection in law. Consequently it has not been adequately protected from inappropriate development, and there is a possibility that the WHS could be placed on the Endangered List by UNESCO.
- The UK NEA reported that there is a very low level of financial support available for management of AONBs, whilst protection from inappropriate development is much weaker for AONBs in NI compared to England or Wales. This is because they have no statutory management plans and fail to qualify as Protected Areas under IUCN definitions. By comparison, English and Welsh AONBs are designated "in order to secure their permanent protection against development that would damage their special qualities", whilst planning authorities must prepare management plans to set out how they will care for AONBs under their jurisdiction.
- Landscapes in NI have been strongly affected by rural development, particularly single dwellings and their associated infrastructure, and windfarms / single turbines (e.g. in County Tyrone), as well as by agricultural intensification.
- There is a lack of coordination across the rural tourism sector, with many opportunities for sharing and promoting NI's exceptional landscapes being missed.

3.15 Green Infrastructure and Ecosystem Services

3.15.1 This section looks at the inter-relationship between the preceding sustainability topics, as well as green infrastructure (GI) and ecosystem services (ES) which are cross-cutting topics of increasing importance. It also includes information on other cross-cutting themes such as tourism and environmental knowledge and understanding. The purpose of this section is to link environmental, social and economic issues in a more integrated way, and emphasise that a good quality environment is essential to continuing social and economic prosperity.

Strengths and Opportunities

- As revealed by the UK NEA (2011) there are some important nationally designated sites in NI's urban areas, including Lough Foyle in Derry/Londonderry (an ASSI, SPA and Ramsar site) and the Belfast Lough Shore (Ramsar, SPA and ASSI sites). Regional Parks, Country Parks and NGO-managed properties (e.g. National Trust) provide significant areas of recreational, educational and high biodiversity land near or within towns and cities, whilst at least 10 Local Nature Reserves (LNRs) have been established or are proposed in urban areas, including in Belfast, Bangor, Derry/Londonderry and Craigavon.

In addition, areas within Belfast Harbour Estate, amongst others are included in the new UK priority habitat, 'open mosaic habitats on previously developed land'.

- Visits to parks are promoted through numerous events and activities based in parks, for example Belfast City Council offers grants for park-based community events (UK NEA).
- Many councils are developing new allotment sites and community gardens, and allotments are being provided by the private sector. An Allotments Forum has been active since 2008, involving council officers and others in promoting the uptake and development of sites (UK NEA).
- The social use of both state and non-state woodland in NI is increasing since changes to the Forestry Act in 2010 altered the remit of the Forest Service to include social and environmental objectives in addition to the existing commercial ones.
- The UK NEA revealed values that have been placed on some of the ES that NI currently provides. Provisioning services include livestock, dairy and poultry products (which together accounted for £1.14 billion of output in 2008); arable products (£126 million); marine fisheries (£25 million); aquaculture (£11 million); forest products (£7 million); and drinking water (£186 million). Cultural services include tourism (£1.5 billion); and coarse, game and sea/shore angling (£43.5 million). Valued regulating services include apple pollination (£7 million), whilst the supporting service of water quality was valued at £8 million. The report further revealed that a 2006 study estimated that the natural environment contributed £573 million to the NI economy.
- The EC has described the Atlantic area as Europe's largest and most important ecosystem. The NI coast in particular (which borders the Atlantic Ocean to the north and the Irish Sea to the east) has highly productive and biologically diverse ecosystems with features that serve as critical natural defences against storms, floods and erosion. The majority of NI's 650 km of coastline is also protected for its nature conservation interest.
- NI's grassland and peatland are excellent carbon stores, whilst the extensive hedgerow networks across NI provide connectivity through the landscape whilst helping to keep levels of soil erosion lower than in other UK countries.
- NI's ecological, carbon and greenhouse gas footprints are slightly lower than the UK per capita average.

Weaknesses and Threats

- As reported by the UK NEA, development and regeneration within urban areas in NI "has often resulted in one large dwelling with a sizeable garden being replaced by an apartment block or several houses or flats, with hard surfaced

car parking replacing the original garden. There is also a trend of replacing hedges with wooden fencing and paving front gardens. This has negative impacts on biodiversity and aesthetics, but perhaps more importantly has led to rapid water runoff which has contributed to flooding in the Belfast urban area during heavy rainstorms.”

- There is a disparity to public access to woodland in NI, with most being located far from where people live. For example, whilst 72% of NI’s woodland is publicly accessible, only 7.2% of the population has access to a 2ha+ woodland site within 500m of their home (rising to 40.2% for a 20ha+ site within 4km of home). The UK average figures are 15.6% and 64.8% respectively.
- Diverse objectives and aspects of GI (particularly regarding the creation of multifunctional networks) require agreement or cooperation of varied stakeholders such as landowners, in a participatory planning process. No mechanism for such co-operation, and particularly where to direct funding, currently exists in NI.
- Sea level rise and responses to it, including construction of defences or managed retreat, may have significant implications for the coast and the ecosystem services it provides.
- Research by DARD suggests that there is a lack of environmental knowledge transfer and integration of environmental skills amongst agriculture and forestry sectors and rural communities in NI. More knowledge is needed to instil confidence in rural landowners to invest in renewable energy schemes, and in both urban and rural landowners regarding the development of multifunctional GI networks.
- Environmental management can sometimes be considered a separate rather than integral part of production systems, whilst agri-environment schemes tend to focus on single issues rather than connectivity and multi-functionality. There is also a lack of integration of environmental issues into all sectors, and a lack of cross-sector support.
- There remains a lack of understanding worldwide about the importance of ecosystem services, with the previous NI Minister for the Environment, Alex Atwood, stating in June 2013 that ecosystem services are not fully recognised or understood in politics in NI.
- Analysis carried out by the Office for National Statistics in 2011 shows that the tourism ratio⁵ for NI, which shows the importance of tourism expenditure in

⁵ The Tourism Ratio is a measure of the economic importance of the tourism sector within regions as it shows the relationship between tourism demand and supply.

driving output, was estimated to be 2.4%. This was the lowest of the twelve UK regions.

3.16 Key Issues and Likely Future Trends

Public Perceptions

- 3.16.1 According to an annual survey carried out by NISRA, in 2011/12, 39% of responding households thought the most important environmental problem facing NI is household waste disposal, with 31% each for pollution in rivers, climate change and traffic congestion (multiple responses were permitted). The figures for each of the 16 categories have remained fairly consistent since 2003/04, with notable exceptions being declining concern regarding air pollution, and a sharp rise followed by a steady fall for climate change. A similar survey carried out by NISRA (in 2010) focusing on the attitudes of young people in NI found that the greatest environmental concern was the loss of plants, animals and habitats (76% of respondents).
- 3.16.2 DOE's 2012 report on public perceptions on climate change in NI revealed that the level of concern about climate change has decreased since 2009, with these concerns relating to increased energy costs, an increase in the number of severe weather events, increased flooding, damage to natural environment and wildlife, a more polluted atmosphere, and increased food costs. Three-quarters of respondents would be prepared to make changes to their lifestyle to reduce climate change.
- 3.16.3 The NI Chapter of the 2011 UK National Ecosystem Assessment revealed the following key findings and recommendations of relevance to the current state of the environment and decision-making at a national level:
- The ecosystem services approach should be integrated into all decision making, including a fully integrated cross-departmental and inter-sectoral approach.
 - The role of ecosystem services in mitigating all human impacts, including biodiversity conservation, carbon storage and climate change adaptation, must be considered in all land and sea management. Encouraging and facilitating resilience to change is critical.
 - An integrated network of high value land and marine sites is core to maximising service delivery. Effective ecosystem management requires consideration at biologically appropriate scales such as river catchment, island of Ireland or North West Atlantic.

Summary of Key Issues

- 3.16.4 From analysis of the baseline data and comments provided by environmental stakeholders on the Scoping Report, the key sustainability issues facing NI, along with likely future trends if the SPPS is not implemented (though some of these are outwith DOE's remit), are thought to be:

- Continued loss of semi-natural habitat by agricultural conversion and building and infrastructure development;
- Unfavourable condition of habitats and species in protected sites due to e.g. over/undergrazing and water pollution;
- Limited protected or consideration for biodiversity outside of protected areas, with the move towards intensive agriculture a particular threat;
- Increasing problems of pests, diseases and invasive species;
- Loss and deterioration of marine biodiversity due to unsustainable fishing practices, pollution and acidification;
- The marine economy is underutilised;
- High levels of poverty, deprivation, economic inactivity and unemployment, and poor educational attainment;
- Lack of fair and equitable access to services and public transport frequency and connectivity for rural dwellers;
- NI has the highest level of fuel poverty of any UK region (44% in 2011 compared to a UK average of 24%), with children and the elderly most at risk.
- Though similar to the rest of the UK and Ireland, NI has very high obesity levels compared with the rest of Europe (at 24%) putting pressure on health services and reducing productivity in the workplace through ill-health;
- Access to green space and woodland for exercise, mental health and educational purposes is poor, whilst there is a disconnect between people and the natural environment;
- Lack of woodland cover in NI, whilst woodland is not seen as an economically viable use of land resulting in a lack of management and an undeveloped small wood industry;
- The substantial quantities of peatland across NI exists in a degraded state and continues to be disturbed by domestic and industrial peat extraction, afforestation, wind farms, recreational activities and invasive species (which has implications for water quality);
- NI is unlikely to meet WFD targets for water quality, with only 23% of river waterbodies classed as having good overall ecological quality in 2011;
- Current poor water quality has been caused by historically poor manure management and over application of fertilisers in NI;
- Ammonia emissions and nitrogen deposition from agricultural activities are putting significant pressure on sensitive habitats in NI;

- GHG emissions are higher per capita and/or falling more slowly in NI compared with the rest of the UK, in part due to rising transport emissions and continued reliance on energy generation from fossil fuels;
- Increasingly frequent and severe weather events such as flooding are occurring across NI, disrupting infrastructure, agriculture the natural environment and local people;
- Lack of coordination across the rural tourism sector, with many opportunities for sharing and promoting cultural heritage and landscape assets being missed;
- Landscapes have been affected by housing and infrastructure development, agricultural intensification and decline/ loss of natural and cultural features;
- Lack of agreement, co-operation and funding regarding creation of multifunctional green networks;
- Lack of integration of environmental issues and management into all sectors and decision making, and a lack of cross-sector support (economic development and the natural environment do not need to be mutually exclusive);
- Lack of knowledge and understanding of environmental issues, biodiversity and ecosystem services;
- Low economic importance of tourism expenditure within NI compared to the rest of the UK;
- NI is susceptible to transboundary effects with RoI, and to a lesser extent Scotland, particularly in relation to water quality and quantity, climate change and greenhouse gas emissions, landscape, biodiversity, and the inter-relationships between these topics.

4 Consideration of Alternatives

4.1.1 Consideration of alternatives is a key feature of the SEA process; the SEA Directive requires that the Environmental Report should consider:

‘Reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme’ and give ‘an outline of the reasons for selecting the alternatives dealt with’ (Article 5.1 and Annex I (h)).

4.1.2 In practical terms, it refers to possible alternative mechanisms for delivering the SPPS, and the assessment of the impacts of each of these options against the SEA Objectives. In line with an ecosystems approach, the alternative options have also been assessed in terms of how well they provide ecosystem services, based on the list provided in Section 2.3.

4.1.3 The ODPM (now DCLG) guidance on SEA recognises that it is not for the SEA to decide on the options to be considered. However this SEA focuses both on the alternative delivery options actually considered in the preparation of the SPPS by DOE, and additional alternative options as proposed by the SEA team. The SEA has assessed which of the identified options, or combination of options, performs the best environmentally.

4.2 Alternative Policy Options / Delivery Mechanisms

4.2.1 In order to provide for assessment of policy options it was agreed that the approach should be twofold in that:

- i. there is an assessment of alternatives overall, i.e. strategic level options for the approach to and content of the SPPS as a whole; and
- ii. an assessment of different delivery mechanisms for elements of new policy e.g. in relation to town centres and retail.

4.2.2 The alternatives considered in the preparation of the SPPS have been informed by the following key questions:

- What policies are regionally important? Changes in the context to policy may mean some policies are no longer as significant, or appropriate for the reformed two-tier planning system. This will have a bearing on the level of policy prescription to be applied.
- Which policy approach? In most cases, it is expected that the existing policy position will remain unchanged, however, a consideration of a further policy options may be helpful to improve the future sustainability of the document.
- What structure is appropriate for the document? There may be alternative ways in which connections can be drawn between the policy topics, for example by grouping topics to form the structure of the document.

- Which words express the intentions of the policy most clearly? The way the document is scrutinised means that the nuances of words are important to the policy being applied as intended.
- 4.2.3 The SEA has focused only on the reasonable alternatives that have emerged during the drafting of the SPPS; the assessment of alternatives was thus carried out in late 2013 whilst the SPPS was in draft form. Section 4.3 describes the ‘strategic’ alternatives, and Section 4.4 explains what the preferred alternative is and why DOE chose to take this forward to public consultation in February 2014.
- 4.2.4 It should be noted that it was not considered necessary to undertake an assessment of alternatives for each draft policy amendment in the development of the SPPS since the assessment of the strategic alternative has led to the decision to retain the general substance of existing policies (with the exception mentioned below). See Section 4.4 of the draft Environmental Report and paragraphs 2.3 – 2.7 of the draft SPPS. However, where appropriate some improvements have been made to the subject policies. These improvements have been made taking into account comments received as a result of the consultation process. They do not materially alter the strategic thrust of the SPPS policies which remain the same. In that context, it was not considered reasonable to assess potential alternatives for the various policies at a detailed drafting level given that the decision was that the substance of the policies (and thus their environmental effects) should remain broadly the same. The exception to this is the Town Centres and Retailing policy (SPP-14), for which second tier alternatives, i.e. the different delivery mechanisms for town centres and retailing, are assessed separately in Chapter 7. The draft SPPS brought forward new strategic town centres and retailing policy. Existing policy on retailing and town centres (i.e. PPS5 – the least up-to-date PPS) has been replaced through the SPPS in line with the then DOE Minister’s commitment in April 2013 to bring forward new policy for town centres and retailing. This new policy area has been informed by an updated evidential context arising from a separate process of detailed research involving use of external retail consultancy and incorporating extensive engagement with key stakeholders.

4.3 Assessment of Strategic Alternatives

Alternative 1 – Retain existing policy framework

- 4.3.1 This possible alternative assumes that the current policies as set out within the various PPSs remain unchanged. The existing PPSs are as follows (the individual policies are listed in Appendix E):
- PPS 1: General Principles (1998);
 - PPS 2: Natural Heritage (2013);
 - PPS 3: Access, Movement and Parking (2005, clarification in 2006);

- PPS 4: Planning and Economic Development (2010, clarification in 2011);
- PPS 5: Retailing and Town Centres (1996);
- PPS 6: Planning, Archaeology and The Built Heritage (1999);
- PPS 6 (Addendum): Areas of Townscape Character (2005);
- PPS 7: Quality Residential Environments (2001, addendums in 2008 and 2010);
- PPS 8: Open Space, Sport and Outdoor Recreation (2004);
- PPS 9: The Enforcement of Planning Control (2000);
- PPS 10: Telecommunications (2002);
- PPS 11: Planning and Waste Management (2002);
- PPS 12: Housing in Settlements (2005);
- PPS 13: Transportation and Land Use (2005);
- PPS 15: Planning and Flood Risk (2013, draft);
- PPS 16: Tourism (2013);
- PPS 17: Control of Outdoor Advertisements (2006);
- PPS 18: Renewable Energy (2009);
- PPS 21: Sustainable Development in the Countryside (2010);
- PPS 23: Enabling Development (2013, draft); and
- PSRNI: A Planning Strategy for Rural Northern Ireland (1993).

Alternative 2 – Reconfigure and consolidate policies

4.3.2 This alternative is the one that DOE published for public consultation in February 2014. It is largely a consolidation of the existing PPS policies, with some new or updated elements. The core planning principles and planning policies included within the consultation document are summarised below.

Core planning principles (CPPs):

- CPP-1: Furthering Sustainable Development – Planning authorities should deliver on all three pillars of sustainable development in formulating policies and plans and in determining planning applications and appeals. A key challenge in furthering sustainable development is mitigating and adapting to climate change.
- CPP-2: Improving Health and Well-being – Planning authorities should contribute to health and well-being in plan-making and decision-taking by: safeguarding and facilitating open space, sport and outdoor recreation;

supporting quality design; providing for safe and secure environments; encouraging environmentally sustainable design; facilitating the protection and provision of green and blue infrastructure; supporting provision of jobs, and services; supporting broader government policy aimed at reducing adverse health and well-being impacts arising through noise and air pollution.

- CPP-3: Creating and Enhancing Shared Spaces – Planning authorities should contribute to the creation of an environment that is: accessible to all communities; socially and religiously mixed; has a high standard of connectivity; and supports shared use of public realm.
- CPP-4: Delivering Spatial Planning – Planning should be: broad-ranging and integrated with other plans and projects; participative; visionary; focused on delivery; and collaborative.
- CPP-5: Observing a Plan-led System – Plans should be evidence-based and informed by meaningful participation with relevant stakeholders.
- CPP-6: Supporting Good Design, Positive Place-making, and Urban and Rural Stewardship – Successful urban places are visionary, collaborative, contextual, responsible, accessible, hospitable, vibrant and diverse, crafted, viable and enduring. Councils should consider positive ways in which to improve the linkages between the making of good places (design) and the management and maintenance of those spaces (stewardship).
- CPP-7: Enhancing Stakeholder Engagement and Front-loading – Planning authorities should adopt an inclusive approach to engagement to ensure that different groups within a community are given the opportunity to participate and are not disadvantaged by the process.
- CPP-8: Enhancing Local Democratic Accountability – Front-loading of the planning system with a focus on pre-application discussions between applicants and planners, meaningful community participation, high quality planning applications, and a robust 'plan-led' system will facilitate quicker and more confident decision making.

Planning policies (PPs):

- PP-1: Archaeology and Built Heritage – Objectives are to: secure the protection, conservation and, where possible, the enhancement of built and archaeological heritage; promote sustainable development and environmental stewardship with regard to built and archaeological heritage; and encourage the link between conservation and economic prosperity.
- PP-2: Coastal Development – Protect the undeveloped coast from inappropriate development (conserving its natural character and landscape and protecting it from the effects of pollution) and support the sensitive

enhancement and regeneration of the developed coast within coastal settlements which contribute to a sustainable economy.

- PP-3: Control of Outdoor Advertisements – include policies to control the display of advertisements in the plan area having regard to amenity and public safety, including road safety.
- PP-4: Development in the Countryside – Policy objectives are to: manage growth to achieve appropriate and sustainable patterns of development which supports a sustainable rural economy and vibrant rural community; conserve the landscape and natural resources of the rural area and to protect it from inappropriate development and pollution; and promote high standards in the design, siting and landscaping of development in the countryside.
- PP-5: Economic Development, Industry and Commerce – facilitate the economic development needs of Northern Ireland in ways consistent with the protection of the environment and the principles of sustainable development. Supporting objectives include: tackle disadvantage and facilitate job creation; sustain a vibrant rural community; support the re-use of previously developed sites; promote mixed-use development and improve integration with transport; and ensure a high standard of quality and design.
- PP-6: Flood Risk – prevent future development that may be at risk from flooding or that may increase the risk of flooding elsewhere. Supporting objectives include: adopting a precautionary approach to the identification of land for development due to future uncertainties associated with climate change; retention and restoration of natural flood plains and natural watercourses; and encouraging the use of sustainable stormwater management for the drainage of new development.
- PP-7: Housing in Settlements – Policy objectives include: managing housing growth in response to changing housing need; directing and managing future housing growth to achieve more sustainable patterns of residential development; promoting a drive to provide more housing within existing urban areas; encouraging an increase in the density of urban housing appropriate to the scale and design of the cities and towns of Northern Ireland; and encouraging the development of balanced local communities.
- PP-8: Minerals – The SPPS aims to identify and safeguard workable resources for potential future development and to prevent over exploitation reflecting their importance to the economy and in the interests of environmental protection. This includes the sustainable restoration of mineral sites to a relevant use after working has ceased.
- PP-9: Natural Heritage – The SPPS seeks to further the conservation, enhancement and restoration of the abundance, quality, diversity and distinctiveness of the region’s natural heritage, ensuring developments take

account of the role and value of biodiversity and facilitating adaptation to climate change.

- PP-10: Open Space, Sport and Outdoor Recreation – Key objectives are to: safeguard existing and identified future open space; provide open space as an integral part of new residential development to be maintained in perpetuity; facilitate appropriate outdoor recreational activities in the countryside; and ensure that new open space areas and sporting facilities are convenient and accessible for all sections of society, achieve high standards of siting, design and landscaping, and help sustain and enhance biodiversity.
- PP-11: Renewable Energy – The SPPS aims to facilitate the siting of renewable energy generating facilities in appropriate locations within the built and natural environment (adequately addressing the environmental, landscape, visual and amenity impacts) in order to achieve Northern Ireland’s renewable energy targets and to realise the benefits of renewable energy.
- PP-12: Telecommunications, Public Services and Utilities – The aims are to: facilitate the growth of new and existing telecommunications in an efficient and effective manner whilst keeping the environmental impact to a minimum; allocate sufficient land to meet the anticipated needs of the community, in terms of health, education and other public services; and ensuring proposals for new power lines have regard to potential impact on amenity and landscape sensitivity.
- PP-13: Tourism – manage the provision of sustainable and high quality tourism developments in appropriate locations within the built and natural environment and in an environmentally sensitive manner. Objectives include: facilitating tourism growth; safeguarding tourism assets from inappropriate development; developing the tourism potential of settlements; and sustaining a vibrant rural community.
- PP-14: Town Centres and Retailing –support and sustain vibrant town centres across Northern Ireland, consistent with the RDS by adopting a sequential approach to the identification of retail and main town centre uses in LDPs and when decision-taking; ensuring LDPs and decisions are informed by robust and up to date evidence in relation to need and capacity; protecting and enhancing diversity in the range of town centre uses appropriate to their role and function, such as leisure, cultural and community facilities, housing and business, promoting high quality design to ensure that town centres provide sustainable, attractive, accessible and safe environments; and maintaining and improving accessibility to and within the town centre.
- PP-15: Transportation and Land Use – Objectives are to: promote sustainable transport choices; ensure accessibility for all; promote the provision of adequate facilities for cyclists in new development; promote parking policies

that will assist in reducing reliance on the private car and help tackle growing congestion; protect routes required for new transport schemes; restrict the number of new accesses; and promote road safety.

- PP-16: Waste Management – A focus on sustainable management of waste and a move towards resource efficiency, including: promotion of development of waste management and recycling facilities in appropriate locations where detrimental effects on people, the environment and local amenity are avoided or minimised; and appropriate restoration of waste management sites after use.

Alternative 3 – Fundamental review

- 4.3.3 This alternative option (Alternative 3) assumes that planning policies in NI, where possible, are adapted to follow an ecosystems approach, based on “the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way”. Suggestions are based on good practice elements of existing planning policy in Scotland (SPP, 2010 and NPF2, 2009), England (NPPF, 2012) and Wales (PPW, 2012) as well as new draft Scottish planning policy (NPF3 and SPP expected to be published in 2014).
- 4.3.4 Scottish Planning Policy (SPP) is the statement of the Scottish Government’s policy on nationally important land use planning matters (i.e. how development should be delivered). Scotland also has a National Planning Framework (NPF) which is the Scottish Government’s strategy for Scotland’s long term spatial development (i.e. where development should be delivered). The SPP was published in February 2010 and consolidated a series of topic specific policy statements (largely unchanged) into a single, more concise statement. The Scottish Government is currently undergoing a fundamental review of planning policy with increased focus on sustainable economic growth and place-making; new planning policy documents are expected to be published in 2014⁶.
- 4.3.5 The National Planning Policy Framework (NPPF) sets out the Government’s planning policies for England and how these are expected to be applied. Published in March 2012, the NPPF is designed to make the planning system less complex and more accessible, having consolidated all previous policy statements, circulars and guidance documents into a single document. It sets out the Government’s requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so.
- 4.3.6 Planning Policy Wales (PPW) was published in November 2012 and sets out the land use planning policies of the Welsh Government. Compared with the 2002 edition, it incorporates policy updates that were previously published in the form of Ministerial Interim Planning Policy Statements (MIPPS). It also includes updated guidance about

⁶ Since the assessment of alternatives was carried out in 2013, the draft Scottish Planning Policy document has since been published in final form, on 23 June 2014.

the application of national planning policy in Local Development Plans and incorporates changes to planning policy on sustainable rural communities introduced in 2010 and renewable energy in 2011.

4.3.7 The approach to strategic level planning taken by the Governments of England, Scotland and Wales is compared against each of the SPPS core planning principles and planning policies; this is shown in Appendix F. A summary of elements thought to represent good practice are as follows:

- Sustainable Development – respect for environmental limits, so that resources are not irrevocably depleted or the environment irreversibly damaged; applying the polluter pays principle and the proximity principle; taking account of the full range of costs and benefits over the lifetime of a development (PPW, 2012).
- Health and Well-being – water quality, control of light pollution (PPW, 2012); physical activity, passive recreation and social interaction (draft SPP, 2013).
- Shared Spaces – clear and legible pedestrian routes; protect and enhance public rights of way and access; adding links to existing rights of way networks (NPPF, 2012).
- Spatial Planning – targeted investment in connectivity and environmental quality; a more even spread of economic activity to relieve pressures in high growth areas (NPF2, 2009); joint working between local planning authorities, including joint planning policies on strategic matters (NPPF, 2012).
- Plan-led System – translating plans into high quality development on the ground; secure developments that improve the economic, social and environmental conditions of the area (NPPF, 2012).
- Design, Place-making and Stewardship – developments should add to the overall quality of an area over the whole lifetime of the development; include incorporation of green and other public space as part of developments (NPPF, 2012); avoid inhibiting opportunities for innovative design solutions (PPW, 2012).
- Stakeholder Engagement – encourage developers to take-up any pre-application advice offered by planning authorities and to engage with the local community before submitting their applications (NPPF, 2012).
- Local Democracy and Accountability – Material considerations should be fairly and reasonably related to the development concerned; proposals should be considered in terms of their effect on the amenity and existing use of land and buildings in the public interest (PPW, 2012).
- Archaeology and Built Heritage – recognition of the historic environment's contribution to economic vitality, culture, civic pride, quality of life, education,

leisure and tourism (PPW, 2012); recognise that heritage assets are an irreplaceable resource and enhance their significance by putting them to uses consistent with their conservation (NPPF, 2012); through the use of conditions or a legal agreement, ensure that developers undertake appropriate excavation, recording, analysis, publication and archiving before and/or during development (SPP, 2010).

- Coastal Development – Planning authorities should work closely with Marine Planning Partnerships, particularly with regard to the inter-tidal area; promote public access to and along the coast; identify areas where managed realignment of the coast may be appropriate (SPP, 2010); acknowledge the interrelationships between the physical, biological and land use characteristics of their coastal areas and the impacts of climate change; consider landward and seaward pressures (PPW, 2012).
- Control of Outdoor Advertisements – Planning authorities should consider the local characteristics of the neighbourhood, including its scenic, historic, architectural or cultural features (PPW, 2012).
- Development in the Countryside – Promote the retention and development of local services and community facilities in villages (NPPF, 2012); embody sustainability principles benefitting the rural economy and local economies while maintaining and enhancing the environment (PPW, 2012).
- Economic Development, Industry and Commerce – Planning policies should recognise and seek to address potential barriers to investment, including a poor environment or any lack of infrastructure, services or housing (NPPF, 2012); support economic and employment growth alongside social and environmental considerations (PPW, 2012); support infrastructure delivery and innovation in the energy, transport, construction, digital, waste, water and environmental management sectors to support the transition to a low carbon economy (draft SPP, 2013).
- Flood Risk – The area of impermeable surface should be kept to a minimum in all new developments; where possible, natural features and characteristics of catchments should be restored so as to slow, reduce or otherwise manage flood waters. Flood risk management measures should avoid or minimise detrimental effects on the ecological status of the water environment. In all cases opportunities for habitat restoration or enhancement should be sought (SPP, 2010); piecemeal reduction of the functional floodplain should be avoided given the cumulative effects of reducing storage capacity (draft SPP, 2013).
- Housing in Settlements – Planning authorities should avoid large housing areas of monotonous character, and promote development that maximises energy efficiency, is easily accessible by public transport, walking and cycling, with

useable open space and regard for biodiversity, nature conservation and flood risk (PPW, 2012).

- Minerals – Take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials before considering extraction of primary materials, whilst aiming to source mineral supplies indigenously; planning authorities should not identify new sites or extensions to existing sites for peat extraction (NPPF, 2012).
- Natural Heritage – Planning authorities should support opportunities for enjoyment and understanding of the natural heritage, take into account the ecosystems and natural processes in their area, seek benefits for species and habitats from new development including the restoration of degraded habitats, and ensure that the cumulative effect of incremental changes are considered when preparing development plans and deciding planning applications (SPP, 2010); the planning system should protect and enhance geological conservation interests and soils, prevent new development contributing to soil, air, water or noise pollution or land instability, and remediate despoiled, degraded, derelict, contaminated and unstable land where appropriate (NPPF, 2012); promote the functions and benefits of soils, particularly as a carbon store (PPW, 2012); protect soils from damage and ancient and semi-natural woodland as an irreplaceable resource (draft SPP, 2013).
- Open Space, Sport and Outdoor Recreation – Authorities should undertake an audit of the open space resource in their area, taking account of the quality, community value, accessibility and use, not just the quantity, whilst contribution to new open space should be sought from developers (SPP, 2010); authorities should allocate adequate land and water resources for sport and recreation uses, with associated development being located on previously developed land where appropriate (PPW, 2012).
- Renewable Energy – Planning authorities should: consider any cumulative effects that are likely to arise when considering applications (SPP, 2010); support community-led initiatives for renewable and low carbon energy (NPPF, 2012); and ensure that all new publically financed or supported buildings set exemplary standards for energy conservation and renewable energy production (PPW, 2012).
- Telecommunications, Public Services and Utilities – No additional benefits identified.
- Tourism – No additional benefits identified.
- Town Centres and Retailing – All retail, leisure and related developments should be accessible by walking, cycling and public transport (SPP, 2010); and

complementary enterprises in industrial and commercial areas clustered so as to reduce traffic generation (PPW, 2012).

- Transportation and Land Use – Developments should be located and designed where practical to: give priority to pedestrian and cycle movements; minimise conflicts between traffic and cyclists / pedestrians; and incorporate facilities for charging plug-in and other ultra-low emission vehicles (NPPF, 2012).
- Waste Management – Residential, commercial and industrial properties should be designed to provide for waste separation and collection (SPP, 2010); waste should be managed (or disposed of) as close to the point of its generation as possible, in line with the proximity principle, with movement of waste to other areas undertaken by rail or water rather than by road wherever economically feasible (PPW, 2012); the planning system should contribute to zero waste targets (draft SPP, 2013).

4.3.8 A high level summary of how well each of these three alternative options performs against the SEA Objectives is provided in the matrix below (Table 4.1), with a more detailed breakdown for each alternative shown in Appendix G. To what extent each of the three alternatives deliver or affect ecosystem services is set out in a second high level summary shown in Table 4.2.

Table 4.1: Assessment of Alternatives (SEA Objectives)

SEA OBJECTIVES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
1	Ecology	<p>+/-</p> <p>Some of the PPS policies seek to protect designated or high quality nature conservation sites from significant development impacts, whilst others will have no impact on NI's ecological resource. However, there is little mention of improving the quality of nature conservation sites, increasing habitat provision, or protecting species and habitats outside of designated areas. Policies relating to development in urban areas acknowledge neither the risk to biodiversity, nor the need to maintain or create ecological corridors.</p>	<p>+/-</p> <p>PP-9 requires conservation, enhancement and restoration of NI's natural heritage, and seeks to ensure that developments take account of the role and value of biodiversity in supporting economic diversification. PPs on development in the countryside, economic development, housing, town centres, tourism and transport do not refer to a need to protect or enhance biodiversity, however (nor the need to maintain or create ecological corridors).</p>	<p>+/-</p> <p>Some additional benefits are identified, particularly flood risk policy in SPP which seeks opportunities for restoration of habitat as well as natural features and characteristics of catchments; coastal policy in SPP which requires planning authorities to identify areas where managed realignment may be appropriate; and housing policy in PPW which requires planning authorities to have regard to biodiversity and nature conservation. Other urban development policies do not mention biodiversity, however, so some uncertainties still exist.</p>
2	Socio-Economics	<p>+</p> <p>Economic development will have socio-economic benefits such as improved employment and income. Other policies with beneficial effects are those that seek to improve accessibility to services and facilities, protect people, business and infrastructure from flooding, boost tourism, and regenerate deprived areas.</p>	<p>++</p> <p>Economic development will have socio-economic benefits such as improved employment and income. Other policies with beneficial effects are those that seek to improve accessibility to services and facilities, protect people, business and infrastructure from flooding, boost tourism, and regenerate deprived areas. In addition to PPs, CPPs on sustainable development, shared spaces and place making are likely to have significant beneficial effects on NI's prosperity going forwards.</p>	<p>++</p> <p>The suggestion of a more even spread of economic activity to relieve pressures in high growth areas (NPF2) and joint working between planning authorities (NPPF) should have additional benefits for this topic, as would making more of heritage assets e.g. for tourism (PPW), and retaining local services/ community facilities (NPPF/PPW).</p>
3	Health	<p>+</p> <p>Existing PPS policies will benefit health indirectly, with some seeking to improve walking and cycling opportunities, or access to the countryside and urban green space, and others seeking to protect residents from noise, vibration, odour and pollution effects associated with certain industries. Other policies seek to preserve or improve the quality of living environments through sensitive design of new and renovated buildings.</p>	<p>++</p> <p>The importance of this subject is reflected in CPP-2, particularly regarding the need for promotion of green infrastructure, noise management and improvements in air quality. It is also addressed particularly through PP-10 which seeks to improve walking and cycling opportunities, access to green space, and the quality of living environments.</p>	<p>++</p> <p>The focus on protecting and enhancing public rights of way (NPPF) and access to the coast (SPP) would boost physical activity, whilst quality of life would benefit from greater recognition of the historic environment (PPW) and minimising conflict with traffic (NPPF).</p>
4	Soil	<p>+/-</p> <p>There is little reference to soil in the current PPS policies, though PPS18 requires protection of peatland from renewable energy developments. Nevertheless, some benefits will arise from the presumption in favour of the re-use of previously developed land. However, some development will necessitate the loss of greenfield land (including agricultural land) and there is almost no reference to the need to protect soil from erosion and pollution, or to maintain its drainage capacity.</p>	<p>+</p> <p>PP-3 seeks to prevent development in areas at risk from coastal erosion or land instability; PP-4 seeks to re-use previously used land and buildings or otherwise cluster new development in the countryside (as opposed to the prevalent single rural dwellings); PP-8 seeks the preservation of good quality agricultural land; and PP-7 promotes sustainable drainage. However "soil" is not mentioned in the SPPS.</p>	<p>++</p> <p>Soil will benefit through further protection from peat extraction, remediation of despoiled and degraded land (NPPF), promotion of the functions of soil e.g. as a carbon store (PPW), protection from erosion and compaction, and minimising impermeable surfaces in all development (SPP).</p>
5	Water	<p>+</p> <p>Existing policies with beneficial impacts for the water</p>	<p>0</p> <p>PPs with beneficial impacts for the water environment</p>	<p>+</p> <p>PPW and SPP seek to minimise water pollution, whilst SPP</p>

SEA OBJECTIVES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
		/- environment include the protection of wetlands and flood plains (PPS2/15), use of permeable paving and protection of urban greenspace (PPS7/8), and pollution minimisation regarding watersports, waste management and tourism development. However, economic development and housing policies do not specifically refer to impacts on water quality or quantity.	include the protection of wetlands and flood plains (9 and 6), use of sustainable drainage and protection of urban greenspace (7 and 10), and pollution minimisation regarding minerals and waste management. In addition, PP-2 seeks to address the marine environment. However, economic development, housing and town centre policies do not specifically refer to impacts on water quality or quantity.	also seeks to restore natural features in catchments to manage flood waters, and support water infrastructure delivery.
6	Air	+ The majority of policies are not expected to impact on air quality, with positive effects likely to occur from the emphasis on prioritising public transport and walking and cycling over use of the car. Activities that would adversely affect the air quality of nearby residents are restricted through existing policies, though habitats are not afforded the same protection.	+ The majority of policies are not expected to impact on air quality, with positive effects likely to occur from the emphasis on prioritising public transport and walking and cycling over use of the car. CPP-2 seeks to reverse adverse health and wellbeing arising through air pollution.	+ SPP seeks to ensure that retail and leisure developments are easily accessible by public transport, walking and cycling, whilst PPW requires the same for housing and industry/ commerce so as to reduce traffic generation.
7	Climate	+ /- Existing PPS policies will benefit the climate through encouraging the use of public transport, walking and cycling and facilitating renewable energy development, whilst restricting development in the floodplain will protect people, infrastructure and habitats from adverse effects. However, neither energy efficiency nor adaptation to climate change has been adequately addressed through economic development policies.	+ + Various policies will benefit the climate through encouraging the use of public transport, walking and cycling and facilitating renewable energy development, whilst restricting development in the floodplain will protect people, infrastructure and habitats from adverse effects. In addition CPP-1 deals specifically with mitigating and adapting to climate change, including building resilience to extreme heat and floods, limiting resource and energy requirements and improving the energy efficiency of buildings.	+ + SPP requires a move towards a low carbon economy, including innovation in energy infrastructure, as well as identification of areas where managed realignment may be appropriate. PPW also requires consideration of the impacts of climate change on the coastal zone.
8	Material Assets	+ /- Existing policies generally aim to make use of previously developed land or redundant buildings which should minimise the need for new resources, whilst design calls for use of local and sustainable materials. However, elsewhere the safeguarding of natural resources is not sufficiently addressed, whilst waste management policies do not focus enough on recycling, re-use or minimisation of waste.	+ Proposed policies generally aim to make use of previously developed land or redundant buildings which should minimise the need for new resources, whilst design calls for use of local and sustainable materials. In addition PP-8 aims to prevent overexploitation of mineral sites and to restore them to a relevant use after working has ceased, whilst PP-16 emphasises the waste hierarchy of prevention, re-use, recycling, energy recovery and disposal.	+ PPW requires that resources are not irrevocably depleted and that development associated with sport and recreation take place on previously developed land where appropriate. Additionally, the NPPF suggests that planning authorities address potential barriers to investment such as a lack of infrastructure and related services.

SEA OBJECTIVES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
9	Cultural Heritage	<p>Many of the existing planning policies include wording on protecting cultural heritage assets and/or the appearance and character of the built environment from unsustainable development, whilst some aim to enhance the historic environment - especially PPS6 and PPS7. Such protection/ enhancement is absent from retailing and town centres policy however.</p>	<p>Many of the SPPS policies include wording on protecting cultural heritage assets and/or the appearance and character of the built environment from unsustainable development, whilst some aim to enhance the historic environment - especially PP-1. Such protection/ enhancement is absent from development in the countryside, economic development and town centres policies however.</p>	<p>PPW requires recognition of the historic environment's contribution to economic vitality, culture, civic pride, quality of life, education, leisure and tourism.</p>
10	Landscape	<p>New development is likely to adversely affect the landscape to some extent, however, designated landscapes such as AONBs, important views and the character of rural settlements are in theory protected through many existing policies (environmental stakeholders have suggested that these policies have not been sufficient in protecting AONBs or the WHS and its setting from inappropriate development). Landscaping is generally proposed as mitigation for economic, residential and tourism development, whilst open space is protected through PPS8.</p>	<p>New development is likely to adversely affect the landscape to some extent, however, designated landscapes such as AONBs, important views and the character of rural settlements are protected through many of the SPPS policies (extant restrictions on developing in AONBs have been removed). Landscaping is generally proposed as mitigation for economic, residential and tourism development, whilst open space is protected through PP-10. In addition, PP-9 requires councils to identify opportunities to restore and enhance degraded landscapes, whilst CPP-2 seeks to design, manage, protect and provide strategic networks of green space.</p>	<p>Landscape may additionally benefit from a requirement for development proposals to take account of the amenity and existing use of land and buildings (PPW) as well as quality and greenspace provision over the lifetime of the development (NPPF).</p>
11	GI & ES	<p>GI and ES are generally not addressed by existing planning policies. Exceptions are the requirement for multi-functional greenspace in new residential developments, and encouraging recreational use of the coast and countryside and disused transport corridors. Some economic development is likely to put the provision of ES at risk, particularly if minimisation of significant environmental impacts is the aim rather than enhancement.</p>	<p>CPP-2 seeks to design, manage, protect and provide strategic networks of green space in order to deliver a wide range of environmental and quality of life benefits for communities, whilst PP-9 requires councils to "identify and promote green and blue infrastructure where this will add value to the provision, enhancement and connection of open space and habitats in and around settlements" (PP-10 contains similar). Other policies require multi-functional greenspace in new residential developments (which should be managed into the future through PP-10), or encourage recreational use of the countryside and disused transport corridors, however access to the coast is no longer mentioned.</p>	<p>The multifunctionality of new greenspace will improve with developments required to incorporate such land that is useable by residents and the public (NPPF) and takes account of biodiversity and flood risk (PPW). NPPF promotes enhancement and expansion of the public rights of way network, SPP promotes public access to and along the coast, and PPW suggests greater educational and tourism use of the historic environment. In addition, the sustainability topics as a whole will benefit from a need to consider the costs and benefits of a development over its lifetime (PPW) and better joint working between planning authorities on strategic issues (NPPF).</p>

Table 4.2: Assessment of Alternatives (Ecosystem Services)

ECOSYSTEM SERVICES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
Provisioning Services				
P1	Food	0	0	+
P2	Fibre	0	0	0
P3	Fuel	++	++	+
P4	Fresh water	+/-	+/-	+
P5	Biochemicals, natural medicines, pharmaceuticals	0	0	0
P6	Genetic resources	0	0	0
P7	Ornamental resources	0	0	0
Regulating Services				
R1	Air quality maintenance	0	+	+

The PPS does not address food provision, and by facilitating development in the countryside it is possible there will be less land available for food production, particularly with protection of the most productive land not specifically mentioned. However, policies stipulate that previously developed land or that adjacent to existing buildings should be utilised wherever possible, thus the best and most versatile agricultural land is likely to be avoided.

This ES is unlikely to be affected or supported by continuation of existing policies.

PPS18 aims to facilitate renewable energy generation from increased production of biomass crops and utilisation of residues and wastes.

Development may put pressure on the availability of freshwater due to pollution risk and increased demand, whilst watersports could also affect this resource. Any impacts are expected to be minor.

This ES is unlikely to be affected or supported by continuation of existing policies.

This ES is unlikely to be affected or supported by continuation of existing policies.

This ES is unlikely to be affected or supported by continuation of existing policies.

The draft SPPS does not address food provision, and by facilitating development in the countryside it is possible there will be less land available for food production, particularly with protection of the most productive land not specifically mentioned. However, policies stipulate that previously developed land or that adjacent to existing buildings should be utilised wherever possible, thus the best and most versatile agricultural land is likely to be avoided.

This ES is unlikely to be affected or supported by the draft SPPS policies.

PP-11 aims to facilitate renewable energy generation from increased production of biomass crops and utilisation of residues and wastes.

Development may put pressure on the availability of freshwater due to pollution risk and increased demand. Any impacts are expected to be minor.

This ES is unlikely to be affected or supported by the draft SPPS policies.

This ES is unlikely to be affected or supported by the draft SPPS policies.

This ES is unlikely to be affected or supported by the draft SPPS policies.

SPP, PPW and NPPF all state that development on prime agricultural land should not be permitted unless it is an essential component of the settlement strategy or is necessary to meet an established need, with poorer quality land in preference. The NPPF and draft SPP add that greenspace particularly suitable for uses such as food production (market gardening) should be protected.

Planning policies in GB offer no additional detail in relation to this ES.

Planning policies in GB also aim to increase use of biomass and energy from waste.

SPP in particular emphasises improving the ecological quality of waterbodies.

Planning policies in GB offer no additional detail in relation to this ES.

Planning policies in GB offer no additional detail in relation to this ES.

Planning policies in GB offer no additional detail in relation to this ES.

New development is required to protect existing trees and greenspace, whilst providing additional landscaping. At the same time, the PPSs seek to minimise additional air pollution. The impact on this ES is therefore expected to be neutral.

New development is required to protect existing trees and greenspace, whilst providing additional landscaping. At the same time, the draft SPPS seeks to minimise additional air pollution and protect/enhance/provide green infrastructure through detailed policy within CPP-2. The impact on this ES is therefore expected to be positive.

Planning policies in GB also aim to protect and create greenspace and minimise additional air pollution.

ECOSYSTEM SERVICES		ALTERNATIVES					
		1	2	3			
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review			
R2	Water regulation	+	Development in floodplains is to be avoided wherever possible, whilst the use of previously developed land is to be favoured over developing on greenfield land. Policies on permeable paving, landscaping and protection of urban greenspace, helping water to flow normally will further support this ES.	+	Development in floodplains is to be avoided wherever possible, whilst the use of previously developed land is to be favoured over developing on greenfield land. Policies on permeable paving, landscaping and protection of urban greenspace, helping water to flow normally will further support this ES.	+	Additional benefits arise from SPP seeking to restore natural features and characteristics of catchments to better manage flood water, and addressing the cumulative effect of piecemeal reduction of the functional floodplain.
R3	Water purification	0	PPS2 and PPS15 seek to protect wetlands, flood plains and peatland from unsustainable development, thus enabling these habitats to continue to filter out impurities in surface water run-off. Landscaping in urban areas could potentially help to purify run-off if designed with this in mind (e.g. PPS15 encourages the greater use of sustainable drainage systems). Any impact is thus expected to be negligible.	0	PP-6 and PP-9 seek to protect wetlands, flood plains and peatland from unsustainable development, thus enabling these habitats to continue to filter out impurities in surface water run-off. Landscaping in urban areas could potentially help to purify run-off if designed with this in mind (e.g. PP-6 encourages the greater use of sustainable drainage systems). Any impact is thus expected to be negligible.	0	Planning policies in GB also aim to protect important habitats and utilise SuDS and urban greenspace.
R4	Climate regulation	0	Active peatland and long-established woodland are to be protected through PPS2 and PPS18, enabling carbon sequestration to continue. Urban development can cause a warming effect, however existing policies seek to preserve trees and open space, whilst providing additional landscaping. Any impact is thus expected to be negligible.	+	Active peatland and long-established woodland are to be protected through PP-9, enabling carbon sequestration to continue. Urban development can cause a warming effect, however existing policies seek to preserve trees and open space, whilst providing additional landscaping. In addition, CPP-2 seeks to protect/enhance/provide green infrastructure (particularly in urban areas) and CPP-1 seeks to address climate change adaptation by enhancing resilience to problems such as extreme heat or flood risk.	+	Planning policies in GB also aim to protect important habitats and utilise SuDS and urban greenspace. In addition, PPW suggests promoting the function of soil as a carbon store.
R5	Natural hazard protection	+/-	Any development adversely affecting wetlands, floodplains, drainage or coastal habitat has the potential to exacerbate risks from natural disasters, though existing policies do seek to minimise such impacts. Creation of (buffer) habitat would be advisable.	+/-	Any development adversely affecting wetlands, floodplains, drainage or coastal habitat has the potential to exacerbate risks from natural disasters, though existing policies do seek to minimise such impacts. Creation of (buffer) habitat would be advisable.	+	SPP and PPW in particular set out policies that consider climate change impacts in the coastal zone, including the need for managed realignment, whilst the NPPF seeks to prevent development that contributes to land instability.
R6	Waste treatment	+/-	Soil organisms can break down organic waste, whilst plants can also remove pollutants from water and air. Though development generally results in the loss of soil and vegetation, this is minimised through existing policies focusing development on brownfield land or alternatively that adjacent to existing buildings. Any impact would thus be minor.	+/-	Soil organisms can break down organic waste, whilst plants can also remove pollutants from water and air. Though development generally results in the loss of soil and vegetation, this is minimised through existing policies focusing development on brownfield land or alternatively that adjacent to existing buildings. Any impact would thus be minor.	+	Bioremediation of waste is more likely to occur due to GB planning policies aiming to protect soil from damage (e.g. pollution, erosion and compaction) remediate despoiled and degraded soil, and promote the functions and benefits of soils.

ECOSYSTEM SERVICES		ALTERNATIVES				
		1	2	3		
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review		
R7	Erosion control	0 Development is likely to increase run-off that may erode soil, but promotion of SuDS and permeable paving should minimise this. Through protecting existing trees and requiring additional landscaping with new developments and utilising redundant buildings and brownfield land wherever possible, existing policies will help to avoid adverse impacts on this ES.	+	Development is likely to increase run-off that may erode soil, but promotion of SuDS and permeable paving should minimise this. Through protecting existing trees and requiring additional landscaping with new developments and utilising redundant buildings and brownfield land wherever possible, SPPS policies will help to avoid adverse impacts on this ES. In addition, PP-2 seeks to prevent development in areas at risk from flooding, coastal erosion or land instability.	+	Erosion control is similarly covered by GB policies.
R8	Pollination	+ /- Whilst PPS2 seeks to protect important habitats and species, pollinators are not mentioned. Other PPS policies seek to mitigate adverse impacts on biodiversity from development or even provide enhancements, though again suitable habitat for pollinators is not mentioned and could be at risk from development proposals.	+/-	Whilst PP-9 seeks to protect important habitats and species, pollinators are not mentioned. Other policies seek to mitigate adverse impacts on biodiversity from development or even provide enhancements, though again suitable habitat for pollinators is not mentioned and could be at risk from development proposals.	+ /-	As with the SPPS, pollinators are not mentioned in any of the GB planning policy documents.
R9	Disease regulation	+ This ES will be supported by improvements to waste infrastructure and management.	+	This ES will be supported by improvements to waste infrastructure and management.	+	This ES will be similarly supported by GB policies.
R 10	Pest regulation	+ /- Development, particularly in the countryside (and including landscaping proposals or garden plants if inappropriate species are used) may cause the spread of pests, however any impact on this ES is expected to be minor.	+/-	Development, particularly in the countryside (and including landscaping proposals or garden plants if inappropriate species are used) may cause the spread of pests, as could the strategic networks of green spaces proposed through CPP-2, however any impact on this ES is expected to be minor.	+ /-	Similar effects would occur through the planning policies in GB.
Cultural Services						
C1	Cultural heritage values	+ + The ability of NI to provide this ES is maintained and in some cases enhanced through existing policies, particularly through PPS6 and PPS7. In addition, PPS16 recognises and promotes cultural heritage as a tourist attraction, and PPS8 requires heritage features to also be incorporated into urban greenspace.	+ +	The ability of NI to provide this ES is maintained and in some cases enhanced through the draft SPPS policies, particularly through CPP-6 and PP-1. In addition, PP-13 recognises cultural heritage as a tourist attraction, and PP-7 seeks to protect the distinctive character and appearance of settlements (particularly those with historic designations) from inappropriate housing development.	+ +	Similar benefits would occur through GB policies, with PPW and the NPPF also seeking to emphasise the socio-economic value of heritage assets.
C2	Recreation & ecotourism	+ PPS8 encourages appropriate outdoor recreational activities in the countryside. Much of PPS16 relates to tourism development in the countryside, where it can be assumed that outdoor recreation would be pursued, especially with a requirement to respect rights of way and support walking and cycling. Other policies promote outdoor water sports, recreational use of disused transport corridors and access to the coast.	+	PP-10 encourages appropriate outdoor recreational activities in the countryside, PP-15 mentions recreational use of disused transport corridors and PP-13 recognises that the natural heritage of NI can attract tourists, however it only seeks to protect it from inappropriate development rather than promoting eco-tourism. Access to the coast is no longer mentioned.	+ +	GB benefits from the presence of a public rights of way network (which the NPPF seeks to enhance), and additionally in Scotland from the right to roam (the SPP specifically promotes access to and along the coast). The NPPF also promotes passive recreation through shared spaces. Tourism policy in PPW is similar to that proposed in the SPPS.

ECOSYSTEM SERVICES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
C3	Aesthetic value	+	+	+
C4	Spiritual, religious and ethical values	+ / -	+	+
C5	Educational value	0	0	+
C6	Social relations	+ / -	+	+
Supporting Services				
S1	Soil formation and retention	+ / -	+ / -	+

The beauty of nature may be adversely affected through existing development policies, particularly so in rural areas. Nevertheless, policies seek to steer harmful development away from designated nature, landscape and heritage sites, whilst also protecting longstanding woodland and the undeveloped coast. The impacts of development are to be mitigated through sensitive design and landscaping, whilst regeneration of derelict sites will actually improve aesthetics.

New development may affect the ability of certain areas to provide this ES to residents, workers and visitors, though the most important heritage, landscape and nature sites are to be protected.

This ES is unlikely to be affected or supported by continuation of existing policies.

Increasing levels of economic, residential and tourism development in the countryside is likely to change the make-up of the rural population, potentially putting a strain on traditional agricultural and rural communities. Conversely, social relations between previously isolated groups may improve.

Soil is formed from the weathering of rocks; as the climate becomes more extreme and weather patterns more variable, rocks are likely to weather more quickly. Policies promoting renewable energy generation and sustainable transport will therefore help to minimise such climatic effects on soils in future. Soil retention is affected by the presence of vegetation slowing down surface water run-off; it is possible that increased development will add to the erosion of soils in NI.

The beauty of nature may be adversely affected through existing development policies, particularly so in rural areas. Nevertheless, policies seek to steer harmful development away from designated nature, landscape and heritage sites, whilst also protecting longstanding woodland and the undeveloped coast. The impacts of development are to be mitigated through sensitive design and landscaping, whilst regeneration of derelict sites will actually improve aesthetics. In addition, CPP-6 requires councils to create unique places with a distinctive character.

Through influencing new development and creating shared space, CPP-3 aims to facilitate access, use and enjoyment of areas by all communities, social groups and religions, whilst the most important heritage, landscape and nature sites are to be protected.

This ES is unlikely to be affected or supported by the draft SPPS policies.

Increasing levels of economic, residential and tourism development in the countryside is likely to change the make-up of the rural population, potentially putting a strain on traditional agricultural and rural communities; conversely, social relations between previously isolated groups may improve. CPP-3 requires the creation of an environment that is accessible to all communities, socially and religiously mixed, has a high standard of connectivity, and supports shared use of public realm; this is unlikely to focus on green space however.

As with Alternative 1, policies promoting renewable energy generation and sustainable transport will help to minimise climatic effects on soils in future, though it is possible that increased development will add to the erosion of soils in NI.

Similar (beneficial) effects would occur through the planning policies in GB.

Similar (beneficial) effects would occur through the planning policies in GB.

PPW seeks to promote the role of cultural heritage in education, whilst SPP supports opportunities for better understanding of the natural environment.

Similar (beneficial) effects would occur through the planning policies in GB.

Similar beneficial effects would occur through GB policies regarding future soil formation. Whilst increased development may cause some loss of soil or soil fertility, the focus on habitat creation and restoration should negate this effect, and along with protection of peatland, agricultural land and other soil functions, improve soil retention overall.

ECOSYSTEM SERVICES		ALTERNATIVES				
		1	2	3		
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review		
S2	Primary production	0 The loss of some vegetation to development may reduce the overall capacity for primary production, though existing policies seek to preserve the most productive habitats such as wetland, woodland and estuaries, whilst focusing development on brownfield land where possible. Droughts and extremes in temperature can affect this ES, so policies to reduce greenhouse gases will be beneficial over the longer term.	+	The loss of some vegetation to development may reduce the overall capacity for primary production, though draft SPPS policies seek to preserve the most productive habitats such as wetland, woodland and estuaries, whilst focusing development on brownfield land where possible. CPP-2 may benefit this ES through enhancement and better management of strategic green networks (to provide multi-functional benefits including wildlife habitat). Droughts, floods and extremes in temperature can affect this ES, so policies to reduce greenhouse gases will be beneficial over the longer term. Adaptation measures proposed through CPP-1 may also have beneficial effects in the medium term.	+	Similar (beneficial) effects would occur through the planning policies in GB.
S3	Nutrient cycling	+ / - The carbon and nitrogen cycles may be affected by development that results in a loss of vegetation and soil; policies promoting brownfield development, new open space/ landscaping and protection of peatland, woodland and wetland habitats will therefore be important for maintaining this ES. Policies promoting renewable energy generation and sustainable transport will also help to minimise additional carbon in the atmosphere. There is a risk that the loss of agricultural land to development could result in more intensive use of remaining agricultural land and thus a greater use of fertilizers.	+ / -	The carbon and nitrogen cycles may be affected by development that results in a loss of vegetation and soil; policies promoting brownfield development, new open space/ landscaping and protection of peatland, woodland and wetland habitats will therefore be important for maintaining this ES. Policies promoting renewable energy generation and sustainable transport will also help to minimise additional carbon in the atmosphere. There is a risk that the loss of agricultural land to development could result in more intensive use of remaining agricultural land and thus a greater use of fertilizers.	+	Additional benefits would occur through GB policies seeking to protect the best and most versatile agricultural land, remediate despoiled and degraded land, and promote the functions and benefits of soils, particularly as a carbon store.
S4	Water cycling	+ / - Development in floodplains or areas at risk of pluvial flooding, or artificial modification of watercourses have the potential to adversely affect the water cycle, as does development involving loss of vegetation and permeable surfaces. Keeping these to a minimum, or mitigating adverse effects will help to maintain this ES. Policies to reduce greenhouse gases will help to minimise future extreme weather events such as storms and droughts that affect the water cycle.	+ / -	Development in floodplains or areas at risk of pluvial flooding, or artificial modification of watercourses have the potential to adversely affect the water cycle, as does development involving loss of vegetation and permeable surfaces. Keeping these to a minimum, or mitigating adverse effects will help to maintain this ES. Policies to reduce greenhouse gases will help to minimise future extreme weather events such as storms and droughts that affect the water cycle.	+	Additional benefits would occur through SPP which seeks to restore wetland habitats and the natural features and characteristics of catchments, and avoid the construction of new and open up existing culverts.

ECOSYSTEM SERVICES		ALTERNATIVES		
		1	2	3
		Retain existing policy framework	Reconfigure and consolidate policies	Fundamental review
S5	Habitat provision	<p>The ability to provide ES depends on the extent and quality of the ecosystem and habitat from which it comes. PPS2 seeks to protect high quality and designated habitats from harmful development, promote the design of ecological networks to help reduce the fragmentation and isolation of natural habitats; and promote opportunities for the enhancement or restoration of degraded landscapes. Otherwise, habitat creation is only occasionally offered as mitigation for development 'which is likely to result in an unacceptable adverse impact on, or damage to, habitats, species or features', and rural and urban habitats are potentially at risk of being degraded or lost due to developments.</p> <p>+ / -</p>	<p>The ability to provide ES depends on the extent and quality of the ecosystem and habitat from which it comes. PP-9 seeks to protect high quality and designated habitats from harmful development; promote GI to add value to the provision, enhancement and connection of habitats in and around settlements; promote the design of ecological networks to help reduce the fragmentation and isolation of natural habitats; and promote opportunities for the enhancement or restoration of degraded landscapes. Otherwise, habitat creation/enhancement is only mentioned in the draft SPPS as mitigation for renewable energy development; rural and urban habitats are potentially at risk of being degraded or lost due to other developments associated with the Strategy.</p> <p>+/ -</p>	<p>Additional benefits would occur through SPP which seeks benefits for species and habitats from new development including the restoration of degraded habitats, restoration and enhancement of wetland habitats, and promotion of managed realignment which would benefit coastal habitats. The total amount of habitat available is unlikely to change much however.</p> <p>0</p>

4.4 Reasons for Selection of Chosen Strategic Alternative

- 4.4.1 As has been seen in Table 4.1, the 'retain existing policy framework' option (Alternative 1) performs the least well of the three alternatives, with particular concerns regarding ecology, soil, water, climate, material assets, green infrastructure and ecosystem services. Though Alternative 2 (reconfigure and consolidate policies) is largely a consolidation of the policies contained in Alternative 1, through emphasising important aspects of extant PPSs (simultaneously removing detail on less important aspects) and including new core planning principles and some minor policy updates, the overall effect is more positive. This is particularly the case regarding new content on sustainable development, energy efficiency, climate change adaptation, health and wellbeing, green infrastructure and the marine environment.
- 4.4.2 Alternative 3 (fundamental review) adds to Alternative 2 innovative and particularly environmentally friendly elements from Scottish, English and Welsh national planning documents; it is therefore the preferred option in terms of how well it supports the SEA Objectives. Particular benefits can be seen in relation to soil as planning policies from Great Britain refer to the need to protect soil from damage (e.g. pollution, erosion and compaction) and enhance its use as a carbon store. There are noticeable benefits regarding water, with improvements to the ecological status of waterbodies and re-instatement of natural features being emphasised. Managed realignment and other aspects of climate change from both land and sea are emphasised in Scottish and Welsh coastal policies.
- 4.4.3 Pedestrians and walkers are also given greater consideration, with British policies suggesting priority be given to pedestrians and cyclists in some urban areas, with greater pedestrian access to the coast and extensions (or creation in the case of NI) of the rights of way network. Increased focus on non-car modes in spatial planning, housing and retailing policies are also likely to improve air quality in areas with AQMAs. Socio-economics may benefit from greater recognition of the role of the historic environment in economic vitality and tourism, job creation through the move towards a green economy, as well as consideration of the total costs and benefits of development over its entire lifetime.
- 4.4.4 Table 4.2 shows to what extent each of the three alternatives deliver or affect ecosystem services. Alternatives 1 and 2 are very similar, however Alternative 2 is likely to perform slightly better regarding air quality maintenance, climate regulation, erosion control, spiritual/religious/ethical values, social relations, and primary production. Alternative 3 has some additional benefits again, including for food production, quality of freshwater, water regulation and cycling, natural hazard (coastal flood and sea level rise) protection, soil retention and bioremediation, nutrient cycling, and recreation (i.e. rights of way and access to the countryside).
- 4.4.5 The option DOE chose to take forward to public consultation was Alternative 2, even though Alternative 3 performs better environmentally. This is because the SPPS is

intended to focus first on a reconfiguration and consolidation of existing provisions over a fundamental review of planning policy. Its purpose is to provide shorter and simplified policy primarily for the new councils in taking forward plan making and development management decisions under a reformed two-tier planning system. This is similar to the approach adopted by the Scottish Government. However, unlike other jurisdictions who have long established two-tier planning systems, councils in Northern Ireland have not had planning powers for some 40 years. Furthermore, some published development plans are currently dated and generally do not replicate operational policies contained within the existing suite of PPSs. A fundamental review of policy would therefore not be appropriate until the reformed two-tier planning system has had adequate time to bed-down.

- 4.4.6 Alternative 3 has nevertheless fed into recommendations made for enhancing the drafting of the SPPS (see Chapter 5 and Section 8.2 of this Final Environmental Report). Some of these recommendations have fed into the final version of the SPPS to be adopted in 2015, with others potentially being addressed in future⁷.

⁷ DOE will undertake a fundamental review of the SPPS within 5 years of its publication in final form.

5 How the SEA Process has Influenced the SPPS

5.1 Iterative Process

- 5.1.1 The SEA is an iterative process and has fed into the drafting of the SPPS on an ongoing basis. The draft SPPS thus reflected comments received at the preliminary stakeholder seminars and during the scoping consultation with the statutory authorities; particularly with regards to emphasising the need for a more balanced approach between economic, environmental and social considerations (FSD-1), whilst the marine environment is also now referred to (SPP-4). Other noteworthy modifications to the draft SPPS as a result of the early stages of the SEA process were the introduction of text requiring the planning system to contribute to “the conservation of soil and bog lands; managing development to safeguard against water pollution and to secure improvements in water quality” (FSD-1) as well as adding in reference to the Wildlife and Natural Environment Act (Northern Ireland) 2011 which places a statutory duty on every public body to further the conservation of biodiversity (SPP-9).
- 5.1.2 Furthermore, as stated in Section 4.4, whilst the Department has chosen Alternative 2 which largely consolidates existing policy, Alternative 3 has nevertheless informed the development of the dSPPS, helping to shape its final form.

5.2 Consultation on the Environmental Report

- 5.2.1 On 4 February 2014, DOE issued for public consultation the draft SPPS, alongside the consultation Environmental Report and the NTS. These reports were also issued to the NIEA, the statutory Consultation Body in NI, along with the relevant Consultation Bodies in the RoI. The 12 week public consultation exercise closed on 29 April 2014.
- 5.2.2 The purpose of this stage is to give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report, and to use it as a reference point in commenting on the SPPS. In line with the SEA Directive and Regulations, DOE must take account of the Environmental Report and of any opinions which are expressed upon it as it prepares the SPPS for adoption. Therefore, comments received from the Consultation Bodies, members of the public and other stakeholders during the consultation process must be considered and, if appropriate, addressed in the final SPPS document.

Statutory and Public Consultation Responses

- 5.2.3 During the consultation period DOE held and contributed to a wide range of meetings and consultation events in order to both explain the content of the draft SPPS to interest groups, and to inform stakeholders considering responding formally to the public consultation. One series of events, which ran from 31 March to 4 April 2014, involved roundtable discussions with a broad range of interests. The Royal Town Planning Institute (RTPI) facilitated these roundtable discussions, whilst ADAS

presented the findings of the Environmental Report and held question and answer sessions on the environmental and sustainability aspects of the SPPS. Following these events, the RTPi prepared a report on the key themes that emerged.

5.2.4 DOE received a total of 725 responses to the draft SPPS: 67 respondents submitted their comments electronically using the online consultation portal; 97 responses were submitted off-line (i.e. by email, post or hand delivered); and a further 561 petition style responses were received. Following this, in October 2014, DOE produced a Synopsis of Consultation Responses document, which builds upon the abovementioned RTPi report. This Synopsis was produced to provide Committee members with an indication of the level and diversity of representations made and the key issues emerging, as well as the Department's response.

5.2.5 Many of the responses received by DOE contained elements relating to the environment or general sustainability. Examples of those which have influenced the final content of the SPPS are summarised below.

- The Purpose of Planning in the final SPPS should place additional emphasis on the importance of place making and good design.
- The importance of ecosystem services and the value of a healthy environment in contributing to economic and social sustainability should be placed at the forefront of natural environment policy as central guiding principles.
- The SPPS should take a neutral position in relation to a presumption of development.
- The policy consolidation process diminished existing archaeological / built heritage policies and the draft SPPS is therefore less likely to secure their intent.
- The SPPS should include additional reference to the broader economic and community benefits that can flow from investment in and conservation of archaeological and built heritage assets.
- Certain policies should be strengthened by replacing references to 'should', with 'must' or 'will', thus affording councils less flexibility in the application of the policies.
- The SPPS should require an Open Space Strategy (OSS) as part of LPD process.
- The Precautionary Principle is only referred to in relation to waste proposals; this should be applied more consistently throughout the document or omitted herein, as these types of development appear to have been given a very negative emphasis compared to other developments.
- The SPPS should refer to the concept of 'Outstanding Universal Value' as the justification for the WHS designation by UNESCO which should be taken into account in the assessment of planning applications.

- The terms “environmental assessment”, “Environmental Impact Assessment / EIA”, “Strategic Environmental Assessment / SEA” rarely appear in the SPPS, and/or are referred to in a very restricted sense, whilst there is a lack of reference to the appropriate European Union directives.

5.2.6 In terms of consultation responses relating specifically to the Environmental Report, the NIEA responded on 29 April, the EPA on 23 April, and the Northern Ireland Federation of Housing Associations (NIFHA) on 29 April 2014. Consultation responses on the Environmental Report are reproduced in Appendix H, along with a comment on how they have been accounted for in the preparation of this Final Environmental Report. Other comments taken from the RTPI and DOE reports that relate to the SEA have also been included in Appendix H.

5.3 Key Changes to the SPPS following the Public Consultation

5.3.1 A number of key changes have been made to the SPPS as a result of the statutory and public consultation process, including some restructuring. The objectives, principles and policies of the SPPS to be taken forward to adoption are listed in section 1.3. Those changes of particular relevance to the SEA are described below.

5.4 Objectives

5.4.1 The ‘Purpose of Planning’ section now states that the planning system is required “to continue to provide protection to the things we cherish most about our built and natural environment, including our heritage assets while unlocking development potential, supporting job creation and aiding economic recovery for the benefit of all our people”, thus adding a stronger environmental element to the start of the SPPS.

5.4.2 ‘Furthering Sustainable Development’ was previously the first of eight core planning policies (CPPs), but has now set out as a separate section within the SPPS, with the CPPs that give expression to it set out in subsequent sections. Within ‘Furthering Sustainable Development’, the text for the society and economy pillars of sustainability have been modified slightly for improved balance, whilst additional detail has been added to the environment pillar, e.g. inclusion of reference to heritage assets, landscape and seascape, energy and water usage, and flooding. Other text has been added, including the importance of integrating “transport and land use generally in order to improve connectivity and promote more sustainable patterns of transport”; the suggestion to identify previously developed (including contaminated) land to prioritise for regeneration; and the need to support “future investment programmes for key transportation, water and sewerage, telecommunications and energy infrastructure” in order to “address any existing or potential barriers to sustainable development”. Furthermore, whilst the guiding principle for planning authorities is that sustainable development should be permitted, FSD-1 now emphasises that “where there are significant risks of damage

to the environment, its protection will generally be paramount, unless there are imperative reasons of overriding public interest”.

- 5.4.3 The SPPS notes that “a central challenge in furthering sustainable development is mitigating and adapting to climate change”; for the purposes of this SEA, this has been set out as FSD-2. Reference is now made to the publication of ‘A Northern Ireland Climate Change Adaptation Programme’ in January 2014, and a definition of adaptation provided. This section also now promotes the “sustainable re-use of historic buildings”.
- 5.4.4 The SPPS now contains a section on ‘The Importance of Ecosystem Services’, which is referred to in this Environmental Report as FSD-3. This sets out what ecosystem services are, and how the effective functioning of society and the economy depends on healthy ecosystems. The section further states that “where appropriate, identifying the condition of ecosystems, the provision of services and their relationship to human well-being should be integrated into plan-making and decision-taking processes”.

5.5 Core Planning Principles

- 5.5.1 The CPPs have been changed to give expression to the concept of sustainable development. Three of the original eight CPPs remain in this guise; now entitled ‘Improving Health and Wellbeing’, ‘Creating and Enhancing Shared Space’ and ‘Supporting Good Design and Positive Place Making’.
- 5.5.2 ‘Improving Health and Wellbeing’ (CPP-1) now makes it clear that “well designed buildings, and successful places can have a positive impact on how people feel” as well as influencing “the choices we make which may contribute positively to improving our health and wellbeing (i.e. whether to walk or cycle, or whether to stay longer in a good place)”. Better connected communities and better integration between land use planning and transport has also been emphasised, along with the addition of the following text: “The need for adequate private, semi-private and public amenity space is a prime consideration in all residential development and contributes to mental and physical well-being and the strengthening of social cohesion.” Text on noise and air quality has been moved out of the CPP and into an annex to the SPPS, as a number of consultation respondents felt that the level of prescription dedicated to these matters was undue in relation to other factors, and interrupted the flow of the document.
- 5.5.3 ‘Creating and Enhancing Shared Space’ (CPP-2) now states “planning authorities should aim to address environmental issues by improving areas characterised by substandard living environments, insular layouts and poor connectivity”, and that a variety of house types, sizes and tenures in housing schemes should be offered. The principle now discusses interface barriers, stating that, “given the sensitivities and concerns of affected communities, early consultation is crucial to ensuring that all residents can become engaged in the process”.

- 5.5.4 'Supporting Good Design and Positive Place Making' (CPP-4) has been completely rewritten with substantial new detail added. It states that "good design can change lives, communities and neighbourhoods for the better" and now has a much greater environmental focus, including consideration of "how the design of a development can minimise energy, water usage and CO2 emissions", whilst "particular weight should be given to the impact of development on existing buildings, especially listed buildings, monuments in state care and scheduled monuments, and on the character of areas recognised for their landscape or townscape value". Development in the countryside is specifically referred to.
- 5.5.5 To balance out the focus on society, two new CPPs have been added; 'Supporting Sustainable Economic Growth' and 'Preserving and Improving the Built and Natural Environment'. The first of these, CPP-3, requires planning authorities to "take a positive approach to appropriate economic development proposals, and proactively support and enable growth generating activities", particularly large scale investments with job creation potential. The CPP does point out that this should not be at the expense of the built or natural environment, however, and that the environment is an asset for economic growth in its own right.
- 5.5.6 'Preserving and Improving the Built and Natural Environment' (CPP-5) points out that the environment "provides an important contribution to our sense of place, history and cultural identity... plays a critical role in supporting the local economy... (and) can also influence our health and well-being". It further states "the planning system plays a very important role in conserving, protecting and enhancing the environment whilst ensuring it remains responsive and adaptive to the everyday needs of society" whilst "safeguarding our unique landscape (including heritage assets) and biological diversity also makes an important contribution to the protection of the wider global ecosystem". An important new addition is the reference to the requirement for plans and proposals to be rigorously assessed for their environmental impacts, through SEA and Sustainability Appraisal for plans, Environmental Impact Assessment for projects, and Habitats Regulations Assessment for plans and projects affecting Natura 2000 sites.
- 5.5.7 Four of the previous CPPs have been removed from this section of the SPPS, as they were considered by a number of councils and business/industry interests to reflect operational methodology rather than underpinning principles. These include 'Spatial Planning', 'A Plan-led System', 'Stakeholder Engagement' and 'Local Democratic Accountability'.

5.6 Subject Planning Policies

- 5.6.1 The 16 subject planning policies included in the draft SPPS remain in the final SPPS, though there have been some modifications to and reorganising of the text within each. In many cases the changes made are for greater environmental benefit. The key changes are set out below, by policy (SPP).

Archaeology and Built Heritage

5.6.2 SPP-1 opens with a description of NI's archaeological and built heritage resource, and states the importance of this in terms of people's understanding about the past, improved quality of life and sense of place, and as an economic resource. The planning system is said to have "a key role in the stewardship of our archaeological and built heritage", and should aim "to manage change in positive ways so as to safeguard that which society regards as significant whilst facilitating development that will contribute to the ongoing preservation, conservation and enhancement of these assets". Other changes include:

- A new objective to link the historic environment with opportunities for investment and economic and community benefit.
- Use of the word 'must' instead of 'should' regarding not permitting development that would adversely affect a World Heritage Site (WHS), archaeology or listed building.
- Mentioning of the 'Outstanding Universal Value' of WHS.
- Regarding the alteration or demolition of a listed building, applicants must justify why this necessary.
- Where an unlisted building in a Conservation Area or Area of Townscape Character is proposed to be demolished, appropriate arrangements for redevelopment of the site must be included in the proposals.
- Text stating that Councils are encouraged to facilitate the sympathetic conversion and re-use of non-listed vernacular buildings where this will secure their upkeep and retention, has been removed.
- Enabling development may be allowed where it will not materially harm the heritage value or setting of a significant place.
- Councils should identify important listed buildings and Historic Parks, Gardens and Demesnes along with their settings and bring forward local policies or proposals for the protection of the overall character and integrity of these.

Coastal Development

5.6.3 SPP-2 now extends development within coastal settlements to include other parts of the developed coastline. Other changes include:

- The objective to facilitate coastal development now specifies that this development must be appropriate and subject to all other relevant planning policies.
- Use of the word 'will' instead of 'should' regarding not permitting development in areas of the coast known to be at risk from flooding, coastal erosion, or land instability.

- There is now a presumption in favour of development that promotes the enhancement and regeneration of urban waterfronts (both within coastal settlements and other parts of the developed coast), and LDPs should specifically identify such areas.
- Existing public accesses and coastal walkways are given protection from new development and should be promoted by LDPs, whilst new proposals for access to the coast “should not impact adversely on the nature conservation, archaeological / built heritage, geological or landscape value of the area”.
- Taking into account the comments received on the draft SPPS coastal protection schemes and their visual and physical impact are not expressly referenced in this policy, but will continue to be assessed against the policy provisions for coastal development generally.

Control of Outdoor Advertisements

5.6.4 SPP-3 now opens with a paragraph setting out the beneficial and adverse impacts of advertising and the need to balance these. Other changes include:

- Re-introducing the objective from PPS17 to “help everyone involved in the display of outdoor advertisements contribute positively to the appearance of a well-cared for and attractive environment in our cities, towns, villages and the countryside”.
- In addition, advertisements must not “detract from the unique qualities and amenity of our countryside nor diminish our archaeology and built heritage”.

Development in the Countryside

5.6.5 Significantly more detail has been added to SPP-4 regarding what is and is not acceptable development in the countryside. The diversity of local needs and sensitivities to change are more strongly recognised. For residential development, the following points are made:

- New dwellings will be permitted within an existing cluster of development provided they “will not significantly alter its existing character, or visually intrude into the open countryside”, whilst replacement dwellings must not have a visual impact significantly greater than the existing building.
- New dwellings will be permitted once every 10 years on farms that have been active for at least 6 years, provided they are visually linked or sited to cluster with established buildings. Dwellings for non-agricultural business enterprises will only be permitted if it is essential for an employee to live at their site of work.
- Planning permission will be refused for a building which creates or adds to a ribbon of development.

- Sympathetic conversion and re-use of existing locally important buildings for residential (or non-residential) use will be provided for where this would secure their upkeep and retention.
- 5.6.6 For non-residential development, farm diversification must involve the re-use or adaptation of existing buildings, whilst agriculture and forestry development must be necessary for the efficient operation of the enterprise and sited beside other similar buildings. Other changes include:
- Re-introducing from PPS21 the provision for the designation of Special Countryside Areas in LDPs and to ensure their protection from unnecessary and inappropriate development. Local policies may also be brought forward to maintain the landscape quality and character of Areas of High Scenic Value.
 - Development in the countryside should take into account Landscape Character Assessments.
 - Assertion that the guidance document 'Building on Tradition: A Sustainable Design Guide for the Northern Ireland Countryside' must be taken into account in assessing all development proposals in the countryside.
- 5.6.7 Policy in relation to Dispersed Rural Communities (DRC) has been removed altogether. In the consultation version of the SPPS the councils had flexibility to designate DRCs and to develop their own policies for them through the LDP process.

Economic Development, Industry and Commerce

- 5.6.8 When zoning land for economic development (SPP-5), LDPs are now required to consider connectivity with the (public) transport system. This is also an important consideration for planning authorities determining planning applications for sites outside this zoned area, along with synergy with existing economic development uses, and use of previously developed land or buildings. It is also now a requirement for the LDP to provide guidance in terms of key design, layout and landscaping requirements.

Flood Risk

- 5.6.9 In SPP-6, the use of sustainable drainage systems (SuDS) is now encouraged for redevelopment/regeneration schemes as well as new build. Other changes include:
- The conservation of archaeology and built heritage is now a consideration regarding the integrated management of development and flood risk.
 - Use of the word 'must' instead of 'should' regarding not permitting development within the flood plains of rivers or the sea (except in certain circumstances), and use of the word 'will' instead of 'should' regarding precluding development where the Flood Risk Assessment indicates a likelihood of fast flowing and / or deep inundation.

- Clarifying why land raising within the coastal flood plain is unlikely to cause flooding elsewhere, adding that this should normally be restricted to settlements; that proposals will need to satisfy normal planning criteria such as access, service provision and acceptable visual and amenity impacts; that such development should not generate a need for flood defences; and that it shouldn't exacerbate problems of coastal erosion in susceptible areas.
- The policy now specifies that a Drainage Assessment (DA) will be required for all development proposals that exceed any of the following thresholds: 10 or more dwelling units; a development site in excess of 1 hectare; or a change of use involving new buildings / hardsurfacing exceeding 1000m². A DA will also be required where there is historical evidence of surface water flooding; or where run-off from the development may adversely affect features of importance to nature conservation, archaeology or the built heritage.
- Using permeable materials for hard landscaped surfaces is suggested in order to reduce soil sealing.
- The joined up approach to flood risk management should be extended to working with neighbouring councils in circumstances where flooding and flood risk crosses administrative boundaries.
- Where flooding is identified as a potential development constraint, pre-application advice will help developers to identify information that will be required in order to demonstrate the potential for mitigating the flood risks.

Housing in Settlements

5.6.10 An introductory paragraph has been added to SPP-7, stating the importance of good quality housing to people's lives and for creating a safe, healthy and prosperous society. A regional target of 60% of new housing to be located in appropriate 'brownfield' sites is also specified. Other changes include:

- The addition of text stating the policy approach for the supply of quality housing to meet the needs of everyone, create more balanced communities, and to maximise the use of existing infrastructure and services.
- The policy states that use of greenfield land for housing should be reduced in favour of the recycling of land and buildings; mixed use development should be encouraged; and particularly major housing development should have a high degree of integration with local facilities, jobs, services and public transport.
- Councils are required to bring forward policy or guidance for achieving quality in residential development.
- The 4 step sequential approach for identification of suitable sites is now only applicable for settlements of over 5,000 population.

- ‘Undertaking regular monitoring’ is now more specific; the revised policy states that annual reporting and review (on the housing land supply and net additional housing units built) is required in order to ensure that, as a minimum, a 5 year supply of land for housing is maintained.
- A section has been added on Traveller Accommodation, ensuring new facilities include adequate landscaping, are compatible with existing buildings, and pay regard to environmental amenity.

Minerals

5.6.11 The first objective of SPP-8 previously had an economic focus, but now emphasises a balance with the need to safeguard the environment, whilst the second objective now mentions the need to minimise impacts on landscape quality. Other changes include:

- New text to ensure the appropriate restoration or re-use of sites after working has ceased occurs at the earliest opportunity. Planning applications will need to provide adequate details for satisfactory restoration of sites, and will be underpinned by appropriate planning conditions.
- The approach to peat extraction from bog lands must balance the need for the resource against the need to protect and conserve the environment.
- Extraction within an expansive designated area (e.g. an AONB) may be permitted so long as it avoids key sites and would not unduly compromise the integrity of the area as a whole or threaten to undermine the rationale for the designation.
- LDPs may identify areas suitable for minerals development, expected to be sites with good accessibility to the strategic transport network and where exploitation would have the least environmental and amenity impacts.
- Permission for the extraction of peat for sale will only be granted where the proposals are consistent with the protection of boglands valuable to nature conservation interests, and with the protection of landscape quality particularly in AONBs.
- Councils may now make an exception to areas protected from minerals development in the LDP where the proposed operations are limited to short term extraction and the environmental / amenity impacts are not significant.

Natural Heritage

5.6.12 Much detail has been added to the introductory section of SPP-9, mainly to highlight the diversity of NI’s natural heritage and its importance to sense of place; national and community identity; opportunities for enjoyment, recreation and sustainable economic activity; and the health and wellbeing of society. It emphasises that

effective care and enhancement of the environment provides very real benefits, and that it is the responsibility of all to deliver this. Other changes include:

- Planning authorities ‘should’ rather than ‘will’ apply the precautionary principle, and text referring to the need to protect the environment where there are significant risks of damage unless there are imperative reasons of overriding public interest has been removed.
- Text emphasising the legal duty to take reasonable steps to further the conservation and enhancement of the features of ASSIs.
- Use of the word ‘must’ instead of ‘should’ regarding developments being sensitive to the character of AONBs, whilst account ‘will’ (rather than ‘should’) be taken of Landscape Character Assessments.
- Reference is made to the recognition that natural heritage both within and outside designated areas delivers ecosystem services.
- Mitigation and/or compensatory measures ‘will’ rather than ‘shall’ be required for development proposals which are likely to result in unacceptable adverse effects on natural heritage.
- Appropriate weight must be given to designated sites of international, national and local importance; protected species; priority habitats and species; and, crucially, to other biodiversity and geological interests within the wider environment.
- Councils should consider the implications of development on landscape character (as well as natural heritage features).
- Requiring LDPs to consider incorporating biodiversity features and green space into plans for regeneration to help deliver economic and social growth by creating places where people want to live, work, invest in and visit.

Open Space, Sport and Outdoor Recreation

5.6.13 The opening paragraph of SPP-10 now mentions the importance of open space, sport and outdoor recreation to health, and that people should have easy access to contact with nature. Other changes include:

- The objectives now specify that recreational activities in the countryside should not negatively impact on the amenity of existing residents.
- Councils will be required to bring forward an Open Space Strategy as part of their plan making.
- Text from PPS 8 has been brought forward to reiterate that the presumption against the loss of open space is irrespective of its physical condition and appearance. New text states that exceptions to this will only be appropriate where it is “demonstrated that redevelopment would bring substantial

community benefit that outweighs the loss of the open space; or where it is demonstrated that the loss of open space will have no significant detrimental impact”.

- Zonings for future needs must now take account of: the contribution open space can make to sense of place; the importance of linear open spaces for providing wildlife corridors/ecological networks; promoting and protecting public access to the coast; providing adequate green and blue infrastructure; and designating open space that performs a strategic function such as landscape wedges in urban areas.
- Zoned residential land should include formal and informal recreation areas.

Renewable Energy

5.6.14 A new introductory paragraph has been added to SPP-11 to highlight the significant renewable energy resources and industry that NI has, and that this is a significant provider of jobs and investment, as well as benefitting health, wellbeing and quality of life. Other changes include:

- The SPPS’s aims in relation to renewable energy are to realise the specified benefits without compromising other environmental assets of acknowledged importance.
- The importance of terrestrial and marine environments working together is stated.
- Appropriate weight will be given to the wider environmental, economic and social benefits of renewable energy projects, and will depend specifically on the proposal’s contribution to environmental benefits arising from a clean, secure energy supply; reductions in greenhouse gases and other polluting emissions; and contribution towards meeting NI’s renewable energy target.
- The importance of active peatland for its biodiversity, water and carbon storage qualities is stressed as a reason for not permitting renewable energy development on such sites.
- When assessing proposed developments, Councils should consider access arrangements, road safety, good design, noise and shadow flicker, separation distance, cumulative impact, communications interference, and the inter-relationship between these considerations.

Telecommunications and Other Utilities

5.6.15 The importance of telecommunications and other strategic infrastructure to NI’s social and economic wellbeing is now emphasised in the introductory section of SPP-12. Other changes include:

- Operators will be encouraged to site share wherever possible to reduce the number of new masts.
- Operators must show that development will meet the ICNIRP guidelines for public exposure to electromagnetic fields.

Tourism

5.6.16 An introductory paragraph has been added to SPP-13 to highlight the vital contribution tourism makes to NI's economy, providing jobs and infrastructure, and helping to support the viability of local services and communities, and the vibrancy of NI's culture and heritage. Other changes include:

- Use of the word 'will' instead of 'should' regarding a general presumption in favour of tourism development within settlements; and 'must' instead of 'should' regarding the need to carefully manage tourism development in the countryside.
- Tourism development in the countryside must be appropriate. Where there is no suitable site within a settlement, tourist accommodation may be appropriate on the periphery of a settlement or where tourist amenities and accommodation have become established or likely to be provided as a result of tourism initiatives.
- The safeguarding or enhancement of an existing or planned public access to the coastline or other tourism asset will be a particular consideration when assessing proposals for tourism development.

Town Centres and Retailing

5.6.17 An introductory paragraph highlights that town centres (SPP-14) provide employment, leisure and cultural uses, as well as bringing people together and fostering a sense of community and place. The importance of accessibility, more local choice, attractiveness of town centres and helping to reduce travel demand are also now stated. Other changes include:

- District and local centres must have a complementary role and function to town centres and should not be extended where this would cause adverse impacts on the town centres in the catchment.
- Retailing will be directed to town centres, and the development of inappropriate retail facilities in the countryside must be resisted, except for farm shops, craft shops and shops serving tourist or recreational facilities, which should be located within existing buildings.
- Assessments of retail impact and need are now required for retail or town centre type developments above 1,000 m² gross external area (rather than 2,500 m²), whilst councils will have flexibility to set an appropriate threshold

for their area which can be up to but must not exceed 2,500 m² gross external area.

Transportation

5.6.18 Text in the introductory section of (SPP-15) encourages a modal shift from use of the private car to use of public transport, walking and cycling, by means of provision of improved infrastructure and sustainable patterns of development. The benefits of improving air quality and the health of society, and meeting the Executive's target of reducing greenhouse gas emissions are also emphasised. Other changes include:

- Councils should seek early engagement with DRD, or the relevant transport authority, and take account of their 'The New Approach to Regional Transportation' document and any subsequent transport plans.
- LDPs should identify active travel networks, provide a range of infrastructure improvements to increase use of more sustainable modes, and provide additional priority to pedestrians, cyclists and then public transport and appropriate parking provision to reduce the number of cars in urban centres.
- LDPs should consider and identify park and ride / park and share sites where appropriate, and consider a range of initiatives such as designating areas of parking restraint.
- The process of Transport Assessment (TA) should be employed to review the potential transport impacts of a development proposal.

Waste Management

5.6.19 An introductory paragraph has been added to SPP-16 to emphasise the importance of sustainable waste management to the health and wellbeing of society, and to the provision of jobs and investment across NI. Other changes include:

- Reference to the updated recycling target of 50% of household waste by 2020.
- The application of the 'Proximity Principle' is highlighted, emphasising the need to treat and/or dispose of wastes in reasonable proximity to their point of generation in order to minimise the environmental impact and cost of waste transport.
- Sites and proposals for waste collection and treatment facilities must meet one or more of various locational criteria, including being located in an industrial or port area with character appropriate to the development; bringing previously developed, derelict or contaminated land back into productive use or uses existing buildings; and, in the case of civic amenity sites, the site is conveniently located in terms of access to service a neighbourhood or settlement avoiding unacceptable adverse impact on the character, environmental quality and amenities of the local area.

- Regional scale waste collection or treatment facilities must be located close to and benefit from easy access to key transport corridors, particularly rail and water.
- A joined up approach with neighbouring councils should be taken where appropriate.
- Important considerations during decision-taking will now additionally include: whether alternative transport modes, in particular, rail and water, have been considered; visual impacts on the landscape or townscape; impacts on nature conservation or archaeological / built heritage interests; whether it will cause or exacerbate flooding elsewhere; and the permanent loss of the best and most versatile agricultural land.

5.7 How do Business As Usual, the Chosen Strategic Alternative and the Final SPPS differ?

5.7.1 Appendix I summarises the main differences between the policies set out in the current PPSs, those set out in the dSPPS which was published for public consultation in February 2014, and those selected for the final SPPS to be adopted in 2015.

6 Assessment of Impacts of SPPS Principles and Policies

6.1 High Level Assessment

- 6.1.1 A high level matrix assessment has been carried out on the revised SPPS; this can be seen in Table 6.1 below. Some uncertainty still remains over whether impacts of certain policies would be beneficial or adverse for ecology and cultural heritage, however, as can be seen by comparing this matrix with the one carried out on the consultation draft SPPS (Alternative 2 in Appendix G) there are noticeable improvements in terms of the likely impact of the finalised SPPS on ecology and cultural heritage, as well as for ecosystem services, soil, water, landscape and climate. Most of the proposed principles and policies are predicted to have beneficial effects on the environment, and in some cases these may be strongly beneficial, e.g. regarding socio-economics, health, climate and landscape.
- 6.1.2 Following the matrix, the likely beneficial and potentially adverse effects are described in some detail by sustainability topic. This is followed by a discussion on uncertainties, and an assessment of likely cumulative and in-combination effects. A more detailed assessment has been carried out on the policy for Town Centres and Retailing in Chapter 7 due to this being new rather than consolidated policy. The objective of furthering sustainable development (FSDs), core planning principles (CPPs) and subject planning policies (SPPs) for which potential adverse effects have been identified are then explored further through mitigation and enhancement opportunities in Chapter 8.

Table 6.1: High Level Matrix Assessment (Finalised SPPS)

SPPS High Level Matrix		SEA OBJECTIVES										
		1	2	3	4	5	6	7	8	9	10	11
Furthering Sustainable Development, Core Planning Principles and Subject Planning Policies		Ecology	Socio-Economics	Health	Soil	Water	Air	Climate	Material Assets	Cultural Heritage	Landscape	GI & ES
Furthering Sustainable Development												
FSD-1	Furthering Sustainable Development	+	++	++	+	++	+	++	+	++	++	+
FSD-2	Mitigating and Adapting to Climate Change	+	+	+	+	+	+	++	+	+	0	+
FSD-3	The Importance of Ecosystems Services	++	++	++	+	+	+	++	+	+	+	++
Core Planning Principles												
CPP-1	Improving Health and Well-Being	+	+	++	+	+	++	+	+	+	++	++
CPP-2	Creating and Enhancing Shared Space	0	++	+	0	0	0	0	0	+	+	+
CPP-3	Supporting Sustainable Economic Growth	+	++	+	0	+	0	0	0	+	+	0
CPP-4	Supporting Good Design and Positive Place Making	+	++	+	+	+	+	+	+	++	++	+
CPP-5	Preserving and Improving the Built and Natural Environment	++	+	+	0	0	0	0	0	++	++	+
Planning Policies												
SPP-1	Archaeology and Built Heritage	0	+	0	0	0	0	0	+	++	++	+
SPP-2	Coastal Development	+	+	+	++	+	0	+	+	+	++	++
SPP-3	Control of Outdoor Advertisements	0	+	0	0	0	0	0	0	+	+	0
SPP-4	Development in the Countryside	+/-	+	+	+	+	+	0	+	+	+	0
SPP-5	Economic Development	+/-	++	+	+	+/-	+	+	+	+/-	+	0
SPP-6	Flood Risk	+	+	+	+	+	0	++	+	+	+	+

SPPS High Level Matrix		SEA OBJECTIVES										
		1	2	3	4	5	6	7	8	9	10	11
Furthering Sustainable Development, Core Planning Principles and Subject Planning Policies		Ecology	Socio-Economics	Health	Soil	Water	Air	Climate	Material Assets	Cultural Heritage	Landscape	GI & ES
SPP-7	Housing in Settlements	+/-	++	+	+	+	+	+	+	+	+	+
SPP-8	Minerals	+	+	+	+	+	0	+	++	+	+	+
SPP-9	Natural Heritage	++	++	++	+	+	0	+	0	+	+	++
SPP-10	Open Space, Sport and Outdoor Recreation	+	0	++	+	+	+	+	0	+	++	++
SPP-11	Renewable Energy	+	++	+	+	+	+	++	+	0	0	+
SPP-12	Telecommunications and Other Utilities	+/-	+	+	0	0	0	0	+	+/-	+	0
SPP-13	Tourism	+/-	++	0	0	0	0	0	+	+	0	+
SPP-14	Town Centres and Retailing	+/-	++	+	0	0	0	+	+	+/-	0	0
SPP-15	Transportation	+/-	+	++	0	0	+	++	+	0	0	+
SPP-16	Waste Management	0	+	+	+	0	+	+	++	+	+	0

6.2 Ecology and Nature Conservation

- 6.2.1 The proposed planning policy on Natural Heritage (SPP-9) is likely to have a strong positive effect on this sustainability topic due to requirements for conservation, enhancement and restoration of NI's natural heritage, ensuring that developments take account of the role and value of biodiversity in supporting economic diversification. Other policies are also likely to have beneficial effects, for example through managing green infrastructure to improve habitats for wildlife (CPP-1), safeguarding against loss of distinctive coastal habitats (SPP-2), and ensuring new open space and sporting facilities help to sustain and enhance biodiversity (SPP-10). For renewable energy developments that would result in unavoidable damage to the natural environment, SPP-11 states that planning authorities will require details of compensatory measures such as a habitat management plan or the creation of a new habitat.
- 6.2.2 Changes to the SPPS since the statutory and public consultation period have resulted in significant improvements as a result of the new objective of FSD-3 'The Importance of Ecosystem Services' and the new core planning principle 'Preserving and Improving the Built and Natural Environment'. The former, FSD-3, recommends that, given the dependence of society and the economy on healthy ecosystems, identifying the condition of ecosystems should be integrated into plan-making and decision-taking processes. The latter, CPP-5, states the Executive's commitment to preserve and improve the natural environment and halt the loss of biodiversity, and that Habitats Regulations Assessment will be required for plans and projects affecting Natura 2000 sites. Beneficial impacts will also arise through SPP-8 restricting peat extraction for boglands valuable to nature conservation interests; SPP-9 stressing the importance of natural heritage outside of protected sites and requiring LDPs to consider incorporating biodiversity features in regeneration plans; and SPP-10 stressing the importance of linear open spaces for providing wildlife corridors/ecological networks.
- 6.2.3 However, adoption of the SPPS may also result in adverse effects on ecology and nature conservation if not implemented in its entirety. Planning policies on development in the countryside (SPP-4), economic development (SPP-5), housing (SPP-7), telecoms/utilities (SPP-12), tourism (SPP-13), town centres (SPP-14) and transport (SPP-15) do not make any reference to the need to protect, maintain or enhance biodiversity, which could potentially lead to adverse effects on biodiversity including localised habitat destruction/removal, disturbance/killing of individual fauna/flora, spread of invasive species, pollution through emissions of particulate matter and nitrogen oxides, trampling, litter and fires.
- 6.2.4 'Open mosaic habitats on previously developed land', commonly be thought of as 'wasteland' or 'brownfield' sites where urban development has been prevalent, became a UK BAP priority habitat in 2010. As suggested by The Wildlife Trusts, the term wasteland has negative connotations, implying land of no environmental, social

or economic value, however, as the designation would suggest these can be areas of great ecological importance and provide a wildlife corridor through the urban landscape. This urban habitat comprises mosaics of bare ground with pioneer plants, more established flower-rich grasslands, scrub, and patches of other habitats such as heathland, swamp, temporary pools and wet grasslands; they can be rich in invertebrates, reptiles and birds, have unusual assemblages of plants, and support some uncommon and rare species. These habitats are at risk of destruction and serious degradation from urban development, landfill, unsuitable reclamation and lack of appropriate management, whilst landscaping to tidy the habitat up visually can result in damage to its ecological interest. Thus policies SPP-5, SPP-7 and SPP-14 amongst others could potentially cause a detrimental effect to the ecological value of NI's urban wasteland.

- 6.2.5 However, the need to protect, maintain or enhance biodiversity is covered elsewhere in the SPPS, with FSD-1, FSD-3, CPP-5 and SPP-9 applying to all development planning (the latter states that the Wildlife and Natural Environment Act (Northern Ireland) 2011 places a statutory duty on every public body to further the conservation of biodiversity); consideration of all relevant policies in the round is thus essential.

6.3 Socio-Economics

- 6.3.1 The SPPS is expected to have significant socio-economic benefits, particularly as a result of core planning principles on sustainable development, shared spaces, place making and high quality outcomes. FSD-1 seeks to support economic recovery and tackle disadvantage through promoting investment in the physical regeneration of deprived and derelict areas, as well as large scale proposals with job creation potential. CPP-2 seeks to address social barriers between people from different backgrounds; and CPP-4 will improve the health, vitality and economic potential of places.
- 6.3.2 Economic development through SPP-5 will have significant socio-economic benefits such as improved employment and income in both rural and urban areas, along with improved integration between transport, employment, housing and public services. Other policies with beneficial effects are those that seek to improve accessibility to services and facilities, protect people, business and infrastructure from flooding, expand telecommunications and utilities, boost tourism, and regenerate deprived areas.
- 6.3.3 New benefits are expected to arise as a result of changes made since consultation on the draft SPPS. The new core planning principle 'Supporting Sustainable Economic Growth' (CPP-3) requires planning authorities to proactively support and enable growth generating activities, particularly large scale investments with job creation potential. The economy is also likely to benefit from the SPPS' new focus on emphasising the contribution of NI's natural and built heritage resource, good quality housing, renewable energy, telecommunications and other strategic

infrastructure, tourism, town centres and waste management to economic growth, employment and a prosperous society. However, the removal of the provision for the designation of Dispersed Rural Communities (DRC) in SPP-4 may reduce the overall positive socio-economic effect of this particular policy.

6.4 Health and Quality of Life

- 6.4.1 Significant benefits will be achieved by the SPPS's focus on improving the lives of people and communities in NI, particularly through CPP-1. This principle aims to improve health and wellbeing through addressing noise and air pollution, enhancing green infrastructure and promoting its use for outdoor recreation, and providing safe, high quality places. Ensuring the long-term sustainability of development (FSD-1) should result in improved quality of life for present and future generations, particularly through improving community resilience to extreme weather events. In addition, significant benefits will arise from the continued policy promoting open space, sport and recreation (SPP-10) and to a lesser extent from improving the quality of residential environments (SPP-7).
- 6.4.2 Quality of life should also continue to improve through planning policies related to improvements in provision and access to sustainable transport; enhancing access to the countryside; protecting, restoring and enhancing landscapes and the natural and built environment; and minimising flood risk. For developments that may adversely impact on health and well-being, for example mineral extraction and waste management, relevant policies require the minimisation of impacts on local communities and restoration of sites post-use.
- 6.4.3 Changes made to the SPPS since the consultation period include greater reference to the benefits of a good quality environment to human health and wellbeing. For example, the opening section of SPP-9 states that the conservation, enhancement and restoration of NI's natural heritage is "fundamental to the overall health and well-being of our society", whilst later the policy states "by planning for nature and green space in our neighbourhoods we can improve our health and quality of life". The latter refers to regeneration plans, whilst similarly, CPP-1 states that the mental and physical well-being benefits of amenity space should be a prime consideration in all residential development. FSD-3 requires councils to consider the relationship between ES and human health in plan-making and decision-taking, whilst SPP-15 puts greater emphasis on encouraging a modal shift from car use to walking and cycling, which will benefit people's health directly through boosting their levels of physical exercise, and indirectly through improving air quality. Finally, SPP-2, SPP-10 and SPP-13 seek to promote and protect public access to the coast through provision of pathways and picnic areas, helping people to connect with the natural environment.

6.5 Soil and Land Use

- 6.5.1 Generally positive effects are expected to occur, particularly from planning policies seeking to prevent development in areas at risk from coastal erosion or land instability (SPP-2); cluster new development in the countryside with existing established buildings (as opposed to the prevalent single rural dwellings) (SPP-4); and re-use existing (derelict) buildings, brownfield land⁸ and disused transport routes (PPs 1, 4, 5, 15 and 16). In addition, FSD-1 seeks to ensure the planning system contributes to the conservation of soil and bog lands, SPP-8 seeks to protect good quality agricultural land from mineral extraction, whilst SPP-7 promotes the use of sustainable drainage in new development, thus minimising impacts on permeability.
- 6.5.2 Additional benefits are likely as a result of new wording introduced to several policies since the consultation period. FSD-1, SPP-4, SPP-5 and SPP-7 put greater emphasis on development making use of existing buildings and previously developed (including contaminated) land. SPP-6 specifically recommends using permeable materials for hard landscaped surfaces to reduce soil sealing, and also states that land raising within the coastal flood plain should not exacerbate problems of coastal erosion in susceptible areas. SPP-8 restricts the extraction of peat in areas of importance to nature conservation or landscape quality; and SPP-16 will restrict the development of waste management facilities on the best and most versatile agricultural land.
- 6.5.3 As noted in the consultation draft ER, mixed effects may occur as a result of SPP-14 and SPP-7 promoting development in town centres and existing settlements, however, as though this will minimise loss of greenfield / agricultural land, for densely built up areas, the best use of land may be the creation of greenspace in order to facilitate adaptation to climate change or improve health / wellbeing or biodiversity. This is particularly the case where settlements are located on permeable soils such as sandstone, limestone, shale or chalk as these facilitate drainage much more efficiently than clay soils. It is possible that some minor adverse effects could occur from SPP-13 as, though tourism development is proposed to be sustainable and environmentally sensitive, indirect effects may occur from the tourists themselves, potentially causing soil erosion, trampling of vegetation, disturbance of wildlife, vandalism of cultural heritage assets, littering and so on.

6.6 Water

- 6.6.1 FSD-1 states that the planning system should manage development to safeguard against water pollution and to secure improvements in water quality. Planning policies with beneficial impacts for the water environment include: the protection of

⁸ This assessment assumes that the definition of brownfield land is previously developed land (as implied by the RDS 2035 glossary) and thus excludes open space of public value and the gardens of dwellings and apartments.

wetlands (SPP-9); the retention and restoration of natural flood plains and natural watercourses (SPP-6); encouraging the use of sustainable drainage systems (SPP-6 and SPP-7) by developers; preventing the artificial modification of watercourses where this would impact on flood risk (SPP-6); preventing the pollution of rivers, watercourses and ground water regarding mineral extraction (SPP-8) and waste management (SPP-16); protection of urban greenspace (SPP-10); and only permitting renewable energy development where it will not result in an unacceptable adverse impact on local natural resources such as water quality (SPP-11). In addition, CPP-1 requires management of green infrastructure as a multifunctional resource, including as flood water storage.

- 6.6.2 The post-consultation revision of the SPPS has resulted in text to protect the coast (including marine areas) from the actual or potential effects of pollution (SPP-2) being removed, whilst coastal protection schemes and their physical impact are also no longer referred to as these are assessed in accordance with policy provisions relating to coastal development more generally. Despite this, there are also improvements in the revised SPPS, for example FSD-1 now seeks to ensure the planning system contributes to a reduction in water usage, whilst it also mentions the need for future investment in water and sewerage infrastructure. SPP-6 suggests that councils and developers should consider how the design of a development can minimise water usage. SPP-11 has been strengthened in that it highlights the water storage capacities of peatland (using this as one of the reasons for not permitting renewable energy development on peatland) and stresses the importance of the terrestrial and marine environments working together.
- 6.6.3 The water environment should be protected to some extent through compliance with pollution, environmental liability and Nitrates Action Programme regulations, construction best practice, consideration of the SPPS as a whole during the decision-making process, and conditions attached to planning permission. However, certain, planning policies such as economic development (SPP-5), housing (SPP-7) and town centres (SPP-14) do not specifically refer to the need to prevent impacts on water quality or quantity. Given the problems of poor ecological quality of river waterbodies across NI and associated Water Framework Directive targets, historical problems of eutrophication arising due to run-off from agricultural land, and increasing problems of heavy and prolonged periods of rain, it should be ensured that the water environment is considered further through consideration of the SPPS as a whole during implementation.

6.7 Air Quality

- 6.7.1 The majority of policies are not expected to impact on air quality, though positive effects will occur from the strong emphasis (through SPP-5, SPP-10 and SPP-15) on prioritising and facilitating public transport and walking and cycling over use of the car and reducing the need to travel entirely through sustainable design of new (mixed-use) development. In addition CPP-1 has a strong focus on reversing adverse

health and wellbeing effects that arise through air pollution and will thus have a significant positive effect on this sustainability topic. To achieve this, developers are expected to consider the cumulative effect of developments on air quality, particularly within AQMAs, and consult with both the local planning authority and those with responsibility for air quality. By requiring new development in the countryside to take place with existing development, SPP-4 will avoid exacerbating the problem of rural isolation causing high car use.

- 6.7.2 Waste management has the potential to result in pollution of air, however an aim of SPP-16 is to ensure that “detrimental effects on people, the environment, and local amenity associated with waste management facilities (e.g. pollution) are avoided or minimised”. As with water quality, renewable energy development (SPP-11) will only be permitted where it will not result in an unacceptable adverse impact on local natural resources such as air quality, however some adverse effects may still occur.
- 6.7.3 The revised SPPS moves the section on air quality (previously within the CPP ‘Improving Health and Well-Being’) to an annex, however the content is largely the same. There is more emphasis than before in the core planning principles and furthering sustainable development chapter to better integrate transport and land use planning in order to achieve a modal shift away from car use. SPP-15 reiterates that this modal shift “can contribute to improvements in air quality arising from reduced vehicular emissions”. Similarly, SPP-16 now states that waste treatment facilities should be located in close proximity to the areas they service (avoiding unacceptable adverse impacts on environmental quality), whilst for regional sites there should be easy access to key transport corridors, particularly rail and water where feasible.

6.8 Climate Change

- 6.8.1 Overall, the SPPS is expected to have a significant positive effect on climate change. FSD-2 deals specifically with mitigating and adapting to climate change, including a requirement for the planning system to: build resilience to extreme heat and floods; promote sustainable patterns of development that reduce the need to travel by motorised transport; minimise resource and energy requirements of development; avoid areas with particular vulnerability to storms, flooding, landslip and coastal erosion; utilise low carbon sources of heat and power; and improve energy efficiency. SPP-6 should protect people, infrastructure, habitats etc. from the impact of flooding by seeking to: prevent future development that may be at risk from flooding or that may increase the risk of flooding elsewhere; retain and restore natural flood plains and natural watercourses; encourage the use of sustainable stormwater management for the drainage of new development; and promote public awareness of flood risk.
- 6.8.2 Other significant benefits will come from a reduction in greenhouse gas (GHG) emissions through the facilitation of renewable energy developments and technology (including micro-generation and passive solar design) through SPP-11. In

addition, SPP-7 seeks quality residential environments through supporting movement by cyclists and providing adequate and convenient access to public transport – actions also supported through SPP-15. The SPPS will also help NI to adapt to and minimise the future impacts of climate change indirectly through protection (and in some cases enhancement or creation) of open space (SPP-10), green and blue infrastructure (CPP-1), and peatland, woodland and wetland (SPP-9).

- 6.8.3 Further improvements are likely as a result of changes made to the SPPS since the consultation period. There is additional emphasis on the importance of adaptation to climate change in FSD-2, with reference now made to ‘A Northern Ireland Climate Change Adaptation Programme’ published in January 2014. In terms of minimising flood risk, SPP-6 has been strengthened by encouraging use of SuDS in redevelopment/regeneration schemes as well as new build, and use of permeable materials for hard landscaped surfaces in order to improve drainage in urban areas. The policy further states that a Drainage Assessment (DA) will be required for all development proposals that exceed certain thresholds and/or where there is historical evidence of surface water flooding, whilst councils are encouraged to work together as part of a joined up approach to managing flood risk. SPP-11 has been strengthened in that it highlights the water and carbon storage capacities of peatland (using this as reasons for not permitting renewable energy development on peatland). In terms of mitigating climate change, peat extraction is now more restricted through SPP-8 so should reduce the release of carbon. CPP-4 now requires councils and developers to consider and address how the design of a development can minimise energy and CO² emissions. Finally, councils are specifically required through SPP-5 to consider connectivity with the public transport system when making decisions on economic development, which should help to reduce CO² emissions from cars.

6.9 Material Assets

- 6.9.1 Subject planning policies 1, 4, 5, 15 and 16 aim to make use of previously developed land, redundant buildings and disused transport corridors which will maximise use of the existing built environment and thus minimise the need for new resources. In addition, design calls for use of materials that are local and respect the characteristics of conservation areas (SPP-1) and protected landscapes (SPP-9), whilst conserving limited natural resources (FSD-1, CPP-4, SPP-10). Regarding minerals and waste, SPP-8 aims to prevent overexploitation of mineral sites, safeguard workable resources for future potential development, and restore sites to a relevant use after working has ceased; whilst SPP-16 emphasises the waste hierarchy of prevention, re-use, recycling, energy recovery and disposal, with the overall aim of reducing the amount of waste materials and moving towards resource efficiency.
- 6.9.2 NI’s natural resources, infrastructure and waste management are likely to be impacted on by climate change, for example through the disruption of services and

other activities caused by flooding. However, measures to mitigate and adapt to climate change as set out in Section 6.8 above will minimise any such impact. Furthermore, SPP-5 requires planning authorities to take into account the availability of adequate infrastructure when zoning land for economic development, particularly major mixed use sites. Such actions should normally include key site requirements to ensure that developers provide necessary infrastructure such as road access, access for pedestrians and cyclists, water supply, sewerage and land drainage.

- 6.9.3 The overall effect on material assets will thus be positive, and further improvements have been made to the SPPS since the consultation period. FSD-1, SPP-4, SPP-5 and SPP-7 now put greater emphasis on development making use of existing buildings and previously developed land. Minerals policy (SPP-8) now emphasises the need to balance economic interests with safeguarding the environment, particularly regarding peat extraction. This policy also includes new text to ensure the appropriate restoration or re-use of sites after working has ceased occurs at the earliest opportunity, to be enforced through planning conditions. Finally, SPP-16 now emphasises “the need to treat and/or dispose of wastes in reasonable proximity to their point of generation in order to minimise the environmental impact and cost of waste transport.”

6.10 Cultural Heritage

- 6.10.1 Many of the SPPS policies include wording on protecting cultural heritage assets and/or the appearance and character of the built environment from unsustainable development; for example, SPP-13 states that the safeguarding of historical and archaeological sites, certain beaches, conservation areas and Areas of Outstanding Natural Beauty from unnecessary, inappropriate or excessive development is a vital element in maintaining a healthy tourism industry. Through SPP-11, SPP-8 and SPP-7, proposals for renewable energy development, minerals extraction and new housing in settlements will only be permitted where they do not result in an unacceptable adverse impact on built heritage interests (including through increased flood risk via SPP-6). In addition, SPP-7 states that the promotion of more housing in urban areas should not be allowed to result in town cramming or damage to areas of distinctive townscape character.
- 6.10.2 The greatest benefits will come from SPP-1 which seeks to secure the protection, conservation and, where possible, the enhancement of NI’s built and archaeological heritage. The potential for loss or damage to archaeological sites and the built heritage as a result of unsympathetic development is to remain a material consideration in the determination of planning applications, whilst FSD-1 adds that planning authorities should seek to preserve and improve the built environment, including achieving good design. Whilst this protection is absent from the wording of the policies on economic development (SPP-5), town centres (SPP-14) and telecoms/utilities (SPP-12), these policies should be considered in the context of others when determining planning applications. Additionally, in most cases heritage

assets will be protected to some extent through surveys and conditions related to the planning application process, but for permitted development this may not be the case. Viewed in isolation these policies could potentially have adverse effects on archaeological remains, listed buildings, scheduled monuments and non-designated heritage assets, including on the assets themselves, their setting, and views both to and from the assets.

- 6.10.3 Overall, the impact of the draft SPPS on NI's cultural heritage resource was expected to be positive, however respondents to the public consultation on the draft SPPS were concerned that existing archaeological / built heritage policies in PP6 had been diminished through the policy consolidation process. As a result, the revised SPPS has been greatly improved to ensure that NI's cultural heritage resource will be protected, enhanced and appreciated through the planning system. For example, SPP-1 now links the historic environment with opportunities for investment and economic and community benefit; and strengthens protection of NI's World Heritage Site (WHS), archaeology, listed buildings, Conservation Areas / Areas of Townscape Character, and Historic Parks, Gardens and Demesnes (including their settings). The sympathetic conversion and re-use of non-listed vernacular buildings is no longer required, however.
- 6.10.4 It is not just SPP-1 that has been strengthened, but also the furthering sustainable development objectives, core planning principles and other subject planning policies. The environmental pillar of sustainability in FSD-1 now specifically mentions heritage assets; FSD-2 promotes the sustainable re-use of historic buildings; and CPP-4 states, in relation to design, "particular weight should be given to the impact of development on existing buildings, especially listed buildings, monuments in state care and scheduled monuments". CPP-5 has been introduced specifically to ensure that the built and natural environment is preserved and improved through planning, highlighting NI's "rich and diverse archaeological and built heritage" and the critical role this asset plays in supporting the local economy and contributing to sense of place, history and cultural identity. In addition, SPP-2 and SPP-3 require that new proposals for access to the coast and outdoor advertisements should not adversely impact on archaeological or built heritage. SPP-4 states that "sympathetic conversion and re-use of existing locally important buildings for residential (or non-residential) use will be provided for where this would secure their upkeep and retention", whilst the impact of flooding on archaeology and built heritage is now a planning consideration through SPP-6. SPP-13 mentions the contribution tourism makes to the vibrancy of NI's culture and heritage, and SPP-16 states that impacts on archaeological / built heritage interests will be an important consideration during decision-taking regarding the development of waste management facilities.

6.11 Landscape and Seascape

- 6.11.1 New development is likely to adversely affect the landscape and seascape to some extent, however, designated landscapes such as AONBs, important views and the

character of rural settlements are protected through many of the SPPS policies. These include SPP-1 which seeks to protect from undesirable development and maintain the character of features and areas within and adjoining settlements considered to be of greatest amenity value, landscape quality or local significance; SPP-2 and SPP-4 which aim to conserve the natural character and landscape of the undeveloped coast and countryside, protecting them from excessive, inappropriate or obtrusive development; and SPP-9 which requires planning authorities to promote opportunities for the enhancement or restoration of degraded landscapes.

- 6.11.2 SPP-11 has a key objective of ensuring that the environmental, landscape, visual and amenity impacts associated with or arising from renewable energy development are adequately addressed. These issues will be given fairer representation in the SPPS when considered against the 'appropriate' (rather than 'significant') weight now given to the wider environmental, economic, and societal benefits. It further states that a cautious approach is necessary in relation to designated landscapes (i.e. the WHS and AONBs) and their wider settings, as it may be difficult to accommodate wind turbines without detriment to cultural and natural heritage assets. Landscaping is generally proposed as mitigation for economic, residential, minerals and tourism development, particularly to address visual impacts. Open space is protected through SPP-10 whilst CPP-1 will have highly beneficial effects through seeking to design, manage, protect and provide strategic networks of green space.
- 6.11.3 However, the current restrictions on developing in AONBs (included within the extant PPS2, policy NH6 and now expressed strategically in the SPPS through SPP-9) are considered to be ineffective by environmental stakeholders. Local policies should therefore be brought forward under the development plan process to influence development in AONBs and provide for better design. This view was emphasised during the public consultation process, where a number of respondents voiced concerns about the impact of development in the countryside on AONBs. Despite these concerns, AONBs are still not specifically mentioned in SPP-4 – defined in SPP-9, they are mentioned in relation to minerals (SPP-8) and telecoms (SPP-12) only. SPP-9 has strengthened its stance on AONBs, stating that developments must (rather than should) be sensitive to the character of AONBs, whilst SPP-8 states that permission for the extraction of peat will only be granted where the proposals are consistent with the protection of landscape quality, particularly in AONBs. The policy further states that mineral extraction within an AONB may be permitted so long as it avoids key sites and would not unduly compromise the integrity of the area as a whole or threaten to undermine the rationale for the designation. Meanwhile, SPP-1 strengthens the protection of NI's World Heritage Site (WHS) and its setting.
- 6.11.4 Other changes to the SPPS since the consultation process include more references to the importance of NI's landscape and enhancing it where possible. For example, FSD-1 now refers specifically to 'landscape and seascape' in the environment pillar, whilst CPP-4 states that particular weight should be given to the impact of development on the character of areas recognised for their landscape or townscape value. SPP-2

seeks to promote the enhancement and regeneration of urban waterfronts, whilst new proposals for access to the coast should not impact adversely on the landscape value of the area. SPP-3 not only prohibits outdoor advertisements from detracting from the unique qualities and amenity of NI's countryside, but also requires advertisements to "contribute positively to the appearance of a well-cared for and attractive environment in our cities, towns, villages and the countryside". Substantial detail has been added to SPP-4 to ensure that the visual impact of development in the countryside and any adverse effect on landscape character and local distinctiveness is minimised, particularly by requiring the re-use of existing buildings and the taking into account of Landscape Character Assessments. The policy re-introduces provision for the designation of Special Countryside Areas in LDPs and ensure their protection from unnecessary and inappropriate development, whilst local policies may also be brought forward to maintain the landscape quality and character of Areas of High Scenic Value.

6.11.5 SPP-5 requires LDPs to provide guidance in terms of key design and landscaping requirements; SPP-6 mentions that land raising in the coastal flood plain will need to have acceptable visual impacts; mineral development/extraction must minimise impacts on landscape quality (SPP-8); SPP-9 states that account 'will' (rather than 'should') be taken of Landscape Character Assessments; and SPP-16 states that unacceptable visual impacts on the landscape or townscape should be avoided through waste management planning. Regarding public open space and green infrastructure assets, CPP-1 states that adequate private, semi-private and public amenity space is a prime consideration in all residential development, whilst SPP-10 strengthens the presumption against the loss of open space. The latter adds that the zoning of land in LDPs must provide adequate green and blue infrastructure and designate open space that performs a strategic function such as landscape wedges in urban areas.

6.12 Green Infrastructure and Ecosystem Services

6.12.1 CPP-1 seeks to design, manage, protect and provide strategic networks of green space in order to deliver a wide range of environmental and quality of life benefits for communities in both urban and rural areas, including flood water storage, urban cooling, improved air quality, habitats for wildlife, and opportunities for social interaction, recreation and community activities. It also seeks greater recognition of the contribution the countryside and coast make to health and wellbeing. Similarly, SPP-9 requires councils to promote green and blue infrastructure where this will add value to the provision, enhancement and connection of open space and habitats in and around settlements. These should have significant benefits for improving the multi-functionality and connectivity of green space across NI, as well as connecting people with nature and ensuring that NI can continue to provide important ecosystem services.

- 6.12.2 Other policies require multi-functional greenspace in and around new residential developments, for example SPP-7 suggests that regarding individual planning application, a design concept should be agreed with developers incorporating sustainable elements such as provision for cycling, adequate provision of open space and landscaping integrated with broader green and blue infrastructure systems, and use of sustainable drainage systems. SPP-10 adds that areas of open space and sporting facilities provided as an integral part of new residential development should help sustain and enhance biodiversity and be managed and maintained in perpetuity. Moreover, SPP-10 requires the planning system to facilitate appropriate outdoor recreational activities in the countryside, whilst SPP-15 suggests affording protection to disused transport corridors for recreational, nature conservation or tourism uses.
- 6.12.3 SPP-2 recognises the need for interaction between the marine and terrestrial planning systems and states that *“all public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the Marine Policy Statement (MPS) unless relevant considerations indicate otherwise”*. DOE is currently engaged in the preparation of a marine plan for NI’s inshore and offshore areas which will provide additional spatial guidance and detailed policy for the terrestrial / marine interface and the marine environment. SPP-2 further states that *“Planning authorities should work closely with the Department and neighbouring councils / authorities to ensure that LDPs and marine plans are complementary, particularly with regard to the inter-tidal area”*. Positive effects for the marine environment are therefore expected, particularly relating to biodiversity, water, climate and landscape/seascape.
- 6.12.4 As with the other sustainability topics, revisions to the SPPS have also resulted in an improved assessment outcome for green infrastructure and ecosystem services. This is largely down to the introduction of text on ‘The Importance of Ecosystem Services’ (assessed in this report as FSD-3), which requires councils to identify the condition of ecosystems, the provision of services and their relationship to human well-being, and to integrate these into plan-making and decision-taking processes. In addition, SPP-9 now recognises that natural heritage both within and outside designated areas delivers ES. This is a substantial and crucial improvement, both to the SPPS and to the history of planning in NI. There is also much greater emphasis on cultural ES in the revised SPPS, albeit indirectly, through repeated references to the health, wellbeing and social benefits that people’s engagement with a high quality environment can bring (e.g. CPP-1, CPP-4, CPP-5, SPP-4, SPP-7, SPP-9, SPP-10, SPP-13). Whilst SPP-8 recognises the provision of a marketable resource from peatland, SPP-11 stresses the importance of other ES provided by peatland, including habitat provision, and water and carbon storage.
- 6.12.5 The multifunctionality of the semi-natural environment and other green spaces is also mentioned elsewhere in the revised SPPS, for example CPP-4 states that the environment is an asset for economic growth in its own right; and CPP-5 mentions

that landscape design and planting considerations can contribute to biodiversity. SPP-10 requires councils to designate open space that performs a strategic function such as landscape wedges in urban areas, adding that zoned residential land should include formal and informal recreation areas. This policy also seeks to improve connectivity by requiring the zoning of land in LDPs to take account of the importance of linear open spaces for providing wildlife corridors/ecological networks, as well as providing adequate green and blue infrastructure. The SPPS now sets out opportunities for people to connect with the natural environment, with SPP-9 requiring councils to consider incorporating biodiversity features and green space into plans for regeneration. LDPs are also required to promote and protect public access to and along the coast where possible through SPP-2, SPP-10 and SPP-13. Finally, natural connections between different areas are emphasised through requiring councils to work together on flood risk and waste management issues.

6.13 Summary of Adverse Effects

- 6.13.1 The main potentially adverse effects that the SEA has identified in the event that the SPPS is implemented are related to the effects of economic development (SPP-5), telecommunications infrastructure (SPP-12) and town centre development (SPP-14) on ecology and cultural heritage. If not implemented in its entirety, these aspects of the SPPS could potentially result in localised habitat destruction/removal, disturbance/killing of individual fauna/flora, interference with migratory patterns, spread of invasive species, pollution through emissions of particulate matter and nitrogen oxides, trampling, litter and fires (affecting biodiversity); and adverse effects on archaeological remains, listed buildings, scheduled monuments and non-designated heritage assets, including on the assets themselves, their setting, and views both to and from the assets.
- 6.13.2 Such effects will be minimised through compliance with legislation, and standard survey and mitigation procedures as part of the planning application process, as well as by other proposed planning policies, core planning principles and objectives aimed at furthering sustainable development including protection of the built and natural environment. Furthermore, the requirement for masts to be shared between operators to reduce the number of new masts being constructed will help to reduce the physical impact of telecoms infrastructure on the natural and built environment. It must be ensured that the emphasis on balanced decision making (between economic, social and environmental considerations) included in the SPPS is implemented at the local level.
- 6.13.3 For suitable mitigation measures to address the few potentially adverse effects of the SPPS, see Section 8.1. Town Centres and Retailing is additionally assessed in greater detail in Chapter 7, due to this being new rather than consolidated policy.

6.14 Uncertainties and Local Level Assessment

6.14.1 None of the principles and policies proposed through the SPPS consultation document are location-specific as this is a strategic level document (it will be for the new planning authorities to decide where development goes, subject to the constraints imposed through the SPPS). In such cases, planning regulations and related processes such as Environmental Impact Assessment (EIA)⁹ and Habitats Regulations Assessment (HRA)¹⁰ provide the most effective means of determining the suitability of specific proposals, whilst SEA will also be undertaken for each local authority plan.

6.15 Cumulative Effects Assessment

Cumulative effects within the SPPS

6.15.1 The assessment process predicted similar adverse impacts for some of the policies, which could have a cumulative (additive or perhaps synergistic) effect on the identified receptors. These potential cumulative effects include: the impact on ecology of SPP-4 (development in the countryside), SPP-5 (economic development), SPP-7 (housing in settlements), SPP-12 (telecoms/utilities), SPP-13 (tourism), SPP-14 (town centres) and SPP-15 (transport); and the impact on cultural heritage of SPP-5 (economic development), SPP-12 (telecoms/utilities) and SPP-14 (town centres).

6.15.2 Regarding the potential cumulative effect on ecology, though there are some very positive aspects of the SPPS that seek to protect, maintain or enhance biodiversity (FSD-3, CPP-5 and SPP-9) and improve ecological connectivity including within urban areas using green infrastructure (CPP-1, SPP-9 and SPP-10), planning policies on development in the countryside, economic development, housing, town centres, telecoms/utilities and transport do not make any reference to biodiversity. Given the general deterioration of much of NI's urban and rural habitats and species, and the fact that brownfield sites can often be more biodiverse than greenfield ones (as well as sometimes performing a greater role in connectivity), the cumulative effect of planning policies 5, 7 and 14 in particular could put urban ecosystems at risk. This is particularly important in a changing climate given the services that ecosystems provide. Therefore it should be ensured that the SPPS is implemented in its entirety and that balanced decision making is undertaken at the local level.

6.15.3 Regarding the potential cumulative effect on cultural heritage, despite the SPPS overall being strong on protection and enhancement of heritage assets, the policies on economic development, telecoms/utilities and town centres do not mention the need to protect heritage assets. The baseline section of this report (Section 2.3)

⁹ EIA is a legal requirement for certain public and private developments under the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2012 (SR 2012 No. 59).

¹⁰ HRA is a legal requirement under Regulation 64B of The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) where proposed plans or projects may affect nature conservation sites designated as Special Areas of Conservation (SACs) or Special Protection Areas (SPAs).

revealed that new build is currently often preferred to renovation/restoration of an existing building, whilst enforcement of heritage legislation and planning policy in NI is under resourced and not always carried out. It is important therefore that the SPPS is applied in its entirety to enable balanced decision making and due regard to protection of cultural heritage.

6.15.4 Overall it is considered that due to the other policies in the SPPS seeking to protect the natural and built environments from any harmful development (e.g. CPP-5, SPP-1 and SPP-9), and because of the requirement for surveys and standard mitigation where necessary through the planning application process, the possible adverse cumulative effects on these receptors will not be significant.

In-combination effects with other plans and programmes

6.15.5 In-combination effects on the environment could also occur between the SPPS (particularly planning policies 5 and 14 due to their economic focus) and other plans and programmes promoting urban economic development. Of particular relevance are the following plans and programmes which are thought likely to have in-combination effects, though not to a significant extent:

- DRD (2010) Regional Development Strategy 2035;
- DSD (2013) Urban Regeneration and Community Development Policy Framework;
- Northern Ireland Executive (2012) Economy and Jobs Initiative;
- Northern Ireland Executive (2008) Investment Strategy for Northern Ireland 2008-2018;

6.15.6 The possible exception is the Northern Ireland Economic Strategy published by the Executive in 2012, as this does not refer to the need to consider, protect or enhance species, habitats or the natural environment in general. Therefore a balanced approach to decision making taking into account the SPPS and constituent policies in their entirety is required to prevent a risk of significant in-combination effects if economic considerations considerably outweigh consideration of nature conservation regarding economic development in settlements and town centres.

6.15.7 The potential in-combination effects are considered in more detail in Table 6.2 below.

Table 6.2: In-Combination Assessment with Other Plans and Programmes

Plan or Programme	Objectives and Policies of Relevance	Likely In-Combination Effects
Urban Economic Development (SPP-5 and SPP-14)		
DRD (2010) Regional Development Strategy 2035	<p>This document provides an overarching strategic planning framework influencing spatial development for the Region up to 2035, facilitating and guiding the public and private sectors. It complements the Sustainable Development Strategy and informs the spatial aspects of the strategies of all Government Departments. Taken into account are key drivers such as population growth and movement, demographic change, increasing number of households, transportation needs etc. It addresses economic, social and environmental issues aimed at achieving sustainable development and social cohesion.</p> <p>Relevant policies include:</p> <ul style="list-style-type: none"> • RG1 Ensure adequate supply of land to facilitate sustainable economic growth. • SFG1 Promote urban economic development at key locations throughout the BMUA and ensure sufficient land is available for jobs. • SFG7 Strengthen the role of Londonderry as the Principal city of the North West. • SFG11 Promote economic development opportunities at Hubs. 	<p>Sustainability is an important theme of the RDS, for example RG1 makes specific reference to protecting the water environment. SFG1 does not mention any need to protect the environment, however SFG5 (which also refers to Belfast) mentions the potential to support biodiversity by linking existing ecological areas creating a network of green spaces throughout the BMUA. SFG7 encourages the regeneration of Londonderry while respecting its heritage assets, exceptional landscape setting and unique walled core through sensitive development. The SPPS aims to complement the RDS, and as such it is not thought that significant in-combination effects will occur.</p>
DSD (2013) Urban Regeneration and Community Development	<p>Key actions of relevance include:</p> <ul style="list-style-type: none"> • Ensuring effective planning of town/city centres, such as masterplanning that integrates planning policies, investment, regeneration and public realm improvements in our Central Business Districts. 	<p>DSD's proposed development in town/city centres will have positive effects on cultural heritage, though water and ecology are not mentioned and could potentially be at risk. As such, there may be adverse in-combination effects with related policies of the</p>

Plan or Programme	Objectives and Policies of Relevance	Likely In-Combination Effects
Policy Framework	<ul style="list-style-type: none"> • Supporting the development of shared and safely accessible commercial centres and development sites. • Undertaking site assembly and purchase of land and buildings for development in the public interest. • Undertaking initiatives that improve the quality of urban design, distinctiveness and townscape quality. • Sustainable brownfield redevelopment, including the protection and improvement of buildings and open spaces, preservation of historic and cultural heritage, and development of community gardens, allotments and green spaces. 	SPPS, however these are not expected to be significant given the emphasis on preserving urban greenspace in both documents.
Northern Ireland Executive (2012) Economy and Jobs Initiative	<p>Key relevant actions include:</p> <ul style="list-style-type: none"> • Through the Social Investment Fund, we will provide £26m to tackle the causes of poverty and deprivation and lay the foundations for sustained economic growth. • In addition to our capital investment programme, we will further support the construction sector by introducing further changes to the Planning regime throughout 2013 which will stimulate investment and employment. • Boost employment in the construction and related sectors by stimulating further investment to secure and restore our heritage assets through raising the current cap on Listed Building Grant aid (from £150,000 per project to £500,000) and increasing the rate of support available for individual heritage projects (from 35% to 45%). • By March 2015, provide further funding to support additional investment in 23 projects which will enhance our tourist amenities and tourist related capital developments. 	Though the Initiative aims to boost the economy and jobs in part through capital investment and construction, this mainly relates to spending on tourism and schools and is unlikely to result in the same adverse effects as identified for the SPPS planning policies 5 and 14. In addition, the Initiative specifies that some of the construction budget will result in improvements to cultural heritage. As such, no adverse in-combination effects are expected.

Plan or Programme	Objectives and Policies of Relevance	Likely In-Combination Effects
	<p>By providing £5.7m of funding the Tourism Development Scheme could deliver total investment of over £27.5m, supporting over 450 jobs in the construction phase and creating or sustaining approximately a further 50 tourism jobs once complete.</p> <p>Help to sustain employment in the construction sector by increasing the maintenance budget for the Schools Estate by a further £10m in 2013/14.</p>	
<p>Northern Ireland Executive (2012) Northern Ireland Economic Strategy</p>	<p>The overarching goal is to improve the economic competitiveness of the NI economy, through focusing on export led economic growth to deepen and diversify the export base in order to increase employment and wealth across NI. This will be delivered through the following key rebalancing measures:</p> <ul style="list-style-type: none"> • Promote £400m of investment and 6,300 jobs in locally owned companies and a further 6,500 new jobs in new start-up businesses. • Encourage business growth and increase the potential of our local companies, including within the social and rural economies. • Develop a modern and sustainable economic infrastructure that supports economic growth. • Improve the landscape in public areas to promote private sector investment in towns and cities across Northern Ireland. 	<p>As well as urban and town centre regeneration initiatives, the Strategy also requires improvements in water and sewerage infrastructure, inland waterways, waste management, flood risk management and climate change. Through addressing derelict, neglected and underused sites and upgrading cultural assets, adverse effects on heritage should be minimised. However the Strategy does not refer to ecology, both putting species and habitats at risk (particularly open mosaic habitats on previously developed land, otherwise known as brownfield or wasteland sites) and potentially causing significant adverse effects with the SPPS.</p>
<p>Northern Ireland Executive (2008) Investment</p>	<p>Key goals over the lifetime of the Strategy include:</p> <ul style="list-style-type: none"> • construction of additional schools, university campus accommodation, health centres, hospitals, 	<p>As with the Economic Strategy, the Investment Strategy also seeks to invest in water and waste water and flood risk management, whilst regeneration and</p>

Plan or Programme	Objectives and Policies of Relevance	Likely In-Combination Effects
Strategy for Northern Ireland 2008-2018	<ul style="list-style-type: none"> • major mixed-use regeneration schemes and strategic site redevelopment in Belfast and the North West; • comprehensive development schemes in 13 towns across the region, building social capital and strong communities; • high quality private, social and affordable housing across the region to meet the needs of all communities; • sustained private sector growth in the manufacturing and internationally tradable services industry sectors, by supporting high added value projects from existing and prospective Invest NI clients; • sufficient high quality serviced sites for industrial development at strategic locations across Northern Ireland to meet the demand from Invest NI clients, both local and foreign-owned, thereby supporting balanced industrial development and job creation across the region. 	<p>development goals refer to the need to restore inland waterways and invest in cultural infrastructure. A separate section of the Strategy sets out aims to “protect and conserve the rich diversity that our natural and built heritage possesses, providing an important counterbalance to the pressures of modern living, and a positive link with our past. Investment in our environment including nature reserves, monuments, archaeological sites, listed buildings and country parks will promote the enjoyment of our heritage for the benefit of all, including visitors”. As such, adverse in-combination effects with the SPPS are not expected.</p>
Department of the Taoiseach (2008) Building Ireland’s Smart Economy: A Framework for Sustainable Economic Renewal 2009-2014	<p>The Strategy’s objective is to drive economic growth through the enhancement of productivity per person by: securing fiscal stability; enhancing R&D intensive foreign direct investment; investing in human capital and research and development; incentivising innovation and commercialisation; investing in critical public infrastructure; and improving public sector performance, within a high-quality physical and social environment.</p> <p>Other relevant aspects include:</p> <ul style="list-style-type: none"> • Activity and employment in the construction sector will benefit from substantial and sustained capital investment under the NDP. • Investment will be made in 2009 of €1.3 billion capital funding in social housing. 	<p>The focus of the Strategy is on sustainable growth rather than development, and largely includes soft measures such as boosting jobs and skills rather than physical development. For those areas that will see physical development, social housing and school construction in RoI is unlikely to have any cumulative effects with economic and town centre development in NI.</p>

Plan or Programme	Objectives and Policies of Relevance	Likely In-Combination Effects
	<ul style="list-style-type: none"> <li data-bbox="546 316 1373 419">• A capital allocation is being made in 2009 to the school building programme of €581 million with a third-level capital investment of €265 million. 	

7 Town Centres and Retailing Policy

7.1.1 As mentioned earlier in this report, the SPPS is largely a consolidation of existing Planning Policy Statements (PPSs). However, following a Ministerial direction, the SPPS is bringing forward new planning policy for town centres and retailing to reflect the updated evidential context. As a result, DOE has drafted new policy for Town Centres and Retailing, and as such, the SEA has addressed this in greater detail than the other planning policies. This begins with a consideration of alternative options.

7.2 Assessment of Alternatives

Alternative 1 – Retain PPS 5

7.2.1 This alternative assumes that DOE will continue with the Retailing and Town Centres policy as set out in Planning Policy Statement (PPS) 5 (dated June 1996). The policy objectives are:

- to sustain and enhance the vitality and viability of town centres;
- to focus development, especially retail development, in locations where the proximity of businesses facilitates competition from which all consumers are able to benefit and maximises the opportunity to use means of transport other than the car;
- to maintain an efficient, competitive and innovative retail sector; and
- to ensure the availability of a wide range of shops, employment services and facilities to which people have easy access by a choice of means of transport.

7.2.2 In addition the policy approach is as follows:

"The Department is committed to allowing freedom of choice and flexibility in terms of retail development throughout Northern Ireland and to assist the provision of a wide range of shopping opportunities to which the whole community has access... the Department recognises the value and importance of established shopping areas in town, district and local centres, and is therefore committed to protecting their vitality and viability."

7.2.3 Keeping the policy exactly as set out in PPS 5 is not realistic going forward as it is the least up-to-date of all the existing PPS documents and contains some content that is no longer relevant or appropriate. Nevertheless the objectives and approach are still useful.

Alternative 2 – Town Centre First

7.2.4 This alternative (SPPS Planning Policy 14) is the one that DOE drafted for public consultation in early 2014. The content of this is based on a research study carried out by consultants GL Hearn Limited (together with RDP Consulting and MCE Public Relations) during 2013.

7.2.5 The key policy wording is as follows:

“The objectives for town centres and retailing policy are to promote a town centre first approach as a location for retail; protecting and enhancing town centre performance and encouraging diversity complementary mix of uses. This is to contribute to uplifting existing vitality, viability and attractiveness. A clear sequential approach shall foster a more sustainable approach to development by focusing development in town centres - as the most accessible location.

Local planning authorities in the preparation of LDP’s should:

- *define a network and hierarchy of centres;*
- *define the extent of town centres and primary shopping areas and set policies that make clear which uses will be permitted in such locations;*
- *promote town centres first that provide for a diverse offer and mix of uses, customer choice and which reflect the individuality of town centres;*
- *allocate a range of suitable sites to meet the scale and form of retail, and other uses needed in town centres.*

Local planning authorities should undertake an assessment of the need to expand town centres to ensure a sufficient supply of suitable sites; which are not compromised by limited site availability to meet future needs.

It will be important to allocate appropriate edge of centre sites for main town centre uses that are well connected to the town centre where suitable and viable town centre sites are not available.”

Alternative 3 – Greater market choice

7.2.6 This alternative assumes that the SPPS adopt a non-prescriptive approach to retail development and allow greater freedom for both developers and planning authorities to propose and bring forward sites through the local development plan process.

7.2.7 The GL Hearn Ltd report, *Town Centres and Retailing Research Project*, November 2013 acknowledges that *“central area sites are acknowledged to be more difficult to develop given likely multiple ownerships physical and environmental constraints which have cost and timescale implications. In contrast out-of-centre sites are cheaper and easier to bring forward in relative terms”.*

7.2.8 This alternative would therefore carry the implicit acceptance that much of any new retail development would be focused on out of, or edge of, town locations. Such applications would then be determined in accordance with local policies. It would also provide planning authorities with more freedom to develop their own retail policies and to make local decisions on whether to support town centre or out-of-town retailing.

7.2.9 The GL Hearn report indicated that such an approach would have the benefit of allowing planning authorities to fully reflect local circumstances and needs but carried a risk of an inconsistent approach nationally, leading to uneven investment, risked promoting unsustainable development and provided limited means for maintaining and developing the health of town centres.

7.2.10 If such an approach were to be taken forward in NI, in order to minimise potential environmental effects of out of town developments in particular it may be useful to reflect on the following elements of strategic level policies on town centres and retailing from Scotland (SPP, 2010 and emerging new policy), England (NPPF, 2012) and Wales (PPW, 2012).

- If sufficient edge of centre sites cannot be identified, set policies for meeting the identified needs in other accessible locations that are well connected to the town centre (NPPF, 2012).
- All retail, leisure and related developments should be accessible by walking, cycling and public transport (SPP, 2010).
- Plans should encourage the clustering of complementary enterprises in industrial and commercial areas so as to reduce traffic generation (PPW, 2012).
- In rural areas the majority of new development should be located in those settlements which have relatively good accessibility by non-car modes when compared to the rural area as a whole (PPW, 2012).

7.3 Detailed Assessment of Town Centres and Retailing Policy

7.3.1 The SPPS is based on Alternative 2, i.e. a town centre first approach. This stems from the evidence base provided by the GL Hearn research which recommended that town centre and retail policies within the SPPS should:

- Require Development Plans to define a network or hierarchy of centres and provide detail on the types of facilities and scale of development appropriate within them.
- Require planning authorities to provide a needs assessment to form the basis of local policy and site allocations. A sequential approach should be taken to identify suitable sites and primary shopping/ retain core boundaries should be identified. Diversity in town centre uses (e.g. recognising that residential development can have a role to play) should be a theme for future policy.
- Applications for non-town centre sites that are not in accordance with/ allocated within up to date development plans are assessed against the sequential test and impact test. Eight criteria are suggested to assess these applications including assessing impact on: trade and centre turnover; planned investment in town centres; delivery of planned/ allocated sites; vitality and

viability of existing centres, cumulative impact; local economy (including job creation); and there is also a criteria on demonstrating need for project.

- Include a glossary of terms and supporting guidance for planning authorities and applicants to support the town centres and retail elements of the SPPS.

7.3.2 As set out in Section 5.3.3 of this ER, following public consultation on the draft SPPS, the policy on town centres and retailing (SPP-14) has been revised. Changes include:

- Highlighting that town centres provide employment, leisure and cultural uses, social unity and a sense of community and place.
- Stressing the importance of accessibility, more local choice, attractiveness of town centres and helping to reduce travel demand.
- The extension of district and local centres must not cause adverse impacts on the town centres in the catchment.
- Restricting retail development to farm shops, craft shops and shops serving tourist or recreational facilities, which should be located within existing buildings.
- Requiring assessments of retail impact and need for developments above 1,000 m² gross external area (previously this was set at 2,500 m²), and restricting such development to a maximum size of 2,500 m² gross external area.

7.3.3 A detailed matrix assessment has been carried out on the revised SPP-14, revealing its likely environmental effects. The matrix sets out the duration, frequency, permanence and geographic extent of effects (including transboundary effects) which fed into the consideration of magnitude (i.e. the degree of change that the proposed scheme would have on the environment). This was then correlated with the value and vulnerability of the receiving environment, which included consideration of protected status and designations. The significance of effect can be either adverse or beneficial, and has been determined for each sustainability topic.

7.3.4 This matrix assessment can be seen in Table 7.1 below. A more descriptive review of the proposed Town Centres and Retailing policy follows, with specific mitigation / suggested enhancements following in Chapter 8.

Table 7.1: Detailed Matrix Assessment (Town Centres and Retailing)

SPP-14: Town Centres and Retailing												
SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Protected Status	Value	Vulnerability	Significance	Certainty	Mitigation Required
1. Ecology	The evidence base documents required to support allocations could assist in protection of ecology where it is a factor considered when assessing sites received in the call for sites. The policy aims to encourage the location of town centre and retail uses in town centres and discourage out of centre developments. The policy does not include any requirements to consider ecology for town centre and retail developments in either LDPs or planning applications, although this is mentioned in other policies alongside which PP-14 would be considered. Town centre locations may be more likely to use existing buildings, which could have a lower ecological impact than an out of centre greenfield site (though out of centre sites may also re-use existing buildings), however it should be noted that protected species like bats and birds roost or nest in buildings. Where the proposed buildings do not already exist, town centre developments are likely to be on brownfield sites which can actually be more ecologically diverse than out of centre greenfield sites (e.g. as stated by The Wildlife Trusts, nearly 15% of all nationally scarce insects in the UK are recorded from brownfield sites). Therefore, the policy could have a positive or negative impact on ecology depending on how it is delivered; it will therefore need to take into account the objective of SPP-9 to ensure that natural heritage and associated diversity is conserved and enhanced as an integral part of social, economic and environmental development.	Short to medium term	Infrequent to continuous	Temporary to permanent (possibly reversible)	Regional	Low	Local to international	Negligible to high	Negligible to high	Minor	Low	No
2. Socio-Economic	The policy ensures that the impact of an out of town scheme on town centres is a primary consideration and requires both local authority and developer led evidence to support decision making of town centre and retail applications. Given that poorly located out of town retail can have a devastating impact on local independent stores and town centres, the sequential test ensures that this type of development is restricted where it can have significant negative consequences. This is supported by the new text stating that district and local centres should not be extended where this would cause adverse impacts on the town centres in the local/district catchment, though this should not be to the detriment of those living in villages who may not be able to access the catchment's towns. Appropriate retail development will also be allowed in the countryside (subject to the re-use of existing buildings). Therefore, the local economic impact of a more robust approach to town centres and retail is judged as significantly positive. This is particularly the case as the draft policy also includes a provision for the job creation of out of town applications to be considered when assessing acceptability of out of town applications. This could help to ensure that out of town developments that would have significant socio-economic benefits could still be considered.	Short to medium term	Infrequent to continuous	Temporary to permanent (possibly reversible)	Regional	Medium	N/A	High	High	Major/Moderate	High	No

SPP-14: Town Centres and Retailing

SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Protected Status	Value	Vulnerability	Significance	Certainty	Mitigation Required
3. Health	In severe cases, the decline of town centres can lead to food deserts and increase how difficult it is for residents without a car to access fresh food. Town centre developments are also likely to be more accessible using means of transport that are good for health (i.e. walking and cycling). As discussed under air quality, it is possible that a poorly managed town centre first policy could harm air quality in town centres, but when supplemented by good air quality and transport policies, this can be mitigated. New text within SPP-14 stating the need to reduce travel demand within town centres will help this, whilst wellbeing should additionally benefit from the new text highlighting that town centres provide cultural uses as well as bringing people together and fostering a sense of community and place.	Short term	Infrequent to continuous	Temporary	Local	Negligible	N/A	High	Low to high	Minor	Low	No
4. Soil	Town centre locations may be more likely to use existing buildings, which could have a lower impact than an out of centre greenfield sites e.g. soil sealing and impeded drainage. New wording strengthens this by stating that retail facilities in the countryside, where permitted, should be located within existing buildings. However, where the buildings do not already exist, constructing on brownfield sites within town centres could potentially impede drainage in areas where flood risk is of greater concern (as it is likely to be closer to residential areas) as has happened in previous years due to urban development and soil sealing in Belfast.	Medium to long term	Infrequent to continuous	Permanent (possibly reversible)	Local	Negligible	N/A	Low to high	Low to high	Negligible adverse	Low	No
5. Water	Town centre locations may be more likely to use existing buildings, however, where the buildings do not already exist, constructing on brownfield sites within town centres could potentially impede drainage (flash floods have increased in Belfast in recent years due to increased levels of soil sealing). The policy does not specifically refer to the need to prevent impacts on water quality or quantity.	Medium to long term	Infrequent to continuous	Permanent (possibly reversible)	Local	Negligible	Local to international	Low to high	Low to high	Negligible adverse	Low	No
6. Air	The key air quality impact from this policy would arise from changes in the patterns, amount or technologies used for travel. Road transport is a major cause of harmful air pollutants (e.g. PM10). Overall, emissions that affect air quality are likely to reduce if retail is focused in town centres that are easily accessible using public transport, cycling or walking and this results in a reduction in travel by the private car. The policy also encourages diverse set of town centre uses which can facilitate multi-use trips and therefore reduce the number of journeys for a person to carry out a number of tasks. However, the location of emissions is also very important for assessing impacts, with a far more negative impact occurring when harmful emissions are produced in close proximity to residential areas. Residential areas are more likely to be in and around town centres than outside them. However, new introductory text emphasises the importance of accessibility and helping to reduce travel demand, so it is expected that this will be considered through LDPs. Therefore, it is more likely that the policy would reduce emissions harmful to air quality than increase it, so long as this is	Short term	Infrequent to continuous	Temporary	Local	Negligible	N/A	High	Low to high	Negligible adverse	Low	No

SPP-14: Town Centres and Retailing

SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Protected Status	Value	Vulnerability	Significance	Certainty	Mitigation Required
	carried out at Local Authority level.											
7. Climate	A positive impact on the climate is likely to result through promotion of retail in locations that are more accessible by sustainable modes of transport and do not require long distance travel for residents to access retail and other town centre facilities. New introductory text supports this by emphasising the importance of accessibility and helping to reduce travel demand, so it is expected that this will be considered through LDPs. Though not mentioned in the policy text, further enhancements could result through encouraging development of measures to further reduce transport emissions such as creating walkable/ cyclable city centres, charging points for electric vehicles, energy efficient retail buildings, development of renewable and low carbon energy on retail buildings and so on. For major retail developments, it could be considered whether it is appropriate to set requirements for low emission buildings or to support any renewable and low carbon energy proposals in the area (e.g. connect to the district heat networks). Careful location of town centre uses generating or requiring significant amount of heat could increase the ability of the development to use renewable sources. For example, swimming pools have a very significant heat demand so could sensibly located in close proximity to a heat producer.	Medium to long term	Regular to continuous	Temporary	National	Negligible	N/A	High	Medium	Minor/Negligible	Low	No
8. Material Assets	The policy aims to encourage the location of town centre and retail uses in town centres and discourage out of centre developments and the development of inappropriate retail facilities in the countryside. Town centre locations are more likely to use existing buildings, thus maximising the use of the existing built environment, and minimising the need for additional (natural) resources. New wording provides that as an exception some appropriate retail facilities such as farm shops may be considered appropriate outside settlement limits and that such facilities should be located within existing buildings.	Short term	Infrequent	Permanent	National	Negligible	N/A	Medium	Low	Minor/Negligible	Medium	No
9. Cultural Heritage	The proposed policy encourages an approach that intends to lead to enhancement of leisure, civic and commercial uses in city centre developments, which could support centrally located cultural heritage visitor attractions. An increase or maintenance of current town centre footfall can also provide support for civic attractions as local people may drop in whilst visiting the town centre. It is also possible that increasing the robustness of town centres could help support or reduce decline of town centre cultural assets, but these could also be adversely affected through insensitive (new) development. New wording states that retail facilities in the countryside, where permitted, should be located within existing buildings, so impact on rural heritage shouldn't be affected. However, in general, the policy does not contain provisions that would necessarily have a positive or negative impact on cultural heritage assets, and should investment be increased in town centres, it may be decreased for assets outside them so overall, the impact is	Short to long term	Infrequent to continuous	Temporary to permanent (possibly reversible)	Local	Low	National to international	Medium to high	Medium	Minor/Negligible	Low	No

SPP-14: Town Centres and Retailing

SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Protected Status	Value	Vulnerability	Significance	Certainty	Mitigation Required
	given to be uncertain. It will therefore be necessary for councils to abide by the requirements of SPP-1 when planning for town centre and retail development.											
10. Landscape	The proposed policy does not include elements that would necessarily encourage use of brownfield sites or enhance or protect the landscape, though it does now mention the importance of the attractiveness of town centres. Whilst an out of centre development on a greenfield site in an attractive location could result in landscape harm, a well designed out of centre on an old industrial estate could have positive landscape impacts. New wording states that retail facilities in the countryside, where permitted, should be located within existing buildings, so impact on landscape character shouldn't be affected. The impact on the landscape is more likely to be attributed to the specific site location and project design (and landscaping schemes) than its out of town or town centre locations. Therefore, the overall effect has been judged as negligible beneficial.	Short to long term	Infrequent to continuous	Temporary to permanent (possibly reversible)	Local	Negligible	Local to national	Negligible to medium	Negligible to medium	Negligible beneficial	Low	No
11. GI & ES	As with landscape, town centre, edge of centre and out of centre developments could have a negative or positive impact on GI and ES. For example, positive effects could arise through restoring derelict sites, though an urban development is less likely to be able to provide ES than either a brownfield or a greenfield site. Therefore, the overall effect has been judged as negligible adverse.	Short to long term	Regular to continuous	Temporary	Regional	Negligible	N/A	Negligible to medium	Negligible to medium	Negligible adverse	Low	No

- 7.3.5 A key outcome of the proposed policy changes should be to increase the robustness of town centre first policies in order to protect the existing, diverse town centres in NI and encourage the development of robust, evidence based planning for retail. The proposed policy is significantly more prescriptive than its PPS 5 predecessor, with the latter suggesting that planning authorities ‘may’ carry out needs assessments and health checks, but did not require them to do so.
- 7.3.6 The policy ensures that the impact of an out of town scheme on town centres is a primary consideration and requires both local authority and developer led evidence to support decision making. This is strengthened by new text requiring retail impact and need assessments for future retail or town centre type developments above 1,000 m² gross external area (this was set at 2,500 m² in the draft SPPS, though Councils may still set the threshold at 2,500 m² in their LDPs). The policy also includes criteria to ensure that local economic impacts are always taken into account so that, for example, should an out of town development be able to demonstrate compliance with criteria identified in the Research Report, it could be considered. However, given that poorly located out of town retail can have an impact on local independent stores and town centres, the sequential test ensures that this type of development is restricted where it can have significant negative consequences. New text adds district and local centres will be retained and consolidated where these are complementary to the role and function of the town centre, with extensions to such centres permitted only where no adverse impact will result on town centres in the catchment. Retail development in the countryside will be restricted for all but those serving particular countryside requirements (such as farm shops). Therefore, the local economic impact of a more robust approach to town centres and retail is judged as significantly positive.
- 7.3.7 Given that overall, town centre first policies are likely to support aims to encourage more sustainable forms of transport, increasing the robustness of this policy is likely to result in a reduction in greenhouse gas emissions when compared to a policy that would allow more out of town developments. Furthermore, SPP-14 requires out of centre sites (which are less preferred than town centre or edge of centre sites) to have good public transport links, whilst new introductory text to the policy emphasises the importance of helping to reduce travel demand.
- 7.3.8 The regeneration and protection of town centres can have far more wide ranging benefits from encouraging retail in locations accessible by more sustainable means of transport (particularly when compared to out of town superstores located away from public transport hubs) to increasing social inclusion. This latter point is highlighted by new introductory text to the policy which states that town centres can bring people together and foster a sense of community and place. However, given that the proposed retail policy does not specifically include any policy directions on landscape, ecology, energy efficiency, renewable energy, cultural heritage, health, soil, water and air quality, the ability of the policy to have more wide ranging benefits will depend heavily on the effectiveness of other policies in the SPPS, and

the interpretation of these by planning authorities, in delivering these outcomes for the retail and town centres sector.

- 7.3.9 For example, overall the draft new policy is likely to result in a total reduction of emissions harmful to health (e.g. PM10) through their impact on air quality. This would likely occur because retail would then be located in closer proximity to residential areas (resulting in a reduction of distance travelled) and if retail is focused in town centres that are easily accessible using public transport, cycling or walking and people choose to use those modes of transport (resulting in less emissions per person kilometre travelled). However, emissions harmful to air quality could have a greater negative impact when emitted in close proximity to sensitive receptors than they are in more secluded areas. Therefore, it is possible to envisage a scenario whereby the increased footfall in the town centre, leads to an increase in traffic travelling through residential areas to reach the centre, and a negative impact on air quality in town centres. New introductory text to the policy states the importance of helping to reduce travel demand, however there is no actual policy direction specifically within SPP-14 requiring councils or developers to implement this. Therefore, the draft Town Centres and Retailing policy itself would not necessarily lead to a positive impact on air quality and it has consequently been assessed as negligible adverse.
- 7.3.10 Overall, the policy has a narrow focus and does not, on its own, ensure delivery of many other environmental benefits, such as benefits to ecology, landscape, greenhouse gas emissions and so on. It is acknowledged that the policies within the SPPS should not be viewed in isolation, however. Given that the draft retail section does not provide any more detailed guidance on, for example, design of retail developments, it is important that this policy is read together with provisions elsewhere in the SPPS, including the core planning principles, to adequately encourage delivery of sustainable retail and town centre developments, alongside well designed housing and employment developments. In particular this policy should be considered alongside other policies which encourage sustainable/public transport and seek to discourage car travel through urban areas (e.g. SPP-15).

8 Mitigation and Recommendations

- 8.1.1 Annex 1 of the SEA Directive requires the Environmental Report to set out ‘the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme’. This chapter therefore sets out mitigation measures appropriate to minimising the adverse effects identified in Chapter 6.
- 8.1.2 Though not a legal requirement, this chapter also includes enhancement measures to maximise the beneficial effects offered by the SPPS. Finally, an opinion of the SPPS’s residual effects has been given.

8.2 Minimising Adverse Effects

- 8.2.1 The SEA process has identified some uncertain effects on the environment of the proposed SPPS being implemented at local level, specifically the effects of economic (SPP-5), telecommunications (SPP-12) and town centre (SPP-14) development on ecology and cultural heritage. Potentially adverse effects will be minimised through compliance with legislation and standard survey and mitigation procedures as part of the planning application process; however, as noted in the baseline section, this has not always been enforced in the past and adverse effects have occurred, including a net loss of urban and rural habitats and neglect of heritage buildings in favour of new build. This lack of enforcement and/or lack of mitigation should not be allowed to continue.
- 8.2.2 However, as stated earlier in this report, when considering such development, planning authorities would be required to consider the SPPS as a whole, including subject planning policies, core planning principles and furthering sustainable development objectives that seek balanced and sustainable development and protection of the built and natural environment. In particular the planning requirements and restrictions set out in FSD-1, FSD-3, CPP-4, CPP-5, SPP-1 and SPP-9 must be complied with when planning for any (economic) development to ensure that impacts on the natural and built environment are either avoided, minimised or mitigated for. It should also be noted that Planning authorities will need to carry out or commission SEA of their Local Development Plans, whilst in some cases Habitats Regulations Assessment (HRA) may also be required (i.e. where there is a risk of the conservation objectives of a Natura 2000 site being adversely affected), whilst Environmental Impact Assessment (EIA) may need to be undertaken at project level. This is now specifically stated in CPP-5.
- 8.2.3 As a result, none of the potentially adverse or uncertain impacts were deemed to be significant, and specific mitigation measures for the SPPS have not been deemed necessary, so long as the restrictions and requirements already included in the document are enforced. It will be up to the new planning authorities to ensure that a balanced view is taken to economic, social and environmental considerations when

developing their local plans, in line with FSD-1 of the SPPS. Nevertheless suggestions for enhancements have been made in the following section. Some of these have already been taken on board by DOE in the revision of the SPPS, whilst others may, if deemed appropriate, be considered at a later date, either by councils in their LDPs or by DOE when the SPPS is revised within 5 years' time.

8.3 Enhancing Beneficial Effects

- 8.3.1 The majority of core planning principles and planning policies proposed through the SPPS are expected to have at least some beneficial effects on the environment of NI (see Section 6.1). This is particularly so when compared to the 'retain existing policy framework' alternative as many aspects of the environment are currently in poor and/or deteriorating condition (see Sections 2.3 and 2.4).
- 8.3.2 The SPPS's strong focus on sustainable development, climate change, health and wellbeing, and design quality will add to the benefits delivered through the current PPSs. However, as the assessment of Alternative 3 (fundamental review) showed, even more could be done to maximise the environmental benefits. Enhancement measures for each sustainability topic were suggested in the draft Environmental Report; such measures may be regarded as best practice only. DOE is under no obligation to consider or endorse these, but nevertheless has taken some of these suggestions on board. The sections below repeat the enhancement measures previously proposed, highlighting which of these have already been incorporated into the revised SPPS, and which remain for consideration by DOE or planning authorities at a later date.

8.4 Ecology and Nature Conservation

- 8.4.1 Given the general deterioration of much of NI's urban (and rural) habitats and species, and the fact that brownfield sites can often be more biodiverse than greenfield ones (as well as sometimes performing a greater role in connectivity), the effect of planning policies on economic development, housing and town centres could put urban ecosystems at risk. This is particularly important in a changing climate given the services that ecosystems provide.
- 8.4.2 Specific enhancement measures for future consideration include:
- Include within SPP-14 a suggestion for planning authorities to consider edge of or out of town sites where brownfield land in town centres is found to be substantially more biologically diverse than surrounding greenfield land.
 - Though the marine environment is mentioned in SPP-2, expand SPP-9 to consider the need to protect marine ecosystems from economic development, coastal development, renewable energy and tourism/recreation.
 - Seek opportunities for restoration of wetland habitat as well as natural features and characteristics of catchments through SPP-6.

- Include within SPP-2 the possibility of identifying areas where managed realignment¹¹ (and thus creation of e.g. saltmarsh habitat) may be appropriate.
- Given the general deterioration of much of NI's urban and rural habitats and species, emphasise within SPP-9 the need to improve the condition of ecological corridors and habitats within the wider countryside.

8.5 Socio-Economics

8.5.1 Specific enhancement measures already addressed include:

- Make more of the natural and historic environment for sustainable tourism (SPP-13).

This has been addressed in part through the new introductory paragraph which highlights the vital contribution tourism makes to supporting the vibrancy of NI's culture and heritage, and the requirement for planning authorities to consider safeguarding or enhancing existing or planned public access to the coastline or other tourism asset.

8.5.2 Specific enhancement measures for future consideration include:

- Retain local services and community facilities in rural settlements and consider a more even spread of economic activity to relieve pressures in high growth areas (SPP-4).

8.6 Health and Quality of Life

8.6.1 Specific enhancement measures already addressed include:

- Though town centre first policies (SPP-14) will be pursued in combination with the entire suite of policies, this could be improved with reference to best practice undertaken elsewhere in relation to increasing beneficial impacts on health through strong air quality and transport policies.

This has been addressed in part through the new introductory paragraph highlighting the importance of accessibility and helping to reduce travel demand; it also highlights the leisure and cultural uses that town centres provide, as well as bringing people together and fostering a sense of community and place.

¹¹ Managed realignment is the practice of allowing an area not previously exposed to flooding by the sea to become flooded e.g. by removing coastal protection, in order to provide protection from sea level rise elsewhere. It allows the shoreline to move more naturally, whilst saltmarshes that develop as part of the realignment help absorb wave energy, and offer soft coastal protection in themselves. This means that inland defences do not need to be as big as if new seawalls were built further seaward, reducing defence costs by shortening the overall length of defences to be maintained. In addition new habitats are created, which support wildlife and plant life.

- The physical and mental health of those living and working in NI can be greatly improved through provision of a high quality natural environment, including green space, woodland and open countryside that is easily accessible. This should be emphasised in CPP-1.

This has been addressed throughout the whole document: FSD-3 requires councils to consider the relationship between ES and human health in planning; CPP-1 requires the mental and physical well-being benefits of amenity space to be a prime consideration in all residential development; SPP-9 states that the conservation, enhancement and restoration of natural heritage is fundamental to society's health and wellbeing; and SPP-10 requires zoning to account for the contribution open space can make to sense of place.

- Consider introducing improved access to the coast to encourage physical activity in a natural environment (SPP-10).

SPP-2, SPP-10 and SPP-13 all seek to promote and protect public access to the coast through provision of pathways and picnic areas, helping people to connect with the natural environment.

8.7 Soil and Land Use

8.7.1 Specific enhancement measures already addressed include:

- Emphasise the importance of soil as a carbon store through climate change (FSD-2) or minerals policies (SPP-8), including further protection from peat extraction.

The importance of active peatland for its carbon storage qualities is highlighted in SPP-11 as a reason for not permitting renewable energy development on such sites.

- Seek to improve the multi-functionality of open space provided as part of housing developments (SPP-7) by encouraging its use as allotments or market gardens.

Allotments and market gardens have not been specifically mentioned, however, CPP-1 states that the mental and physical well-being benefits of amenity space should be a prime consideration in all residential development, which could potentially include local food growing opportunities.

- Reduce soil sealing by using permeable materials for all hard landscaped surfaces in new developments (SPP-5, SPP-7 and SPP-14).

This is now specifically recommended in SPP-6.

8.7.2 Specific enhancement measures for future consideration include:

- Include within SPP-9 the need to protect soil from erosion, compaction and contamination, and consider remediation of despoiled and degraded land.

8.8 Water

8.8.1 Specific enhancement measures for future consideration include:

- Expand SPP-2 to consider the likely impacts of economic development, coastal development, renewable energy and tourism/recreation upon the marine environment, to protect against pollution, flooding and disturbance of marine ecosystems.
- Develop reference to safeguarding against water pollution and securing improvements in water quality in FSD-1 to require planning authorities to proactively contribute to meeting WFD targets.

8.9 Air Quality

8.9.1 Specific enhancement measures already addressed include:

- Ensure that retail (SPP-14), industry/commerce (SPP-5), housing (SPP-7) and tourism (SPP-13) developments are easily accessible by public transport, walking and cycling so as to reduce traffic generation and ideally reduce the overall number of AQMAs.

SPP-14 now emphasises the importance of helping to reduce travel demand in town centres. FSD-1 seeks to promote more sustainable patterns of transport, and SPP-15 reiterates that this modal shift “can contribute to improvements in air quality arising from reduced vehicular emissions”.

8.9.2 Specific enhancement measures for future consideration include:

- Expand SPP-14 to suggest to planning authorities that where there are existing air quality issues related to transport emissions, access to town centres for public transport users, cyclists and pedestrians be prioritised over car users (provided this does not adversely affect retail business), and that traffic be routed away from residential areas where possible.
- Given the current problems in NI of ammonia emissions affecting sensitive habitats, SPP-11 could specify the need for greater control of polluting energy sources (e.g. biomass from waste and anaerobic digesters).

8.10 Climate Change

8.10.1 Specific enhancement measures for future consideration include:

- Encourage planning authorities to identify areas where managed realignment (see 8.2.1 for definition) may be appropriate, and to give greater consideration to the impacts of climate change on the coastal zone (SPP-2).

- Through SPP-11, encourage planning authorities to consider allocating land for development in areas where reducing energy use and promoting low carbon sources of energy will be most achievable, e.g. co-locating heat users and generators to minimise the need for energy infrastructure. Planning authorities could also consider supporting development of district heat networks¹².
- Consider a move towards a low carbon or green economy, including innovation in energy infrastructure, through FSD-2, SPP-5, SPP-11 or SPP-12.

8.11 Material Assets

8.11.1 Specific enhancement measures already addressed include:

- Encourage planning authorities to address potential barriers to inward investment such as a lack of infrastructure and related services through local development plans (SPP-5, SPP-12 or SPP-15).

This is now specifically recommended in FSD-1.

- There would be merits in exploring potential for further collaboration with cross border planning authorities/regional authorities regarding waste management, water supply and waste water in border areas to facilitate sustainable development in a transboundary context (SPP-16, SPP-12).

SPP-16 requires a joined up approach with neighbouring councils in relation to waste management, however water supply and sewerage are not mentioned in the SPPS, except for in FSD-1 where it states planning should play its part in supporting future investment in these areas.

8.11.2 Specific enhancement measures for future consideration include:

- Mention through FSD-1, SPP-8 or SPP-9 that natural resources should be used sustainably and not irrevocably depleted.

8.12 Cultural Heritage

8.12.1 Specific enhancement measures already addressed include:

- Recognition of the historic environment's contribution to economic vitality, culture, civic pride, sense of place, quality of life, education, leisure and tourism (SPP-1).

SPP-1 now links the historic environment with opportunities for investment and economic and community benefit, whilst the new CPP-5 highlights the critical

¹² District heat networks supply heat from a central source directly to homes and businesses through a network of pipes carrying hot water. This means that individual homes and business do not need to generate their own heat on site, thus reducing the cost of energy for consumers. Heat networks are currently being investigated in the UK by DECC, and are firmly established in many other countries. Such a network requires adequate concentration of heat demand, so will only be appropriate for larger urban areas.

role NI's archaeological and built heritage plays in supporting the local economy and contributing to sense of place, history and cultural identity. SPP-13 mentions the relationship between tourism and culture / heritage.

- As suggested by NIEA, any policies which are considered likely to adversely impact on cultural heritage (i.e. SPP-4, SPP-5, SPP-12 and SPP-14) could include references to the need to protect this heritage in order to ensure that adverse effects are avoided and ideally to seek a beneficial outcome.

CPP-4 states that particular weight should be given to how the design of development can impact listed buildings, monuments in state care and scheduled monuments; SPP-2, SPP-3 and SPP-16 require that new coastal accesses, outdoor advertisements and waste management facilities do not adversely impact on archaeological or built heritage, whilst SPP-4 encourages sympathetic conversion and re-use of existing locally important buildings instead of new build.

8.12.2 Specific enhancement measures for future consideration include:

- Expand SPP-5 and SPP-14 to specifically encourage planning authorities to a) renovate/restore existing (historic) buildings in preference to new build where possible, and b) consider cultural heritage when assessing site allocations at the local authority level and at project level through the planning application process. The policy could be strengthened and supported by additional guidance and resources.

8.13 Landscape and Seascape

8.13.1 Specific enhancement measures already addressed include:

- Strengthen protection of the WHS and its setting (buffer zones) against inappropriate development, and suggest a requirement to manage the WHS to maintain its natural heritage features in good condition through both SPP-1 and SPP-9.

SPP-1 now uses the word 'must' instead of 'should' regarding not permitting development that would adversely affect the 'Outstanding Universal Value' of NI's WHS, however there is no requirement to maintain its features in good condition through the SPPS.

8.13.2 Specific enhancement measures for future consideration include:

- Strengthen protection of AONBs against inappropriate development and suggest a requirement to manage these sites to maintain their special features in good condition through policies in development plans.

- Consider including within CPP-4 a requirement for development proposals to take account of the amenity and existing use of land and buildings as well as quality of greenspace provision over the lifetime of the development.

8.14 Green Infrastructure and Ecosystem Services

8.14.1 Specific enhancement measures already addressed include:

- Expand the reference to green infrastructure in CPP-1 to encompass the need for improvements to knowledge and understanding of ecosystem services and green infrastructure as well as a greater connection with the natural environment in order to improve health and wellbeing.

The new FSD-3 requires councils to identify the provision of ES and their relationship to human well-being and integrate this into planning, whilst SPP-9 now recognises that ES are provided across the wider landscape. SPP-10 requires councils to provide adequate green and blue infrastructure when zoning for future needs. There are also repeated references to the health, wellbeing and social benefits that people's engagement with a high quality environment can bring (e.g. CPP-1, CPP-4, CPP-5, SPP-4, SPP-7, SPP-9, SPP-10, SPP-13).

- Seek to improve the multi-functionality of open space provided as part of housing developments (SPP-7 and SPP-10) by ensuring it is useable by residents and/or the public and takes account of biodiversity and flood risk.

SPP-10 requires councils to include formal and informal recreation areas in zoned residential land and to designate open space that performs a strategic function such as landscape wedges in urban areas. CPP-5 and SPP-9 suggest that biodiversity features can be incorporated into plans for regeneration and the landscaping that accompanies economic development.

- Include 'safeguarding the natural and historic environment' as a core planning principle in its own right.

This has been done through the new CPP-5.

- Through FSD-1, encourage joint working between planning authorities on strategic issues.

Joint working between neighbouring authorities has been suggested in SPP-6 and SPP-16 for waste management and flooding issues.

8.14.2 Specific enhancement measures for future consideration include:

- In addition, through SPP-1, SPP-9, SPP-10 and SPP-13, consider promoting greater educational (and tourism) use of the natural and historic environment to improve appreciation and understanding.

- Expand SPP-2 to consider water quality, the bringing ashore of offshore renewable energy, oil exploration and possible exploitation, sea-level change and coastal protection, and tourism-related developments. The need for Shoreline Management Plans in NI should be considered.
- Through FSD-1, ensure that planning authorities consider the costs and benefits of a development over its entire lifetime.

8.15 Residual Effects of the SPPS

8.15.1 No significant adverse environmental effects were identified through the SEA process as the SPPS is largely a consolidation of existing planning policy, with some strongly beneficial updates and additions. Some uncertain effects have been identified, e.g. relating to urban development impacts on biodiversity and cultural heritage, but these are unlikely to be adverse if the SPPS is considered as a whole by planning authorities, as certain planning policies and core planning principles are very positive in these areas.

8.15.2 No mitigation measures have been proposed through the SEA, so the impact of the SPPS policies remains as uncertain or negligible to minor adverse at worst, including cumulative effects (both between the activities within the SPPS and between the SPPS and other plans and programmes). Even without adoption of enhancement measures, the SPPS as a whole is strongly positive for the environment and overall sustainability. Furthermore, the SEA process has not identified any adverse transboundary environmental impacts on the Republic of Ireland as a result of the SPPS as currently drafted being implemented.

9 Monitoring and Next Steps

9.1 Monitoring Proposals

- 9.1.1 Article 10 of the SEA Directive requires DOE, as the Managing Authority, to monitor significant environmental effects of implementing the SPPS. This must be done in such a way as to also identify unforeseen adverse effects and to take appropriate remedial action. Monitoring should commence as soon as the programme is adopted, with annual reporting carried out for the life of the programme. It may be necessary to revise the monitoring programme periodically so that it takes account of new methods and increased understanding of the baseline environment.
- 9.1.2 It is important that any monitoring proposed by the SEA should aim to specifically monitor the impact of the SPPS rather than monitoring trends in the baseline environment that would have occurred regardless of the SPPS. In accordance with the NI SEA Regulations, monitoring should also focus on aspects of the SPPS where environmental impacts are predicted to be significant (this can be for both adverse and beneficial effects).
- 9.1.3 However, the SEA did not predict any significant adverse effects of the SPPS being implemented. Any adverse effects that do occur are likely to be negligible or minor only, and will not be known until the 11 new councils publish their local plans or start to assess planning applications based on the SPPS or new local plan policies.
- 9.1.4 Co-ordinated Agenda for Marine, Environment and Rural Affairs Science (CAMERAS) have approved a monitoring strategy for Scotland published by the Scottish Government in 2011. The document suggests that environmental monitoring programmes should include:
- State of the environment, i.e. changes in the condition of air, land and water and the ecological consequences of these changes, including those parts of the environment that have a high value such as designated habitats and species;
 - Ecosystem services such as landscape, pollination and water supply;
 - Socio-economic consequences, i.e. social attributes such as the historic environment and human health and wellbeing.
- 9.1.5 Specific actions that DOE could consider to monitor the environmental impact and achievement of the SPPS (as suggested in the Draft Environmental Report) are listed below. The following are suggested for DOE to monitor within Local Development Plans (LDPs) adopted subsequent to the SPPS.
- DOE should ensure that economic, social and environmental considerations are balanced at local authority level, and a record kept of which was deemed to be most important in each case, so that the overall balance between the three pillars of sustainability can be determined.

- Area of coastal lands identified in LDPs where development is restricted to exceptional circumstances due to unique amenity/ landscape value; nature conservation interest and archaeological/ historical potential.
- Area of coastal lands identified in LDPs where development should not be permitted as it is at risk from flooding, coastal erosion, or land instability.
- Area of flood plain identified in LDPs for conservation and enhancement of biodiversity.
- Area of flood plain identified in LDPs for flood control/ mitigation service.
- Area identified (which, because of their intrinsic amenity value, including landscape, natural heritage or archaeological), where there is a presumption against mineral development.
- Area of natural heritage features identified in LDPs.
- Area and length of ecological network identified in LDPs.
- Area of new Open Space provisioned for in LDPs for biodiversity.
- Area of brown-field sites identified in LDPs as part of an urban ecological network.
- Area of peatland identified in LDP as a carbon store.
- Number of Shoreline Management Plans commissioned to inform LDPs.

9.1.6 To monitor the beneficial and adverse impacts of the implementation of the SPPS at a project level will require input from the 11 councils, who could record the following (as suggested in the Draft Environmental Report) based on planning applications submitted and processed:

- Proportion of new build vs. extensions, restoration or re-use of existing buildings.
- Proportion of development taking place on greenfield land, agricultural land, previously developed land and other brownfield land.
- Proportion of new developments over a particular hectare that incorporate public/private open/green space (perhaps including the level of multi-functionality in terms of the number of ecosystem services it provides).
- Proportion of new developments over a particular hectare that facilitate access by walking, cycling and/or public transport.
- Proportion of new developments that incorporate sustainable drainage systems and/or permeable paving.

- Number of planning applications for each type of renewable energy development (all sizes and scales) and the proportion permitted.
- Number of planning applications for new build or extensions within designated sites (including nature conservation, heritage and landscape designations), Northern Ireland Sites and Monuments Record sites, and the proportion permitted.

9.2 Monitoring Requirements set out in the final SPPS

9.2.1 Due to the beneficial effect that the SPPS is expected to have on the environment and the fact that the SPPS will take effect through Council Development plans, DOE has not set out specific environmental monitoring measures in the final SPPS. Instead, a sub-section on ‘Implementation, Monitoring and Review’ has been included in the section on Local Development Plans which states:

“Councils must keep under review the implementation of their plans and report annually to the Department on whether the objectives in the Plan Strategy or Local Policies Plan are being achieved. Additional statutory and administrative monitoring requirements that will be kept under review are set out in the Planning (Local Development Plan) Regulations (Northern Ireland) 2015, the Local Government (Performance Indicators and Standards) Order (NI) 2015, Practice Notes, and the Department’s Planning Performance Management and Reporting Framework... Better monitoring, together with regular reviews of LDPs, will provide more flexibility and enable councils to adapt to changing circumstances.”

9.2.2 By reporting to the Department each year on the extent to which the objectives set out within an adopted LDP has been met, councils will be able to identify any previously unforeseen adverse environmental effects and undertake appropriate remedial action. This will also enable the Department to monitor the implementation of the SPPS.

9.2.3 In addition, monitoring requirements have been set out in the SPPS in relation to the following socio-economic aspects:

- Economic Development – A system to monitor the take up and loss of land allocated for economic development purposes is required to help identify any shortfalls that may arise or highlight the need to reconsider the proposed use of sites.
- Housing in Settlements – A ‘plan, monitor and manage’ approach is necessary to ensure that, as a minimum, a 5 year supply of land for housing is maintained.
- Town Centres and Retailing – Retail and town centre development and trends should undergo regular monitor and review to ensure the maintenance of an up to date and robust evidence base.

9.2.4 The regulations that DOE refer to in the section on ‘Implementation, Monitoring and Review’ contain more specific monitoring requirements. The Planning (Local Development Plan) Regulations (Northern Ireland) 2015 states in Regulation 25 that:

“(2) The annual monitoring report must specify... (c) the supply of land for economic development purposes in the council’s district, and (d) such other issues as appear to the council to be relevant to the implementation of the local development plan.

(3) Where a policy specified in a local development plan is not being implemented, the annual monitoring report must identify that policy and include a statement of- (a) the reasons why that policy is not being implemented, (b) the steps (if any) that the council intend to take to secure the implementation of it, and (c) whether the council intend to prepare a revision of the local development plan to replace or amend the policy.”

9.2.5 Development Plan Practice Notes have been prepared by DOE. The theme of monitoring and review throughout the Development Plan process is recurrent across a number of the Practice Notes. One of these, on ‘Sustainability Appraisal incorporating Strategic Environmental Assessment’ encourages councils to base monitoring on indicators described in the environmental baseline, and ideally to use existing monitoring arrangements and information to make the most efficient use of resources. Another Practice Note, on ‘Soundness’, requires councils to set out arrangements for monitoring and implementation of objectives, policies and proposals, e.g. through working groups. Within the ‘Enforcement’ Practice Note, councils are required to develop their own Enforcement Strategies to set out their approach and priority areas in respect of enforcement. Going forward, the Department will keep Practice Notes under review and prepare new or revised Practice Notes to support the operation of the two tier planning system. This includes a proposal to prepare a specific Practice Note to address ‘Monitoring and Review’.

9.2.6 In addition, a new Performance Management Framework for Councils has been prepared by DOE, to be supported by the Local Government (Performance Indicators and Standards) Order (NI) 2015, once made. These identify statutory and administrative indicators to be submitted quarterly by each Council, enabling DOE to identify key trends, including best practice and underperformance issues across the whole of NI. Finally, the Planning Act (Northern Ireland) 2011 requires the Department to carry out a review of the implementation of the Act in 2018 and every 5 years thereafter. The review will assess the delivery of the reforms contained within the Act and implementation of the new two tier planning system.

9.3 Next Steps

9.3.1 Once the SPPS has been adopted, an SEA Statement will be produced to provide information on how the Environmental Report and consultees’ opinions were taken

into account in deciding the final form of the SPPS. The SEA Statement will also set out the monitoring measures discussed above.

10 References

Air Quality Expert Group (2007) Air Quality and Climate Change: A UK Perspective. Published for Defra, Scottish Executive, Welsh Assembly Government and DOENI.

BIO Intelligence Service (2011) Estimating the economic value of the benefits provided by the tourism/recreation and Employment supported by Natura 2000, Final Report prepared for European Commission – DG Environment.

Collingwood, LUC, Levett-Therivel, Scott Wilson, TEC and C4S (2006) Working with the SEA Directive: Do's and Don'ts Guide to generating and developing alternatives.

Cooper, L.M. (2004) Guidelines for Cumulative Effects Assessment in SEA of Plans (Imperial College London).

Countryside Council for Wales, Defra, ESRC, NERC, NIEA, The Scottish Government and Welsh Assembly Government (2011) UK National Ecosystem Assessment.

Countryside Council for Wales, English Nature, Environment Agency and RSPB (2004) Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners.

DECC, Scottish Government, Welsh Government and DOE (2013) Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 – 2011.

Defra, DOE, Welsh Government and Scottish Government (2012) A climate change risk assessment for Northern Ireland (Defra project code GA0204).

Defra (2010) Charting Progress 2: The state of UK seas.

DFP (2012) Guidance Note 7: Sustainable Design in the Built Environment.

DOE (2014). Northern Ireland Climate Change Adaptation Programme.

DOE (2013) A draft Strategy for Marine Conservation Zones in the Northern Ireland Inshore Region: A Consultation Document

DOE (2012) Northern Ireland Greenhouse Gas Inventory, 1990 – 2010.

DOE (2012) Public perceptions on climate change in Northern Ireland 2012.

DOH (2007) Draft Guidance on Health in Strategic Environmental Assessment.

DRD (2010) Regional Development Strategy 2035.

EC (2003) Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment.

EC (2001) Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

GL Hearn Limited (2013) Town Centres and Retailing Research Project, November 2013. Department of the Environment Northern Ireland.

JNCC (2013) UK General Implementation Report: Annex A of the 2013 UK Article 17 EU Habitats Directive Report.

Landsberg, F., Ozment, S., Stickler, M., Henninger, N., Treweek, J., Venn, O. and Mock, G. (2011) Ecosystem Services Review for Impact Assessment: Introduction and Guide to Scoping. World Resources Institute Working Paper.

Levett-Therivel, Environment Agency, Countryside Council for Wales, UKCIP, Natural England, InteREAM, and CAG Consultants (2007) Strategic Environmental Assessment and Climate Change: Guidance for Practitioners.

NIEA (2009) Strategic Environmental Assessment: Consultation Bodies' Services and Standards for Responsible Authorities.

NIEA (no date) Natural Heritage Vision & Strategic Plan 2020.

NI Biodiversity Group (2009) Delivery of the Northern Ireland Biodiversity Strategy: The second report of the Northern Ireland Biodiversity Group 2005 – 2009.

NI Executive (2012) Economic Strategy: Priorities for sustainable growth and prosperity.

NI Executive (2012) Programme for Government 2011-15.

NISRA, NIEA and DOE (2013) Northern Ireland Environmental Statistics Report.

Secretariat of the Convention on Biological Diversity (2004) The Ecosystem Approach (CBD Guidelines), Montreal.

ODPM, Scottish Executive, Welsh Assembly Government and DOE (2005) A Practical Guide to the Strategic Environmental Assessment Directive.

Office for National Statistics (2011) Sub-Regional Value of Tourism in the UK in 2008.

Organisation for Economic Co-operation and Development (2008) Strategic Environmental Assessment and Ecosystem Services.

Partidario, M.R. and Gomes, R.C. (2013) Ecosystem services inclusive strategic environmental assessment. Environmental Impact Assessment Review.

RSPB (2009) Wellbeing through Wildlife.

Scottish Government (2013) National Planning Framework 3 Scottish Planning Policy: Strategic Environmental Assessment Environmental Report.

Scottish Government (2013) Strategic Environmental Assessment Guidance.

Scottish Government (2012) Making the most of communities' natural assets: green infrastructure.

Scottish Government (2011) A Co-ordinated Agenda for Marine, Environment and Rural Affairs Science: Scottish Environmental Monitoring Strategy.

SNH (2012) Applying an Ecosystem Approach in Scotland: a Framework for Action.

SNIFFER (online) Strategic Environmental Assessment Guidance on Air, Water and Soil.

The Wildlife Trusts (online) Habitats explorer: Towns and gardens: Brownfield.

Town & Country Planning Association and The Wildlife Trusts (2012) Planning for a healthy environment: Good practice guide for green infrastructure and biodiversity.

UK National Ecosystem Assessment (2011) Chapter 18: Status and Changes in the UK Ecosystems and their Services to Society: Northern Ireland. UK National Ecosystem Assessment: Technical Report.

University College Dublin (2006) Archaeology 2020. Repositioning Irish Archaeology in the Knowledge Society. A realistically achievable perspective.

Vincent, M.A., Atkins, S.M., Lumb, C.M., Golding, N., Lieberknecht, L.M. and Webster, M. (2004) *Marine nature conservation and sustainable development - the Irish Sea Pilot*. Report to Defra by the Joint Nature Conservation Committee, Peterborough.

White, S., Simmons, B. and ten Brink, P. (2009) Integrating ecosystem and biodiversity values into policy assessment' in TEEB (2009) 'The Economics of Ecosystems and Biodiversity for National and International Policy Makers.

World Resources Institute (2013) Weaving Ecosystem Services into Impact Assessment: A Step-by-Step Method.

World Resources Institute (2003) Ecosystems and human well-being: A framework for assessment. A Report of the Conceptual Framework Working Group of the Millennium Ecosystem Assessment.

11 Appendices

Appendix A: Preliminary Stakeholder Seminar – Environmental Interests

Appendix B: Scoping Consultation Responses

Appendix C: Relevant Environmental Protection Objectives

Appendix D: Environmental Baseline Maps

Appendix E: List of Extant Planning Policies

Appendix F: Approaches to Strategic Planning Policy in Great Britain

Appendix G: High Level Assessment Matrices

Appendix H: Statutory and Public Consultation Responses

Appendix I: Key Differences between the PPSs, the draft SPPS, and the final SPPS

Non Technical Summary (standalone document provided separately)