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The Scottish Government is committed to creating a more successful Scotland by increasing sustainable economic growth. The second National Planning Framework (NPF2) takes forward the spatial aspects of that commitment, setting out a strategy for long-term development. It is concerned with how we want Scotland to develop over the next 20 to 25 years and where things need to happen to make that possible.

NPF2 articulates the spatial consequences of policies for economic development, climate change, transport, energy, housing and regeneration, waste management, water and drainage, catchment management and the protection of the environment. It identifies key strategic infrastructure projects as national developments and reflects the ambitious emissions targets which will see us move to a low carbon economy. It embodies the Scottish Government’s continuing commitment to realising the potential of places, highlighting economic and environmental opportunities in each and every part of Scotland.

NPF2 marks the beginning of a step change in the way that we undertake territorial planning in Scotland. It is a key part of the modernised planning system, providing a national policy context for the new generation of development plans and the determination of planning applications. The strategy it sets out will inform decisions on Government spending and the ongoing programmes of public agencies and local authorities. The NPF is supported by an Action Programme setting out key milestones for implementation and identifying lead partners and delivery bodies. Progress will be closely monitored and regularly reviewed, with a view to updating the Framework strategy within 5 years.

John Swinney, MSP
Cabinet Secretary for Finance and Sustainable Growth
Planning authorities are required to take this framework into account when preparing development plans and it is a material consideration in determining planning applications.
INTRODUCTION

1. The first National Planning Framework (NPF1), published in 2004, set out a strategy for Scotland’s development to 2025. The preparation of this second National Planning Framework (NPF2) has provided an important vehicle for the national debate about the sort of place we want Scotland to be. It guides Scotland’s development to 2030, setting out strategic development priorities to support the Scottish Government’s central purpose – sustainable economic growth. The Planning etc. (Scotland) Act 2006 puts this and future iterations of the National Planning Framework on a statutory footing.

2. This Framework will play a key role in co-ordinating policies with a spatial dimension and aligning strategic investment priorities. It takes forward the spatial aspects of the Government Economic Strategy, highlighting the importance of place and identifying priorities for investment to enable each part of the country to play to its strengths. It provides the strategic spatial policy context for decisions and actions by the Government and its agencies. Planning authorities are required to take the Framework into account when preparing development plans and it is a material consideration in the determination of planning applications.

3. NPF2 is concerned with Scotland in its wider context and addresses the major contemporary challenges of global competition, climate change and resource depletion. It is informed by the European Union’s territorial agenda, its priorities for promoting economic competitiveness and protecting the environment and its targets for energy supply and the reduction of greenhouse gas emissions. It provides the starting point for collaboration in wider spatial planning initiatives.

4. NPF2 builds on the first National Planning Framework, drawing on the analysis contained in the 2006 Monitoring Report and the views of stakeholders. It identifies key issues and drivers of change, sets out a vision to 2030, and identifies priorities and opportunities for each part of the country in spatial perspectives for the Central Belt, the East Coast, the Highlands and Islands, Ayrshire and the South-West and the South of Scotland.

5. The NPF2 takes forward the spatial aspects of the Scottish Government’s policy commitments on sustainable economic growth and climate change, which will see Scotland move towards a low carbon economy. It focuses strongly on priorities for the improvement of infrastructure to support long-term development. For transport infrastructure, it promotes the strategic outcomes set out in the National Transport Strategy and incorporates the findings of the Strategic Transport Projects Review. It identifies strategic priorities for investment in energy and drainage infrastructure and emphasises the priority the Government attaches to the development of a strategic network of waste management installations.
6. The NPF can designate certain developments as national developments and the Town and Country Planning (Development Management Procedures) (Scotland) Regulations 2008 and Circular 4/2009: Development Management Procedures set out the process for the consideration of such developments. In a statement to Parliament in September 2007, the Cabinet Secretary for Finance and Sustainable Growth set out the criteria which Ministers would use in designating national developments. NPF2 identifies a number of major transport, energy and environmental infrastructure projects which Ministers consider to be essential elements of the strategy for Scotland's long-term development (see Infrastructure chapter) on the basis of an assessment against these criteria.

7. While this is not a spending document, it is closely linked to the Government's Infrastructure Investment Plan and will inform the investment programmes of public agencies and infrastructure providers. It is supported by an action programme, identifying how, when and by which organisations key elements of the strategy will be taken forward.

8. The Planning etc. (Scotland) Act 2006 requires the preparation of a Participation Statement. The scope and content of NPF2 has been widely discussed with stakeholders and the Participation Statement has been regularly updated. It has also been considered by the Scottish Parliament. A report on the extent to which stakeholder engagement has conformed with or gone beyond the requirements of the Participation Statement and a statement detailing changes made in response to the views expressed in Parliament have been laid before the Parliament.

9. This NPF has been subject to Strategic Environmental Assessment (SEA). The SEA process has included scoping, an interim assessment of the alternatives considered during strategy development, a fuller assessment of the discussion draft National Planning Framework, and a supplementary assessment of candidate national developments. The Participation Statement and Environmental Report have been placed on the Scottish Government’s website.

10. There is a requirement to assess how our policies may impact on different sectors of the population. NPF2 is the spatial expression of established policies which have been subject to Equality Impact Assessment as part of their development. The planning procedures which will apply to projects designated as national developments were subject to Equality Impact Assessment as part of the recent review of Planning Regulations.
KEY CHALLENGES

11. To ensure that Scotland is equipped to respond effectively to the economic, social and environmental challenges of the next 20 years, it is necessary to be clear about what these challenges are likely to be and consider what can be done about them. This section identifies some of the key issues which need to be addressed, while recognising the uncertainties inherent in any predictions about the future and the importance of retaining the flexibility to deal with the unexpected.

ECONOMIC STRATEGY

12. The central purpose of the Scottish Government is to increase sustainable economic growth. The Government Economic Strategy (GES) makes clear that financial and other resources will be aligned to ensure that policy development and spending programmes are sharply focused on achieving that purpose and the challenging targets the Government has set. This Framework takes forward the spatial aspects of the Government Economic Strategy, to ensure that each part of the country is able to play to its strengths in building a Scotland that is wealthier and fairer, smarter and greener, healthier, safer and stronger.

The Importance of Place

13. The first National Planning Framework highlighted the importance of place to a modern knowledge economy. Businesses choose to locate where they can recruit well-educated, talented people and capital flows to places which have the sort of physical and social infrastructure which supports innovation. Well-qualified, creative people are attracted to places which offer a variety of economic opportunities, a stimulating environment, amenities for a wide range of lifestyles and good connections to other high quality places. Successful places have strong, positive identities. They are cosmopolitan, well-connected and diverse, offering opportunities for a wide range of creative interaction. The environmental quality, built heritage and cultural life of Scotland’s cities and towns are therefore strong economic assets and planning policies must place emphasis on supporting and enhancing them.

14. A positive sense of place is just as important in rural areas. As the rural economy changes, a high quality environment and a strong cultural identity will be key assets in promoting sustainable growth, economic diversification and community development. Key attributes of a competitive rural area include a diverse employment base and high activity rates; good physical and digital connectivity; high quality higher and further education provision; good public and private services; and strong, outward-looking communities with confidence in the future.
SUSTAINABLE DEVELOPMENT

15. Sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their needs. It therefore has social, economic and environmental dimensions. The Scottish Government's commitment to sustainable development is reflected in its policies on matters such as climate change, transport, renewable energy, energy efficiency, waste management, biodiversity and public health. There is a statutory requirement that the National Planning Framework should contribute to sustainable development. Planning authorities have a duty to contribute to sustainable development through their development planning function.

Climate Change

16. One of the principal challenges relates to climate change; reducing the greenhouse gas emissions which contribute to it and adapting to the changes in our environment which are already becoming apparent. The main sources of emissions are energy supply, transport and business. Emissions from energy supply and business have fallen significantly since 1990, but transport emissions have risen by 11%. Even with strong policies in place to reduce emissions, some degree of climate change is unavoidable as past and present emissions impact over the next 30 to 40 years.

17. The fossil fuels which contribute to greenhouse gas emissions are a finite resource. Some analysts predict that world oil production will peak before 2020. A growing imbalance between supply and demand for oil and gas products has profound implications for the future of transport and the global economy. Increasingly intense competition for available resources could drive up fuel prices substantially, heralding the end of cheap travel and the patterns of development and business activity it has supported. These factors together with economic security considerations point to a strategy of reducing dependency on fossil fuels over time.

THERE IS A STRONG PUBLIC CONSENSUS IN FAVOUR OF ACTION TO REDUCE CONGESTION AND THE ENVIRONMENTAL IMPACTS OF CAR USE.
18. Substantial reductions in greenhouse gas emissions will be necessary to minimise the impacts of climate change. Taking no action would have significant adverse effects on the environment and the lifestyles we currently enjoy. If global action is taken now, the worst of these effects may be avoided. The changes required to minimise climate change and mitigate its impacts may well affect our lifestyles, but they need not have negative effects on our overall quality of life. Indeed, they may bring substantial benefits in areas such as health and environmental quality.

19. The UK and Scottish Governments are taking an international lead by introducing ambitious statutory emission reduction targets through, respectively, the UK Climate Change Act and the Scottish Climate Change Bill.

20. Future climate scenarios suggest wetter winters and warmer average temperatures. Scotland is likely to experience an increase in the frequency of severe weather, a rise in sea level, stronger tidal surges and less snow. Climate change also poses challenges for the water environment and water infrastructure. In the west, volumes of water available for hydro-power generation may increase. However, in the east, summer droughts could lead to reduced water volumes but higher abstraction demands, particularly for agricultural irrigation. Cultural landscapes and archaeological sites may be at greater risk from flooding, rising water tables, higher sea levels and coastal erosion. On the other hand, the climate may become more favourable for tourism, forestry and certain types of agriculture. The Scottish Government is assessing the challenges and opportunities of a changing climate and identifying priorities for action in its Climate Change Adaptation Framework, which will be published at the end of 2009.

Transport

21. Transport (excluding aviation) accounts for over 20% of Scottish greenhouse gas emissions and is the fastest growing contributor to emissions. Road transport is by far the biggest source of emissions from the transport sector. Heavy reliance on the private car and the trend towards greater mobility are contributing to climate change, growing congestion and the erosion of environmental quality. However, there is a strong public consensus in favour of action to reduce congestion and the environmental impacts of car use.

22. The reduction of emissions from transport sources will involve measures to improve the accessibility of education, employment and services and encourage a shift to more active and sustainable modes of travel and transport. For people, this means a shift from car-based travel to walking, cycling and public transport. For goods, it means a shift from road to rail and water. The relationship between transport and land use is central to this agenda.
23. The promotion of compact settlements, mixed use development, effective active travel networks and efficient public transport systems can play an important part in reducing the need for car-based commuting. However, as commuting levels are the outcome of individual decisions on household location relative to workplace, the cost of fuel is likely to be a more powerful determinant of change.

24. While the expansion of direct air links has dramatically improved Scotland’s international connectivity in recent years, air travel is making a growing contribution to greenhouse gas emissions. A key issue over the next 25 years will be how to maintain and enhance this connectivity, with all the economic and other benefits that this will bring, while tackling the challenge of climate change. Faster cross-border rail links would make the train more competitive with the plane for many journeys to and from London and other UK cities, potentially helping to reduce emissions from short-haul flights. The new Eurostar terminal at St. Pancras offers opportunities for easier rail journeys between Scotland and the Continent. For the majority of overseas trips and business trips between the North of Scotland and the South of England, however, flying is likely to remain the only practical option.

Energy

25. Tackling climate change and reducing dependence on finite fossil fuels are two of the major global challenges of our time. More than two thirds of the world’s Carbon Dioxide (CO₂) emissions are the product of current patterns of energy production and consumption. Growing demand in the expanding Asian economies is raising concerns about the implications for future energy prices and long-term security of supply. Addressing these challenges will demand profound changes in the way we produce, distribute and use energy over the coming decades.

26. The European Union has responded by committing to deriving 20% of the energy it uses from renewable sources by 2020. The Scottish Government supports this objective and has in place its own, higher target for electricity generated from renewable sources. It also wants to see continued improvements in energy efficiency; the development of technologies which derive clean energy from fossil fuels; the harnessing of renewable sources of heat; and decentralised energy production, including local heat and power schemes and micro-generation.
Waste

27. The effective management and re-use of waste is essential to a sustainable future. The EU Landfill Directive requires the amount of biodegradable municipal waste going to landfill to be reduced by 35% of the total produced in 1995 by 2020. Landfill Tax is increasing substantially. Additional facilities for the treatment and recycling of municipal, commercial and industrial wastes are therefore urgently needed. As the methane produced by landfill sites is a powerful greenhouse gas, reducing the scale of landfill helps to combat climate change. The construction and operation of waste management installations can also offer new economic opportunities.

Biodiversity

28. Stewardship of Scotland’s wildlife and biodiversity can make a significant contribution to sustainable economic growth. Climate change may result in areas which currently support particular plants and animals becoming less suitable for them in the future. It may therefore be necessary to plan for species migration. Managed coastal retreat in response to rising sea levels may offer opportunities to create new wetland habitats.

New Technologies

29. Modern communications technologies are often seen as offering opportunities to reduce the need to travel, and therefore CO₂ emissions. They have certainly made working from home a real option for some people. Internet streaming and video-conferencing can reduce the need to make journeys for business purposes. However, people value the social contact which work provides and there is a strong preference for a physical presence and face-to-face interaction for many business transactions. Also, while internet purchases can substitute for some shopping trips, the growth in internet sales has led to a substantial growth in vehicle-based home-delivery services. There is currently no information on the impact of home working on overall energy consumption and CO₂ emissions, taking account of home heating and power requirements. Whether the overall impact of new communications technologies on travel demand will be positive or negative is also far from clear. Any policy interventions must focus on applications which bring demonstrable benefits.

30. Increasing the use of carbon neutral and low or no-emission fuels can make a significant contribution to reducing the environmental impacts of moving people and goods. Whatever the theoretical scope for expanding the production of biofuels, there are concerns about potential effects on biodiversity, food production, sustainable rural development and landscape character. Biomass for heating looks much more promising than biofuels produced from arable crops, though woodland expansion has to take account of a range of factors, not least the
importance of retaining the carbon locked in soils. Hydrogen fuel cell technology, although still at the early stages of development, offers many opportunities, most notably through its ability to capture and store energy from renewable sources.

PEOPLE AND HOUSEHOLDS

31. Scotland’s population was 5,168,500 in 2008, its highest level since 1981. Higher birth rates and in-migration have reversed the recent downward trend. Projections published by the General Register Office of Scotland (GROS) indicate that the population will rise to 5.37 million by 2031.

32. As in many other European countries, the population is ageing markedly. The number of people over 75 is projected to increase by 81% over the period 2006 to 2031. The planning system must ensure that the implications of our changing demographic profile are fully reflected in the provisions for housing, transport and community facilities. While the modest increase in the fertility rate (0.05%) is insufficient to counter the trend towards an ageing population, it does highlight the need to ensure that social provision does not focus exclusively on the needs of older people. We also need to provide adequately for children and young people.

33. Sub-national population projections to 2031 indicate strong growth in Eastern and Central Scotland with the largest increases in West Lothian (+22%), Perth and Kinross, (+22%), East Lothian (+21%), Aberdeenshire (+19%), Edinburgh (+17%) and the Borders (+16%). The fortunes of parts of the Highlands and Islands have turned round dramatically in recent years, with many areas experiencing a growth in population for the first time in generations. Substantial growth is taking place in Inverness and the Inner Moray Firth, but population is also increasing in Skye and Wester Ross, Orkney, Argyll, Moray and Lochaber.
34. The number of households continues to grow and that has implications for housing, infrastructure, energy demand and CO₂ emissions. Between 2006 and 2031, the number of households is projected to increase by 19% to 2.7 million, an average of 17,600 additional households per year. Not all of the additional houses needed to accommodate these households can be built on previously developed land.

35. It is important to recognise that population and household projections are based on extrapolation of past trends and are therefore indicative rather than predictive. Indeed, the Government's aspirations for Scotland – reflected in targets for greater economic and population growth – imply higher overall household growth than current projections indicate. The planning system should reflect this, to ensure a generous supply of land for housing.

36. Raising Scotland’s international profile is important to the realisation of the Scottish Government’s five strategic objectives, in particular the wealthier and fairer objective, and the Government Economic Strategy. The Scottish Government’s International Framework document sets out how international engagement and activity will be co-ordinated to support sustainable economic growth. Spatial planning has an important part to play in strengthening Scotland’s international links.

Europe

37. The Government is committed to an enhanced relationship with the European Union (EU). This Framework is informed by the European Spatial Development Perspective (ESDP), the EU territorial cohesion agenda and developing European practice in spatial planning, particularly in the Celtic, Nordic and Baltic countries.

38. The European Structural Funds regime which came into effect in 2007 reflects the EU’s revised regional development priorities following enlargement. Scotland’s position has improved relative to the EU average GDP as a result of enlargement. Consequently, the amount of structural funding it receives has fallen substantially. It is therefore now even more important to ensure that the use of structural funds is closely aligned to the Government’s strategic objectives.

39. Under the new programme, funding streams have been established to support Convergence, Competitiveness and Employment, and Territorial Co-operation. The Highlands and Islands is benefiting from Convergence funding under a provision for regions with a per capita GDP less than 75% of the EU-15 average. Competitiveness and Employment funding can be spent in lowland and upland areas, with some targeted on a spatial basis, depending on priorities within individual programmes.
MAP 1
EUROPEAN REGIONS

- North Sea Region
- North-Western Metropolitan Area
- Atlantic Area
- Northern Periphery

Source: European Commission
40. Under the Territorial Co-operation Objective, support is being provided for cross-border, transnational and inter-regional co-operation. Scotland is covered by four of the European regions established as a framework for transnational co-operation. The whole country lies within the North-West Europe Region and parts fall within the North Sea and Atlantic Regions. Parts of the north and west also lie within the Northern Periphery co-operation zone (see Map 1). While the boundaries of these areas have not changed greatly under the new framework, the inclusion of maritime borders within the EU definition of state borders has resulted in much of western Scotland becoming eligible for funding to support cross-border co-operation with the Republic of Ireland. The Northern Periphery Programme has been extended to eastern Moray and Dumfries and Galloway. The focus on issues facing peripheral, sparsely populated areas remains.

41. The Scotland Rural Development Programme 2007-13 sets out the Scottish Government’s goals for sustainable rural development and the types of support that will be available from EU funds and other sources to help achieve these over the next 5 years. The programme will deliver a range of integrated schemes, including Rural Development Contracts.

United Kingdom

42. The Scottish Government will work with the UK Government, the Welsh Assembly Government, the Northern Ireland Executive and the English regions on spatial planning matters of common interest.

43. The Regional Spatial Strategy for the North East of England recognises the economic influence of the Edinburgh City Region on the North East of England and includes a commitment to improving accessibility and efficiency of movement along the East Coast corridor. The Scottish Government is in discussion with public agencies and local authorities in the North East of England with a view to developing a strategic agenda for the East Coast Corridor.
SCOTLAND - 2030

44. The key aims of the strategy for Scotland’s spatial development to 2030 are:
   - to contribute to a wealthier and fairer Scotland by supporting sustainable economic growth and improved competitiveness and connectivity;
   - to promote a greener Scotland by contributing to the achievement of climate change targets and protecting and enhancing the quality of the natural and built environments;
   - to help build safer, stronger and healthier communities, by promoting improved opportunities and a better quality of life; and
   - to contribute to a smarter Scotland by supporting the development of the knowledge economy.

A GROWING ECONOMY

45. Higher sustainable economic growth is the key priority and the approach to achieving that is set out in the Government Economic Strategy (GES). The Government is determined that growth should benefit the whole of society and should not come at the expense of our environment. It is committed to increasing wealth throughout Scotland and to reducing regional disparities. It has set the target of narrowing the gap in participation between Scotland’s best and worst performing regions by 2017.

46. The enterprise agencies have been refocused to support key industries and provide a more streamlined service for the business community. The aim is to create a knowledge-driven economy capable of meeting the challenges of a highly competitive global environment. Progress towards a more competitive position will be based on a skilled workforce, creativity and enterprise and the transfer of knowledge into the market place. Scotland’s universities, higher education institutions and further education colleges lie at the core of the strategy for developing the skills base necessary to support a knowledge driven economy. The Government is substantially increasing funding for cutting-edge research. It is also providing more targeted support for the creative community to maximise the economic potential of Scotland’s arts and culture.

47. The Government wants Scotland to be the best place in Europe to do business. It is promoting the country as the ideal location for investment and tourism. That means a Scotland that is well connected economically, physically, digitally and intellectually to the rest of the world.
MAP 2
NATURAL HERITAGE

- National Park
- National Scenic Areas
- Natural Heritage Designation*

* Ramsar Sites, National Nature Reserves, Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest
48. The Government is committed to a greener Scotland. The Climate Change (Scotland) Bill sets a target of an 80% reduction in emissions by 2050 and an interim target for 2020. Key elements of the strategy for achieving a substantial reduction in emissions are greater energy efficiency, making the most of Scotland’s renewable energy potential and encouraging power and heat generation from clean, low carbon sources. Planning and transport policies can make an important contribution by promoting more sustainable patterns of land use and travel. Development plans should include policies designed to promote sustainable development and contribute to the mitigation of, and adaptation to, climate change. Policies on design and building standards also have a crucial role to play in creating a more sustainable, resource efficient built environment.

49. Much of the country is already of high environmental quality, with 26% of the land area covered by natural heritage designations (see Map 2). Human activity has important impacts on natural resources, including biodiversity and landscape. Sustainable economic and social development depend on healthy terrestrial and marine environments. Realising the vision set out in this framework will require a strong commitment to protecting and enhancing the natural, built and cultural environments, which are essential components of our quality of life and unique economic assets. The planning system has an important role to play in improving the environment, for example by strengthening green infrastructure, safeguarding and enhancing urban and rural biodiversity, and contributing to the improvement of water, air and soil quality. The environment is one of Scotland’s chief assets – a source of natural capital that can drive broad-based sustainable growth. Economic development must be closely integrated with the promotion of environmental quality and the sustainable management of environmental resources. Areas of change must be seen as opportunities to build environmental capital and create high quality environments.
STRONGER, SMARTER, HEALTHIER AND SAFER COMMUNITIES

50. Good governance, community empowerment, education and local initiatives are essential elements of successful place-making. A distinctive identity, building on local traditions and developing local speciality products can help to strengthen the sense of pride and community which creates safe, healthy and sustainable places for living and working. Tackling derelict land, improving physical infrastructure and upgrading environmental quality can help to promote environmental justice and provide employment opportunities for those less equipped to participate in the knowledge economy. More local decision making will strengthen the ability of communities to respond to challenges, such as the local implications of climate change.

51. The Scottish Government’s principal objective for regeneration policy is to promote the sustainable transformation of communities across Scotland by creating the right environment for private and public investment; through targeted action in the most disadvantaged communities, and by devolving power to the local level. It sees Urban Regeneration Companies (URCs) as an effective means of harnessing the skills and resources of the public and private sectors in areas which offer opportunities for major change.

52. The decision-makers of the future are the children and young people of today. The Early Years Framework, Curriculum for Excellence and Getting it Right for Every Child are about equipping Scotland’s young people to contribute effectively to the future shape of their country by enabling them to develop skills as successful learners and responsible citizens, able to make reasoned evaluations and develop informed ethical views of complex environmental, scientific and technological issues. Bringing that learning to bear in the context of this framework will help pupils towards a good understanding of, and regard for, their environment and world.
DEVELOPMENT STRATEGY

53. The main elements of the spatial strategy to 2030 are to:

- support strong, sustainable growth for the benefit of all parts of Scotland;
- promote development which helps to reduce Scotland’s carbon footprint and facilitates adaptation to climate change;
- support the development of Scotland’s cities as key drivers of the economy;
- support sustainable growth in the rural economy;
- conserve and enhance Scotland’s distinctive natural and cultural heritage, and continue to safeguard internationally protected sites, habitats and species;
- expand opportunities for communities and businesses by promoting environmental quality and good connectivity;
- promote development which helps to improve health, regenerate communities and enable disadvantaged communities to access opportunities;
- strengthen links with the rest of the world;
- promote more sustainable patterns of travel, transport and land use;
- realise the potential of Scotland’s renewable energy resources and facilitate the generation of power and heat from all clean, low carbon sources;
- encourage a sufficient supply of homes which are affordable in places where people want to live; and
- facilitate the implementation of the National Waste Management Plan including waste management targets.

The Cities and their Regions

54. The first National Planning Framework recognised the importance of our cities as key drivers of the economy. If our cities are to be competitive places attracting high value jobs and creative people, they must be well connected and able to offer distinctive, high quality environments and a first class quality of life. Good air links, the presence of centres of academic excellence and well-developed social and cultural facilities are essential parts of the package. Attractive, lively cities also help to support a strong tourism and leisure economy. Edinburgh and Glasgow are already major tourism gateways, while Aberdeen and Inverness are increasingly developing that role.
MAP 3
ECONOMIC DEVELOPMENT AND COMMUNITY REGENERATION

Urban Regeneration Companies
1. Irvine Bay
2. Riverside Inverclyde
3. Clydebank Rebuilt
4. Raploch (Stirling)
5. Craigmillar (Edinburgh)
6. Clyde Gateway

- HIE Fragile Areas
- Strategic Concentration of Economic Activity
- Associated Areas
Successful cities need to be supported by strong regions well connected to urban facilities and offering residential amenity, good business environments and infrastructure, and social, recreational and cultural opportunities. We need an approach to city region development which promotes economic growth, environmental quality, connectivity, regional and local distinctiveness and the efficient and sustainable use of resources. Development patterns must be robust in relation to long-term climate change, taking account, for example, of changing levels of flood risk and vulnerability to the predicted increase in the frequency of extreme weather. Efficient public transport systems are needed to support increasingly flexible city region labour markets, and to help minimise reliance on carbon intensive modes of transport. For all our cities and their regions, the aim must be to develop spatial plans and other policies which encourage shifts to walking, cycling and public transport over the next 20 years. Development plans should also seek to achieve a net enhancement of landscape quality and biodiversity.

The Planning etc. (Scotland) Act 2006 provides for Strategic Development Plans (SDPs) to be prepared for the city regions of Edinburgh, Glasgow, Aberdeen and Dundee. The restructuring of Scottish Enterprise and VisitScotland will facilitate strategic policy making at the city region level. The city region approach recognises that our cities are the hubs of wider regional economies and that the complementary assets of their surrounding towns and rural areas offer opportunities for a wide range of economic, cultural and recreational activities. It also provides the opportunity to develop extensive green networks connecting our inner urban areas with their surrounding rural environments, providing a wide range of social, health and environmental benefits.

Edinburgh and Glasgow are vital to Scotland’s economic wellbeing. They are collaborating closely to exploit their scale and relative proximity and the strengths of their surrounding regions to create a single shared economic space of international significance. Aberdeen, Dundee and Inverness also have key roles as drivers of economic activity and it is essential that they are well connected to Edinburgh and Glasgow, their wider regions and the rest of the world. The rural areas which lie beyond the city regions have economic, environmental and cultural assets of enormous economic and community value. Good connectivity will again be critical in realising the full potential of these assets.

Sustainable Growth

Strategic concentrations of business activity and clusters of related industries are to be found in Central Ayrshire, the Clyde Corridor, Lanarkshire, Central Scotland, the Lothians and South Fife, Dundee, Aberdeen and the Inner Moray Firth (see Map 3). Within these broad areas, key locations which have been identified as offering substantial strategic growth potential are the Clyde Waterfront and Clyde Gateway, West Edinburgh, the Edinburgh Waterfront, the Upper Forth, the Dundee
Waterfront, the Inverness to Nairn Corridor and the Pentland Firth. The economic successes of these areas depend on good links to the rest of Scotland and the wider world. It is therefore essential that investment in new or improved infrastructure reflects economic development priorities and the need to support sustainable growth.

59. Individual business locations need to be well connected with each other and readily accessible from residential areas by sustainable modes of travel. To ensure that Scotland is a good place to do business and an attractive tourism destination, we need to promote high quality environments and good transport interchange facilities at our air, rail and sea gateways.

60. The key industries on which the efforts of the Government are being focused are the life sciences, energy, financial services, tourism, creative industries, food and drink and electronic markets. In addition, Scottish Enterprise has identified textiles, aerospace, shipbuilding and marine technology, chemicals, construction and forestry as priority industries at a regional level. The planning system should promote opportunities to foster the development of synergistic business clusters, and facilitate the provision of supporting infrastructure.

61. The Government is committed to reducing regional disparities. This will involve targeted investment in connectivity and environmental quality to ensure that each part of Scotland is well placed to participate successfully in the modern economy. A more even spread of economic activity will help to relieve pressures in high growth areas such as Edinburgh, provide additional opportunities in areas such as Ayrshire, Inverclyde, West Dunbartonshire and Dundee, and improve the overall efficiency of the Scottish economy. Communities undergoing regeneration should enjoy good access to the opportunities created in strategic growth areas.

62. Primary production and land management in rural areas play a vital role in underpinning the food and drink, tourism and leisure and forest product sectors of the economy. The future of rural Scotland lies in a close alliance between economic diversification and environmental stewardship. Many rural areas can absorb more people without losing their environmental quality and modern communications technologies now make widely dispersed economic activity, including home-based businesses, a much more practical proposition. The space and environmental quality which rural Scotland can offer is at a premium in the developed world. High quality natural surroundings offering opportunities for a wide range of recreational activities can provide attractive locations for creative and knowledge-based businesses, including those based on Scotland’s distinctive environment and culture. Scotland’s two national parks are already
demonstrating how environmental quality can be used to support economic and social development, and similar benefits can be achieved more widely in our National Scenic Areas.

63. The Scottish Government is sponsoring a programme of research to inform a major summit on rural land use in the second half of 2009. Among the matters to be considered by the summit are how rural land use can contribute to sustainable growth and food production, and its role in the mitigation of climate change and the transition to a low carbon economy.

64. Higher education has a key role to play in developing the knowledge economy in rural areas. The UHI Millennium Institute with its campus at Beechwood in Inverness and constituent colleges throughout the Highlands and Islands, the Crichton University Campus in Dumfries and Heriot-Watt University’s Borders Campus in Galashiels are excellent pioneering examples. While each is pursuing a different development model, all three are building new centres of expertise and creativity, providing high-level jobs, offering opportunities for people to study locally, developing international links and attracting students from around the world.

65. Energy is a major resource for rural areas. The Government is committed to realising the power generating potential of all renewable sources of energy. Development of onshore windfarms has been proceeding apace, but much of the longer-term potential is likely to lie with new technologies such as wave and tidal power, biomass and offshore wind. New high quality jobs are being created through developments such as the marine energy research centre on Orkney. The harvesting of Scotland’s forests will provide a source of fuel for heat and power generation. Community-based renewable energy projects can make an important contribution to sustainable development in rural Scotland, particularly on the islands and in remoter mainland areas.

66. For many of our small and medium-sized towns, economic diversification must be a key objective. Encouraging a greater range of economic activity can help to reduce vulnerability to sectoral downturns, improve local investment levels and increase activity rates, spending power and vibrancy, so attracting more people to live and work in the area. Cultural, social and recreational facilities have a crucial role to play in maintaining community identity and morale. A commitment to local empowerment, place-making, environmental improvement and connectivity and a flexible, positive approach to land allocations and the use of buildings are important elements of a diversification strategy.
MANY OFFICE-BASED ACTIVITIES ARE COMPATIBLE WITH RESIDENTIAL AND OTHER USES AND THEREFORE RELATIVELY EASY TO INTEGRATE INTO MIXED USE DEVELOPMENTS WITHIN THE EXISTING URBAN FABRIC.
67. Tourism and leisure activities have an important contribution to make to the development of the economy. The Government is keen to attract international sporting and cultural events to Scotland. It is strongly supporting the city of Glasgow in hosting the 2014 Commonwealth Games. It is also continuing to support the conservation and promotion of the historic environment as an irreplaceable resource, a reflection of Scotland’s cultural identity and a key feature of its appeal as a tourist destination. Our tourism industry will need to adapt to the challenges of a changing climate.

68. While there is generally an adequate supply of land for business and industrial development across Scotland, development plans must ensure that an effective supply of good quality serviced sites is maintained in the right locations to meet demand. The sites safeguarded for high amenity use are considered to be sufficient to meet potential requirements. Knowledge economy businesses generally need less space and land than the older industries. Many office-based activities are compatible with residential and other uses and therefore relatively easy to integrate into mixed use developments within the existing urban fabric. Against that background, the redevelopment of urban areas is likely to create opportunities for the reallocation of some of the current industrial land supply for housing and other uses.

69. Adequate supplies of minerals must be available to the construction industry if Scotland’s infrastructure investment plans are to be realised and housing and business needs met. The identification of appropriate local sources of material will be particularly important in the Central Belt, where demand is likely to remain significant. Sourcing minerals locally reduces the distances over which they have to be transported.

70. Significant reductions in CO₂ emissions can be achieved through the development of carbon capture and storage technologies. The legacy of infrastructure and the geological knowledge gained from oil and gas production places Scotland in a strong position to exploit opportunities to reduce emissions by capturing CO₂ and storing it in depleted oil and gas fields, deep saline aquifers or coal seams. Studies estimate that geological structures beneath the North Sea have a storage capacity equivalent to many hundreds of years of CO₂ emissions from Scotland. The Government is working with Scottish-based companies and technology experts to develop Scotland’s carbon capture and storage potential, including sub-sea storage options. Carbon capture and storage offers the opportunity for a new industry in the North Sea – prolonging the life of existing infrastructure and utilising the world class skills base in the offshore industry.
Carbon capture and storage have the potential to reduce net CO₂ emissions from power stations by up to 90%. Given that Scotland’s three principal fossil fuel power stations (Longannet, Cockenzie and Peterhead) contribute up to 38% of Scotland’s CO₂ emissions, this would represent a very significant reduction. Protection of our internationally important peatlands is also important, given their role as carbon reservoirs.

### Housing

Housing is central to the Scottish Government’s ambition to increase Scotland’s rate of sustainable economic growth. By ensuring that we have enough houses of the right type, in the right place and at the right price, we can meet the housing needs of people and their families, increase workforce mobility and enhance economic competitiveness. In addition, the house-building industry makes a substantial contribution to the economy and provides significant employment opportunities, both directly and indirectly.

The Scottish Government has set out its vision of a housing system which delivers more houses, helps create sustainable communities, meets higher environmental standards, provides wider choice and offers better value for money. In June 2008, the Government announced major reforms designed to deliver lasting improvements throughout Scotland’s housing system and confirmed the national ambition, shared with local authorities, to secure a substantial long-term increase in housing supply to meet housing need and demand. That ambition is at the heart of the new guidance on Local Housing Strategies published by the Scottish Government and CoSLA (Convention of Scottish Local Authorities) and the Government’s planning policy for housing.

In the immediate term, the credit crunch which emerged during 2007 and the ensuing international financial crisis have had a significant impact on Scotland’s housing market. New housing supply has dropped, house price growth has reversed and the availability of mortgage finance has become more constrained. It has become clear that the effects of the rapid downturn in economic circumstances in 2008 will be felt for a number of years, with impacts in the short to medium term that inhibit overall supply and potentially shift significantly the patterns of need and demand for different tenures and house types.

However, notwithstanding the consequences of the current downturn, there remains a pressing need for the planning system to help to deliver growth in the supply of new homes throughout urban and rural Scotland to respond to long-term housing pressures and to improve the affordability, stability and fairness of Scotland’s housing system. That response needs to address the
THE SCOTTISH GOVERNMENT HAS SET OUT ITS VISION OF A HOUSING SYSTEM WHICH DELIVERS MORE HOUSES, HELPS CREATE SUSTAINABLE COMMUNITIES, MEETS HIGHER ENVIRONMENTAL STANDARDS, PROVIDES WIDER CHOICE AND OFFERS BETTER VALUE FOR MONEY.
planning requirements for affordable housing, particularly in areas like Edinburgh and the Lothians, Perth and Kinross, Highland and Argyll and Bute and some areas around Glasgow (East Dunbartonshire, South Lanarkshire and East Renfrewshire) where pressure on affordable housing is expected to continue.

76. It is through the planning system that housing need and demand are identified and addressed at the regional and local level. In that context, implementation of the recently reformed and modernised housing and planning delivery framework is fundamental, both to supporting a recovery in house-building and achieving a long-term increase in housing supply. The new framework brings together regional and local housing and planning systems to ensure that the right numbers of houses are built in the right places.

77. This new approach requires a whole market perspective and co-ordinated delivery through the new development plan process, local housing strategies and strategic housing investment plans, supported by an assessment of housing need and demand across housing market areas. It is based on collaboration between local authorities at a regional level – particularly across areas of wider strategic significance for housing growth such as the Edinburgh housing market area. This will allow constituent local authorities to build a stronger, more strategic evidence base and take a broader view of the options for increasing the supply of houses of the right type and tenure where they are needed most.

Sustainable Communities

78. Creating attractive, healthy, accessible and sustainable places can make an important contribution to meeting regional housing and economic needs and improving the quality of the environment. Under its Scottish Sustainable Communities Initiative (SSCI), the Government invited proposals for the creation of sustainable communities as exemplars of 21st Century low-impact development. The Initiative encourages an approach to development which is environmentally responsible, to create places which are designed and built to last and to demonstrate what can be achieved. Proposals which embody the principles of the SSCI, reflecting National planning policy, should help to raise the bar in terms of design and environmental quality and result in places with a coherent identity.
They will be developments which incorporate a mix of tenures and house types, including affordable homes; integrate land uses, including recreational and amenity open space; include measures to encourage active and sustainable travel, including walking and cycling; and make innovative use of renewable and clean energy technologies.

**Built Environment**

79. Better energy efficiency in buildings and more dispersed patterns of power and heat generation have key roles to play in creating a more sustainable built environment. Improving energy management and building efficiency are widely recognised as the easiest and most cost-effective means of reducing CO₂ emissions. The Scottish Government intends to introduce revised energy standards for buildings in the Spring of 2010, implementing the recommendations of the Building Standards Advisory Committee on emission reductions for dwellings and non-domestic buildings and some of the recommendations of the Sullivan Report on *A Low Carbon Building Standards Strategy for Scotland*.

80. The application of appropriate planning, design and building policies can achieve more sustainable urban forms and much higher energy efficiency and emission standards in new development. Modifying our existing built environment to reduce emissions and adapt to climate change will be a much greater challenge. Some 20th Century residential developments promote high car dependency and may require substantial, imaginative reworking. In some areas it will be possible to harness energy from waste or the heat produced by power stations or industry to develop local heat networks. Changes which reduce reliance on the car and encourage walking and cycling can deliver wider environmental benefits such as enhanced amenity, improved water, soil and air quality and greater biodiversity. However, it will be important to ensure that the pursuit of global environmental objectives does not undermine locally valued features of the environment. Our built heritage, including urban conservation areas, will need sensitive treatment. The planning system has an important role to play in anticipating and managing the local impacts of change to more sustainable patterns of urban living.

81. The promotion of high density, compact cities is one important response to the challenge of climate change. Scotland’s cities are already relatively compact by international standards. They offer short travel-to-work distances and in Edinburgh and Glasgow the majority of employed residents travel to work by means other than the private car. However, not everyone in Scotland lives in cities. A third of our population lives in small and medium-sized towns and large parts of rural Scotland have low population densities and dispersed settlement patterns. We need to develop a range of models of sustainable development to reflect Scotland’s geographical diversity.
82. Planning authorities will need to develop strategies for more sustainable patterns of development which take account of climate change predictions. Measures such as reducing transport emissions and producing heat and power from renewable sources will need to be combined with an understanding of changing development capacity, due to factors such as long-term flood risk, the increased frequency of extreme weather and the need to reduce and better manage demand for energy and water.

83. The Scottish Government is committed to improving air quality and is giving particular priority to addressing problems in designated Air Quality Management Areas (AQMAs). Where a proposed development could have significant impacts on air quality, close co-operation between planning authorities and those with responsibility for air quality and pollution control will be essential.

84. Strategic noise mapping and the preparation of Noise Action Plans are now a requirement under the EU Environmental Noise Directive. Their aim is to manage and reduce environmental noise where necessary and preserve environmental noise quality where it is good, with the initial focus on the Edinburgh and Glasgow conurbations and major roads (such as the M74 and A82), railways and airports. Noise mapping and consultative action plans have been completed and published and a second more comprehensive phase of action planning will take place in 2012-2013.

Regeneration

85. Realising the potential of people and places is at the heart of the Scottish Government’s approach to regeneration. Successful regeneration demands a combination of economic development, housing and environmental investment, better public services, improved workforce skills, support for community involvement, a commitment to environmental quality and good design; and respect for local identity and the historic features which contribute to it. Scotland has seen a substantial range of regeneration initiatives, many of which have been successful, but major challenges remain.

86. The £435m Fairer Scotland Fund is assisting Community Planning Partnerships to regenerate disadvantaged areas, tackle individual poverty and overcome barrier to employment. Although deprivation exists in all parts of Scotland, there are significant concentrations in the Central Belt and urban areas, with 34% of the most deprived areas in Glasgow, 9% in North Lanarkshire, 7% in Edinburgh and 6% in South Lanarkshire. There is significant deprivation in the former coalfield areas. Rural areas also experience more dispersed patterns of poverty and disadvantage. For example, Aberdeenshire, Argyll and Bute, the Highlands and Islands and the South of Scotland have particular problems arising from poor access to services.
87. The Government is supporting 6 urban regeneration companies (URCs) – Clyde Gateway, Clydebank Rebuilt, Irvine Bay, Riverside Inverclyde, Craigmillar in Edinburgh and Raploch in Stirling (see Map 3). Each URC will operate for 10 to 20 years. The Clyde Corridor, encompassing the major regeneration initiatives in the Clyde Gateway and along the Clyde Waterfront, is the national strategic regeneration priority. Given Glasgow’s high share of concentrated deprivation, Clyde Corridor projects have the potential to impact positively on Scotland’s overall levels of poverty and deprivation and make a substantial contribution to regional economic growth.

88. In January 2009, the Scottish Government announced a new £60 million Town Centre Regeneration Fund to complement efforts already underway to renew and improve town centres and local high streets throughout Scotland. The success of the Scottish Land Fund and its successor the Growing Community Assets fund, the Highlands and Islands Community Energy Company and the growing importance of social enterprise, illustrate the potential for stimulating regeneration activity on the back of community ownership and engagement. A range of measures are being undertaken to build the capacity of community councils to work alongside other community organisations and engage effectively with their local authority, public bodies and the community they represent; while the Scottish Government’s strategic fund for targeted action to tackle poverty and deprivation will help to transform the prospects of communities across the country.

Vacant and Derelict Land

89. Across Scotland 10,800 ha. of land is classed as vacant or derelict. In parts of the Lowlands, particularly in West Central Scotland, the closure of older industries has left degraded landscapes, poor environments and significant areas of vacant and derelict land, some of it contaminated. Vacant and derelict land is a wasted resource and causes blight, sometimes exacerbating the difficulties of already deprived communities. The Government wants to see this land brought back into productive use for housing, for economic purposes and to create attractive environments. Much progress has already been made. Major land reclamation in former mining areas and projects such as the Central Scotland Forest and the restoration of the Forth and Clyde and Union Canals have improved the environment and opened up new opportunities for economic development and recreation. However, more can be done. The Scottish Government has allocated £36.6 million for the period 2008 to 2011 to Glasgow, Lanarkshire, Dundee and Highland to address the largest concentrations of vacant and derelict land.
Areas eligible for Woods in and around Towns funding

Forest Parks

Woodland Resource

Central Scotland Forest
90. The statutory regime for cleaning up contaminated land provides for local authorities to identify sites and bring about their remediation. To facilitate the reuse of brownfield sites and the regeneration of urban areas the Government intends to provide a route for the remediation of sites of low development value or where there are barriers to redevelopment.

91. National planning policy encourages the reuse of previously developed land in preference to greenfield land. However, while the highest levels of growth are expected in the East, vacant and derelict land is heavily concentrated in the West. There is therefore potentially much greater scope for accommodating new development on previously used land in Glasgow and the Clyde Valley and Ayrshire than in Edinburgh and the Lothians, Stirling and the North East, where a higher proportion of new development will have to be on greenfield sites.

**Greening the Environment**

92. The restoration of vacant and derelict land, former mineral workings and landfill sites offers important strategic opportunities for improving the environment and increasing biodiversity through the development of green networks and the expansion of urban, amenity and community woodlands. Indeed, vacant, derelict and even contaminated land can have greenspace and natural heritage value even without remediation. The Scottish Forestry Strategy contains a commitment to expanding and improving the quality of woodlands around settlements to provide an improved landscape setting and widen recreational opportunities. Local authorities play an important role in promoting open space networks, facilitating countryside access and developing core path networks.

93. The Scottish Forest Strategy highlights the fact that climate change and the need to develop renewable sources of energy have become major drivers for extending woodland cover. It also draws attention to the contribution which forestry can make to urban regeneration and the benefits it can offer in terms of biodiversity, amenity, community involvement and better health. It aims to expand woodland cover from 17% to 25% of Scotland’s land area and sets the forestry sector a target of delivering annual carbon savings of 1.0 MtC (Million tonnes of carbon) by 2020. Woodland expansion is likely to be focused on poorer quality agricultural land. Research for the Forestry Commission indicates that there is potential to increase woodland cover in a wide range of rural and urban fringe areas throughout Scotland. Local authorities will have a key role to play in guiding woodland expansion locally through a new generation of forestry and woodland strategies. Strategic forest resources are shown on Map 4.
94. Realisation of Scottish Forest Strategy objectives will require new planting of around 10,000 ha. per annum and a significant reduction in the loss of existing woodland. The Scottish Government will therefore only support the removal of woodland where it would achieve significant and clearly defined public benefits. Where woodland is removed in association with development there will be a strong presumption in favour of compensatory planting. It is important that woodland expansion is managed so that the environmental benefits are not reduced as a result of adverse impacts on other assets, including water resources, landscape and cultural heritage.

95. In the Central Belt there is an opportunity to build on initiatives such as the Ayrshire and Glasgow and Clyde Valley Green Networks, the Central Scotland Forest, the Millennium Canal Link, the Falkirk Helix and the Edinburgh and the Lothians greenspace and forest habitat networks to create a Central Scotland Green Network capable of delivering a step change in the quality of the environment for the benefit of people, landscape and nature. The creation of a Central Scotland Green Network will complement improvements in rail, road and communications infrastructure, making Central Scotland a more attractive place to live in, do business and visit. Improving the health and resilience of the natural environment will help it to adapt to climate change. A well-planned increase in woodland cover can substantially enhance the landscape settings of our towns and cities, bring vacant and derelict land back into beneficial use, improve biodiversity and amenity and help to absorb CO2. Improvements can also be made to networks of other habitats, including wetlands, to counter fragmentation and assist species migration. The development of footpath and cycleway networks and other facilities and attractions will contribute to a more sustainable transport network and expand the range of recreational opportunities close to major centres of population, helping to encourage active travel and healthier lifestyles. The greening agenda will vary substantially in different parts of Central Scotland, providing tailored responses to local and regional challenges and opportunities.

96. There is also a need to restore and strengthen links between key water systems and woodlands on a national canvas. Building environmental capital at a landscape scale can deliver important benefits for the economy and communities. The creation of national ecological networks, potentially encompassing large strategic habitat restoration projects, could make a major contribution to safeguarding and enhancing biodiversity and landscape, make it easier for species to adapt to climate change and create a better environment and new opportunities for local communities. Major linear infrastructure projects such as railways, roads, pipelines and cables should be seen as opportunities to strengthen green infrastructure and ecological networks. River basin management plans should highlight opportunities to enhance the ecological health of the water environment.
Landscape and Cultural Heritage

97. In their rich diversity, Scotland’s landscapes are a national asset of the highest value. They provide the context for our daily lives and are a major attraction for our tourist visitors. They are settings for outdoor recreation and are valued as a source of refreshment and inspiration by many. Nationally important landscape characteristics include openness, intervisibility, perceived naturalness, and remoteness. Areas considered of national significance on the basis of their outstanding scenic interest are designated as National Scenic Areas (See Map 2).

98. Our landscapes have been shaped by human activity since prehistoric times. Natural and cultural landscapes and the historic fabric of our cities, towns and rural areas are important aspects of our national identity and the distinctive character of each part of Scotland. Edinburgh’s Old and New Towns, New Lanark, St. Kilda, the Neolithic monuments of Orkney and the Antonine Wall have been accorded an international status as World Heritage sites. The Lochaber and North West Highland Geoparks are part of the UNESCO European Geopark Network. Natural and historic environments help create a sense of place, contribute to the quality of life and are a rich resource for tourism and leisure, our creative industries, education, and national and regional marketing. They can also provide a focus for regeneration. The Scottish Government is committed to protecting, promoting and supporting the sustainable management of these key assets.

99. Landscapes evolve continuously in response to climatic, economic, social and technological change. As the European Landscape Convention recognises, their value extends beyond those protected by formal designations to all areas which reflect the interaction of natural processes with human activities. Landscape and visual impacts will continue to be important considerations in decision-making on developments. The cumulative effects of small-scale changes require as much attention as large developments with immediately obvious impacts. Some of Scotland’s remoter mountain and coastal areas possess an elemental quality from which many people derive psychological and spiritual benefits. Such areas are very sensitive to any form of development or intrusive human activity and great care should be taken to safeguard their wild land character.
100. Major urban regeneration projects, the changes taking place in the rural economy, the expansion of woodland cover and the restructuring of our forests offer strategic opportunities to enhance landscape quality and repair past damage. We will see significant changes to some of our landscapes to help deal with contemporary challenges such as climate change. However, even changes which offer clear environmental benefits, such as the expansion of woodland cover, require careful design and management to avoid adverse impacts. The aim must be to build environmental capital and pass well-managed, high quality landscapes on to future generations.

Marine and Coastal Environment

101. Our marine and coastal environment is a unique asset which helps to define Scotland's character and supports a wide range of economic activities, including fishing, aquaculture, energy production and tourism. It also supports internationally important seabird and marine mammal populations and rare seabed ecosystems. The Scottish Government is taking forward Scotland's first Marine Bill, which includes provisions for a new marine planning system, improved protection for marine wildlife and the creation of Marine Scotland to act as a champion for Scotland's seas. It has been agreed with the UK Government that Scottish Ministers will have responsibility for marine planning out to 200nm (nautical miles) and will participate in a UK-wide approach to marine planning. Marine Scotland will take forward the development of a Scottish National Marine Plan which will be consistent with the strategic priorities set out in this Framework and any agreed UK Marine Policy Statement.

102. Key pressures on the marine and coastal environment include competition for marine resources, urban expansion, new infrastructure and energy-related development, shipping activity and land claim. In some areas, sea level rise will result in an increased risk of coastal flooding. Our coastal landscapes and seascapes offer opportunities for a very wide range of sustainable tourism and leisure activities and the potential to develop a national coastal trail. The planning system should help to ensure that marine resources are developed sustainably, with development taking account of effects on environmental resources, the capacity of marine and coastal areas, with adverse effects minimised and mitigated. The care and management of the coastal environment should build on the work of the seven Local Coastal Partnerships and marine planning pilots to achieve more integrated outcomes for coast and sea. Where wetland habitat would be lost as a result of development or sea level rise, replacement through coastal realignment should be pursued.
OUR MARINE AND COASTAL ENVIRONMENT IS A UNIQUE ASSET WHICH HELPS TO DEFINE SCOTLAND’S CHARACTER AND SUPPORTS A WIDE RANGE OF ECONOMIC ACTIVITIES, INCLUDING FISHING, AQUACULTURE, ENERGY PRODUCTION AND TOURISM.
THE SCOTTISH GOVERNMENT IS COMMITTED TO MAKING BEST USE OF THE EXISTING RAIL AND ROAD NETWORKS. THAT MEANS THAT TRANSPORT ISSUES WILL NEED TO BE ADDRESSED FROM THE OUTSET IN PLANNING FOR FUTURE DEVELOPMENT.
INFRASTRUCTURE

103. The competitiveness of places depends on adequate investment in infrastructure. Improvements in transport infrastructure are needed to strengthen international links, tackle congestion, reduce journey times between our cities and support our rural communities. Parts of our electricity transmission network need to be strengthened if we are to realise the potential of our renewable energy resources. New installations are needed for the more effective management and recycling of waste. Developing local heat distribution networks can help us to achieve much greater efficiency in our use of energy and resources. To ensure the sustainability of these investments, the implications of a changing climate must also be considered. For example, greater investment in catchment and coastal management may be needed to reduce the risk of flooding. In some areas the capacity of water and drainage infrastructure needs to be increased to support economic growth and regeneration.

NATIONAL DEVELOPMENTS

104. Legislation provides for the National Planning Framework to be used to designate certain projects as national developments. Designation in the Framework is the mechanism for establishing the need for these developments in Scotland’s national interest. The Government has indicated that major transport, energy and environmental infrastructure projects may fall within this category of development. In a statement to Parliament in September 2007, the Cabinet Secretary for Finance and Sustainable Growth announced that projects which may be identified as national developments are those which:

- make a significant contribution to Scotland’s sustainable economic development;
- strengthen Scotland’s links with the rest of the world;
- deliver strategic improvements in internal connectivity;
- make a significant contribution to the achievement of climate change, renewable energy or waste management targets;
- are essential elements of a programme of investment in national infrastructure;
- or
- raise strategic issues of more than regional importance (projects with impacts on more than one city region, for example).
On the basis of an assessment against these criteria, the Scottish Government has identified the following projects as national developments (see Map 10):

1. Replacement Forth Crossing;
2. West of Scotland strategic rail enhancements;
3. High-speed rail link to London;
4. Strategic airport enhancements;
5. Grangemouth Freight Hub;
6. Additional Container Freight Capacity on the Forth;
7. Port developments on Loch Ryan;
8. Scapa Flow Container Transhipment Facility;
9. New power station and transhipment hub at Hunterston;
10. New non-nuclear baseload capacity at other existing power station sites;
11. Electricity grid reinforcements;
12. Central Scotland Green Network;
13. Metropolitan Glasgow Strategic Drainage Scheme;

Statements of need in respect of each of these developments are set out in the Annex. As developments of national importance, the Scottish Government expects their design to be of a high quality. Given the Government’s climate change targets, it will be important to ensure that they are designed to minimise their carbon impacts. Care must also be taken to avoid damage to the integrity of sites protected under the EU Habitats Directive. Mitigation or compensation measures may be needed to counteract any adverse effects on emissions or Natura 2000 sites.

TRANSPORT

Scotland needs an effective national transport infrastructure which will facilitate sustainable economic growth. A clear, long-term vision is vital because transport infrastructure can take a long time to deliver and has a lifespan measurable in decades. It also helps to give developers and transport operators the certainty they need if they are to commit to major strategic investments.

We need to reduce journey times and make them more reliable; make connections which build and sustain economic growth; and improve links between cities, towns and rural communities throughout the country. The Scottish Government is committed to international efforts to promote more sustainable patterns of
transport in order to minimise climate change and protect the global environment. A key challenge is to break the link between economic growth and increased traffic and emissions.

108. The strategic outcomes set out in the National Transport Strategy are to:
   • improve journey times and connections, to tackle congestion and the lack of integration in transport;
   • reduce emissions, to tackle the issues of climate change, air quality and health improvement; and
   • improve quality, accessibility and affordability, to give people a choice of public transport, where availability means better quality services and value for money or an alternative to the car.

109. The Scottish Government is committed to making best use of the existing rail and road networks. That means that transport issues will need to be addressed from the outset in planning for future development. Development plan land allocations must take account of the availability of existing public transport infrastructure and the capacity of transport networks. Promoting higher densities and mixed use development close to public transport nodes will be important in urban areas. In rural areas public transport is not a practical answer to all travel needs, though well developed local service networks can help to reduce the need for long distance travel. The Government is preparing guidance to support a proportionate but effective approach to transport appraisal and modelling for development planning and management.

110. The Scottish Government is committed to expediting the replacement Forth crossing and electrification of the main rail line between Edinburgh and Glasgow. Transport infrastructure commitments for the period to 2012 include implementation of the Airdrie – Bathgate and Borders rail link projects; new surface rail links serving Edinburgh and Glasgow airports; continuing improvements to Edinburgh’s Waverley Station; removing the bottleneck at the Raith junction on the M74; completion of the motorway network by delivering the M74 Extension and upgrading of the A8 and A80 to motorway standard east of Glasgow; and construction of the Aberdeen Western Peripheral Route.

111. It will be necessary to address significant development pressures over the next 25 years, particularly on the east side of the country where the population and the number of households are growing most rapidly. Investment will be needed to maintain and enhance essential transport infrastructure, support urban expansion, improve access to facilities and services, facilitate sustainable
MAP 5
STRATEGIC TRANSPORT CORRIDORS

- Urban Network
- Strategic Transport Node
- National Transport Corridor

Source: Transport Scotland
Corridors used as basis for strategic transport review.

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economic growth, and strengthen international gateways for passengers and freight. Ports and airports providing international freight and passenger links will need to be supported by an effective road and rail infrastructure.

112. There is a need to tackle congestion and improve public transport links between and within our cities. Improved connectivity can help unlock the potential of priority areas for regeneration such as the Clyde Corridor and Ayrshire, enabling more people to become economically active. Improvements in transport infrastructure are needed to support economic activity and improve access to facilities and services in our rural areas. It will be important to ensure that key locational decisions, and the investments in transport infrastructure necessary to support them help to move us towards a more sustainable, low carbon economy.

113. For the period from 2012, the Strategic Transport Projects Review (STPR) has developed a programme of interventions, based on an analysis of constraints and opportunities in 20 strategic corridors, the urban networks of Glasgow, Edinburgh, Aberdeen and Dundee and the strategic nodes of Perth and Inverness (see Map 5). The National Planning Framework reflects the outcome of the Review.

External Links

114. Economic success will depend on good connections with the rest of the United Kingdom and global markets. Scotland’s position on the Atlantic seaboard makes it particularly important to respond to the changing geography of Europe and the development of European markets. We also need to strengthen links with North America and the developing economies of Asia.

115. The European Union (EU) is Scotland’s largest market for goods and the number of tourists from European countries is growing. The European Spatial Development Perspective recognises the importance of strengthening West-East links in Northern Europe and the first Framework identified reviving historic links with the Baltic Region as offering particular potential. The economies of the countries of Eastern Europe have been developing rapidly. With good connections, their business and leisure markets offer major opportunities. The EU is promoting the development of a well-functioning and sustainable Trans-European Transport Network (TEN-T) comprising roads, railways and shipping routes. The Scottish Government will press for the TEN-T network to be extended to North-East Scotland. It will also ensure that the strategic needs of key national and international cargo and ferry links are taken into account in considering improvements to road and rail infrastructure.
116. The Scottish Government is strongly committed to promoting a shift to more sustainable modes of transport. However, given Scotland’s geographical position, good air links are vital for international connectivity and competitiveness. Air links to their countries of origin are important to the people from other parts of Europe now contributing to the Scottish economy, and good international connectivity will be a crucial factor in encouraging more people to come to live and work in Scotland. The tensions between providing support for necessary air travel and reducing harmful emissions are addressed in more detail in the Environmental Report.

117. In promoting enhancements at our airports, the Scottish Government is placing emphasis on measures which improve surface access by public transport. The Government has announced that a new station serving Edinburgh Airport will be built at Gogar on the Fife rail line. The construction of the Dalmeny chord, a new line linking the Fife and Edinburgh – Glasgow routes, will allow trains between Glasgow and Edinburgh to stop at the airport station. An interchange with the Edinburgh tram link will facilitate onward travel to the airport by public transport. The West Edinburgh Planning Framework safeguards land to meet long-term requirements and recognises the potential of the area in the vicinity of Edinburgh Airport as an international business location capable of attracting shared service centres for world-class companies.

118. Glasgow Airport will continue to serve business and holiday markets. Preparatory work for the Glasgow Airport Rail Link has started and it is expected that the first trains will be running by the end of 2011. The Glasgow and the Clyde Valley Structure Plan safeguards land to meet the potential operational needs of the airport to 2030. At Prestwick Airport there is a need for improvements to rail and bus interchanges and potential for the further development of associated service businesses. Development plans safeguard land for future requirements at Aberdeen and Inverness airports.

119. The services offered by Edinburgh, Glasgow and Prestwick airports are in some respects complementary and there may be potential for strengthening connections between them. Linking our main cities and airports with higher speed trains could offer a much wider choice of destinations, allow mass passenger transfer between airports, and open up the South-West to more visitors. Increased capacity on rail services between Prestwick Airport and Glasgow city centre will be the minimum requirement over the next 25 years.
120. Cross-Border road and rail links are of prime economic importance and congestion and lack of infrastructure outwith Scotland can have an adverse impact on access to Europe and other parts of the UK. The economic benefits of tourism can be spread more widely if more of Scotland can be brought within 3 hours of major English cities. There is a need to improve journey times and the frequency of rail services to key destinations such as London, Manchester, Leeds and Birmingham. Reducing journey times on routes between Aberdeen and Newcastle would improve the connectivity of knowledge economy clusters on the East Coast. Improvements to the West Coast Main Line would allow more cross-Border freight to be moved by rail. The Scottish Government will work with the UK Government and other bodies to strengthen cross-Border transport links.

121. A regular and reliable 4-hour journey time on existing lines between Central Scotland and London would help to make the train more competitive with flying. London’s high speed link to the Continent makes it possible for a journey such as Inverness to Marseilles to be completed in a day. However, the scope for further increases in speed on the existing rail network is limited. The Scottish Government is in discussion with the UK Government on the development of a high-speed rail link to reduce journey times between Central Scotland and London to under 3 hours and provide direct rail services to the Continent.

122. Ports make a vital contribution to the economy and are modernising to meet projected long-term growth in world trade. A growing proportion of freight is containerised. The number of containers handled by Scottish ports has been increasing and is expected to continue to increase in the long term. On the East Coast, the Firth of Forth is a key strategic freight gateway and there is potential for further expansion of port capacity, including container freight facilities. There is potential to handle coastal services from English ports as well as more international traffic, thus promoting the movement of a higher proportion of containerised freight by sea.

123. The Grangemouth area contains Scotland’s largest container port, with important European, Baltic and global connections. Approximately 9 million tonnes of cargo are handled through its docks each year and there is scope for further expansion. Forth Ports is concentrating its Scottish freight business at Grangemouth and has announced plans for the construction of 1 million sq ft of warehousing. English, Welsh & Scottish Railway Holdings Limited plans to offer direct rail freight services to Continental Europe from Grangemouth. Grangemouth is also home to most of Scotland’s petrochemical industry. Improvements to strategic road and rail infrastructure will allow the area to function to its full potential as an intermodal freight hub.
124. A substantial area of reclaimed land immediately to the west of the Rosyth dockyard offers the opportunity to create a new container terminal as part of the wider development of Rosyth as a key East Coast port. The location has the potential to offer deep water berthing accessible 24 hours a day. It can be made accessible by sea, road and rail, making it suitable for multi-modal operations.

125. The Ireland – United Kingdom – Benelux Euro-route follows the A77 and A75 trunk roads via Cairnryan, Stranraer and Dumfries. Stena Line plans to develop a new gateway port on Loch Ryan. The Scottish Government is already committed to spending more than £80 million to upgrade the A75 and A77 and the STPR identifies further improvements as a scheme for delivery from 2012. In addition, Ireland’s National Spatial Strategy recognises the potential for moving freight through Scotland to avoid congestion on routes to England’s East Coast ports and the matter is being pursued by the British – Irish Council.

126. The Government is committed to supporting the expansion of direct ferry links from Scotland. The Rosyth – Zeebrugge service resumed under a new operator in May 2009. The potential for a new ferry route between Kristiansund in Norway, Shetland, the UK and Continental Europe has been market tested by the partners involved and a preferred operator is taking the project forward. The Scottish Government and the Northern Ireland Executive are funding an economic appraisal of the case for restoring the ferry service between Campbeltown and Ballycastle.

127. The international trend is towards larger container vessels and few existing European ports offer the channel and berth depths necessary to accommodate the largest container ships. Against this background, the sheltered deep water locations at Hunterston and Scapa Flow offer substantial opportunities for developing new transhipment and gateway facilities linked to world shipping routes (see Map 6). The Ayrshire Structure Plan safeguards Hunterston for the development of an international transhipment hub. The realisation of this potential will depend on efficient and effective access through the road and rail network. Orkney Islands Council is currently assessing the potential environmental impacts of establishing an international container hub at Lyness on the island of Hoy.
Internal Connectivity

128. The Forth road crossing at Queensferry is a key element of Scotland’s national transport infrastructure. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The Government is taking forward its replacement as a matter of priority.

129. The Government is focusing on reducing rail journey times between cities and making best use of the rail network for commuting journeys into city and town centres. Electrification of the rail line between Edinburgh and Glasgow will allow up to six trains an hour between them, with express services travelling from city centre to city centre in around 35 minutes, allowing the two cities to function as a single economic entity. Planned investment in all routes across Central Scotland could mean as many as 13 services an hour between the two cities within 10 years.

130. Expanding the capacity of the rail network to accommodate the projected growth in passenger and freight traffic will involve the use of longer trains, some new track, the provision of new and lengthened platforms, improvements in signalling and new information systems. To serve differing passenger needs, fast connections between the major cities will need to be complemented by services stopping at intermediate stations. Facilities which allow convenient interchange with other modes of transport are also needed. Planning policies should aim to maximise the use of existing services, stations and terminals before considering the need for new ones.

131. There is a need to widen the range of services to and from our main cities and, in particular, to tie areas to the South and West of Glasgow more closely to the major centres of the Central Belt. The Government is committed to providing the additional capacity needed to support expanded rail services from Waverley and Haymarket Stations in Edinburgh.

132. While marginal reductions in short journey times are not as important to passengers as punctuality, reliability and comfort, significant reductions in longer journey times can deliver worthwhile economic benefits. Bringing Dundee, Aberdeen, Inverness and Newcastle closer to the Central Belt can do a lot to strengthen economic relationships between the city regions. Reducing journey times between Aberdeen and Inverness will help us to capitalise on synergies in the North-East and Highland economies. The scope for developing functional relationships is increased where travel times can be reduced below 60 minutes. Packages of measures have been identified to reduce train journey times between Inverness and Edinburgh by 35 minutes, and to cut around 20 minutes off train journey times between Aberdeen and the Central Belt. The construction of a new rail line between Inverkeithing and Halbeath would allow journey times through Fife to be reduced.
For trunk roads, the Government is focusing on tackling congestion where it affects journey time reliability, targeted enhancement of capacity, managing demand on the network and addressing the accessibility needs of rural areas. Work on the M74 extension between Fullarton and the M8 at the Kingston Bridge is underway. The projects to upgrade the A8 between Baillieston and Newhouse and the A80 between Stepps and Haggs to motorway standard are both expected to be completed in 2011. The completion of the Aberdeen Western Peripheral Route in 2012 will improve the flow of traffic round Aberdeen and improve connectivity between the North-East and the Central Belt. Improvements to some of the key junctions on the A720 Edinburgh City Bypass would reduce conflicts between strategic and local traffic and reduce journey times between concentrations of economic activity in the Edinburgh city region. The A82 and A83 trunk roads are key strategic routes for the Highlands and Islands. Targeted improvements between Glasgow and Fort William have been identified as a priority by the STPR. The Government is already committed to further improvements to nationally strategic trunk routes, including the A9, A96, A75 and A77. Many roads in the Highlands and Islands and the South of Scotland are lifeline routes for rural communities and of critical importance to the local economy. Their continued maintenance and improvement is essential to ensure the safety of the network and to support long-term development.
134. Connectivity is a particular challenge for island communities. While substantial progress has been made in providing bridge and causeway links to and between islands, overcoming the physical barrier of sea crossings remains a major challenge in the Highlands and Islands. Recognising the vital importance of ferry services in supporting island and other rural communities, the Scottish Government is undertaking a comprehensive review to identify what improvements should be made to meet future needs. It has also commissioned a study to establish the most effective and sustainable structure for a Road Equivalent Tariff (RET) scheme, based on the evaluation of a pilot project for services to and from the Outer Hebrides, Coll and Tiree.

135. Waste, biomass and timber movements are of increasing significance. The closure of landfill sites can result in waste having to be moved further. Timber harvesting is set to increase to 2020 as our commercial forests mature. The Government will work with local authorities and the forestry industry to improve access to plantations to ensure that maturing timber can be harvested. Increased levels of harvesting means that movements of timber and other forest products will grow significantly. With improvements to infrastructure, more of this material could be transported by rail or water.

Sustainable Transport and Land Use

136. The Scottish Government will work in partnership with local authorities to support the development of local sustainable transport initiatives, including improved walking and cycling opportunities and the completion of a national cycle network well connected to local neighbourhood networks.

137. Progress towards more sustainable modes and patterns of transport will involve encouraging active travel, reducing the need for motorised travel, developing quick and efficient public transport networks which provide attractive alternatives to car use, and strengthening rail and water-based freight distribution networks. Scottish planning policy encourages improvements to active transport networks to support more sustainable travel choices. The challenges for planning are to create urban environments which facilitate walking and cycling; to ensure that new residential development is well related to existing public transport networks and designed to accommodate the extension of public transport services; and to concentrate business and retail activity at locations which minimise reliance on the private car. The renewal of existing urban areas can help to counter the trend towards long-distance commuting. Park-and-ride facilities, the design of the urban environment and parking restrictions can help to discourage car commuting into city centres.
138. To achieve a significant shift to more sustainable modes of travel, public transport services will have to meet the need for mobility and be fast, reliable and cheap. They will have to offer good connections and facilities for interchange and be supported by integrated ticketing and good passenger information systems. Integrated ticketing from gateway to destination and improved rail and bus services on popular routes could help to make our tourist visitors less dependent on the car. Demand responsive transport solutions may have a role to play in urban and rural areas.

139. Short-haul journeys between conurbations are where rail services can most readily replace air travel. Rail offers the best alternative to the car for inter-city and long distance commuting journeys. Light rail, trams and buses are better suited to commuter and other trips within urban areas. Buses are the most frequently used and widely available mode of public transport. They are flexible and can be introduced quickly where new demand is identified. In many rural areas, they are the only viable public transport option. *Buses – Moving into the Future* sets out an action plan for the development of bus services. The STPR has identified the need for strategic park-and-ride facilities which would significantly improve public transport accessibility to our city centres. There is likely to be scope for further ferry and hovercraft services for firth crossings and on coastal routes.

140. The City of Edinburgh Council plans to have its tram line between Newhaven and Edinburgh Airport operational by 2011. Strathclyde Partnership for Transport (SPT) and Glasgow City Council are developing proposals for Clyde Fastlink, a dedicated bus route serving key locations on the Clyde Waterfront which is designed to be capable of being adapted to light rail. The Government wants to make it possible for everyone attending the Commonwealth Games to arrive by public transport or non-motorised means. A study commissioned by the North East Scotland Transport Partnership (NESTRANS) is looking at how best to deliver Aberdeen Cross-rail, a project involving the provision of new stations and improved rail services between Stonehaven and Inverurie.
THE GOVERNMENT WILL PURSUE THE IMPLEMENTATION OF THE MEDIUM TERM PROGRAMME OF ELECTRIFICATION IDENTIFIED IN ‘SCOTLAND’S RAILWAYS’.
141. The Government is committed to developing incentives such as the Freight Facilities Grant and Waterborne Freight Grants to encourage the movement of a higher proportion of freight by rail and water. It will be important to ensure that significant freight-generating uses are located as close to the rail network, strategic freight facilities and ports as possible. Research on sustainable freight facilities concluded that development of a number of interchanges at strategic locations on the transport network would help to promote modal shift. There is considerable potential for the development of short sea shipping routes between UK ports.

142. Of the 2,736 miles of rail track in Scotland only 23% is currently electrified. This results in a significant reliance on diesel trains which contribute to CO₂ emissions. The Government will pursue the implementation of the medium-term programme of electrification identified in Scotland’s Railways together with an extension to Grangemouth over the period to 2014. Electrification of the entire strategic rail network based on renewable and clean power generation would substantially reduce emissions and the Government believes that this must be the long-term objective. The focus will be on heavily trafficked routes in the first instance.

143. The canal network is currently an underused component of our transport infrastructure. It has links to some of Scotland’s major ports and could be used to remove non time-critical freight from the road and rail networks if supported by the development of appropriate facilities. British Waterways Scotland is taking forward plans designed to stimulate greater use of the network and bring new life and mixed use development to the canal environs. The Caledonian Canal can play a role in strengthening water-based connectivity between Scandinavia and Ireland.
ENERGY

Renewable Energy

144. While the target of generating 50% of the electricity we use from renewable sources by 2020 is likely to be met, we also need to derive a higher proportion of our energy requirements for heating and transport from renewable sources. In line with EU objectives, the Scottish Government is committed to working towards deriving 20% of total energy use from renewable sources by 2020. It has consulted on a framework for the development and deployment of renewable energy technologies prepared in co-operation with the Forum for Renewable Energy Development in Scotland (FREDS).
145. The Government is committed to establishing Scotland as a leading location for the development of renewable energy technology and an energy exporter over the long term. It is encouraging a mix of renewable energy technologies, with growing contributions from offshore wind, wave, and tidal energy, along with greater use of biomass. The aim of national planning policy is to develop Scotland’s renewable energy potential whilst safeguarding the environment and communities.

146. The harnessing of renewable sources of energy is effecting a radical change in Scotland’s energy economy, and the location of many of these resources means that rural areas are well placed to benefit. As wave, tidal, biomass, solar, hydrogen and offshore wind technologies continue to develop, they will become more competitive and commercially attractive, allowing them to make large contributions to Scotland’s energy mix over the next 25 years. Hydro-power and onshore wind are the renewable technologies likely to make the largest contributions initially and biomass should begin to make a significant contribution in the next decade. Given the potential environmental impacts, there is probably limited scope for new large hydro-electric schemes. However, there is significant interest in the development of small-scale schemes on watercourses and canals and the potential to link hydro-power development with pumped storage. Scotland has one of the best environments in the world for wave and tidal generation and marine technologies have the potential to make a major contribution in the longer term. A strategy for the development of marine renewable energy is being prepared.

147. The potential of some renewable energy technologies has a strong spatial dimension. The Crown Estate has identified the Moray Firth and a zone to the East of the Firths of Tay and Forth as locations with potential for the development of offshore windfarms. The north and west coasts offer a number of locations with very substantial potential for harnessing the energy of tidal streams. Further environmental assessment of Scottish coastal waters is being undertaken to inform locational decisions.

148. The Fife Energy Park at Methil demonstrates the potential for adapting coastal facilities created to support the oil and gas industry to new uses related to the development of renewable energy. There may also be opportunities to site new renewable energy facilities where they can take advantage of the transmission capacity released by the closure of existing power stations. Biomass plants should be sited where they can make best use of locally available resources.
149. Small-scale renewable energy projects can make a valuable contribution locally. They can play a vital role in supporting the sustainable development of remote rural and island communities in particular. Cumulatively, they can make a significant contribution to the development of a more decentralised pattern of energy generation. Their local environmental effects will need careful management.

150. The Scottish Government is assisting planning authorities with the preparation of supplementary planning guidance on the location of wind farms. It is also participating in a UK-wide project to identify technical solutions to potential conflicts between wind farm developments and radar systems. In parallel, it is working to promote regional solutions to potential conflicts between civil aviation radar and wind farms in the South of Scotland Terminal Manoeuvring Area.

Baseload Power Stations

151. Given the variable output of some renewable sources of energy, large baseload power stations will have a role to play in maintaining the stability of electricity supply for some time ahead. While important elements of Scotland’s existing baseload generating capacity are scheduled to close over the next 10 years, steps are being taken to extend the lives of existing power stations and develop new ones.

152. Low carbon fossil fuel technologies mean that coal-based electricity generation can continue to make an important contribution to Scotland’s energy mix and Scottish companies are world leaders in the field. For example, the Scottish Power owned Longannet station is on the shortlist of the current UK carbon capture and storage competition. The UK Government, working with the Scottish Government, plans in principle to fund 4 demonstration carbon capture and storage projects, with one of these being the competition winner, subject to a consultation in summer 2009. Other potential locations for carbon capture and storage projects include Hunterston, where there is capacity to accommodate a major new clean coal fired power station, and Peterhead, where the technology could be applied at the existing gas plant. As a general principle, the Scottish Government considers that new generating plant should be sited adjacent to existing thermal power stations, where it can make use of existing supporting infrastructure (see Map 10). The Scottish Government is currently considering which mechanisms might be put in place through its consenting powers to ensure that carbon capture and storage technology is installed at new and existing baseload stations as soon as possible, with the aim of decarbonising the electricity generation sector by 2030.
MAP 7
ELECTRICITY TRANSMISSION SYSTEM

- Fossil Fuel Power Station
- Nuclear Power Station
- Hydro Power Station
- Wind Farm - 5MW
- Pump Storage
- Marine Energy Centre
- Biomass Plant

- 132 kV Substation
- 275 kV Substation
- 400 kV Substation
- 400 kV Transmission Circuit
- 275 kV Transmission Circuit
- 132 kV Transmission Circuit
- 33 kV Transmission Circuit
153. British Energy has announced that the Hunterston B nuclear power station in North Ayrshire will continue to operate until at least 2016. The nuclear power station at Torness will continue to make a contribution until at least 2023. The Scottish Government does not support the construction of new nuclear power stations in Scotland. It favours the timely decommissioning and environmental remediation of redundant nuclear power stations and related buildings and recognises that sites will be needed for new waste management and disposal installations to support decommissioning activities generally. It will expect site operators to work closely with planning authorities and SEPA in the design and siting of radioactive waste management installations.

**Fossil Fuels**

154. The oil and gas industry continues to make a major contribution to Scotland’s economy. The development of Atlantic oil and gas reserves may create requirements for further storage, treatment and support services on the Shetland Islands, the Outer Hebrides and the West Coast.

155. There are large extractable reserves of coal in South and Central Scotland. Coal is won by opencast methods across the Central Lowlands from Ayrshire to Fife and permission has been granted for workings in Dumfries and Galloway.

156. The methane held in coal beds deep beneath Central Scotland is estimated to be equivalent to at least 10% of Scotland’s gas demand for the next 25 years. Most of these coal beds are well located in relation to existing gas pipelines and, given their proximity to our main coal-fired power stations, there is potential for combining the extraction process with carbon capture and storage. Planning authorities in the Central Belt should consider the potential for onshore gas extraction when preparing their development plans. As the pipe network required to facilitate gas extraction would extend across local authority boundaries, authorities may need to work together to develop a consistent planning policy framework.

**Electricity Transmission**

157. The pattern of the existing electricity grid (see Map 7) reflects the relationship of existing power stations to settlement. New capacity for the generation of electricity from renewable sources is being developed across Scotland. However, much of this is in remoter coastal and upland areas and requires to be transmitted to centres of population through the grid. The capacity of parts of the system needs to be increased to facilitate this transmission. Given the long lead-in time for electricity transmission projects, much of this work must be taken forward soon. There is a presumption in favour of adequate grid connection for areas which planning authorities identify as preferred areas for renewable energy development.
132 kV Substation
275 kV Substation
100 kV Substation
400 kV Transmission Circuit
275 kV Transmission Circuit
132 kV Transmission Circuit
33 kV Transmission Circuit

Proposed Beauty-Denny rebuild. Inquiry decision awaited.

Other Ofgem baseline projects:
Under construction, or ready to start construction subject to consents.

Further Reinforcements:
Subject to Ofgem approval of investment and consents

MAP 8
TRANSMISSION SYSTEM REINFORCEMENTS
158. The electricity market regulator, Ofgem, has the role of approving, on the basis of an economic assessment, investment in potential upgrades proposed by the Scottish transmission system owners. Ofgem has approved a number of transmission system reinforcements as “baseline projects”. These include:

- the Beauly-Denny line project;
- the upgrading of the substation at Sloy (which already has planning permission);
- increased north-south transfer capability in Central Scotland;
- a new South-West Scotland transmission line and associated infrastructure; and
- strengthening the Scotland-England interconnectors.

The Ofgem assessment does not remove requirements for Electricity Act and planning consent.

159. In addition to the “baseline projects”, the Scottish transmission system owners have identified a number of further key reinforcements. Sub-sea links will be essential to realise the substantial renewable potential of the Outer Hebrides, Orkney and the Shetland Islands. Upgrades to the existing Beauly – Dounreay, Beauly – Keith and East Coast transmission lines will be required. Central Scotland and Argyll are other areas where the transmission system needs to be strengthened. While grid reinforcement is likely to take place along existing routes, some new connections and route modifications may be necessary (see Map 8).

160. The reinforcements which the Scottish Government proposes to designate as national developments are shown on Map 10. They will require to be accompanied by a programme of landscape maintenance and enhancement. In identifying these reinforcements, no assumption is being made about the need for transmission, or transmission routes, between Beauly and Denny. The decision on that matter will be made by Scottish Ministers in the light of the recent public inquiry into the application by Scottish Hydro Electric Transmission Limited and Scottish Power Transmission Limited for consent under section 37 of the Electricity Act.
161. In March 2009 the Electricity Network Strategy Group published the report *Our Electricity Transmission Network: A Vision for 2020*, identifying grid reinforcements necessary to meet UK and Scottish renewable energy targets. The report concludes that reinforcement of the land-based interconnectors to England and new sub-sea cables off Britain’s west and east coasts would provide sufficient transmission capacity to allow up to 11.4 GW of power to be generated from renewable sources in Scotland.

**Sub-Sea Grid**

162. The Scottish Government is committed to a strategic approach to electricity transmission and looking to how the system might evolve beyond currently programmed upgrades, with a particular focus on export. It is in discussion with North Sea partners and the European Commission on proposals for a North Sea grid, to take electricity from Scotland and other countries in the northern North Sea direct to major continental markets. It is also working with the governments of the Republic of Ireland and Northern Ireland to investigate the potential for developing sub-sea cable routes to harness marine energy resources to the west and south-west of Scotland. By connecting geographically dispersed regions, a sub-sea grid (see Map 9) would offer the additional advantage of smoothing out variations in output from sources such as windfarms as weather patterns move across Europe.
Heat

163. About 50% of Scotland’s energy demand is for heat. While the main energy source for heating is currently gas, Scotland has one of the best climates in Europe for the solar heating of buildings. Higher building standards and improved insulation can substantially reduce heating requirements. There is considerable potential to derive more heat for domestic, business and industrial purposes from sources such as waste and biomass and by using ground, water and air source heat pumps. Better use can also be made of the heat produced by electricity generation, industrial processes and anaerobic digestion. Many of these sources of heat can be harnessed at a domestic, local or community level, but some require larger scale operations. The Scottish Government is committed to helping to build a commercially viable and diverse heat industry and has consulted on a Renewable Heat Action Plan.

Decentralised Production

164. The Government is keen to facilitate the development of a more dispersed pattern of energy generation and supply as part of the response to the climate change challenge. This will involve encouraging community and household heat and power generation, the decentralisation of generation capacity and the development of local heat networks. The efficiency of power stations can be substantially increased by capturing the heat produced by electricity generation to warm our buildings. Advances in technology which allow heat to be transmitted efficiently over longer distances may create scope for developing heat networks based on some of our existing power stations. Harnessing components of the waste stream and other biomass offers the potential to develop new, smaller combined heat and power (CHP) stations close to communities. In some areas, particularly in rural Scotland, wood or other biomass may provide the most appropriate fuels for local heating schemes. Investment in transmission and distribution networks may be required to facilitate more decentralised patterns of electricity generation.

165. Planning authorities have an important role in facilitating more decentralised patterns of energy generation and supply. They should take account of the potential for developing heat networks when preparing development plans and considering major development proposals.
WASTE MANAGEMENT

Municipal, Commercial and Industrial Waste

166. Waste management infrastructure has an important part to play in realising the Scottish Government’s objective of a greener Scotland. The targets set by the EU Landfill Directive necessitate a move away from landfill, and recognition of the substantial potential of waste as a resource. Currently, we have capacity to divert some 1 million tonnes of municipal waste from landfill. This will need to be increased to some 1.5 million tonnes by 2010, over 2 million tonnes by 2013 and some 2.5 million tonnes by 2020. Additional capacity will also be required to treat commercial and industrial waste. Development of the necessary infrastructure is a Government priority.

167. Key elements of the Scottish Government’s Waste Policy are:

- increasing the proportion of municipal waste recycled or composted to 40% by 2010; 50% by 2013; 60% by 2020; and 70% by 2025;
- reducing the proportion of municipal waste going to landfill to no more than 5% by 2025;
- stopping the growth in municipal waste by 2010;
- a 25% cap on energy from mixed municipal waste;
- a requirement that energy from waste plants achieve high efficiency in terms of energy recovery; and
- the preparation of a revised National Waste Management Plan which will set targets for reducing the amount of commercial and industrial waste sent to landfill.

168. The planning system has a crucial role to play in ensuring that installations are delivered in time to allow waste management targets to be met. Planning authorities should facilitate the provision of a network of waste management installations which enable the movement of waste to be minimised and EU and national targets to be met, taking account of opportunities to derive energy from waste and develop local heat networks. To support the Government’s drive towards a low carbon economy, relationships between waste, heat and other forms of energy must be fully considered by planning authorities at an early stage in the preparation of development plans and in determining major planning applications. Provision for the additional waste management capacity required at city-region level must be made in strategic development plans. The 25% cap on energy from municipal waste will apply at the local as well as the national level and will be a material consideration in development management decisions. The Scottish Government will publish separate guidance on its operation.
169. Other types of waste management infrastructure will include recycling and composting installations, anaerobic digestion plants, transfer stations and plants to turn recycled materials into products. Relevant considerations in the siting of installations will include proximity to sources of waste, the transport network and the relationship of intermediate transfer and treatment installations to tertiary waste management installations. Modern treatment and transfer centres are contained facilities which can be accommodated on industrial estates. Where possible, they should be located close to the population centres they serve. They should be linked to tertiary waste management installations in a “hub and spoke” arrangement, where possible by rail or water.

170. The forthcoming National Waste Management Plan may identify a need for a number of national installations to deal with particular waste streams. Any such installations are likely to be designated as national developments in the third National Planning Framework (NPF3).
Radioactive Waste

171. Scottish Government policy on higher activity radioactive waste is currently being developed. However, in accordance with the proximity principle, it is likely that facilities to manage this waste will be required at locations close to its source of origin.

172. The decommissioning of the former nuclear power research site at Dounreay in Caithness forms part of a programme of investment in specialised infrastructure designed to treat and manage radioactive waste safely. Highland Council has granted planning permission for a low level radioactive waste facility at Dounreay. A further facility will be needed in the South of Scotland for radioactive waste arising from processes elsewhere. These facilities will be developed in line with the Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom published in March 2007.

173. Radioactive waste also arises from the healthcare sector, the oil and gas industry and educational establishments. At present certain types waste are sent to England because no disposal route exists in Scotland. With the support of the Scottish Government, strategies are being developed on a UK-wide basis for both nuclear and non-nuclear industry low level radioactive wastes, to ensure that effective treatment and disposal routes exist throughout the UK.

WATER AND DRAINAGE

174. The renewal of water and drainage infrastructure involves substantial investment over a significant period of time. It is therefore important to ensure that Scottish Water's long-term investment programme is based on a thorough assessment of needs, including the Government's priorities for economic and housing development, area regeneration and environmental improvement.

175. Scottish Water is undertaking a £2.5 billion investment programme between 2006-10. Priorities for the improvement of water and drainage infrastructure between 2010 and 2014 have also been identified. Amongst the objectives set by Scottish Ministers is a requirement to provide sufficient strategic infrastructure capacity to meet the needs of all estimated new housing developments and the domestic requirements for commercial and industrial developments over the period to 2014. Ministers will ensure that development needs continue to be taken into account in subsequent regulatory periods. Scottish Water is working
with local authorities and developers to ensure that it prioritises the development of new strategic infrastructure in accordance with its quality investment programme, the spatial priorities identified in this Framework and the priorities identified by planning authorities in their development plans. Generally, lack of capacity in water and drainage infrastructure should no longer be a significant constraint on development.

176. In the West of Scotland, the Metropolitan Glasgow Strategic Drainage Partnership has a key role to play in facilitating regeneration on the east side of the Glasgow conurbation, including realising the potential of the Clyde Gateway and delivering the facilities for the 2014 Commonwealth Games. Substantial investment in water and drainage infrastructure will also be needed to support expansion in the A96 Corridor between Inverness and Nairn, and the expanded communities to be served by the Borders rail line.
WATER RESOURCE MANAGEMENT AND FLOODING

177. The projected increase in flood risk as a consequence of climate change has implications for the siting of new development, the protection of existing development, coastal defence and the safeguarding of cultural heritage. Reference to SEPA’s internet based map of areas at risk from flooding will help to inform decisions on the location of development and the provision of mitigation and attenuation measures where vulnerable sites have been selected for development.

178. The Government is committed to an integrated approach to the management of water, encompassing environmental protection, public health, flood risk management, the supply and drainage infrastructure required for development, and aquaculture. Improving the quality of the water environment can help to create healthier ecosystems, deliver substantial amenity and recreational benefits and contribute to urban regeneration. The Water Environment and Water Services Act 2003 provides a framework for the sustainable management of water resources. Comprehensive river basin management plans are being prepared, based on an analysis of all human impacts on water systems. The plans will be published in 2009, and will set environmental objectives for individual water bodies. Planning authorities will have to have regard to them when preparing development plans.

179. Sustainable catchment management measures have an important part to play in providing long-term solutions to problems of flooding. They can also be integrated into wider greenspace and ecological networks. By taking a catchment based approach, we can minimise the risks to people and property and tackle the causes and effects of flooding. Flood risk can be reduced by slowing the flow of water to burns and rivers. This can be achieved by increasing the capacity of natural features such as wetlands, meanders and flood plain woodlands as well as by engineered flood protection structures. Canals should also play a role in catchment management and flood risk reduction. The Scottish Government’s Flooding Risk Management Act modernises the framework for sustainable flood management. Local authorities and SEPA will work together to produce flood management plans identifying measures to secure an integrated approach to flood risk reduction.
COMMUNICATIONS TECHNOLOGY

180. Access to modern information and communications technology is now vital for business and Scotland’s geography makes the delivery of comprehensive coverage challenging. The Scottish Government has therefore intervened with a programme of investment which has made broadband accessible to over 99% of households. Scotland is now one of Europe’s leaders in broadband availability, placing it in a strong position to take advantage of the economic opportunities offered by modern communications technologies. In addition, the Scottish Government is committed to delivering broadband to those individuals and businesses who have reported that they do not yet have access through the Broadband Reach Project, in a contract worth up to £3.3 million.

181. In February 2009, Ofcom, the telecommunications regulator, announced a package of measures designed to encourage the roll-out of next-generation broadband throughout the UK. The current focus of Scottish Government support for high capacity broadband is on improvements to digital connectivity in the public sector, including health and education facilities and local authority premises. For example, Pathfinder projects are delivering scalable, high-capacity broadband to all schools (and many other public sites) in the Highlands and Islands and the South of Scotland, with a Government contribution of £93m.

182. The planning of major infrastructure projects such as railways, roads, tunnels, pipelines and electricity cables should take account of opportunities to extend the digital communications network. The switch to digital television between 2008 and 2012 may create opportunities to provide new community information, shopping and entertainment services.
This section relates the vision to 2030 to each broad region of Scotland to provide spatial perspectives for the Central Belt, East Coast, Highlands and Islands, Ayrshire and the South-West and the South of Scotland. The perspectives address spatial issues of national importance which cut across city-region and local authority boundaries, to provide a context for development planning and the ongoing activities of the Scottish Government, key agencies and local authorities.

The Central Belt and the East Coast are the dominant economic corridors for the Lowlands. The Highlands and Islands have unique environmental and cultural resources offering very substantial opportunities for sustainable growth. Ayrshire and the South West play an important role as Scotland’s western gateway. In the South of Scotland a distinctive identity, high environmental quality and proximity to markets in England and Ireland are assets with great economic potential.

The Clyde Corridor, Central Ayrshire, West Edinburgh, the Upper Forth, the Inverness – Nairn Corridor and the Pentland Firth are areas where major change is taking place and the scale and complexity of the issues to be addressed means that co-ordinated action is needed in the national interest.

CENTRAL BELT
City Collaboration

Edinburgh and Glasgow are Scotland’s principal centres of business and culture and key international gateways. Edinburgh is the nation’s capital and both cities have important metropolitan roles. Their centres are foci for public administration, national institutions and a wide range of services as well as being major tourism and leisure destinations. The relationship between Edinburgh and Glasgow is recognised as being of vital importance and, together with Scottish Enterprise, the two cities are working to make Central Scotland a globally important centre of economic activity. To achieve this, they need to be linked by a fast, efficient, high quality transport system which is well connected to their surrounding regions and world markets. The electrification of the rail line between Glasgow and Edinburgh, the opening of the Airdrie – Bathgate line, new airport rail links, the M74 Extension and the M8 and M80 motorway enhancements are important contributions to strengthening Central Belt connectivity.
Edinburgh Waterfront

187. The Edinburgh Waterfront Partnership is taking forward one of the largest urban regeneration projects in Europe. Development sites on the waterfront constitute a major part of Edinburgh's effective housing land supply. The population of the area is projected to increase by approximately 70,000 over the next 15 years. Some 680 ha. of land around Leith and Granton will be redeveloped to provide some 30,000 new homes, including much-needed affordable housing; new commercial and business locations; a new further education campus; and major new areas of public open space. The project offers opportunities to create new high quality sustainable communities and cultural facilities which enhance the attraction of Edinburgh as a tourism destination, and to help to regenerate adjacent communities. There is also potential for marina development, improved provision for cruise vessels and terminal facilities for ferry and hovercraft services. The City Council plans to have the new tram line between the Waterfront and Edinburgh Airport operational by 2011.
West Edinburgh

188. Realising the potential of West Edinburgh as an internationally competitive business location is a key priority. The West Edinburgh Planning Framework addresses issues of airport growth, congestion and connectivity, promoting integration of land use and transport to secure benefits for the local, regional and national economies. Scottish Enterprise is promoting the development of an International Business Gateway immediately to the south of Edinburgh Airport, providing a prime office location for businesses serving international markets. The relocation of the Royal Highland Show Ground will facilitate airport enhancement.

East Central Scotland

189. There is a need to accommodate a substantial growth in the number of households in the Edinburgh city region and the Upper Forth area over the next 25 years. Exceptionally high house and residential land prices in Edinburgh have in part reflected an imbalance between demand and supply. A priority objective for the planning system is to ensure that the supply of development land is adequate, that major sites identified for housing are made available in good time, and that more affordable housing is provided. Investment in transport and environmental infrastructure will be needed. The development of transport interchange facilities at Haymarket would help to accommodate the forecast 50% growth in rail demand between 2005 and 2022. New sewerage is needed to support planned development to the east of the city.

190. Efforts are being directed towards consolidating the reputation of the Edinburgh city region as a science and technology hub supporting world-class research and innovation. The BioQuarter at Little France is establishing the region as one of the world’s top ten centres for commercial biomedical research. Priority is being given to developing the complementarity of the locations which make up the Lothian Science Zone and improving the connectivity of the gateway facilities at Edinburgh Airport, Grangemouth and Rosyth. In West Lothian there are significant opportunities for business and employment growth in the vicinity of the Forth bridgehead, in Livingston and the Almond Valley and in the Whitburn/Armadale area.
Clyde Corridor

191. The scale of the opportunities in the Clyde Corridor makes it a national regeneration priority and, within it, the Clyde Gateway and the Clyde Waterfront are the main foci for regeneration in the medium term. This activity is supported by Scottish Government funding that will allow people in surrounding communities to take advantage of the opportunities which the transformation of the Gateway and Waterfront will bring.

192. The STPR has confirmed the need to increase terminal capacity and improve rail connectivity through Glasgow. The West of Scotland Strategic Rail Enhancements project will consider the potential for future integration with a high-speed rail network.

193. The potential to provide good public transport connections make Gartcosh and Bishopston key locations for long-term expansion to the east and west of Glasgow. Gartcosh, Ravenscraig and Eurocentral are key locations for regeneration and renewal in North Lanarkshire. Settlement restructuring associated with the establishment of a new town centre at Ravenscraig will create new residential neighbourhoods, provide new economic opportunities, improve the quality of the environment and services and promote more sustainable access patterns in that part of Lanarkshire. In South Lanarkshire, the Council is developing proposals for Community Growth Areas at Hamilton West, East Kilbride, Newton, Larkhall, Ferniegair and Carluke South. In 2007, Scottish Ministers announced that a new publicly operated prison should proceed at Bishopbriggs. Drumchapel, Oatlands, Garthamlock, Ruchill/Keppoch and locations adjacent to the Forth and Clyde Canal are priorities for regeneration in Glasgow. The renewal of Paisley Town Centre is a key priority for Renfrewshire Council. In West Dunbartonshire, the Strathleven corridor linking the Clyde with Loch Lomond offers substantial opportunities for regeneration, economic development and environmental improvement.
Clyde Waterfront

194. On the Clyde Waterfront, the area from Glasgow Green to the Erskine Bridge is in the process of being transformed. £5.6 billion of public and private sector investment is creating new residential areas and a variety of business and leisure facilities on the riverside. A flood management strategy has been prepared and requirements for new flood defences identified. The Broomielaw and Tradeston are attracting high quality mixed use commercial, leisure and residential development. In Finnieston, permission has been granted for a sustainable urban village and indoor arena in association with the renewal of the Scottish Exhibition and Conference Centre. The world-class media facilities on Pacific Quay, incorporating the headquarters for BBC Scotland and Scottish Television, create the potential for Scotland to become a globally significant player in television and film production for the English-speaking world and the Celtic diaspora.

195. Access to the Waterfront needs to be improved if its full potential is to be realised. The Clyde Arc bridge has improved connectivity in the Pacific Quay and SECC redevelopment areas and is future-proofed to allow it to accommodate a light rapid transit system. SPT and the City Council are developing Clyde Fastlink to support regeneration on the Waterfront. The new foot and cycle bridge between the Broomielaw and Tradeston will help to promote regeneration on the south bank of the river. Opportunities for developing open space networks and promoting water-based recreation and business activity have been identified.

196. A new community is emerging at Ferry Village, with good access to Renfrew and the Braehead Shopping Centre. Further down river, the Riverside Inverclyde Urban Regeneration Company is creating new employment opportunities and improving the quality of housing and the environment in Greenock and Port Glasgow. In Greenock, permission has been granted for a major marina and residential development at Victoria Harbour and East India Docks. Container traffic through Greenock has been growing and the town is now a regular port of call for cruise ships. On the north side of the river, 170 acres of waterfront and town centre land are being redeveloped at Clydebank. Improvements are needed in rail infrastructure and the quality of stations. New ferry services could improve links between the City Centre and waterfront communities at Clydebank and on the Renfrew and Inverclyde Riversides.

197. The Clyde’s rich maritime heritage and the outstanding environmental assets of the Firth of Clyde and the Loch Lomond and the Trossachs National Park provide the basis for a growing tourism and leisure economy in areas to the west of Glasgow, such as Inverclyde and West Dunbartonshire. Regeneration initiatives already underway are having a positive effect on the image of these areas. Good links through Glasgow to the rest of Scotland will be crucial in realising their full potential.
Clyde Gateway

198. The Clyde Gateway in the south-east of the Glasgow Conurbation is Scotland’s top regeneration priority. The east side of the city together with adjoining parts of South Lanarkshire contain some of our poorest communities and large concentrations of vacant and derelict land close to areas which have experienced strong economic growth. Committed investment in transport infrastructure will transform the accessibility of the area creating major new opportunities for economic development and environmental improvement. Over the next 20 years some £1.6 billion will be invested to bring 350 ha. of derelict and contaminated land back into use. Dalmarnock will accommodate a 5,000-seat National Indoor Sports Arena, a 1,500-seat velodrome, and other facilities for the 2014 Commonwealth Games. Implementation of the Metropolitan Glasgow Strategic Drainage Plan is crucial to the successful delivery of these projects and will be complemented by strategic green network improvements.

Making the Connections

199. The strategic corridor between Edinburgh and Glasgow makes a key contribution to the national economy. The towns of Central Scotland need good public transport links to provide access to jobs in Glasgow and Edinburgh and to make them attractive locations for business investment and residential development. There is a need for improved interchange and park-and-ride facilities and potential for the development of commuter ferry services on the Forth and Clyde. Reopening the rail line between Airdrie and Bathgate will make both of these towns attractive locations for new development and this offers opportunities for creating higher quality urban environments. There is also a need to consider the potential offered by Motherwell’s location on the West Coast main rail line.

200. Strengthening rail and road links across the Central Belt will support the development of the gateway ports of Grangemouth, Rosyth and Greenock and help to create a more attractive freight route between Ireland and the Continent. The potential for ports on the Forth and Clyde to expand in response to market opportunities must be safeguarded. Falkirk Council is working with Forth Ports and Ineos to identify measures to protect the port, petrochemical complex and residential areas at Grangemouth from coastal flooding, taking account of the likely impacts of climate change. The STPR has confirmed that an upgraded A801 will help to improve connectivity between Grangemouth and the M8 corridor.

201. The estuarine habitats of the Firths of Clyde and Forth, lowland peat bogs and the Clyde Valley woodlands are features of international conservation value. The Millennium Canal Link offers opportunities for regeneration and leisure-related development across the Central Belt. There is a need to ensure that the strong focus of development activity on the Firth of Forth delivers net environmental benefits. A large-scale coastal habitat development project near Grangemouth could complement the HELIX project and be a focus for wildlife-based tourism.
Green Network

202. The Glasgow and Clyde Valley Green Network Partnership is taking forward a programme of greenspace enhancement designed to promote healthier lifestyles, better environments, greater biodiversity, stronger communities and economic opportunity. Priority is being given to key urban regeneration areas such as the Clyde Waterfront, the Clyde Gateway, Gartcosh/Gartloch, Ravenscraig, Inverclyde, Ferguslie Park and Govan. There is potential for substantial habitat restoration and enhancement associated with the Clyde Gateway and Commonwealth Games projects. The Central Scotland Forest and renewal focused on the Forth and Clyde and Union Canals are helping to transform the environment in the area between Glasgow and Edinburgh. Effective co-ordination of these and neighbouring initiatives to create a Central Scotland Green Network offers the opportunity to effect a step change in environmental quality, woodland cover and recreational opportunities. It will make Central Scotland a more attractive place to live in, do business and visit; help to absorb CO2; enhance biodiversity; and promote active travel and healthier lifestyles.

EAST COAST

203. The East Coast corridor between Aberdeen and Newcastle offers opportunities to develop knowledge economy links based on the expertise associated with the energy and offshore industries and the universities of Aberdeen, Dundee, St. Andrews, Edinburgh and Newcastle. The road crossing at Queensferry is a vital strategic link and the Scottish Government is taking forward its replacement as a matter of priority. There are opportunities to develop North Sea and Baltic trade and coastal shipping connections. The Fife Energy Park at Methil provides important strategic capacity in the fields of offshore and renewable energy technology. Measures to strengthen the East Coast Corridor will be taken forward in the strategic development plans for the Aberdeen, Dundee and Edinburgh city regions. The STPR has identified the need for a Dundee Northern Relief Road to reduce conflict between strategic and local traffic and improve the reliability of journey times between Aberdeen and the Central Belt.

204. The primary aim for Aberdeen and Aberdeenshire is to grow and diversify the economy, making sure the region has enough people, homes, jobs and facilities to maintain and improve its quality of life. Under the banner of the Energetica project, the economic development community is seeking to build on the energy sector and offshore strengths of the region, diversifying into new renewable and clean energy technologies to consolidate its position as a global energy hub. It is also pursuing opportunities to develop tourism, the rural economy and the food and drink sector. Distance from London and other major UK cities means that good domestic as well as international air links are vital to the region’s economy. Construction of the Aberdeen Western Peripheral Route will improve regional connectivity and open new development opportunities. Strategic growth is being focused on the city and the Aberdeen to Peterhead and Huntly to...
Laurencekirk corridors. Regeneration priorities include parts of Aberdeen, Fraserburgh, Peterhead and some of the smaller coastal communities. Synergies with the Highlands and Islands offer opportunities for collaboration to develop the wider North of Scotland economy.

205. Aberdeen is working to strengthen its role as Scotland’s northern gateway, building on its considerable science and research expertise and broadening its economic base. The City Council is focusing on improving the quality of the environment in the city centre and developing cultural and recreational facilities to create a more vibrant social scene. There is scope for attracting more tourists to the city and expanding the service sector, including financial services. Aberdeen Harbour provides essential support services for the offshore oil and gas industry and the tonnage of vessels and cargo handled continues to grow. It is the principal mainland port for freight, passenger, vehicle and livestock services to Orkney and Shetland. The city’s role as a regional media centre provides a base from which to build a larger creative sector.

206. Dundee has made great strides in improving the quality of the city centre, enhancing cultural facilities and establishing new centres of expertise in key areas of the knowledge economy. Many young people come to the city for further education. A key challenge is to create the opportunities which allow a higher proportion of them to stay. The strategy for the Dundee city region is to promote regeneration, neighbourhood renewal and further improvements to the quality of urban living within the city boundary. A masterplan has been prepared for the regeneration of the Central Waterfront and the City Council and Scottish Enterprise are promoting high amenity business and residential development in the Western Gateway. There is a need to improve public transport services to growth centres such as the Digital Media Campus, Tech Park, Medipark and the Scottish Crop Research Unit. Local improvements to road and rail connections may help to unlock the potential for further development at the Port of Dundee, including its potential to serve the renewable energy sector. Reducing the rail journey time to Edinburgh to under an hour would help to attract more high value jobs to the city. There is likely to be scope for providing more services from Dundee Airport.

207. The accessibility of Perth and Stirling and the quality of environment they offer make them attractive locations for development. Perthshire and Stirlingshire have important links with the Glasgow and Edinburgh city regions and provide the interface between Lowland and Highland Scotland. Angus and eastern Perthshire have strong links to Dundee and there is scope for developing complementary roles for Dundee and Perth as the main centres on the Tay. The STPR has recognised the strategic importance of transport links between them. Dundee – Perth – Stirling should be seen as a key communications axis in the East Coast corridor.
208. For Fife, good connections with Edinburgh and Dundee are important. South Fife is a key location for business activity and the Fife Structure Plan identifies a number of strategic land allocations to accommodate housing needs. The Forth Replacement Crossing project includes the provision of a dedicated multi-modal corridor giving priority to public transport. A new light rapid transport link across the Forth could provide a significant increase in public transport capacity between Edinburgh and Fife and a more sustainable means of accessing Edinburgh Airport from Fife. There is potential for building on the international profile of St. Andrews as a leisure destination and centre of excellence in academic endeavour and scientific research. Improving the quality of the environment in the former mining areas of Mid-Fife can help to ensure that they are able to play their full part in the future economic development of the corridor. The Westfield Energy Park is pioneering new energy technologies and the area also has the potential to accommodate a large recycling and waste management facility serving Fife and surrounding areas.

209. The small and medium-sized towns of the East Coast are important local service centres. Peterhead is the North Sea’s largest white fish port and a key logistical support centre for the North Sea oil and gas industry. It is also handling an increasing number of cruise vessels. As the deepest harbour in the North-East, it offers opportunities for the development of new ferry services and container traffic, for sub-sea engineering and the decommissioning of offshore equipment, and for more sustainable waste management. Conversion to clean-burning could extend the life of Peterhead power station and offer future opportunities for carbon capture and the development of a local heat network. A new prison will be built in the Peterhead area to replace the existing prisons at Peterhead and Aberdeen. The port of Montrose provides import and export services for agricultural and oil-related businesses and is a base for oil rig support vessels. Burntisland is a potential northern terminus for cross-Forth ferry or hovercraft services.

210. The East Coast corridor boasts much of Scotland’s best agricultural land and fine farming landscapes, significant areas of woodland and attractive historic burghs and fishing villages. It has a diverse rural economy and makes an important contribution to Scottish food production. Other environmental assets include important coastal and estuarine habitats such as dune systems, tidal mudflats and sea cliffs. The conservation and sensitive management of these features is critical to the identity, biodiversity and quality of life of the area. They also offer many opportunities for leisure, recreation and tourism. Local authorities are working to create a long-distance coastal footpath linked to heritage features and businesses as Scotland’s contribution to Europe’s North Sea Trail.
HIGHLANDS AND ISLANDS

211. HIE considers that half a million is a realistic population target for the Highlands and Islands, an increase of around 15% on the population in 2005. The provision of development infrastructure will be an important issue where substantial increases in population and households are projected. There is a need to develop models of sustainable development which are applicable to the geography and settlement pattern of the area, including the needs of island and crofting communities.

212. Inverness can develop its role as the Highland capital, broaden its economic base, improve its connections to Scotland’s other cities and the rest of the world, and attract a wider range of high quality jobs. The city is home to Scottish Natural Heritage and its Centre for Health Science is contributing to Scotland’s strength in biomedical research. The Inverness City Vision is playing an important role in guiding future development.
213. The STPR has identified improvements to the Highland Main Line which would reduce passenger journey times between Inverness and Perth by around 20% and make the line a more attractive option for moving freight. Within the context of the Government’s commitment to planning for dualling of the A9, the STPR has identified a number of targeted improvements as initial priorities, including full dualling of the section between Perth and Blair Atholl and new grade-separated junctions to reduce accidents and improve journey time reliability. Measures to reduce accident rates north of Inverness have also been identified as a priority by the STPR.

214. The A96 corridor between Inverness and Nairn is the main focus of growth in the Inner Moray Firth. Highland Council’s A96 Corridor Development Framework includes proposals designed to accommodate an additional 30,000 people in the area over 35 years. These include significant expansion to the East of Inverness and at Nairn, the creation of a new settlement at Tornagrain, and a residential and marina development at Whiteness. Development on this scale will require substantial investment in transport and water and drainage infrastructure and the creation of supporting green infrastructure. The STPR has identified the need to dual the A96 between Inverness and Nairn and provide a new rail station, airport interchange and park-and-ride facilities at Dalcross. It has also identified a package of improvements to the Aberdeen – Inverness rail line which would reduce journey times between the two cities by 20 minutes and improve the connectivity of communities along the route.

215. Energy has an important part to play in the future of the Highlands and Islands. Substantial reinforcements of the electricity transmission system are needed to realise the potential of renewable energy resources, including new interconnectors for the island archipelagos and measures to address capacity constraints in Argyll. Projects being developed at the European Marine Energy Centre on Orkney place Scotland at the forefront of marine energy research. Coordinated action to harness the huge renewable energy potential of the Pentland Firth is being taken forward by the Scottish Government in conjunction with its partners in the Pentland Firth Tidal Energy Project. The sheltered deep water of Sullom Voe offers the potential to create a ship-to-ship and shore-based oil transfer facility, and Lerwick and Sullom Voe offer opportunities for the decommissioning of offshore structures. The Lerwick district heating scheme is a pioneering example of the application of energy from waste technology. The UK Atomic Energy Authority’s facilities at Dounreay in Caithness are developing expertise in nuclear decommissioning and environmental restoration. The Government is committed to addressing the economic and social impacts of decommissioning at Dounreay.
216. In partnership with other agencies, Highland Council has prepared a strategy for the development of ports and sites in the Inner Moray Firth. The Cromarty Firth provides service base facilities and sheltered moorings for the offshore oil and gas industry and Invergordon is a regular port of call for cruise ships. The fabrication yard at Nigg has potential as a facility for decommissioning oil and gas installations and the manufacture and support services required by the renewable energy industry. Its deep water is an asset of strategic importance.

217. The sheltered deep water of Scapa Flow is a major strategic asset. In collaboration with HIE and with the involvement of the Crown Estate, Orkney Islands Council is pursuing the potential for a container transhipment terminal at Lyness on Hoy.

218. Fort William’s success in hosting the world mountain-biking championships secured international media coverage of the attractions of Lochaber. The redevelopment of Fort William’s waterfront will substantially improve environmental quality and amenity in the town, helping to strengthen its role as a national centre for outdoor activities.
219. Targeted support will continue to be needed in areas such as north Sutherland and some of the islands which are still experiencing decline, and in parts of Moray and Caithness where more jobs need to be created. The challenge in the remoter areas is to replicate the successes already achieved in places like Skye and Mull. Through the fragile areas programme, Highlands and Islands Enterprise and local authorities are giving particular attention to the needs of the Outer Hebrides, North Skye, the outlying islands of Orkney and Shetland, the Argyll islands and the remote west mainland (see Map 9). The Government is pursuing the introduction of Road Equivalent Tariff (RET) for ferry services and seeking to improve access and connectivity by promoting innovation on existing ferry routes and new or shorter crossings to the islands. Arran, Bute, Greater and Little Cumbrae and the parts of Highland not already within the Crofting Counties are to be designated as new crofting areas.

220. Our islands possess considerable social capital, with high participation rates in community and voluntary activities. The transformation which has occurred on Gigha demonstrates the potential of community-based enterprise. Remote and island areas function differently from urban and other rural areas. Island towns such as Lerwick, Kirkwall, Stornoway and Portree have service functions more usually associated with much larger settlements. Measures are needed to protect communities, habitats and archaeological sites from coastal flooding. Laying fibre optic cables in conjunction with the sub-sea interconnectors to the Shetland Islands, Orkney and the Outer Hebrides would extend digital connectivity to the islands.

221. The first National Planning Framework highlighted the economic and demographic challenges facing the Outer Hebrides and the opportunities offered by renewable and other energy resources. A Scottish Government supported Economic and Community Benefit Study has recommended measures to ensure that the considerable renewable energy potential of the islands is developed in a manner which safeguards environmental resources and delivers community benefits. Comhairle nan Eilean Siar is promoting Stornoway’s Western Harbour as an Energy Portal for the Outer Hebrides. The harbour would provide the landfall for a sub-sea interconnector to the mainland. Relocation of oil and gas import and storage facilities to the Western Harbour will facilitate the release of a substantial area of land for redevelopment on the town’s waterfront. The harbours of the Outer Hebrides might also have a role to play in the development of North Atlantic oil and gas reserves.
222. The Outer Hebrides are the principal heartland of Scotland’s Gaelic culture and offer outstanding scenery and maritime habitats of international importance. With 40% of the land area now under community control and 70% of the population living on community-owned land, there is great potential for community-based enterprise. There are large international markets for Celtic culture, built heritage and environmental tourism. Realising the potential of the islands will demand co-ordinated action focused on measures to diversify and grow the economy, create high value jobs, retain and attract population, and improve connectivity and communications.

223. The Highlands and Islands contain the majority of Scotland’s National Scenic Areas and substantial areas designated under the EU Habitats Directive to protect habitats and species of international importance. Scotland’s National Parks protect some of our most precious natural heritage and make an important contribution to our tourism and leisure economy. They are important drivers of innovation in sustainable rural development and land management. The Scottish Government intends to change the southern boundary of Cairngorm National Park. The boundary change will require a revision to the Cairngorms National Park Designation Order. The Highlands and Islands also have many outstanding archaeological sites, a varied built heritage and important cultural landscapes. These assets are essential aspects of the character and identity of the area and vital to its tourist economy. Glen Finglas and Loch Katrine in the Loch Lomond and the Trossachs National Park are the focus of the largest broadleaved woodland restoration project in Scotland. The European beaver has been reintroduced to the Knapdale Forest in Argyll on a trial basis. The return of this species contributes significantly to the restoration of Scotland’s natural ecology. The Highlands are traversed by three popular long-distance footpath routes, the West Highland Way, the Great Glen Way and the Speyside Way. There is potential to strengthen the roles of centres such as Inverness, Perth and Stirling as gateways to the Highlands.

AYRSHIRE AND THE SOUTH-WEST

224. Ayrshire and the South-West is a diverse area encompassing important centres of economic activity with strong links to the Glasgow City Region as well as extensive upland and coastal areas which are much more rural in character, some of which are of very high environmental quality. The area functions as an important western gateway for Scotland. The aim must be to build on the success of Prestwick Airport, strengthen key ports and strategic transport corridors between Ireland and the Continent and realise the potential of deep-water assets at Hunterston. There is a need to improve rail and road links to secure better integration with the Central Belt. The STPR has confirmed that
investment in rail infrastructure to provide the increased capacity needed to support services through Glasgow would substantially improve rail connectivity with the rest of Scotland. It has also concluded that enhancements such as a bypass at Dalry would help to reduce conflict between local and long-distance traffic on the A737 and improve journey time reliability. Carriageway and junction improvements on the A77 to the west and south of Ayr will improve the efficiency of access to the ports on Loch Ryan.

225. To date, Ayrshire has been less successful than some other areas in securing knowledge economy investment to replace jobs lost in traditional industries. The challenge is to maintain population around existing levels to support services and to provide access to new job opportunities by creating competitive business environments and locations. The Ayrshire Joint Structure Plan, *Growing a Sustainable Ayrshire*, identifies a core area around the towns of Ayr, Irvine and Kilmarnock as having the greatest potential to attract new investment. The transport corridors linking Prestwick Airport and the ports of Ayr, Troon and Hunterston with the main urban centres of the Central Belt provide good locations for developing clusters of export-oriented industries and a stronger service sector. The energetics cluster on the Ardeer peninsula offers substantial economic development potential.

226. The improved link to the Glasgow Conurbation provided by the M77 has acted as a catalyst for new residential development in the Kilmarnock area. Transport Scotland is working with Network Rail to provide an extended loop between Dunlop and Stewarton to allow a half-hourly rail service between Glasgow and Kilmarnock. With the loss of its traditional industries, Kilmarnock is increasingly functioning as a dormitory for the Glasgow Conurbation. The challenge is to identify a new economic role.

227. South Ayrshire Council is taking forward an ambitious strategy for the renaissance of Ayr town centre. Arran and parts of the Ayrshire coast already have a successful tourism and leisure economy. The area’s good international links provide opportunities for the further development of cultural, business and activity-based tourism. The Irvine Bay Urban Regeneration Company is working to find new economic uses for land allocated for business and industry and broaden the range of recreational opportunities in the area. The masterplan for the area includes proposals for new residential development around Irvine harbour, a new marina at Ardrossan, and an eco-village and watersports centre at Stevenston, as well as seafront improvements and the creation of new woodland.
228. Action is needed to improve environmental quality in the former mining areas of East Ayrshire and to promote regeneration and economic diversification in small towns. In North and East Ayrshire there are opportunities to integrate green infrastructure initiatives and the restoration of vacant and derelict land with the wider Central Scotland Green Network. Upland areas offer opportunities for renewable energy developments, including biomass production. The new South West Scotland transmission line will ensure that acceptable wind farm development within the broad areas of search identified in development plans is not constrained by lack of grid capacity. The Ayrshire and Arran Woodland Strategy places emphasis on the potential for enhancing landscape quality and biodiversity and creating multi-purpose woodlands which benefit local communities and offer employment in planting, management and downstream activities. The councils in Ayrshire and Dumfries and Galloway are collaborating on the development of a programme of management and environmental enhancement for the Galloway Hills.

229. For the South-West, proximity to Ireland and Cumbria offer substantial business opportunities, particularly in tourism and leisure. There is potential for developing the area’s strengths in forestry and quality produce and as a place to live and work. Strengthening the role of Dumfries as the main regional centre and transport hub will benefit the whole of the South-West. Efforts are being directed towards improving the quality and vitality of the town centre, building on existing cultural and physical assets. There is a need to reconnect the town centre with the riverfront, manage flood risk on the River Nith and improve links with the Crichton University Campus and Business Park. The success of Wigtown Book Town and its Festival, the Newton Stewart Walking Festival and the lively arts and cultural scene in Kirkcudbright highlight the potential for the thematic branding and marketing of the area’s attractive environment and historic small towns.

230. New port development on Loch Ryan will provide a modern international gateway between Scotland and Ireland, offering increased freight capacity, reduced journey times and new opportunities for tourism. The relocation of Stena Line’s ferry operation to the new port opens opportunities for major redevelopment on the Stranraer waterfront.

231. The STPR has identified interventions on the West Coast Main Line which would provide greater opportunity to move freight by rail rather than road between Scotland and England. Transport Scotland will take forward improvements to the West Coast Main Line in partnership with the UK Department for Transport.
232. The South of Scotland is strategically well placed on the major road and rail routes between Scotland and England. *The South of Scotland Competitiveness Strategy 2007-2013* seeks to promote the area as a vibrant rural economy exploiting its proximity to Belfast, Carlisle, Glasgow, Edinburgh and Newcastle. Opportunities lie in economic diversification and strengthening the knowledge economy, building on the rich environment and cultural heritage of the area, adding value to primary assets, the large potential for renewable energy development, quality produce, and the design skills associated with the textiles and electronics industries. The higher and further education facilities at Crichton Campus in Dumfries and Heriot-Watt University’s Borders Campus in Galashiels will be key economic drivers. The area needs to develop an indigenous institutional framework as vigorous and successful as that of the Highlands and Islands.

233. The planned improvement of transport links to the Borders will create new development opportunities and allow the area to accommodate some of the household growth projected in the East of Scotland. Significant investment in water and drainage infrastructure is needed to support the new development associated with the reopening of the Borders rail line.

234. The towns and villages of the South of Scotland play a key role in the economy, culture, sporting traditions and quality of life of the region. Many are of considerable historic interest and are important attractions for tourists. Market Towns Investment Programmes are being developed to ensure that the towns of the Borders and Dumfries and Galloway are attractive, competitive places. Dumfries town centre, Stranraer waterfront and the Gretna-Lockerbie-Annan area are the subject of major regeneration initiatives. There is potential to develop Gretna’s gateway role on the Scotland – England Border.
235. The Southern Uplands Partnership is promoting the integration of environmental, social and economic land use policies to keep people living and working in upland areas. The development of processing capacity can add value to agricultural and timber production. Improvements in transport infrastructure will be needed to cope with the volume of timber generated by the increased levels of harvesting from commercial forests. The Borders Forest Trust is promoting the expansion of native woodland through innovative projects such as new community woodlands, the restoration of floodplain habitats in the Ettrick Marshes and the Wildwood project at Carrifran in the Moffat Hills. Dumfries and Galloway Council and SNH are implementing joint visions for the National Scenic Areas of the Solway Firth as a guide for future management.

236. The river catchments of the South of Scotland offer particular attractions for game fishing. The coastal areas and rich built heritage of the Borders and Dumfries and Galloway also provide many opportunities for tourism and recreation. The Southern Upland Way is an increasingly popular coast-to-coast walking route and there is an extensive network of signed cycling routes. The 7 Stanes network of mountain-biking centres is proving a major attraction for devotees of this increasingly popular outdoor sport. Improving the environmental quality of the M74 corridor could open up significant economic and recreational opportunities related to this important gateway route.

237. The recent closure of the nuclear power station at Chapelcross near Annan offers opportunities to develop business excellence in Magnox reactor decommissioning.
The main elements of the development strategy set out in the preceding two sections are shown on Map 9. The map identifies Scotland’s cities, international gateways and the deep water opportunities at Hunterston, Scapa Flow, Sullom Voe and Nigg. It highlights the key economic development corridors and strategic transport routes which will be important in supporting Scotland’s development to 2030 and identifies the potential extent of the Central Scotland Green Network. It promotes the need for economic diversification and environmental stewardship in rural areas, draws attention to the great potential for marine energy development around our coasts, and highlights the Government’s aspiration to create a sub-sea electricity transmission network. It identifies the Clyde Corridor, West Edinburgh, Central Ayrshire, the Upper Forth, the Inverness – Nairn Corridor and the Pentland Firth as areas where coordinated action is needed to support economic development, regeneration and the harnessing of marine energy resources. The national developments which the Government has identified as essential components of the strategy are shown on Map 10.
MAP 9
STRATEGY
- City
- International gateway
- Deep water opportunity
- Marine energy potential
- Central Scotland Green Network
- Key economic corridor

MAP 10
NATIONAL DESIGNATIONS

National Developments
1. Replacement Forth Crossing;
2. West of Scotland strategic rail enhancements;
3. High-speed rail link to London;
4. Strategic Airport Enhancements;
5. Grangemouth Freight Hub;
6. Additional Container Freight Capacity on the Forth;
7. Port developments on Loch Ryan;
8. Scapa Flow Container Transhipment Facility;
9. New Power Station and Transhipment Hub at Hunterston;
10. New non-nuclear Baseload Capacity at other Existing Power Station Sites;
11. Electricity Grid Reinforcements;
12. Central Scotland Green Network;
13. Metropolitan Glasgow Strategic Drainage Scheme;

Source: Scottish Government, Scottish Natural Heritage
Due to OS licence conditions, everyone apart from the Scottish Government may only use this map for visual business dealings with the Scottish Government. If you wish to use this map for other uses, you must obtain a separate licence from OS.
National Developments

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13. Metropolitan Glasgow Strategic Drainage Scheme;
LIFT TO REVEAL:
MAP 9: STRATEGY
MAP 10: NATIONAL DESIGNATIONS
MAKING IT HAPPEN

DEVELOPMENT PLANNING

239. The Planning etc. (Scotland) Act 2006 requires the National Planning Framework to be taken into account in the preparation of strategic and local development plans. This means that the four Strategic Development Plan Authorities must reflect the NPF strategy and the national developments it identifies in the strategies they prepare. Local Development Plans should reflect the strategy and projects designated as national developments in their vision statements, policies and proposals maps.

DEVELOPMENT MANAGEMENT


241. New national developments can only be designated through the process of reviewing the National Planning Framework. Nationally important infrastructure projects which emerge between review periods will be processed in accordance with their status in the development hierarchy.

242. Where the NPF strategy is at variance with an earlier development plan, the statement of policy in the NPF will take precedence.

ACTION PROGRAMME

243. To ensure effective delivery, NPF2 is supported by an Action Programme setting out how and by whom the national developments and other key elements of the NPF strategy will be implemented. It identifies actions, milestones, lead partners and delivery bodies, and includes a section on progress to allow effective monitoring. Where appropriate, it also identifies measures necessary to avoid, minimise, mitigate or compensate for adverse environmental effects. The Action Programme sets the high level context for the more detailed action programmes to be taken forward for development plans and the strategic policies, programmes and projects of the Scottish Government and key agencies.

244. It is intended that the Action Programme should be a working document, posted and regularly updated on the NPF website. The Scottish Government will engage regularly with lead partners and other delivery bodies on its content and progress. The Action Programme will be formally reviewed annually in liaison with lead partners and delivery bodies. The 2011 National Planning Framework Monitoring Report will report on the progress made in delivering the strategy, helping to inform preparation of NPF3.
ENQUIRIES

245. Enquiries about the National Planning Framework should be addressed to the National Planning Framework Team, Scottish Government Directorate for the Built Environment, Area 2-H, Victoria Quay, Edinburgh EH6 6QQ (08457 741741 or 0131 2447610) or sent by email to NPFTeam@scotland.gsi.gov.uk. The environmental reports, the report on conformity with the Participation Statement, Action Programme and other related papers are available on the Scottish Government’s Planning website at http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/npf
ANNEX:
NATIONAL DEVELOPMENTS – STATEMENTS OF NEED

The legislation requires that if the National Planning Framework designates a development as a national development it must contain a statement by Scottish Ministers of their reasons for considering that there is a need for that development. The Framework may also contain statements as regards other matters pertaining to any designation of a national development.

The developments which Ministers propose to designate as national developments are considered to be essential to the delivery of the spatial strategy set out in the second National Planning Framework. They will contribute to the Government’s objective of building a Scotland that is wealthier and fairer; greener; safer and stronger; smarter and healthier.

The environmental effects of the 9 developments initially proposed as national developments were set out in the Environmental Report which accompanied the Discussion Draft of the NPF. The environmental effects of the additional national developments, whether proposed by consultees in their responses to the Discussion Draft or recommended by the Scottish Parliament in its response to the proposed NPF, were detailed in a Supplementary Environmental Report on which the Government consulted in October. An assessment has also been made of potential effects on sites designated under the EC Wild Birds and Habitats Directives. While these strategic level assessments provide an overview of the environmental performance of the NPF as a whole, they do not remove the requirement for further, more detailed environmental impact assessment at plan or project levels. Any measures required to avoid, minimise, mitigate or compensate for adverse effects on Natura 2000 sites are identified in the NPF Action Programme. When national developments are incorporated into strategic or local development plans, their environmental effects may need to be
addressed in greater detail in associated strategic environmental assessments. Project level appropriate assessments should include an assessment of the potential effects of national developments in combination, regardless of what stage they are in the planning process.

Developments designated as national developments will still require to secure planning permission and other relevant consents, but Ministers may intervene at any stage of the process to ensure that decisions are made expeditiously. Designation in the National Planning Framework is the mechanism for establishing the need for these developments and statements of need will be material considerations in the determination of planning applications. Any subsequent examination of the detailed planning implications, whether by a session of a public inquiry or a hearing, will therefore be concerned with matters such as siting, design and the mitigation of environmental impacts, not the principle of the development.

The Action Programme for the second NPF2 identifies the actions needed to deliver the strategy, how these contribute to the realisation of the strategy, key milestones in taking them forward, the bodies responsible for delivery, and lead partners. The Monitoring Report for the second National Planning Framework will report on progress in delivering national developments.
1. REPLACEMENT FORTH CROSSING

Description of development
Replacement crossing for the existing Forth Road Bridge.

Location
The crossing will be sited west of the existing bridge.

Elements covered by the designation
- the principle of a new four-lane road crossing with hard shoulders;
- the provision of a multi-modal transport corridor between Edinburgh and Fife;
- associated environmental works.

Need for the development
The Forth Road Bridge has been an essential part of the national road infrastructure for over 40 years. It is vital to the economy of Fife, an essential link for the East Coast Corridor and crucial to the connectivity of Perth and the Highlands and Islands. The main suspension cables of the bridge are showing significant signs of deterioration as a result of corrosion. While a programme of works has been identified to dry out the cables and thus prolong the life of the bridge, there is a considerable risk that this work will not be successful. If that proves to be the case, restrictions to heavy goods vehicles may be needed. Complete loss of the road crossing would have very significant adverse economic impacts, both nationally and regionally.

The development offers the opportunity to increase public transport capacity by providing a multi-modal corridor between Edinburgh and Fife.
Matters to be addressed when consent is sought include:

Design, alignment, visual and noise impacts; construction methods; effects on communities; measures to minimise traffic impacts; carbon impact; effects on the natural environment, including the Firth of Forth Special Protection Area (SPA), the Forth Islands SPA, the Firth of Forth Ramsar Site, the River Teith Special Area of Conservation (SAC) and St. Margaret's Marsh Site of Special Scientific Interest (SSSI); effects on the historic environment and cultural heritage; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

The development requires an environmental impact assessment. The crossing has been subject to strategic environmental assessment and appropriate assessment under the Habitats Directive. Further consideration of potential effects in combination with developments at Rosyth and Grangemouth will be required as these projects are developed. Any measures necessary to compensate for effects on the Firth of Forth SPA should be co-ordinated strategically over the area of the SPA.

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2. WEST OF SCOTLAND STRATEGIC RAIL ENHANCEMENTS

Description of development
New and upgraded infrastructure to improve national rail capacity in the West of Scotland.

Locations
Glasgow, Renfrewshire, Inverclyde and Ayrshire.

Elements covered by the designation
- measures to increase terminal capacity in Glasgow;
- new and upgraded rail infrastructure in Glasgow and the Clyde Valley and Ayrshire.

Need for the development
The development will address significant capacity constraints and deficiencies on the rail network, delivering substantial improvements in national rail capacity and connectivity and reductions in rail journey times. It will provide platform and track capacity to accommodate an increase in service frequency to Ayr, Inverclyde and Kilmarnock; accommodate the Edinburgh to Glasgow Improvements Programme; improve rail connectivity through and across Glasgow; and ensure adequate capacity
to accommodate freight traffic. It will help to reduce reliance on road-based transport and the private car. More particularly, it will improve access to Glasgow, Prestwick and Edinburgh Airports by public transport and offer potential for connecting rail services between them.

**Matters to be addressed when consent is sought include:**

Siting, design, layout and alignment of new buildings and infrastructure, visual and noise impacts; construction methods; effects on communities; carbon impact; the potential for future integration with a high-speed rail network; effects on the historic environment and cultural heritage; effects on the natural environment; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Development proposals will require environmental impact assessment, economic appraisal and transport assessment.

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3. HIGH-SPEED RAIL LINK TO LONDON

Description of development

High-speed rail lines linking Edinburgh and Glasgow city centres with London and offering good connections to the rest of the rail network.

Location

Within Scotland the lines will run between the Central Belt and the English border.

Need for development

The Scottish Government is strongly committed to promoting a shift to more sustainable modes of transport. There is compelling evidence that high speed rail services not only offer lower per passenger carbon emissions than aviation, but that with their shorter journey times can achieve a real shift from air to rail travel. A high speed rail link offering journey times between Central Scotland and London of less than 3 hours will help to make the train a more attractive option than short-haul flights for journeys within Britain and create the potential for direct high speed rail services to the Continent.

Matters to be addressed when consent is sought include:

Routing, alignment and design of new infrastructure; connections to the rest of the rail network; visual and noise impacts; construction methods; effects on communities; carbon impact; effects on the historic environment and cultural heritage; effects on the natural environment; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Development proposals will require environmental assessment, environmental impact assessment, economic appraisal and transport assessment. Any potential effects on Natura 2000 sites will require appropriate assessment under the Habitats Directive.

| wealthier and fairer | contributes to sustainable economic development | ✓ |
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| safer and stronger | improves internal connectivity | ✓ |
| smarter | helps meet climate change, renewable energy or waste management targets | ✓ |
| healthier | essential element of a national infrastructure programme | ✓ |
| | more than regional importance | ✓ |
4. STRATEGIC AIRPORT ENHANCEMENTS

Description of development

Improvements in surface transport access and the enhancement of other infrastructure and facilities at Edinburgh, Glasgow, Prestwick and Aberdeen airports.

Locations

Edinburgh Airport at Turnhouse, including land north and south of the A8.

Glasgow Airport at Abbotsinch and land between Paisley St. James Station and the airport.

Prestwick Airport in Ayrshire.

Aberdeen Airport at Dyce.

Elements covered by the designation

Edinburgh Airport: A new surface rail link, including a new airport station at Gogar and the construction of the Dalmeny chord; other access improvements emerging from being taken work associated with the West Edinburgh Planning Framework; improvements to airport terminal facilities and changes in operational area; new and reconfigured taxiways, additional aircraft stands and maintenance hangars; relocation of the Royal Highland Showground; the creation of an International Business Gateway; and resolution of Gogar Burn flooding issues.

Glasgow Airport: The Glasgow Airport Rail Link (GARL); improvements to terminal facilities and changes in operational area; additional maintenance hangars, and aircraft stands and taxiways.

Prestwick Airport: Improvements to rail and bus interchange arrangements; improvements to terminal facilities and changes in operational area; additional freight and aircraft maintenance facilities; additional aircraft stands and taxiways; and new parking provision.

Aberdeen Airport: Improvements in access by public transport; improvements to terminal facilities; and new parking arrangements.

Need for development

Scotland’s airports are essential elements of national infrastructure. Given Scotland’s geographical position, good air links are vital for international connectivity and competitiveness.
Edinburgh Airport is of key economic importance as an international gateway, helping to make Scotland an attractive location for business and tourism and providing access to global markets. Improved public transport access will provide more sustainable means of accessing the airport and associated facilities and help to accommodate projected passenger traffic volumes. The creation of an International Business Gateway immediately to the south of the airport will help to realise the unique attributes of this location, providing high quality international business accommodation and helping to build investor confidence in West Edinburgh as a strategic location of national importance.

Glasgow Airport is of key economic importance as an international gateway, helping to make Scotland an attractive location for business and tourism and providing access to global markets. The Glasgow Airport Rail Link will significantly improve access to the airport by public transport. Enhancement of the airport can also assist the regeneration of the North of Paisley and Paisley town centre.

Prestwick Airport was recognised by the Aviation White Paper as the West of Scotland's “second runway” and is an important economic driver for Ayrshire and the South West. The expansion of the services offered by airlines operating out of Prestwick has contributed significantly to the improvement in Scotland's international connectivity. Prestwick Airport has a lead role in air freight and is an important centre for air traffic control and the repair and maintenance of aircraft. Improvements in the capacity of surface transport infrastructure will be needed to accommodate projected passenger traffic volumes. Improved connectivity through Glasgow would significantly improve the accessibility of the airport by rail.

Aberdeen Airport offers international and domestic services vital to the North-East economy and the future of the region as an energy hub. It is Europe's busiest commercial heliport, serving offshore installations. Improvements in access by public transport and airport facilities are needed to accommodate projected passenger and freight traffic volumes.

Matters to be addressed when consent is sought include:

Edinburgh Airport: the alignment and design of improved surface access arrangements; the design, siting and layout of improved airport facilities; parking provision; carbon impact; assessment of effects on Natura 2000 sites as necessary; effects on biodiversity and soils; effects on landscape character and cultural heritage; noise impacts; the technical details and environmental effects of measures to reduce the risk of flooding; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Environmental impact assessment is required. The design, layout and landscaping of new developments and infrastructure will require to conform to a Strategic Design Framework prepared by the City of Edinburgh Council.
Glasgow Airport: the design, siting and layout of improved airport facilities; the alignment and design of any further improvements in surface access; parking provision; carbon impact; effects on the Black Cart SPA and whooper swans; other effects on biodiversity and soils; effects on landscape character and cultural heritage; noise impacts; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Environmental impact assessment and appropriate assessment under the Habitats Directive are required.

Prestwick Airport: the alignment and design of rail and road access arrangements; the design, siting and layout of improved airport facilities; parking provision; carbon impact; landscape and visual impacts; effects on natural heritage, biodiversity and soils; effects on landscape and cultural heritage; noise impacts; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Environmental impact assessment, economic appraisal and transport assessment are required.

Aberdeen Airport: the alignment and design of rail and road access arrangements; the design, siting and layout of improved airport facilities; provision for improved access by public transport; the alignment and design of any necessary improvements in the local road network; parking provision; the alignment and design of rail and road access arrangements; carbon impact; landscape and visual impacts; effects on natural heritage, biodiversity and soils; effects on landscape and cultural heritage; noise impacts; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities. Environmental impact assessment, economic appraisal and transport assessment are required.

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5. GRANGEMOUTH FREIGHT HUB

Description of the development

Improvements in port, road and rail infrastructure to support the role of Grangemouth as Scotland’s largest container port and main freight distribution centre.

Location

Port of Grangemouth and surrounding area.

Elements covered by the designation

- creation of a river berth outside the port lock;
- expanded freight storage and handling facilities and other port related development;
- improved railhead access within the port and electrification of the rail link through Falkirk Grahamston;
- better connections to the M9 motorway;
- a better link to the M8 and the south via an improved A801;
- improvements to the local road network, including separation of community and dock traffic;
- any measures necessary to protect the area from coastal flooding.

Need for the development

Grangemouth is Scotland’s busiest container port and home to most of Scotland’s petrochemical industry. There is potential for Grangemouth’s port facilities to deal with substantial increases in freight movements and provision for expansion will help to ensure that future demand for container capacity is adequately met. Improvements in strategic road and rail infrastructure are needed to support existing operations and to allow the area to function to its full potential as an intermodal freight hub. It is also strategically important that the location is adequately protected from flooding.

It is estimated that improved rail facilities could reduce by half the projected 10% annual growth in lorry movements around the port. Moving more freight by rail can help to improve the reliability of logistics chains by reducing the risk of delays caused by road congestion.
Matters to be addressed when consent is sought include:

Siting and design of developments within the port area; landside road and rail access improvements and their impacts; carbon impact; community impacts and opportunities to improve access by walking, cycling and public transport; any measures necessary to protect against coastal flooding; any potential effects on natural heritage and biodiversity, including the Firth of Forth SPA; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Development proposals will require environmental impact assessment. As part of appropriate assessment under the Habitats Directive, consideration of potential effects in combination with the Replacement Forth Crossing and development at Rosyth will be required as the projects are developed. Any measures necessary to compensate for effects on the Firth of Forth SPA should be co-ordinated strategically over the area of the SPA.

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6. ADDITIONAL CONTAINER FREIGHT CAPACITY ON THE FORTH

Description of development

Multimodal container terminal facilities, including improvements in supporting port, road and rail infrastructure.

Location

Rosyth, and potentially other existing port locations on the Forth.

Elements covered by the designation

• provision of multimodal container terminal facilities with deep water access;
• landward road and rail access provision; and
• any associated environmental works.

Need for the development

Volumes of containerised freight traffic have been growing and are expected to continue to grow in the long term. The creation of additional container freight capacity at ports on the Forth will help to ensure that future demand is adequately met. Rosyth is one location where it is possible to provide deep water berthing which is accessible 24 hours a day and landward access can be provided by road and rail. It offers an opportunity to create a new logistics and distribution hub in the East of Scotland, and contribute to the achievement of climate change targets by encouraging more containerised freight to be moved to and from Scotland by sea.
Matters to be addressed when consent is sought include:

Design of facilities and road and rail access arrangements; carbon impact; effects on natural heritage and biodiversity, including the Firth of Forth SPA; any dredging required to maintain deep water channels and the disposal of dredged material; any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities; and any Ministry of Defence interest.

Development proposals will require environmental impact assessment. As part of appropriate assessment under the Habitats Directive, consideration of potential effects in combination with the Replacement Forth Crossing and development at Grangemouth will be required as the projects are developed. Environmental and appropriate assessment at the strategic level will be required for any developments which have not been subject to such assessment as part of the NPF preparation process. Any measures necessary to compensate for effects on the Firth of Forth SPA should be co-ordinated strategically over the area of the SPA.

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7. PORT DEVELOPMENTS ON LOCH RYAN

Description of development
Port developments on Loch Ryan and improvements to road and rail infrastructure to support the Loch Ryan ferry ports as Scotland’s main roll-on/roll-off gateway from Ireland.

Location
Old House Point and Cairnryan ferry ports on Loch Ryan, Galloway.

Elements covered by the designation
• new passenger and freight transport facilities on Loch Ryan;
• improvements to the road network (including the A77 and A75 trunk routes) to improve access to the Loch Ryan ports.

Need for the development
The developments are necessary improvements to an essential element of national infrastructure. Current port facilities impose restrictions on the size of vessels which can operate out of Loch Ryan. The developments will provide additional port capacity and allow the introduction of larger vessels. They will provide a modern international gateway between Scotland and Ireland, contributing to the realisation of Scotland’s potential as a land bridge between Ireland and continental Europe. They will deliver increased freight capacity, reduced journey times and increased potential for tourism and help to secure the continued competitiveness of the Loch Ryan to Northern Ireland ferry links.
Matters to be addressed when consent is sought include:

The siting, design and layout of port development; landside transport infrastructure improvements; carbon impact; any measures necessary to protect the area from coastal flooding; any potential damage to marine coastal habitats or disturbance of protected species; any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessment and appropriate assessment under the Habitats Directive are required. The latter should address the potential effects of increased transport and visitor activity on nearby Natura 2000 sites and the Galloway coast.

| wealthier and fairer | ✓ contributes to sustainable economic development | ✓ |
| greener             | ✓ strengthens global links                        | ✓ |
| safer and stronger  | ✓ improves internal connectivity                  | ✓ |
| smarter             | helps meet climate change, renewable energy or waste management targets | |
| healthier           | essential element of a national infrastructure programme | ✓ |
|                     | more than regional importance                    | ✓ |
8. SCAPA FLOW CONTAINER TRANSHIPMENT FACILITY

Description of development

International container transhipment facility utilising the sheltered deep water of Scapa Flow.

Location

Scapa Flow, Orkney.

Elements covered by designation

- land-based development and offshore operations to provide an international container transhipment facility;
- supporting landside infrastructure;
- associated environmental works.

Need for the development

The development can play a key role in meeting the demand for accessible deep water transhipment facilities in Scotland and Europe.

The sheltered deep water at Scapa Flow represents a major opportunity to meet the needs of the international shipping industry, offering the potential for Scotland to become a significant global player in container cargo handling and transhipment to the benefit of the national and local economy. The increasing size of container ships combined with capacity constraints at existing ports is giving rise to a need for accessible deep water transhipment facilities. The ability of Scapa Flow to accommodate the largest container ships and its location in relation to major shipping routes mean that it is well placed to provide a break-bulk transhipment facility serving European markets.
Matters to be addressed when consent is sought include:

Siting, design and layout of facilities; carbon impact; potential effects on nearby SPAs, the Loch of Stenness SAC, and a Site of Local Nature Conservation Interest; effects on the historic environment, including protected buildings and structures, wider historical associations and marine archaeology; effects on landscape, seascape and biodiversity; risk of contamination; the yard handling system; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessment and appropriate assessment under the Habitats Directive are required.

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NATIONAL PLANNING FRAMEWORK FOR SCOTLAND 2
9. NEW POWER STATION AND TRANSHIPMENT HUB AT HUNTERSTON

Description of development

Clean coal fired power station, container transhipment hub, maritime construction and decommissioning yard, and associated energy and industrial development.

Location

Adjoining the existing bulk handling terminal and marine construction yard at Hunterston, Ayrshire.

Elements covered by the designation

- coal fired power station and fuel storage yard;
- biomass/gas fired power station;
- carbon capture infrastructure;
- container transhipment hub;
- maritime construction and decommissioning yard;
- downstream industrial processes;
- associated environmental works.

Need for development

There is a need for new baseload electricity generating capacity to replace the power stations programmed for closure over the next 20 years. Land at Hunterston offers the opportunity to develop a clean coal fired power station, a biomass/gas fired power station and associated downstream industrial processes using the existing bulk handling terminal, jetty facilities and grid connection. The increasing size of container ships combined with capacity constraints at existing ports is giving rise to a need for accessible deep water transhipment facilities. There is a demonstrated capacity at Hunterston to accommodate the largest container ships. It is favourably located in relation to world shipping routes and able to offer onward transhipment by sea, rail or road. The site also offers the potential to undertake maritime construction and decommissioning work.
Matters to addressed when consent is sought include:

The siting, design and layout of power generating plant and freight handling and industrial facilities; road and rail access arrangements; grid connections; carbon impact, including provision for carbon capture and storage; ash management; heat utilisation; landscape, seascape and visual impact; effects on cultural and natural heritage, including Portencross Site of Special Scientific Interest (SSSI); effects on coastal processes; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessment, economic appraisal and a transport assessment are required.

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10. NEW NON-NUCLEAR BASELOAD CAPACITY AT OTHER EXISTING POWER STATION SITES

Description of development
New non-nuclear baseload electricity generating capacity and associated infrastructure.

Location
Longannet, Cockenzie and Boddam.

Elements covered by designation
- new and refurbished power and heat generating plant;
- carbon capture and other associated infrastructure;
- associated environmental works.

Need for development
There is a need for new baseload electricity generating capacity to replace that provided by the power stations programmed for closure over the next 20 years. Where operators have opted into the Large Combustion Plant Directive, major investment will be needed to ensure that plant can comply with the stricter environmental controls from 2015.
Matters to be addressed when consent is sought include:

The siting, design and layout of power generating plant; road and rail access arrangements; grid connections; carbon impact, including provision for carbon capture and storage; ash management; heat utilisation; landscape, seascape and visual impact; effects on cultural and natural heritage; effects on coastal processes; any flood risk management issues; any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessments, economic appraisals and transport assessments will be required. The potential effects of carbon capture and storage infrastructure on Natura 2000 sites may require appropriate assessment under the Habitats Directive. The potential effects of development at Boddam on the Buchan Ness and Collieston SPA may require to be assessed.

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11. ELECTRICITY GRID REINFORCEMENTS

Description of development

- Overhead line and substation works to increase north-south transfer capacity in Central Scotland;
- a new 275kV South-West Scotland transmission line and associated infrastructure;
- strengthening the Scotland – England interconnectors to increase export capacity to 3.2GW;
- upgrading the East Coast transmission route to 400kV;
- upgrading the existing Beauly – Dounreay overhead transmission line;
- reinforcement of the Beauly – Keith overhead transmission line;
- reinforcement of the sub-sea cable link between Orkney and the Scottish mainland;
- new sub-sea cable links for the Outer Hebrides and the Shetland Islands.

Location
Throughout Scotland, from the English Border to the Shetland Islands.

Elements covered by designation
Overhead transmission lines, underground and sub-sea cable routes and associated converter stations and substations.
Need for development

These strategic grid reinforcements are essential to provide the transmission capacity necessary to realise the potential of Scotland’s renewable energy resources, maintain long-term security of electricity supply and support sustainable economic development.

Matters to be addressed when consent is sought include:

The routes of any new overhead lines and underground or sub-sea cables; the locations of sub-sea cable landfalls; the siting and design of any new structures; carbon impact; landscape and visual impacts; effects on bird species, other aspects of biodiversity, soils, hydrology and hydrogeology, the coast and the marine environment; effects on the historic environment; any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessment of individual elements may be required. Some of the marine elements of this programme of reinforcements have been assessed in the Marine Renewables SEA. Any potential effects on Natura 2000 sites require appropriate assessment under the Habitats Directive. These should be considered on a whole scheme basis and strategic level mitigation and compensation measures developed where required.

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12. CENTRAL SCOTLAND GREEN NETWORK

Description

A strategic network of woodland and other habitats, active travel routes, greenspace links, watercourses and waterways, providing an enhanced setting for development and other land uses and improved opportunities for outdoor recreation and cultural activity.

Location

Throughout Central Scotland, from Ayrshire, Inverclyde and Dunbartonshire in the West to Fife and East Lothian in the East.

Elements covered by designation

- woodland expansion;
- the creation of a high quality landscape structure which supports development plan settlement strategies;
- strategic routes for active travel and recreation;
- strategic habitat networks and habitat development projects;
- the restoration of vacant and derelict land for green network purposes; and
- the integration of woodland, habitat, greenspace and access development with water catchment and coastal zone management.
Need for development

Delivering a better environment in Central Scotland will help to ensure that it can compete economically at a European and global scale. The creation of a Central Scotland Green Network will complement improvements in rail, road and communications infrastructure, making Central Scotland a more attractive place to live in, do business and visit. Improving the health and resilience of the natural environment will help it to adapt to climate change. A well-planned increase in woodland cover can substantially improve the landscape settings of our towns and cities, bring vacant and derelict land into beneficial use, improve biodiversity and amenity, and help to absorb CO₂. Improvements can also be made to networks of other habitats, including wetlands, to counter fragmentation and assist species migration. The development of footpath and cycleway networks and other facilities and attractions will contribute to a more sustainable transport network and expand the range of recreational opportunities close to major centres of population, helping to encourage active travel and healthier lifestyles.

Matters to be addressed include:

Location and design of integrated habitat networks; alignment and design of active travel routes and access provision; location, design and layout of any new recreational or cultural facilities; visual and noise impacts; effects on communities; carbon impact; effects on the historic environment and cultural heritage; and effects on the natural environment, including existing habitats and species. Any potential effects on Natura 2000 sites will require appropriate assessment under the Habitats Directive.

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13. METROPOLITAN GLASGOW STRATEGIC DRAINAGE SCHEME

Description of development
Upgrading and replacement of drainage infrastructure, including new water treatment plants, and associated catchment management and flood risk reduction measures.

Location
Glasgow Conurbation.

Elements covered by designation
New and replacement trunk and local sewers; pumping stations; waste water treatment works; catchment management and flood risk reduction measures; and sustainable urban drainage (SuDS) schemes.

Need for development
Substantial improvements in drainage infrastructure and water catchment management are required to reduce flood risk and support regeneration and economic development in the Glasgow Conurbation, especially on the east side of the city. This demands a strategic approach in which drainage and catchment management measures are co-ordinated with major transport infrastructure projects such as the M74 Extension and East End Regeneration Route; the regeneration of the Clyde Gateway; the development of the 2014 Commonwealth Games facilities at Dalmarnock; and the development of the Glasgow and the Clyde Valley Green Network.
Matters to be addressed include:
Routing and alignment of new and replacement sewers; siting and design of pumping stations and waste water treatment works; design of catchment management measures, flood risk reduction works and use of best practice in sustainable drainage schemes to deliver wider environmental benefits; co-ordination with improvements in transport infrastructure, regeneration activity, integration with the development of Commonwealth Games facilities and the green network; potential effects on biodiversity and soils; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

Environmental impact assessment will be required.

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14. COMMONWEALTH GAMES FACILITIES AND INFRASTRUCTURE

Description of development

Sports facilities, athletes’ accommodation and transport and environmental infrastructure directly related to the Games.

Location

Principal developments are in the Clyde Gateway (Dalmarnock), Clyde Waterfront Regeneration Area (new SECC Arena) and at other key locations including Hampden Park and Tollcross Park.

Elements covered by designation

Athletes’ village; national indoor sports arena; velodrome; hockey centre; Hampden Park; 50m. pool at Tollcross Park; Scotstoun Stadium and Leisure Centre; Kelvin Hall; supporting transport and environmental infrastructure.

Need for development

Glasgow will host the 2014 Commonwealth Games. While 70% of the venues and infrastructure are in place and 20% are committed, the remaining elements need to be developed on time and according to schedule to ensure that everything is in place to make the 2014 Games an event of which the city and Scotland can be proud.

Delivery of the Games facilities and supporting infrastructure will make an important contribution to the regeneration of the Clyde Gateway. The project offers the opportunity to leave a lasting legacy in the form of improved sports and cultural facilities, transport infrastructure and environmental quality.
Matters to be addressed when consent is sought include:

Siting and design of Games facilities; access arrangements and supporting transport and environmental infrastructure; carbon impact; effects of temporary use or permanent redevelopment of some sites on locally important resources, including townscapes and archaeology, biodiversity, soils and water catchments; noise; and any measures necessary to minimise, mitigate or compensate for adverse effects on the environment or communities.

A strategic environmental assessment of the plans for the Games is being undertaken. Some components may also require environmental impact assessment at the project level.

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