



SEA Statement

for the

Cavan Town & Environ Development Plans 2008 - 2014

**Cavan Town Council
& Cavan County Council**

Planning Department

October 2008



CAVAN COUNTY COUNCIL



CAVAN TOWN COUNCIL

Table of Contents

Summary	3
1.1 Introduction	4
1.2 Steps in SEA	4
1.2.1 Scoping of the Environmental Report for the New Cavan Town & Environs Development Plans	5
1.2.2 Consultation with Environmental Authorities	5
1.2.3 Planning Authority Team	6
1.2.4 Environmental Report	6
1.2.5 Draft Publications	9
1.2.6 Adopted Development Plans and SEA Statement	10
2.1 Summary of how environmental considerations and the Environmental Report were factored into the plans	11
3.1 Summary of how submissions/consultations were taken into account	19
3.1.1 Scoping Report Consultation	19
3.1.2 Consultation with Environmental Authorities- Scoping Issues Paper	19
3.1.3 Planning Authority Team	20
3.1.4 Consultation on the Environmental Report	21
4.1 Reasons for choosing the plan as adopted, in the light of other reasonable alternatives considered	22
Scenario 1- Unrestrained	24
Scenario 2 - Suburbanise (satellites towns/villages)	24
Scenario 3 - Town centre consolidation	25
Scenario 4 - Town centre expansion and future developments areas: 25	
Assessment of the Scenarios	26
5.1 Monitoring measures and arrangements	31
5.1.1 Monitoring Arrangements and Methods	31
5.1.2 Monitoring Programme for the Cavan Town and Environs Development Plans	32
-Responsibilities	32
-Frequency of Reporting	32
5.2 Objectives, Indicators and Targets	34
5.2.1 Biodiversity, Flora and Fauna	34
5.2.2 Population and Human Health	37
5.2.3 Landscape and Soils	41
5.2.4 Water	43
5.2.5 Air and Climate	46
5.2.6 Material Assets	48
5.2.7 Cultural Heritage	49
6.1 Conclusion	51

Summary

Cavan County Council and Cavan Town Council have undertaken a Strategic Environmental Assessment of the Cavan Town and Environs Development Plans 2008 – 2014. This process has involved the production of three documents which are Scoping, Environmental Report and the following Strategic Environmental Assessment ‘Statement’.

The Cavan Town and Environs Development Plans 2008 – 2014 were adopted on the 13th October, 2008 and will come into effect on the 10th November 2008.

This SEA Statement has been prepared in accordance with section 13(I)(1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 346 and contains the following information:

- Summary of how environmental considerations and the Environmental Report were factored into the Cavan Town & Environs Development Plans
- Summary of how submissions/consultations were taken into account
- Reasons for choosing the plan as adopted, in the light of other reasonable alternatives considered
- Monitoring measures and arrangements

Article 9 of the Strategic Environmental Assessment Directive provides that when a plan is adopted, the environmental authorities, the public, and any relevant transboundary State must be informed and that a SEA Statement must be produced.

1.1 Introduction

The SEA Statement contains a summary of how the following were factored into the Cavan Town and Environs Development Plans as adopted on the 13th October, 2008:

- Summary of how environmental considerations and the Environmental Report were factored into the Cavan Town and Environs Development Plans;
- Summary of how submissions/consultations with the environmental authorities, prescribed bodies, Northern Ireland and the public were taken into account;
- Reasons for choosing the Cavan Town and Environs Development Plans as adopted by the Council, in the light of other reasonable alternatives considered; and
- Monitoring measures and arrangements which will identify at an early stage, any unforeseen adverse effects, which will require remedial action making effective use of existing monitoring arrangements to avoid duplication.

The SEA Statement will be made available for public viewing and it will be issued to the Environmental Protection Agency, Minister for the Environment, Heritage and Local Government, Minister for Communications, Energy and Natural Resources, SEA Co-ordinator, Environmental & Heritage Service, Department of the Environment Northern Ireland.

1.2 Steps in SEA

There are a number of steps in the SEA process (see figure 1). The preparation of the Cavan Town & Environs Development Plans required a full Strategic Environmental Assessment. This document 'SEA Statement' forms part of this statutory requirement.

1.2.1 Scoping of the Environmental Report for the New Cavan Town & Environs Development Plans

In March 2007, a Strategic Issues Paper was issued in order to stimulate public consultation on the preparation of the new Draft Development Plans. It was accompanied by an SEA Scoping Issues Paper with an aim of identifying the scope and level of detail to be contained in the Environmental Report. The SEA Scoping Issues Paper set out a description of the Cavan Town and Environs area, relevant plans and programmes which were considered during the preparation of the new Development Plans and Environmental Report and a baseline of environmental data pertaining to the Cavan Town and Environs area (grouped under the environmental themes/receptors – biodiversity, flora and fauna, population and human health, soil and landscape, water, air, climate, material assets and cultural heritage including architecture and archaeology).

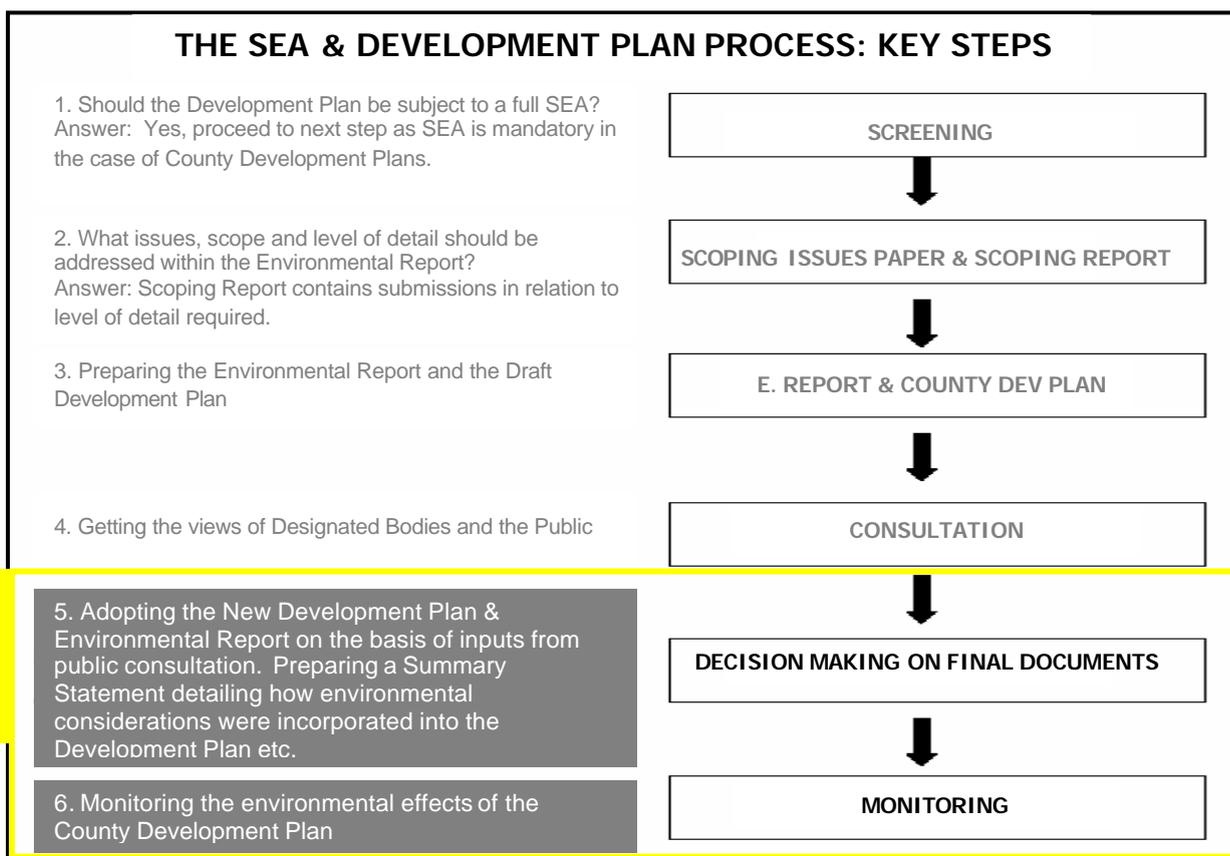
1.2.2 Consultation with Environmental Authorities

The Environmental Authorities (EPA, DoEHLG, DoCMNR (now DoCENR) and DoENI) were provided with the Strategic Issues Paper and SEA Scoping Issues Paper and the documents were made available to the public, the Prescribed Bodies¹ and other relevant stakeholders. A number of public consultation workshops on the new Development Plans were held around the County.

The Planning Authority formally consulted the designated Environmental Authorities during ‘Scoping’ and during the preparation of the Environmental Report. A submission was received from the Department of the Environment, Heritage and Local Government and from one member of the public in relation to the Scoping Issues Paper. A Scoping meeting was held between the Planning Authority and the Environmental Protection Agency. The submissions received were included in a Scoping Report and the environmental baseline data was updated.

¹ Planning and Development Regulations, 2001 as amended.

Figure 1: What Stage are we at?



1.2.3 Planning Authority Team

A Multi-disciplinary team which comprises of members from various sections of Cavan County Council and Cavan Town Council was established in order to prepare consistent Development Plans and to examine the significant environmental impacts which may result from the implementation of the new Development Plans. The Environmental Report and Development Plans were compiled by the Forward Planning Section of Cavan County Council based on the input of the Multi-disciplinary team.

1.2.4 Environmental Report

The Environmental Report follows the requirements of Schedule 2B (Planning and Development (Strategic Environmental Assessment) Regulations S.I. 436 of 2004). It contains details on relevant plans and programmes which have been taken into consideration during the preparation of the Draft Development Plans. Existing Environmental Issues in the Cavan Town and Environs area were identified in the Scoping Report and Environmental Objectives (based on

the environmental receptors – biodiversity, water, air etc.) were drafted from national environmental policy while taking existing environmental problems in the area into account.

Objectives and policies in the new Cavan Town and Environs Development Plans were drafted and compared to the Environmental Protection Objectives. Subsequently, the likely significant effects of implementation of the Development Plans were established through the identification of conflicts between the two sets of objectives and policies. This was assessed in a matrix format.

Where conflicts arose, opportunities to prevent, reduce or offset any significant adverse effects of implementing the Development Plans were examined and if necessary, some policies were improved with measures to mitigate the effects on the environment.

Alternative development scenarios for Cavan Town & Environs were formulated, based on the environmental receptors (i.e. landscape, biodiversity, human health, etc.) and areas with existing environmental problems. The preferred development scenario was reached for the Cavan Town and Environs area based on the Cavan Town and Environs Integrated Framework Plan 2020 (as adopted in July 2007).

Mitigation measures and methods of offsetting potential impacts have been proposed during the course of the preparation of the documents. This has resulted in objectives and policies which are more robust and environmentally sustainable. Similarly, methods of monitoring and indicators of change in the environment have been proposed with set targets to be reviewed over the duration of the Cavan Town and Environs Development Plans.

Table 1: Summary of SEA Methodology

Action	Comments
1. Screening	An Environmental Report is considered mandatory for the Cavan Town and Environs Development Plan. No Screening was undertaken.
2. Scoping Issues Paper	Scoping Issues Paper prepared containing baseline environmental data.
3. Consultation with the Environmental Authorities	Submissions received and Scoping Meeting held with Environmental Protection Agency.
4. Scoping Report	Submissions received from Environmental Authorities were incorporated into the Scoping Report and baseline data was amended. This was issued to the Environmental Authorities on completion.
5. Preparation of Environmental Report and Draft Cavan Town & Environs Development Plans <ul style="list-style-type: none"> ▪ Environmental Objectives established and Development Objectives established ▪ Consultation with EPA ▪ Assessment of Alternative Scenarios ▪ Mitigation measures detailed ▪ Monitoring measures detailed 	<p>Multi disciplinary team established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p> <ul style="list-style-type: none"> ▪ Objectives and Policies created in Draft Development Plan assessed in Environmental Report and Development Scenarios for Cavan Town and Environs were examined based on the Cavan Town and Environs Integrated Framework Plan 2020. ▪ Feedback from on-going Plan preparation process and Environmental Report preparation ▪ Favoured scenario chosen. ▪ Mitigation measures discussed and chosen. ▪ Monitoring incorporated into existing methods.
6. SEA Statement	Information on the adopted Cavan Town and Environs

	<p>Development Plans 2008 - 2014</p> <ul style="list-style-type: none"> ▪ Summary of how environmental considerations and the Environmental Report were factored into the Development Plan ▪ Summary of how submissions/ consultations were taken into account ▪ Reasons for choosing the plan as adopted, in the light of other reasonable alternatives considered ▪ Monitoring measures
<p>7. Monitoring the Cavan Town & Environs Development Plans</p>	<p>Monitoring significant environmental effects over the lifetime of the Development Plans.</p>

1.2.5 Draft Publications

The Environmental Report and Draft Cavan Town and Environs Development Plans were made available for public viewing and submissions or observations were invited from the Environmental Authorities, the Prescribed Bodies² and other relevant stakeholders from the 28th January – 14th April, 2008.

Following on from public consultation, the submissions were compiled in a Manager’s Report which identified the main issues in the submissions, a response to the issues raised and a recommendation to the Council as to the Draft Development Plan and the Environmental Report.

The Managers Report and Draft Development Plans were put before the Members of the Council for their consideration. Amendments were made to the Draft Plans, these constituted material amendments. The Planning and Development Act 2000, as amended requires that such Material Amendments be made available for public consultation. Managers Reports were produced following this public consultation and put before the members of the council for their consideration.

² Planning and Development Regulations, 2001 as amended.

The amendments to the Draft Development Plans were screened to determine if they had any likely significant effects on the environment. The screening report concluded that the amendments did not have significant effects on the environment. As a result the amendments to the draft plans did not require the full SEA.

The Environmental Report was also amended and made available for public viewing with the Draft Development Plans from the 11th August, 2008 until the 8th of September, 2008.

The Members of the Council adopted the Cavan Town and Environs Development Plans at a meeting of the council held on the 13th of October 2008. The plans were adopted with the proposed amendments outlined in the Managers Report.

1.2.6 Adopted Development Plans and SEA Statement

The Cavan Town and Environs Development Plans 2008 – 2014 were adopted on the **13th October, 2008 and will come into effect on the 10th November, 2008**. This SEA Statement has been prepared in accordance with section 13(I) (1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 346.

2.1 Summary of how environmental considerations and the Environmental Report were factored into the plans

The SEA process is intended to improve the quality of plans in terms of sustainability and their potential impacts on the environment. Throughout the preparation of the adopted Cavan Town and Environs Development Plans, environmental considerations have been factored into the plans in a number of ways.

Firstly the SEA process involved consultation and meetings between the Planning Authority, Multi disciplinary team, the public and the prescribed environmental authorities- EPA, DoEHLG, DoCMNR (now DoCENR) and DOENI.

The consultation and desktop review of documentation highlighted a number of key Environmental Protection Objectives relevant to the Development Plans. These objectives included:

Biodiversity, Flora and Fauna

- B1 Conserve designated habitats and protected species.
- B2 Conserve and enhance the biodiversity of interdependent habitats and species in the wider environment.
- B3 Protect terrestrial and aquatic habitats from invasive species.

Population and Human Health

- P1 Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.
- P2 Minimise the amount of waste to landfill.
- H1 Minimise noise, vibration and emissions from traffic, industrial processes and extractive industry.

Landscape and Soil including materials

- L1 Conserve and enhance natural and historic landscapes and features within them.
- L2 Conserve and enhance townscape quality.
- S1 Give preference to the re-use of brownfield lands, reducing the need to develop Greenfield lands.
- S2 Reduce consumption of non-renewable sand, gravel and rock deposits.

Water

- W1 Protect and enhance the quality of surface, ground and drinking water.
- W2 Promote water conservation and sustainable water use, based on long term population projections of available water resources.
- W3 Mitigate the effects of floods.

Air and Climate

- A1 Reduce air pollution and greenhouse gas emission.
- A2 Promote energy efficiency and maximise use of renewable energy sources.

Material Assets

- M1 Maximise use of the existing built environment.
- M2 Maintain infrastructure in the Cavan Town and Environs area and mitigate the effects of further infrastructure provision.

Cultural Heritage

- C1 Promote the protection and conservation of cultural heritage including architecture and archaeology.

The Development Plans have a number of Development Policies and Objectives. The effect of these Development Policies and Objectives on the environment has been measured and cross-checked against the Environmental Protection Objectives, having regard to mitigating measures proposed where appropriate.

An assessment of proposed development alternatives for Cavan Town and Environs were considered. Scenarios were tested and the most appropriate one was chosen.

Policies and objectives which were chosen were examined in terms of their effects on the environment. Where significant effects arose, measures to prevent, reduce or offset these effects were integrated into the Development Plans. Mitigation measures were identified to prevent, reduce and as fully as possible, offset any significant adverse impacts on the environment of implementing the plans. These include:

Chapter 3: Economic Development

- Employment Enterprises

The most significant impact of employment and enterprise objectives and policies is the effect on air quality. All development increases the amount of emissions in the air, through the creation of clusters of industry and enterprise in the urban areas. As a consequence mitigation measures were required in these objectives and policies. A strong landscaping policy, energy efficiency policy and the use of Mobility Management Plans will attempt to offset the emissions which are generated. The Planning Authority will also encourage suitable siting of employment and enterprise areas, including adequate screening and landscaping.

- Energy

In general the policies and objectives for energy have positive impacts on the environmental receptors. Cumulatively, they do have the potential to impact on the character of the townscape and possible impacts on the population in an area due to noise, etc. Hydro-energy developments which may depend on the damming of waters could have an impact on flood control. The SEA recommended the strengthening of energy policies- To promote and encourage sustainable energy supplies 'in appropriate locations subject to normal technical and environmental considerations'.

- Retail

Retail developments significantly contribute to waste generation in the County. They also attract vehicles and generate trips. Out-of-centre retail or commercial development can impact on the town centre. The SEA recommended that retail policies were strengthened in the plan.

- Major Accidents Directive (Seveso II Sites)

Although there are currently no Seveso II sites located in Cavan Town and Environs or in County Cavan, it is vitally important that sites of this nature are considered for their effects on all the environmental receptors. Problems with the operation of such sites would affect the County and Country as a whole. It is essential to have continuous risk management on any such sites

Chapter 4: Physical Infrastructure

- Accessibility including Cycling and Walking

The provision of adequate parking spaces may both encourage the use of vehicles but it may also reduce the location of cars that would contribute to congestion. Provision of adequate public footpaths, overhead lighting, road pavements, cycling links and bicycle parking will facilitate pedestrian safety and security for movement within the Town. This is especially important in areas linking residential areas and the central area, neighbourhood centres, public facilities and libraries.

- Transportation

The provision of roads has negative impacts on biodiversity and landscape, human health, water and air quality for the County. Maintaining the road system and extending the road network uses up non-renewable sand, gravel and rock deposits, however, our economic development depends on a safe and efficient road network. The cumulative effect of run-off from roads in the countryside is problematic to local rivers and lakes. The Planning Authority has included policies and objectives in the Development Plans to explore options to increase provision of public transport services and an objective has been included to ensure that the Council considers the recommendations of

the Local Biodiversity Action Plan when adopted for the County in the construction of new roads.

- Water Services, Wastewater Services, Flood Prevention and Water Quality

The provision of infrastructure is a requirement to facilitate population growth and to reduce the potential impact on water quality and ultimately human health. Water conservation, protection of Groundwater and measures to reduce flood impacts are encouraged by the Planning Authority. The Water Framework Directive and subsequent River Basin Management Plans are aimed at addressing all impacts to water quality and the Planning Authority will co-operate with other Planning Authorities and agencies in the management of water resources. Waste can have a long term cumulative impact on air and water quality. An adequate waste collection service is necessary to prevent animals using this waste as a source of food, disrupting their normal feeding patterns and this can affect. In order to mitigate this, the Planning Authority will continue to operate within the North East Region Waste Management Plan 2005-2010 and other relevant waste legislation, policy and licensing.

- Energy Supplies and Utilities Infrastructure

Energy supply networks are important for the economic development of Cavan Town and Environs, though they can impact on the landscape and townscape. The Planning Authority has included policies to encourage joint usage or co-location of utility facilities and services in order to minimise visual intrusion.

- Mobile Phone Masts

Mobile Phone Masts have a short term impact on the landscape and this can include cultural heritage. They can have a cumulative impact on scenic areas and tourism resources but are also important for economic development. The Planning Authority will continue to examine the cumulative effects of masts in the landscape.

Chapter 5: Housing

The Housing Chapter is based on recommendations from the Housing Strategy in order to ensure the provision of accommodation for all those who require it and who are unable to obtain it through their own means. All housing developments have an impact as they use non-renewable resources in their construction and contribute to waste and air emissions. However the policies and objectives are positive for the population of County Cavan.

Chapter 6: Social Strategy and Community Facilities

Much of this chapter pertains to the provision of infrastructure which benefits all sectors of the community promoting social inclusion, making provisions for the elderly, persons with disabilities and special needs, the Travelling Community and ethnic minorities. Community facilities can positively impact on the townscapes of County Cavan. Open space and recreational areas enhance living environments. The Cavan Town and Environs Development Plan contains an added objective for 'public open space' on 'biodiversity' - 'Biodiversity can be enhanced through the creation of green corridors and linking of open spaces to create potential habitats as well as providing a healthy environment for residents'.

Chapter 7: Built Heritage and Archaeology

The policies and objectives for the protection of the Built Heritage are generally positive in terms of population, townscape quality, conservation and protection of the existing built environment and maintaining the built environment. It provides for the retention of Protected Structures, other buildings, non-structural elements, vernacular architecture, shop fronts and industrial heritage. It also provides potential Architectural Conservation Areas within Cavan Town and the necessary protection for archaeological heritage. It encourages a move to positive sensitive design which enhances living environments. There have been some new additions to the Record of Protected Structures in Cavan Town and Environs. The Urban Design Framework for Cavan Town was adopted in July 2007. Good urban design can enhance the townscape of Cavan Town. The Masterplans which have been identified in the Cavan Town and Environs area have been strengthened

through the addition of a biodiversity element where open spaces both public and private, shall consider networking of green areas to create greater space and consider the potential biological benefits and subsequent public health amenity- 'Issues pertinent to the sustainable management and conservation of Biodiversity shall be considered in all Masterplans'.

Chapter 8: Natural Heritage

The Natural Heritage Chapter contains policies and objectives for the conservation, protection and management of the County's natural heritage which are generally positive for the protection of designated areas, for specific handling of non-native invasive species, population and human health, landscape, townscape, water quality, flooding and air quality. Development in the Cavan Town and Environs area will be considered subject to site assessment and technical considerations; though the cumulative impact on natural heritage must be assessed and considered. Public open spaces especially green spaces are important for the absorption of water as well as aesthetic benefits, health benefits and as habitats for flora and fauna. A 10-20 metre buffer has been added along rivers as an 'amenity' area in the Cavan Town and Environs area in order to protect the river corridor (based on recommendations from the Fisheries Board). The Masterplan areas in Cavan Town and Environs area will provide for adequate provision of amenity including the retention of mature trees where possible, community facilities and employment opportunities in order to reduce unsustainable travel patterns.

- Appropriate Assessment

Along side the SEA process, the Cavan Town and Environs Development Plan was subject to the first stage of the Appropriate Assessment procedure. This involved the Appropriate Assessment initial screening stage to determine if the plan would have any likely significant impacts on designated Natura 2000 sites (Special Areas of Conservation or Special Protection Areas). There are no such sites designated within the Plan area and the nearest Natura 2000 site is located some distance to the north west of the environs area. The

result of the initial screening was that a full Appropriate Assessment was not required as the plans had no significant impact on any Natura 2000 site.

- Screening of Amendments

The amendments to the Draft Cavan Town & Environs Development Plans were also screened in order to determine if the amendments had any likely significant environmental effects. The results of the screening concluded that the amendments did not have any significant effect on the environment and therefore did not require the full SEA.

3.1 Summary of how submissions/consultations were taken into account

3.1.1 Scoping Report Consultation

In March 2007, a Strategic Issues Paper was issued in order to stimulate public consultation on the preparation of the new Draft Development Plans. It was accompanied by an SEA Scoping Issues Paper with an aim of identifying the scope and level of detail to be contained in the Environmental Report. The SEA Scoping Issues Paper set out a description of the Cavan Town and the Environs area, relevant plans and programmes to be considered during the preparation of the new Development Plans and Environmental Report and a baseline of environmental data pertaining to the Cavan Town and Environs area (grouped under the environmental themes/receptors – biodiversity, flora and fauna, population and human health, soil and landscape, water, air, climate, material assets and cultural heritage including architectural and archaeological).

3.1.2 Consultation with Environmental Authorities- Scoping Issues Paper

The Environmental Authorities (EPA, DoEHLG, DoCMNR (now DoCENR) and DoENI) were provided with the Strategic Issues Paper and SEA Scoping Issues Paper and the documents were made available to the public, the Prescribed Bodies³ and other relevant stakeholders. A number of public consultation workshops on the new Development Plans were held around the County.

The Planning Authority formally consulted the designated Environmental Authorities during ‘Scoping’ and during the preparation of the Environmental Report. A submission was received from the Department of the Environment, Heritage and Local Government and from the National Roads Authority in relation to the Scoping Issues Paper. A Scoping meeting was held between the Planning Authority and the Environmental Protection Agency. The

³ Planning and Development Regulations, 2001 as amended.

submissions received were included in a Scoping Report and the environmental baseline data was updated.

Contact with the Environmental Authorities is as follows: -

- ✦ **Environmental Protection Agency (EPA)** is to be consulted in all cases.

- ✦ Consultation should take place with the **Minister for the Environment, Heritage and Local Government (DoEHLG)** where it appears to the Planning Authority that the plan might have significant effects in relation to the architectural or archaeological heritage or to nature conservation; or if consultations are to take place with Northern Ireland.

- ✦ Consultation should take place with the **Minister for Communications, Energy and Natural Resources (DoCENR)** where it appears to the competent authority that the plan or modification to a plan might have significant effects on natural resources.

- ✦ Consultation should take place with the **SEA Co-ordinator, Environmental & Heritage Service, Department of the Environment Northern Ireland (DoENI)** where it appears that the plan may have significant environmental transboundary effects.

3.1.3 Planning Authority Team

A Multi-disciplinary team comprising members from various sections of the Cavan County Council and Cavan Town Council was established in order to prepare consistent Development Plans and to examine the significant environmental impacts which may result from the implementation of the new Development Plans. The Environmental Report and Development Plans were compiled by the Forward Planning Section of Cavan County Council based on the input of the Multi-disciplinary team.

3.1.4 Consultation on the Environmental Report

The Environmental Report and Draft Cavan Town and Environs Development Plans were made available for public viewing. Submissions and observations were received during the 10 week consultation period i.e. by 14th April, 2008.

Following on from public consultation, the submissions were compiled in a Manager's Report which made recommendations to the Cavan Town Council and County Council Members with regards to the Development Plans and Environmental Report

The Manager's Report was put before Cavan County Council and Cavan Town Council Members on 21st July, 2008. The members made material alterations to the Draft Development Plans. The Planning and Development Act, 2000, as amended requires that such material alterations be made available for public consultation.

The amended Environmental Report was available for public viewing with the Draft Cavan Town & Environs Development Plan from the 11th August, 2008 until the 8th of September, 2008.

Submissions and observations with respect to the amendments were compiled into a Manager's Report which was issued to the Council on 4th October 2008 for decision at their Monthly Meeting on the 13th October 2008. At this meeting the Members adopted the Development Plan, and it shall come into effect 4 weeks from that date.

4.1 Reasons for choosing the plan as adopted, in the light of other reasonable alternatives considered

The SEA Directive requires the selection and assessment of alternatives.

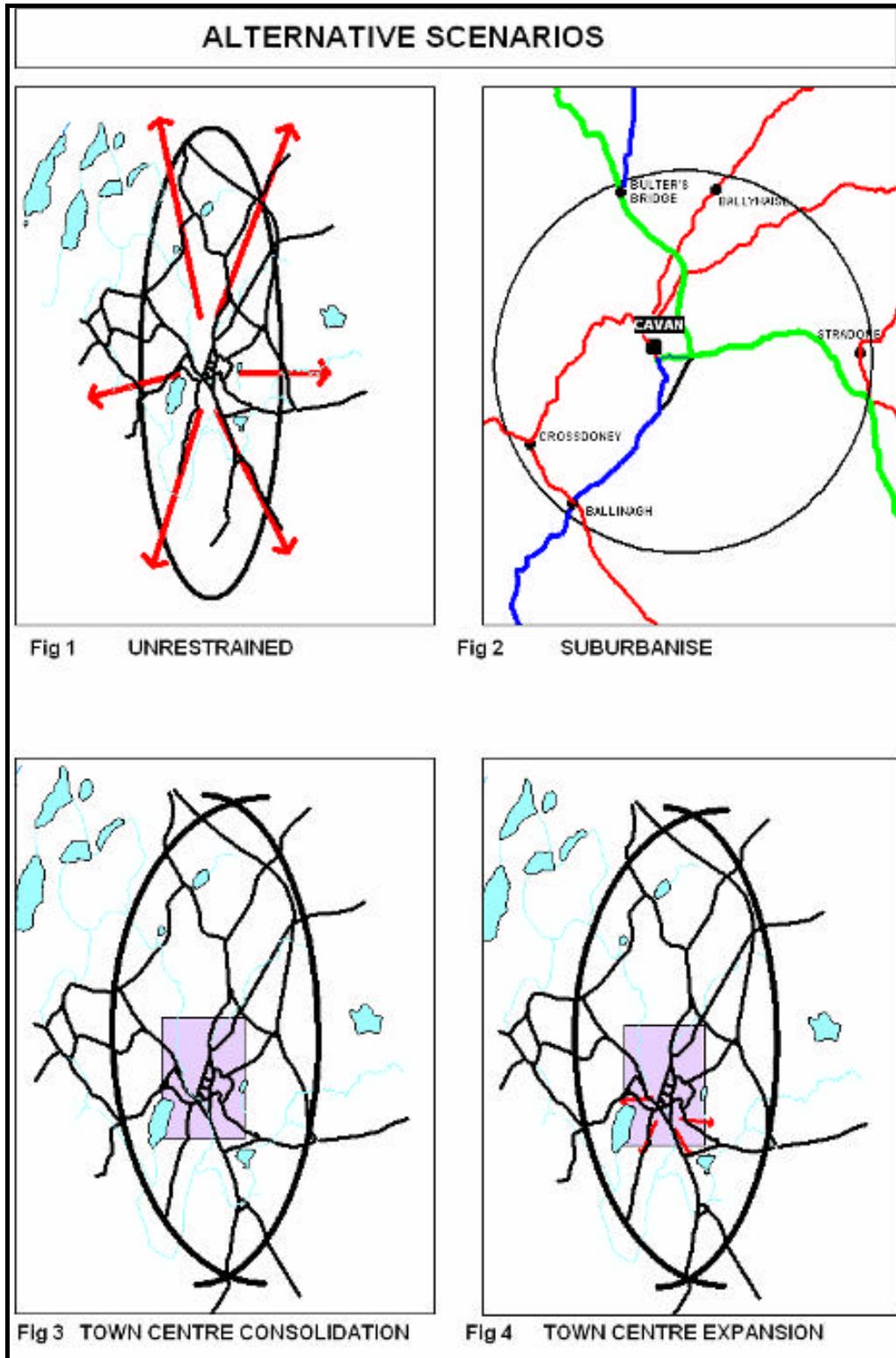
Article 5 requires the Environmental Report to consider “reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme” and the significant environmental effects of the alternatives selected.

A number of Scenarios for the Development of the Cavan Town and Environs area were prepared based on the Cavan Town and Environs Integrated Framework Plan 2020 which has been formed through analysis of strategic policies and objectives set out at a higher level. A total of four alternative scenarios for the future of Cavan were prepared and assessed through consideration of the statutory and operational requirements of the Development Plans.

Alternative Scenarios for Cavan

The alternative scenarios for Cavan Town and Environs are considered on the following page.

Figure 2: Alternative Scenarios for the development of Cavan Town and Environs



Scenario 1 - Unrestrained

The first scenario would continue the sprawl of housing estates and one-off houses in serviceable units. This approach is increasingly seen as an unsustainable and unacceptable for reasons that include: levels of land take; distance from the town centre; difficulties of social integration; and heavy reliance on private car usage which recreates and promotes the use of unsustainable transportation modes. The economic cost to maintain the infrastructure of the urban area in this scenario would be high. The demarcation between urban and rural areas would be unclear resulting in a poor overall townscape and sprawl into the surrounding rural landscape. The cumulative impact of development on the natural environment would result in greater habitat fragmentation or habitat destruction. The targets set out in the National Spatial Strategy to promote balanced sustainable development would not be achieved through the designation of the town as a 'hub'.

This Scenario could potentially cause significant impacts on all environmental receptors (biodiversity, population, human health, landscape, soil, water, air, climate, material assets and cultural heritage) causing widespread environmental problems, poor water quality, poor biodiversity, a poor quality built environment and ultimately resulting in poor human health.

Scenario 2 - Suburbanise (satellites towns/villages)

This scenario involves the development of a necklace of small towns around Cavan Town as distinct and separate suburbs. This approach would focus on future growth of smaller centres such as Butlersbridge, Ballinagh, Ballyhaise, Crossdoney, Lavey, and Stradone as expanded settlements.

In this Scenario, the towns surrounding Cavan would grow taking the focus away from developing Cavan Town as a 'hub' as identified in the National Spatial Strategy (2002).

Scenario 3 - Town centre consolidation

This approach would be to focus explicitly on the densification of the town centre with intensification of land uses and focus on employee intensive sectors. This would increase the density permitted in the centre of the town with major emphasis of infilling and brownfield development in the existing urban environment. This Scenario may see a rapid growth in population as required by the 'hub' town and critical mass could be reached for the provision of a viable public transport system and sustainable waste infrastructure promoting reduction, reuse and recycling of materials. Travel patterns could be sustained with much of the population living and working within close proximity to the town centre reducing the need to travel long distances and encouraging more sustainable means of travel. The cost of maintaining infrastructure is considered viable.

Scenario 4 - Town centre expansion and future developments areas:

This scenario involves the promotion of development lands approximate to town centre (east and west), with higher development densities in appropriate existing and future residential areas, improved integration between amenities, development and transportation and better design, so as to create attractive urban living conditions providing a good quality of life.

Development in Cavan Town has developed at moderate densities in large residential developments in areas which are relatively close to the town centre and include local shopping areas and primary schools. There are large areas of undeveloped land within the environs area that are currently being used for agricultural purposes. This Scenario would facilitate the development of these lands in a sustainable manner allowing the town to become permeable with linkages from these areas to the town centre and increasing the quality of design of the townscape and creating a clear demarcation between urban and rural areas. The economic cost of infrastructure can be maintained within the area and high levels of service provision and community infrastructure are catered for as well as creating employment opportunities close to residential areas.

Assessment of the Scenarios

In developing and testing the scenarios, particular regard was given to the concept of environmental sustainability and the principles adopted by the Government in the National Sustainable Development Strategy (1997). The following sustainability considerations are of particular importance:

- seeking a meaningful reduction in the growth in demand for transport;
- ensuring that land use and transportation planning are integrated and that future land use proposals incorporate appropriate transport measures;
- achieving a clearer demarcation between urban and rural land uses than at present;
- increasing emphasis on sustainable transportation alternatives to the private car;
- protection of the built and cultural heritage of the area;
- conservation and enhancement of biodiversity and natural heritage;
- encourage energy efficiency;
- protection of the environment by minimising waste and pollution;
- promote the involvement of the local community in decision making and encourage social inclusion.

The Regional Planning Guidelines (2004) have identified a projected growth of 16,000 for the 'Hub' town to be reached by 2020. All scenarios must work towards reaching the target population. They must also define the boundary of Cavan, provide opportunities for sustainable employment and enterprise and development of employment and maximise the use of the natural environment and educational and recreational resources of the area (Cavan Town and Environs Integrated Framework Plan, 2007). The scenarios were evaluated in the matrix on the following pages and compared on performance under the headings based on the Cavan Town and Environs Integrated Framework Plan (2007) and based on the Environmental Receptors discussed in relation to the Cavan Town and Environs Development Plans.

Integrated Framework Plan

- Transportation
- Sustainability
- Practicality
- Quality of life
- Compliance with national and regional policy

Environmental Receptors

- Biodiversity
- Population and Human Health
- Landscape and Soil
- Water
- Air
- Material Assets
- Cultural Heritage

Table 2: Scenarios for Cavan Town & Environs

Scenario	1 Unrestrained	2 Suburbanise	3 Town centre consolidation	4 Town centre expansion/development
Biodiversity	✘	◊	☺	✘
Population & Human Health	✘	◊	◊	☺
Landscape & Soil	✘	◊	◊	◊
Water	✘	✘	☺	☺
Air	✘	✘	☺	☺
Material Assets	✘	◊	☺	☺
Cultural Heritage	◊	◊	◊	☺
Transportation	✘	◊	☺	☺
Sustainability	✘	◊	☺	◊
Practicality	✘	✘	◊	☺
Quality of Life	◊	◊	◊	☺
Compliance with National & Regional Policy	✘	✘	☺	☺
Overall	✘	◊	☺	☺

Evaluation Matrix

KEY	Promotes	Neutral	Not Compatible
	☺	◊	✘

Scenario 1 does not provide a sustainable transport solution as it reinforces dependency on the private car. Due to the dispersed development, public transport will not be economically viable. It impacts on many environmental receptors in the long run and overall quality of life in the long term is lower than the other scenarios. It will not achieve the goals set out for 'hub' towns under the National Spatial Strategy (2002) and Regional Planning Guidelines (2004) and Scenario 1 is therefore not recommended.

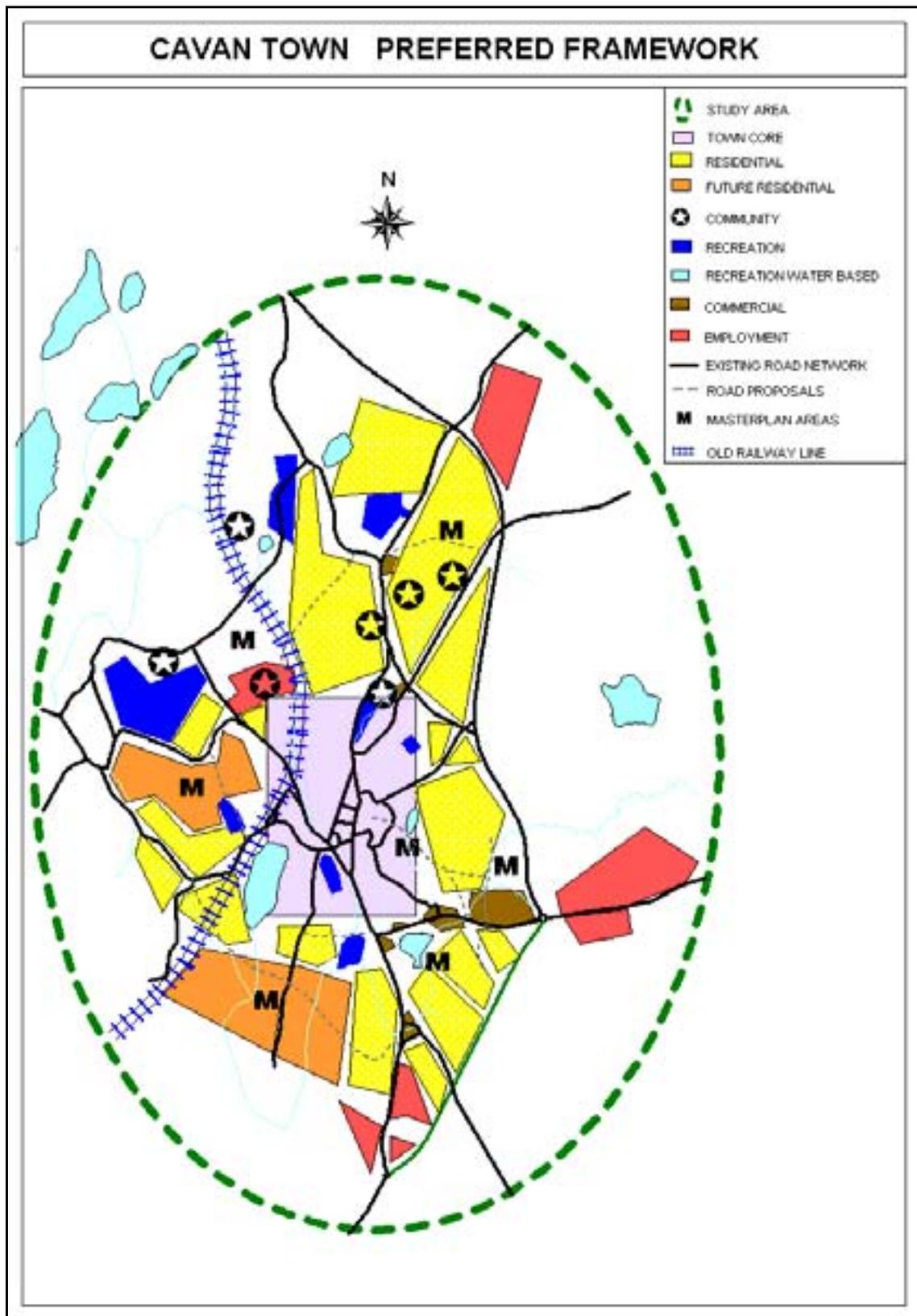
The economic viability of practical sustainable transport is less certain for Scenarios 2 than for Scenarios 3 and 4, development is more dispersed and critical thresholds will not be achieved. There are potential impacts on water quality as not all of these settlements have wastewater treatment plants. It is unlikely that these areas will create a good mix of employment opportunities and services may be dispersed between the settlements. This Scenario does not comply with National and Regional policy guidance.

Scenarios 3 and 4 have the potential to achieve critical thresholds for sustainable growth of the town. Higher density development, promoted particularly in Scenarios 3 and 4, requires considerably smaller areas of land and consolidates development so walking, cycling and travel by sustainable means are feasible. The land take requirement associated with higher densities allows for consideration of alternative uses. Scenario 4, envisages an expanded town centre with an additional potential for creation of sustainable jobs and also significant levels of choice for both enterprise and residential development. The development of the urban area through town centre expansion will impact on biodiversity with the consequent loss of habitats by developing greenfield sites. Whilst Scenario 3 represents a more ideal situation from a sustainability point of view, it is less likely to be achieved than scenario 4.

Increased densities will be the norm in all future urban developments, in response to sustainability issues and government policy. Consequently, the choice is not between high density near the centre and low density on the periphery, but rather between different locations at comparable density levels

based on sustainability issues such as energy efficiency, and reduction of reliance on private car. From the above, it is recommended that the preferred framework for future land use and transportation in Cavan in the medium to longer term be based on a combination of Scenarios 3 and 4. That is town centre consolidation, with limited expansion and the co-ordinated development of existing and future residential areas.

Figure 3: Cavan Town – Preferred Framework



Source: Cavan County Council (2007) Cavan Town and Environs Integrated Framework Plan 2020

5.1 Monitoring measures and arrangements

The primary purpose of monitoring is to cross-check significant environmental effects which arise during the implementation stage against those predicted during the plan preparation stage. Existing monitoring arrangements may be used if appropriate, to avoid duplication of monitoring.

5.1.1 Monitoring Arrangements and Methods

The DoEHLG SEA Guidelines (2004) recommend that the arrangements and methods chosen should be those which are best fitted in each case to checking whether the assumptions made in the Environmental Report correspond with the environmental effects arising from implementation of the plan, and to identifying at an early stage unforeseen adverse effects.

New research activity is not required, existing sources of information can be used. Where gaps in environmental information are identified during the preparation of the environmental report, monitoring measures over the period of the plan can be geared towards addressing such gaps, where practicable.

Monitoring will be based around the 'Environmental Objectives'. A number of Objectives, Indicators and Targets are set out. They will allow measures of trends and progress over time. Many targets will be incorporated with existing targets under European and National legislation (e.g. Phosphorus Regulations). Monitoring proposals must concentrate on likely significant environmental effects, which have been identified in the Environmental Report and the measures identified as necessary to prevent, reduce, or offset any significant adverse effects.

Monitoring at an early stage may identify unforeseen adverse effects and the undertaking of appropriate remedial action.

The Statutory Manager's Report on Progress in achieving objectives of Development Plan takes place 2-years after the adoption of the Plan and 'shall include information in relation to the progress on, and the results of

monitoring the significant environmental effects of implementation of the development plan’.

If an objective or policy is having a significant adverse impact, a variation may be considered during the lifetime of the Development Plan.

5.1.2 Monitoring Programme for the Cavan Town and Environs Development Plans

-Responsibilities

Cavan County Council and Cavan Town Council will be responsible for monitoring the Cavan Town and Environs Development Plans. A multi-disciplinary team will deal with the monitoring of the Cavan Town & Environs Development Plans.

-Frequency of Reporting

Two years after the Development Plans are adopted; the Manager must prepare a report on ‘Progress in achieving objectives in the Development Plans’. This will include the results of monitoring and a further report will be made available every two years thereafter. It is expected that these reports will be issued to the designated Environmental Authorities and made available on the County Council and Town Council website.

As set out, in the Environmental Report, a number of monitoring measures will be implemented in relation to Biodiversity, Population and Human Health, Landscape and Soil, Water, Air and Climate, Material Assets and Cultural Heritage. The indicators and targets which will be used to describe trends in the baseline data are outlined. This will allow both the positive and negative impacts of the Plan to be monitored. The indicators will be used to identify any early problems/ impacts or deterioration in the environmental receptors. The monitoring table identifies problems that may arise and possible actions to overcome them. The Planning Authority and the multi-disciplinary team will be responsible for the thresholds which would determine when intervention

measures may be required. The following tables highlight the monitoring proposals.

5.2 Objectives, Indicators and Targets

5.2.1 Biodiversity, Flora and Fauna

Environmental Objectives for Biodiversity, Flora and Fauna:

- B1 Conserve designated habitats and protected species
- B2 Conserve and enhance the diversity of interdependent habitats and species in the wider environment
- B3 Protect terrestrial and aquatic habitats from invasive species

Environmental Receptor (SEA Directive Annex I) Biodiversity, Flora and Fauna	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
B1: Designated Habitats and Protected Species	Conserve designated habitats and protected species	<ul style="list-style-type: none"> ▪ Retention of designated habitats and protected species (pNHA) in a satisfactory condition. 	<ul style="list-style-type: none"> ▪ Change in condition of pNHA 	<ul style="list-style-type: none"> ▪ National Parks and Wildlife Service ▪ Information sources in Cavan County Council Audit of Biological Dataset (2007) ▪ Cavan County Council Environment Department ▪ EPA 	<ul style="list-style-type: none"> ▪ RA: Examine cumulative effects of planning permissions in these areas in the event of reported change in condition 	<ul style="list-style-type: none"> ▪ Quantitative and qualitative based on information from National Parks and Wildlife Service or any report data available ▪ Biological quality of water
		<ul style="list-style-type: none"> ▪ To site new developments on greenfield sites that are non-sensitive sites 	<ul style="list-style-type: none"> ▪ Rural Housing Annual Report 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ Corine Maps 	<ul style="list-style-type: none"> ▪ RA: Investigate source of problem and remedy or mitigate effects if within the remit of Planning Authority Environment Section or Waste Management 	<ul style="list-style-type: none"> ▪ Quantitative and qualitative - % of developments ▪ Quantitative - trends in Rural Housing and qualitative assessment of effectiveness of policy

		<ul style="list-style-type: none"> ▪ Have regard to and undertake actions of the Local Biodiversity Action Plan for County Cavan (when finalised) 	<ul style="list-style-type: none"> ▪ Number of actions undertaken as part of the Local Biodiversity Action Plan and subsequent studies undertaken 	<ul style="list-style-type: none"> ▪ Cavan County Council Heritage Office 	<ul style="list-style-type: none"> ▪ (PA): Examine in the context of the Annual Rural Housing Report 	
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Environmental Receptor (SEA Directive Annex I) Biodiversity, Flora and Fauna	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
B2: Biodiversity in the wider countryside	Conserve and enhance the diversity of interdependent habitats and species in the wider environment	<ul style="list-style-type: none"> ▪ Establishment of a Hedgerow Committee (consisting of Heritage Officer, Area Engineers, Road Engineers, Planners etc.) 	<ul style="list-style-type: none"> ▪ Implement a policy of use of native seed and native species in County Council projects and planting 	<ul style="list-style-type: none"> ▪ Hedgerow Committee 	<ul style="list-style-type: none"> ▪ (PA): Continuous monitoring of the effectiveness of planning conditions 	<ul style="list-style-type: none"> ▪ Qualitative based on experience of Hedgerow Committee and assessment of success rates
		<ul style="list-style-type: none"> ▪ Have regard to and undertake actions of the Local Biodiversity Action Plan for County Cavan (when finalised) 	<ul style="list-style-type: none"> ▪ Number of actions of the Local Biodiversity Action Plan undertaken over lifetime of the County Development Plan 	<ul style="list-style-type: none"> ▪ Cavan County Council Baseline Hedgerow composition based on Hedgerow Survey (2007) and baseline dataset for Local Biodiversity Action Plan (2007) 	<ul style="list-style-type: none"> ▪ (PP): Source of funding ▪ (RA): Unknown 	<ul style="list-style-type: none"> ▪ Digitised Format of Cavan County Council studies/ publications on Council website
		<ul style="list-style-type: none"> ▪ Implement actions of Local Biodiversity Action Plan (when complete) 	<ul style="list-style-type: none"> ▪ Cumulative impact of development based on Rural Housing Annual Report 	<ul style="list-style-type: none"> ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (PA): Ensure training of staff in County Council in issues pertaining to biodiversity ▪ (PA): Engage in education Initiatives for the public and wider community 	<ul style="list-style-type: none"> ▪ Qualitative – based on information from the National Parks and Wildlife Service, Fisheries Boards, other NGOs etc.

Environmental Receptor (SEA Directive Annex I) Biodiversity, Flora and Fauna	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
B3: Invasive Species	Protect terrestrial and aquatic habitats from invasive species	<ul style="list-style-type: none"> ▪ Cavan County Council and Cavan Town Council will work with other stakeholders in order to control invasive species⁴ and continue to raise public awareness of invasive species to prevent the spread of invasive species 	<ul style="list-style-type: none"> ▪ Number of initiatives which Cavan County Council get involved in 	<ul style="list-style-type: none"> ▪ Cavan County Council Planning and Environment Departments ▪ National Parks and Wildlife Service (DoEHLG) 	<ul style="list-style-type: none"> ▪ (PA): On-going provision of information and awareness campaigns 	<ul style="list-style-type: none"> ▪ List and maps of known areas affected with invasive species (water ways and sites)
		<ul style="list-style-type: none"> ▪ Cavan County Council and Town Council with support initiatives to manage invasive species 	<ul style="list-style-type: none"> ▪ River Basin Management Plans for Neagh-Bann, North-Western, Shannon and Eastern Region ▪ Rivers of good and fair biological quality ▪ Management Plans for the 10 highest risk alien species and contingency plans for 10 highest risk potential invaders (as part of the River Basin Management Plans) ▪ Local Biodiversity Action Plan (when finalised) 	<ul style="list-style-type: none"> ▪ Fisheries Boards ▪ Water Framework River Basin Management Plan Monitoring as per www.eden.net ▪ Cavan County Council ▪ Bird Watch Ireland (BWI) ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (PA): Continuing involvement and compliance with the River Basin Management Plans ▪ (PP): Invasive Species ▪ (RA): Identifying native species at risk at national level due to invasive species 	<ul style="list-style-type: none"> ▪ Qualitative and Quantitative if available ▪ Number of advertisements in Local Newspapers. Number of information signs at lakes etc. ▪ Types of information booklets available etc.

⁴ This is based on the recommendations of the 'Invasive species in Ireland Project' which began in May, 2006 for the Environment and Heritage Service (Northern Ireland) and the National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government and other initiatives undertaken.

5.2.2 Population and Human Health

Environmental Objectives for Population and Human Health:

P1 Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns

P2 Minimise the amount of waste to landfill

H1 Minimise noise, vibration and emissions from traffic, industrial processes and extractive industry

Environmental Receptor (SEA Directive Annex I) Population and Human Health	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
P1: Quality of Life	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns	<ul style="list-style-type: none"> Increase distribution of green open spaces for public and private use. 	<ul style="list-style-type: none"> Land identified as 'amenity' spaces on zoned lands in Cavan Towns and quantity of open space provided as part of new developments and status of completion 	<ul style="list-style-type: none"> Cavan County Council/ Town Council 	<ul style="list-style-type: none"> (PA): Ensure objectives of Development Plan are implemented with regard to open space provision as part of developments 	<ul style="list-style-type: none"> Quantitative - % increase of green space in each town both public and private
		<ul style="list-style-type: none"> Reduce private car usage, increase and promote walking and cycling and increase access to sustainable means of travel and promote private and public bus services 	<ul style="list-style-type: none"> Increase in public amenities such as the provision of bus lay-bys (National Routes), cycle parking throughout the area (based on Parking Standards). Creation of green linkages and linear walks Number of cycle-lanes provided as part of planning permissions. Number of Mobility Management Plans in operation as part of planning permission 	<ul style="list-style-type: none"> Cavan County Council/ Town Council Area Engineers/ Town Engineer 	<ul style="list-style-type: none"> (PA): Investigate the usefulness of Mobility Management Plans and other opportunities including Transport Studies 	<ul style="list-style-type: none"> Quantitative analysis of cycle-path provision in towns (Area Engineer/ Town Engineer) and cycle-parking provision Mobility Management Plans and Transport Study implementation (Area Engineer/ Planner)
		<ul style="list-style-type: none"> Enhance townscape quality 	<ul style="list-style-type: none"> Number of Masterplans completed 	<ul style="list-style-type: none"> Cavan County Council/ Cavan 	<ul style="list-style-type: none"> (PA): Masterplans to seek the provision of quality 	<ul style="list-style-type: none"> Qualitative and quantitative – number of

				Town Council	open space	Master Plans in operation and the subsequent open space provision and community service provision
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Environmental Receptor (SEA Directive Annex I) Biodiversity, Flora and Fauna	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
P2: Waste Management	Minimise the amount of waste to landfill through reducing, reusing and recycling	<ul style="list-style-type: none"> ▪ Reduce waste to landfill and increase reuse and recycling of materials ▪ Increase in volume of waste recycled through use of civic amenity sites/ recycling centre ▪ Make waste management information available and accessible to the public 	<ul style="list-style-type: none"> ▪ Number of new recycling facilities provided as per North East Region Waste Management Strategy. ▪ Quantity of household waste collected for landfill and quantity of household waste collected for recycling. ▪ Industrial Waste Generation and Management of Hazardous Waste ▪ Recovery Rates of Packaging Waste ▪ Level of success achieved annually in the Tidy Towns Competitions, Irish Business Against Litter (IBAL) League ▪ National Spring Clean ▪ National Litter Pollution Monitoring System⁵ ▪ Quantity of street litter, other litter, household and commercial refuse 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ EPA ▪ An Taisce 	<ul style="list-style-type: none"> ▪ (RA): Investigate problems and remedy where possible ▪ (PA): Maintain litter-free status and endeavour to improve areas where problems exist through Cavan Spring Clean Week Initiatives etc. ▪ (PA): Monitor effectiveness of refuse bins at apartments (policy in Cavan Town & 	<ul style="list-style-type: none"> ▪ Quantitative such as % of Population served by kerbside collection; ▪ % of population per civic amenity sites and bring sites; green waste composting facilities, biological treatment plants etc in the North East Region; ▪ Quantitative and qualitative in terms of success in Implementation of North East Region Management Plan

⁵ Part of the Government's Litter Action Plan.

					Environs Development Plan)	
		<ul style="list-style-type: none"> Implement Litter Management Plan⁶ 	<ul style="list-style-type: none"> Number of Litter Offences recorded under Waste Management Act 1996-2003⁷ Number of 'Adopt a Road' programmes operational during the lifetime of the Plan Number of Fly-Tipping Incidences recorded Number of litter fines issued 	<ul style="list-style-type: none"> Cavan County Council 	<ul style="list-style-type: none"> (PA): Anti-Litter campaigns and education programmes undertaken as part of the Litter Management Plan 	<ul style="list-style-type: none"> Quantitative and qualitative analysis of implementation of Litter Management Plan Number of campaigns initiated.

Environmental Receptor (SEA Directive Annex I) Population and Human Health	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
H1: Emissions	Minimise noise, vibration and emissions from traffic, industrial processes and extractive industry	<ul style="list-style-type: none"> Good air quality 	<ul style="list-style-type: none"> Number of Notices served under Noise Regulations⁸ Type of Noise Complaints received 	<ul style="list-style-type: none"> Cavan County Council Environment Department 	<ul style="list-style-type: none"> (RA): Investigate source of problems and remedy if possible 	<ul style="list-style-type: none"> Available Traffic Counts Number of Noise Notices served and solutions/ mitigation used

⁶ Part 4 of 2003 Act Protection of the Environment Act 2003

⁷ Disposal of Waste in a manner that causes or is likely to cause environmental pollution. Waste Management (Packaging) Regulations 2004 places obligation on all businesses to arrange for their packaging waste to be recycling – it is an offence not to do so and therefore such waste should not be disposed of in any other manner.

⁸ Noise Regulations (1994) S.I. 179 Other Environmental Noise Regulations – S.I. No. 140 of 2006.

		<ul style="list-style-type: none"> ▪ Air Quality Monitoring⁹ (EPA)¹⁰ ▪ Monitoring of Solvents Regulations¹¹, Section 4 Licensing ▪ EIS Monitoring Compliance 	<ul style="list-style-type: none"> ▪ EPA ▪ Cavan County Council and Town Council – Planning Department ▪ Cavan County Council Environment Department ▪ Cavan County Council Roads Department ▪ CSO ▪ Enterprise Ireland 	<ul style="list-style-type: none"> ▪ (RA): Investigate EIAs monitoring if mitigation not effective and any breaches in Solvent Regulations etc. 	<ul style="list-style-type: none"> ▪ Statistics and fines imposed – solutions found etc.
	<ul style="list-style-type: none"> ▪ No deterioration in levels of Drinking Water Quality Standards 	<ul style="list-style-type: none"> ▪ Drinking Water Quality Monitoring as per 2007 Regulations or as amended 	<ul style="list-style-type: none"> ▪ EPA ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (RA): Investigate source - remedy based on normal procedures and River Basin Management Plans 	<ul style="list-style-type: none"> ▪ Figures, stats – maps of pressure areas
	<ul style="list-style-type: none"> ▪ Implement Transportation Study recommendations for Cavan Town and Environs 	<ul style="list-style-type: none"> ▪ Number of transportation study recommendations in operational 	<ul style="list-style-type: none"> ▪ Cavan County Council Roads Department 	<ul style="list-style-type: none"> ▪ (PA): Successfulness of Transport Studies and Implementation of suggestions/ recommendations ▪ (PA): Ensure objectives of the Development Plan are implemented 	<ul style="list-style-type: none"> ▪ Quantitative and Qualitative in terms of outstanding areas suffering from traffic congestion

⁹ The Air Quality Standards Regulations 2002, (DoEHLG, 2002) transposed the Framework Directive (CEC, 1996) and the first two daughter Directives (CEC, 1999 and EP and CEU, 2000) into Irish law. They established new air quality standards for SO₂, NO₂ and NO_x, lead, PM₁₀, CO and benzene. The Ozone in Ambient Air Regulations 2004 (DEHLG, 2004) transposed the third daughter Directive (EP and CEU, 2002) dealing with ozone into Irish Law. The Irish Regulations specify the dates by which the limit values or target values for each of the pollutants must be achieved and also the reference methods for sampling, analysis and measurement. Specific requirements are set out in relation to providing the public with information on ambient air quality. Up-to-date information on ambient air quality must be made available on a widespread basis through appropriate media including newspapers and the Internet, with the more sensitive population groups provided with more specific information. Ireland’s small population and generally good air quality means that a relatively small number of monitoring stations are sufficient across the country for the purposes of implementing the EU Air Directives.

¹⁰ Sulphur Dioxide, Nitrogen Dioxide, Particulate Matter, Black Smoke, Lead, Benzene, Carbon Monoxide and Ground-Level Ozone are monitored at stations in Zone D. The Ozone Regulations (DoEHLG) 2004 specify target values to be achieved by 2010 and more stringent long-term objectives to be achieved by 2020.

¹¹ Monitoring of Solvent Regulations (2006) Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002, S.I. No. 543 of 2002 (the Solvents Regulations) - V.O.C monitoring of dry-cleaners emissions etc.

5.2.3 Landscape and Soils

Environmental Objectives for Landscape and Soil including minerals:

- L1 Conserve and enhance natural and historic landscapes and features within them
- L2 Conserve and enhance townscape quality
- S1 Give preference to the re-use of brownfield lands, reducing the need to develop Greenfield lands
- S2 Reduce consumption of non-renewable sand, gravel and rock deposits

Environmental Receptor (SEA Directive Annex I) Landscape and Soil	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
L1: Natural and Historic Landscapes	Conserve and enhance natural and historic landscapes and features within them	<ul style="list-style-type: none"> ▪ Prepare a County Landscape Management Plan and implement recommendations 	<ul style="list-style-type: none"> ▪ Annual Rural Housing Report 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ Heritage Council ▪ Failte Ireland ▪ GSI 	<ul style="list-style-type: none"> ▪ (PP): Investigate situations where landscape impact is cumulative ▪ (RA): Examine if further development policy is required ▪ (RA): Investigate through Annual Rural Housing Report 	<ul style="list-style-type: none"> ▪ Cumulative effect on landscape, based on Landscape Management Plan ▪ Conclusions of Rural Housing Annual Report
		<ul style="list-style-type: none"> ▪ Conduct an audit of designated geological sites of importance in County Cavan and take cognisance of proposed designated sites of geological importance in Cavan Town and Environs area (if any) 	<ul style="list-style-type: none"> ▪ Audit of geological sites of importance in County Cavan (2007) as amended ▪ Landscape Management Plan 	<ul style="list-style-type: none"> ▪ Cavan County Council Heritage Officer ▪ GSI ▪ National Parks and Wildlife Service (DoEHLG) 		<ul style="list-style-type: none"> ▪ List of sites

Environmental Receptor (SEA Directive Annex I) Landscape and Soil	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
L2: Townscape	Conserve and enhance townscape quality	<ul style="list-style-type: none"> ▪ To implement the Cavan Town and Environs 2020 Integrated Framework Plan including Transportation Study and Urban Design Framework ▪ To implement policies and objectives to retain the character of the townscape and areas for enhancement, creating a quality urban environment and public realms 	<ul style="list-style-type: none"> ▪ Number masterplans to enhance townscapes operational over the Plan period 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ Various agents (architects etc.) 	<ul style="list-style-type: none"> ▪ (PA): Investigate townscape and village-scape design where masterplans are in operation 	<ul style="list-style-type: none"> ▪ Qualitative photograph montage ▪ Number of Masterplans in operation and qualitative assessment of this.
S1: Brownfield Development	Give preference to the re-use of brownfield lands, reducing the need to develop Greenfield lands	<ul style="list-style-type: none"> ▪ Increase in new applications granted on brownfield lands or as suitable infill development 	<ul style="list-style-type: none"> ▪ Number of applications granted on brownfield or infill sites 	<ul style="list-style-type: none"> ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (PA): Pre-planning discussions to encourage use of brownfield sites ▪ (PA): Examine zoning of lands and development of lands over Plan period 	<ul style="list-style-type: none"> ▪ Quantitative and qualitative analysis
S2: Non-renewables	Reduce consumption of non-renewable sand, gravel and rock deposits	<ul style="list-style-type: none"> ▪ Increase in reuse or recycling of construction and demolition (C&D) waste 	<ul style="list-style-type: none"> ▪ % increase in C&D waste in County Cavan 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ EPA ▪ North East Region Waste Management Plan 	<ul style="list-style-type: none"> ▪ (PA): Promotion of sustainable waste management and education initiatives 	<ul style="list-style-type: none"> ▪ Quantitative based on monitoring for North East Region Waste Management Plan

5.2.4 Water

Environmental Objectives for Water:

W1 Protect and enhance the quality of surface, ground and drinking water

W2 Promote water conservation and sustainable water use, based on long-term projections of available water resources

W3 Mitigate the effects of floods

Environmental Receptor (SEA Directive Annex I) Water	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
W1: Enhance all Water Quality	Protect and enhance the quality of surface, ground and drinking water	<ul style="list-style-type: none"> ▪ Achievement of 'good status' in all waters as required by the Water Framework Directive and implement River Basin Management Plans (when finalised in 2009) for North-Western Region ▪ Implement Ground Water Protection Scheme for County Cavan 	<ul style="list-style-type: none"> ▪ Changes in water quality identified through normal monitoring procedures on biological and chemical rating ▪ River Basin Management Plans (when complete) ▪ Number of planning applications granted/ refused based on groundwater and aquifer category and aquifer vulnerability (when Cavan Town and Environs Development Plan is adopted) 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ EPA ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (R.A): Investigate source and remedy - polluter-pays-principle applies ▪ (PA): Refer to River Basin Management Plans for North Western (when finalised) ▪ (PA): Monitoring of applications in vulnerable areas 	<ul style="list-style-type: none"> ▪ Quantitative water quality results for lakes and rivers in County as per Annual County Council Water Quality Report ▪ Map identifying any known polluted areas ▪ Quantitative and status of Groundwater ▪ Annual Rural Housing Report and pressures for development

		<ul style="list-style-type: none"> Maintenance of domestic waste water treatment systems in the Cavan Town and Environs area. 	<ul style="list-style-type: none"> Number of upgraded/ maintained waste water treatment systems for domestic houses as per Waste Water Treatment System Bye-Laws 	<ul style="list-style-type: none"> Cavan County Council Panel of Assessors appointed under Bye-Laws 	<ul style="list-style-type: none"> (RA): Investigate source of problems 	<ul style="list-style-type: none"> Quantitative
		<ul style="list-style-type: none"> Reduce discharges of pollutants or contaminants to waters 	<ul style="list-style-type: none"> Changes in water quality as a result of monitoring under Section 4 Local Authority Licensing or Waste Licensing Number of pollution incidences River Water Quality 	<ul style="list-style-type: none"> Cavan County Council EPA 	<ul style="list-style-type: none"> (RA): Investigate source and remedy where possible 	<ul style="list-style-type: none"> Quantitative and maps of trends in Cavan Town
		<ul style="list-style-type: none"> Upgrade Waste Water Treatment Works and undertake Capital Works projects as necessary¹² 	<ul style="list-style-type: none"> Number of upgraded Waste Water Treatment works Sludge Management Plan 	<ul style="list-style-type: none"> Cavan County Council/ Cavan Town Council 	<ul style="list-style-type: none"> (PP): Availability of funding 	<ul style="list-style-type: none"> Quantitative and effectiveness of treatment works
		<ul style="list-style-type: none"> Adequate nutrient removal at Wastewater Treatment Plant 	<ul style="list-style-type: none"> Level of nutrient removal at Wastewater Treatment Plant 	<ul style="list-style-type: none"> Cavan County Council/ Cavan Town Council Water Services Investment Programme 	<ul style="list-style-type: none"> (PP): Availability of funding 	<ul style="list-style-type: none"> Quantitative

Environmental Receptor (SEA Directive Annex I) Water	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
W2: Sustainable water use	Promote sustainable water use, based on long-term projections of available water resources	<ul style="list-style-type: none"> Adequate Public Water Supply Scheme Implement Water Management System 	<ul style="list-style-type: none"> Sufficient water supplies over lifetime of the Development Plan Reduction in estimated loss of water supply through pipeline and network 	<ul style="list-style-type: none"> Cavan County Council/ Cavan Town Council 	<ul style="list-style-type: none"> (PA): Continuous monitoring (RA): Investigate losses through Active Leakage Control and Network 	<ul style="list-style-type: none"> Quantitative - % reduction in loss of water based on maintenance of water supply pipe network Continuous monitoring

¹² Based on funding made available under the main Water Services Investment Programme, the Rural Water Programme and the Serviced Land Initiative.

			rehabilitation and repair/ replacement of old pipe networks		Information Management System and remedy accordingly where possible	
		<ul style="list-style-type: none"> Water abstraction to remain within the capacity of the water body 	<ul style="list-style-type: none"> Volume of water abstracted from water body Number of notices of water shortages. 	<ul style="list-style-type: none"> Cavan County Council/ Cavan Town Council 	<ul style="list-style-type: none"> (RA): Investigate problems and remedy where possible 	<ul style="list-style-type: none"> Quality of water resources and Drinking Water Quality monitoring
W3: Flooding	Mitigate the effects of floods	<ul style="list-style-type: none"> Restrict development in flood plains 	<ul style="list-style-type: none"> Flood Impact Assessments (part of Planning Applications) OPW Flood Hazard Mapping 	<ul style="list-style-type: none"> Cavan County Council/ Cavan Town Council OPW 	<ul style="list-style-type: none"> (RA): Remedy/ prevent flooding problems where possible 	<ul style="list-style-type: none"> Spatial – mapping of problem areas as per OPW Flood Hazard Mapping.

5.2.5 Air and Climate

Environmental Objectives for Air and Climate:

A1 Reduce air pollution and greenhouse gas emission

A2 Promote energy efficiency and maximise use of renewable energy sources

Environmental Receptor (SEA Directive Annex I) Air and Climate	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
A1: Air Pollution	Reduce air pollution	<ul style="list-style-type: none"> ▪ Increase in amount of cycle path provision 	<ul style="list-style-type: none"> ▪ Provision of new cycle paths in towns ▪ CSO transport information 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ CSO 		<ul style="list-style-type: none"> ▪ Quantitative and qualitative
		<ul style="list-style-type: none"> ▪ Reduction in uncontrolled burning/ disposing of waste ▪ Licensing of facilities under 1987 Air Pollution Act/ Waste Management Act 	<ul style="list-style-type: none"> ▪ Number of incidences of burning or fly-tipping reported ▪ Number of Air Licenses, Petroleum Vapour Emissions (PVE) Certificates, Volatile Organic Compounds – Certificates of Compliance issued by County Council ▪ Number of offences/ breaches recorded under the 1987 Air Pollution Act, Waste Management Act and Waste Management (Packaging) Regulations 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ EPA ▪ Cavan County Council ▪ EPA ▪ Cavan County Council 	<ul style="list-style-type: none"> ▪ (RA): Investigate sources of waste emissions 	<ul style="list-style-type: none"> ▪ Quantitative

		<ul style="list-style-type: none"> Maintain levels of greenhouses gases within National and EU limits¹³ 	<ul style="list-style-type: none"> Air quality monitoring station in Zone D¹⁴. Permits for industrial processes emissions under Ireland's National Allocation Plan 2008 – 2012 (when finalised)¹⁵ 	<ul style="list-style-type: none"> EPA 		<ul style="list-style-type: none"> Quantitative
A2: Energy Efficiency	Promote energy efficiency and maximise use of renewable energy sources	<ul style="list-style-type: none"> Application of EU Energy Performance of Buildings Directive 	<ul style="list-style-type: none"> % of houses with each Building Energy Rating 	<ul style="list-style-type: none"> Cavan County Council Contractors (e.g. Energy Agency Manager etc.) where funding permits 		<ul style="list-style-type: none"> Quantitative

¹³ Air Quality Standard Regulations (2002) and Air Framework Directive 96/62/EC (CEC, 1996).

¹⁴ Zone D is all the rural areas of the country outside of major towns and cities. There are no monitoring stations in Cavan but the nearest monitoring stations of Navan, Co. Meath, Kilkitt, Co. Monaghan, Drogheda, North County Louth.

¹⁵ Kingscourt Bricks Limited, Gypsum Industries Limited, Bailieboro Foods Limited and Bailie Foods Ireland, Meath Proteins, Quinn Cement Ltd, Abbott Ireland, Glanbia PLC.

5.2.6 Material Assets

Environmental Objectives for Material Assets:

M1 Maximise use of the existing built environment

M2 Maintain infrastructure in the County and mitigate the effects of further infrastructure provision

Environmental Receptor (SEA Directive Annex I) Material Assets	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
M1: Built Environment	Maximise use of the existing built environment	<ul style="list-style-type: none"> ▪ Increase % of applications granted on brownfield sites 	<ul style="list-style-type: none"> ▪ Number of applications on brownfield or infill sites 	<ul style="list-style-type: none"> ▪ Cavan County Council/ Cavan Town Council 	<ul style="list-style-type: none"> ▪ (PA): Promotion through pre-planning 	<ul style="list-style-type: none"> ▪ Quantitative
		<ul style="list-style-type: none"> ▪ Increased re-use and appropriate maintenance of protected structures including use of upper floors of Protected Structures in towns and villages 	<ul style="list-style-type: none"> ▪ Number of applications for use of Protected Structures ▪ Number of applications for re-use of older buildings (in towns/ countryside) 	<ul style="list-style-type: none"> ▪ Cavan County Council/ Cavan Town Council 	<ul style="list-style-type: none"> ▪ (PA): Ensure proposed development works are referred are sent to DoEHLG Built Heritage Section 	<ul style="list-style-type: none"> ▪ Quantitative
M2: Infrastructure	Maintain infrastructure in the County and mitigate the effects of further infrastructure provision	<ul style="list-style-type: none"> ▪ Implement recommendations of Transportation Studies for towns in the County 	<ul style="list-style-type: none"> ▪ Number of Transportation Studies and recommendations adopted 	<ul style="list-style-type: none"> ▪ Cavan County Council/ Cavan Town Council 		<ul style="list-style-type: none"> ▪ Qualitative

5.2.7 Cultural Heritage

Environmental Objectives for Cultural Heritage:

C1 Promote the protection and conservation of the cultural heritage including architecture and archaeology

Environmental Receptor (SEA Directive Annex I) Cultural Heritage	Objective (An objective is a statement of what is intended)	Target (A target is a more detailed plan specific intended achievement)	Indicator (An indicator is a measure of variables over time, used to measure achievements of targets and objectives)	Indicator Information Source or Authority Responsible for Monitoring	Potential Problems (PP)/ Remedial Action (RA)/ Positive Action (PA) (If the indicators show potential environmental issues, PPs, RAs or PAs have been identified below)	Format for presentation of results
C1: Protection and Conservation	Promote the protection and conservation of cultural heritage including architecture and archaeology	<ul style="list-style-type: none"> ▪ Prevent damage to or loss of protected structures or national monuments 	<ul style="list-style-type: none"> ▪ Structures included in RPS or areas designated as ACAs ▪ Architectural Surveys (such as Industrial Architecture) undertaken by Cavan County Council/Town Council and DoEHLG during the lifetime of the Plan. ▪ National Inventory of Architectural Heritage (County Survey) when complete 	<ul style="list-style-type: none"> ▪ Cavan County Council/ Cavan Town Council ▪ Heritage Council ▪ DoEHLG (NIAH) 	<ul style="list-style-type: none"> ▪ (RA): Investigate disruption of sites with enforcement and refer to the National Monuments Section/ Built Heritage Section ▪ (PA): Raise public awareness through the County Heritage Plan 2006 - 2011 	<ul style="list-style-type: none"> ▪ List and any damage reports ▪ Digitised Format of Cavan County Council studies/ publications on DoEHLG (Buildings of Ireland) website etc.
		<ul style="list-style-type: none"> ▪ To establish Architectural Conservation Areas in the town 	<ul style="list-style-type: none"> ▪ Number of ACAs in Cavan Town and Environs and ACA Surveys completed 	<ul style="list-style-type: none"> ▪ Various Consultants' Reports undertaken on behalf of Cavan County Council 		<ul style="list-style-type: none"> ▪ Number of ACA's adopted
		<ul style="list-style-type: none"> ▪ Refer all applications that impact on heritage to DoEHLG for recommendations ▪ Education and Training through the Heritage Plan 2006 - 2011 	<ul style="list-style-type: none"> ▪ Numbers of structures on the RPS or within an ACA or archaeological zone damaged or demolished as a result of development 	<ul style="list-style-type: none"> ▪ DoEHLG ▪ Cavan County Council/ Cavan Town Council and various consultants reports 	<ul style="list-style-type: none"> ▪ (RA): Investigate situations with enforcement and refer to the DoEHLG 	<ul style="list-style-type: none"> ▪ List and any damage reports

		<ul style="list-style-type: none"> ▪ Have regard to County Heritage Plan in order to conserve, protect and promote sustainable management of archaeological sites. 	<ul style="list-style-type: none"> ▪ Number of new archaeological sites discovered or added to RMP ▪ Number of archaeological actions of the Heritage Plan undertaken 	<ul style="list-style-type: none"> ▪ DoEHLG (NMS) ▪ Cavan County Council ▪ Heritage Council ▪ OPW ▪ Other Statutory Bodies 	<ul style="list-style-type: none"> ▪ (RA): Consult with National Monuments Service if damage occurs 	<ul style="list-style-type: none"> ▪ List of monuments and maps ▪ Location of archaeological monument if disturbed

6.1 Conclusion

The Strategic Environmental Assessment carried out by Cavan County Council and Cavan Town Council during the preparation of the Cavan Town & Environs Development Plans has ensured that any potential significant environmental impacts of the Plans are identified and that they have been given appropriate consideration. Throughout the preparation of the Cavan Town & Environs Development Plans and the Environmental Report consultation has taken place which has contributed to the final adopted plans.

Although the Plans have now been adopted, the SEA process will continue with the monitoring of environmental impacts of the implementation of the Plans. This will include ongoing monitoring and publication of progress reports.

