

APPENDIX1: Scoping Issues Paper – SEA/AA

Review of the Cavan County Development Plan and Cavan Town and Environs Development Plan 2014-2020.



**Strategic Environmental
Issues Paper
October 2012**

What is a Strategic Environmental Assessment (SEA)?

An SEA is a formal evaluation of the likely significant effects on the environment of implementing a plan or programme before the decision to adopt that plan or programme is made. SEA is required under European Law, which was transposed into Irish Law. SEA is intended to benefit the environment by influencing the decision maker at an early stage in plan or project making process. It leads to more sustainable development through systematic appraisal of policy options. The SEA process will improve the process of making this new Development Plan by:-

1. Facilitating the identification and appraisal of alternative plan strategies
2. Raising the awareness of the environmental impacts of the plans
3. Encouraging the inclusion of measurable targets and indicators

SEA is an ‘Environmental Assessment’ of a Development Plan and must examine the significant effects of the proposed plan on the environment and include short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects on issues including:

Biodiversity	Flora and Fauna
Population and Human Health	Flora
Soil and Water	Air/Noise/Climate
Material Assets	Cultural Heritage
Interrelationships of the above	



What is an Appropriate Assessment (AA)?

An obligation under Article 6(3) of the Habitats Directive: ‘Any plan or project not directly connected with or necessary to the management of the site (a Natura 2000 site) but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives’. A Natura 2000 site is a protected site that is of particular importance for rare, endangered or vulnerable habitats and species within the EU and in Ireland is made up of Special Areas of Conservation (SAC), Special Protection Areas (SPA), candidate Special Areas of Conservation (cSAC), proposed Special Protection Areas (pSPA).

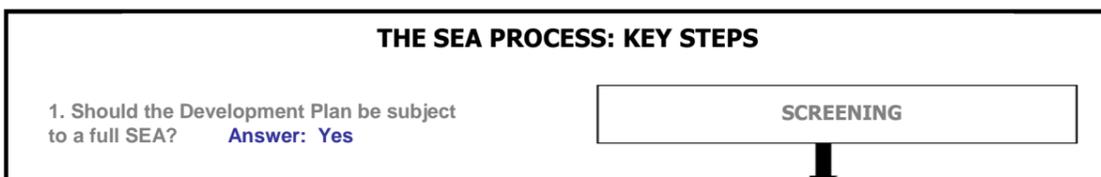
Scoping Issues Paper – What is the Scoping Issues Paper?

The purpose of this paper is to broadly define the (1) scope of the environmental issues which are to be dealt with by the SEA together with the (2) level of detail to which these issues will be addressed. The scope of the SEA will be refined as the Development Plan process progresses as a result of consultation with interested parties.

What happens next?

It is proposed that additional environmental baseline data will be collected which will contribute to the identification of sensitive environmental issues. Alternatively, development scenarios will be developed to ensure that the County Development Plan will have objectives and policies which minimise the potential for significant environmental effects due to the plans implementation.

What stages are we at?



What key issues will be addressed in the new development plan?

- Settlement Strategy and Housing
- Community, Recreation and Public Open Space
- Economic Development and Employment
- Physical Infrastructure
- Rural and Urban Areas
- Conservation of Our Built Heritage
- Protection of our Environment and our Natural Heritage



What are the Main Environmental Issues facing Cavan between now and 2020?

Environmental Considerations	Potential Impacts	Issues
Biodiversity - the variety of life on earth which includes people, plants, animals, fungi, micro-organisms.	New developments could potentially impact on biodiversity i.e. habitat destruction, human health, species destruction	What do you think are the main threats to Biodiversity in Co. Cavan? How can we best accommodate development whilst managing biodiversity?
Flora and Fauna -flora is plant life naturally occurring in an area, whilst fauna is animal life occurring in an area.	New developments could potentially impact on flora and fauna.	Some of these species are protected under the European Habitats Directive and Irish Law and so how can we manage development whilst ensuring flora and fauna is not compromised.
Population and Human Health – human activities and settlement patterns are reflected in Cavan’s built and natural heritage. The natural environment has supported Cavan’s residents for generations whilst the built environment has facilitated settlement patterns throughout the county.	The utilisation of natural and built resources has the potential to impact on water, air, soil, climate and therefore impact negatively on human health.	How can we ensure the future sustainable development of the County?
Soil and Water – soil is the top layer of the earth’s surface consisting of rock and mineral particles mixed with organic matter. Water is a major resource in Co. Cavan with its lakes, rivers and streams.	Development has the potential to impact on landscape, geology and soils such as windfarm, extractive industries, forestry, agriculture, industry, commercial development, rural dwellings and road projects. Water is not only important from an ecological perspective but it is also provides a source of drinking water.	What is best practice for the removal of soil in the development of Greenfield sites? How can we ensure existing and proposed developments do not compromise water quality for residents and visitors to the County? Can we ensure the ecological balance of water is maintained to ensure human health and biodiversity are not negatively impacted upon?
Air/Noise/ Climate -	Potentials impacts on air and climate arise from transport and industrial emissions. Increased in noise levels from development can impact on humans and wildlife. Increased greenhouse gas emissions have been linked to Climate Change.	What can be done to reduce the pressures on the atmosphere? How can we accommodate renewable energy provisions in the County like windfarms, etc? What policies should be considered to reduce climate change and its impact on our county like flash flooding, soil erosion etc?
Material Assets – comprises of built environment, infrastructure and natural assets.	The utilisation of the County’s material assets leads directly and indirectly to potential environmental impacts.	How can we best manage County Cavan’s material assets sustainably?

<p>Cultural Heritage including Architectural and Archaeological- our heritage is what has been passed down to us from previous generations and we must consider what we will be able to pass onto future generations. The Heritage of Cavan is a unique resource which has shaped our cultural identity and defines the society in which we live.</p>	<p>Pressures can arise from developments and activities close to heritage sites. Natural and Built Heritage may be placed under pressure from development.</p>	<p>How can the value of our natural heritage, built heritage, cultural heritage and archaeological heritage be best protected and improved?</p>
<p>Inter-Relationships of the above - Cumulative impacts and interaction of the above mentioned items can give rise to increased pressure on the environment.</p>	<p>The impacts and interactions will vary in extent and nature.</p>	<p>What do you think are the main environmental issues facing County Cavan?</p>

Have your say.....

HOW TO MAKE A SUBMISSION: *Having Your Say* - Submissions and observations should be made in writing and sent to one of the following by the **5th of December, 2012:**

- **Post: Forward Planning Section, Planning Department, Cavan County Council, Farnham Centre, Farnham Street, Cavan.**
- **Email: plan@cavancoco.ie**

The Planning Authority will conduct a series of public consultation exercises in the form of public meetings, workshops, and consultations with individuals and groups. You can find more about the Development Plan and how it is progressing, at the following locations;

- **Website at www.cavancoco.ie.**
- **Our Facebook pages: : www.facebook.com/cavancoco & www.facebook.com/CavanCountyDevelopmentPlan**

The location, venue and times for the initial stage of public consultation are detailed in the table below:

Venue	Date	Time	Location
Cavan County Library: Events space	Tuesday, 6 th November	18:00 – 20:00	Cavan Town
County Museum: Meeting room	Wednesday, 7 th November	18:00 – 20:00	Ballyjamesduff
Ballyconnell, Market House	Wednesday, 14 th November	18:00 – 20:00	Belturbet
Bailieborough Library	Tuesday, 20 th November	18:00 – 20:00	Bailieborough

APPENDIX 2: Information to be contained in the Environmental Report: Annex I (or Schedule 2B in S.I. 436 f 2004)

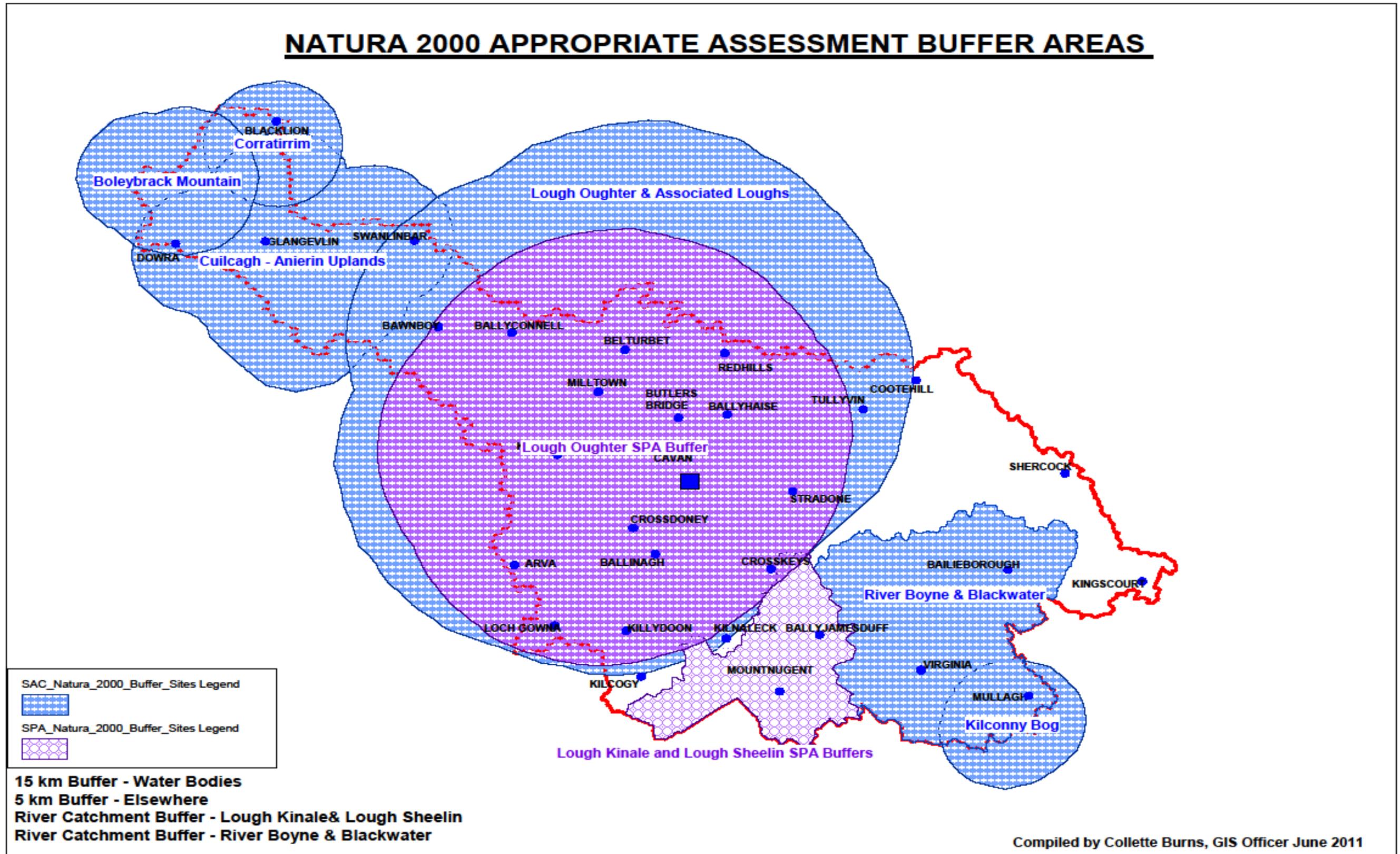
ANNEX I (OR SCHEDULE 2B IN SI 436 OF 2004)

Information to be contained in an environmental report –

- (a) An outline of the contents and main objectives of the plan and relationship with other relevant plans;
- (b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;
- (c) The environmental characteristics of areas likely to be significantly affected;
- (d) Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive;
- (e) The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) The likely significant effects [including secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects] on the environment, including on issues such as:
 - biodiversity
 - soil
 - population
 - water
 - human health
 - air
 - fauna
 - climatic factors
 - flora
 - material assets
 - landscape
 - cultural heritage including architectural & archaeological heritage
 - and the interrelationship between the above factors;
- (g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;
- (h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- (i) A description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan;
- (j) A non-technical summary of the information provided under the above headings.

APPENDIX 3: APPROPRIATE ASSESSMENT BUFFER ZONE MAP

NATURA 2000 APPROPRIATE ASSESSMENT BUFFER AREAS



APPENDIX 4: Heritage Areas – NHAs, SPAs and SACs in the Cavan Town and Environs Area

Site Name: Drumkeen House Woodland pNHA

Site Code: 000980

About 3km north of Cavan, flanking the Cavan – Butlersbridge road just to the west of Loreto convent, are mainly deciduous, planted woodlands. These have been designated a proposed Natural Heritage Area (pNHA). This pNHA lies just outside the large and fragmented Lough Oughter pNHA.

The main tree species is Beech (*fagus sylvatica*) with Sycamore (*Acer pseudoplatanus*) throughout and occasional; young Oak (*Quercus* sp.). Beech is a tree species that impedes the development of the ground flora, although a ground flora in the less shaded areas, featuring Cleavers (*Galium aparine*), Hogweed (*Heracleum sphondylium*), Herb-robert (*Geranium robertianum*), Wood Woundwort (*Stachys sylvatica*), and in damper areas, Ramsons (*Allium ursinum*).

The site features a small stream, which is fringed by Alder, and a small lake. The NHA boundary follows the old lakeshore, which now includes a small area of wet rushy grassland with Creeping Bent (*Agrostis stolonifera*) and Soft Rush (*Juncus effusus*) with invasive Alder and Willow (*Salix* sp.), the open water is fringed by swamp.

This is not an extensive woodland and is not natural in character, however because of the paucity of woodlands in the locality, any deciduous woodland tract of a reasonable size and maturity is of local importance. The small lake, although not in itself significant amongst the many other interdrumlin lakes and wetlands found nearby, does add diversity to this pNHA.

Lough Oughter & Associated Loughs (000007) SAC

Site Code: 000007

Lough Oughter and its associated loughs occupy much of the lowland drumlin belt in north and central Cavan between Upper Lough Erne, Killeshandra and Cavan town. The site is a maze of waterways, islands, small lakes and peninsulas including some 90 inter-drumlin lakes and 14 basins in the course of the Erne River. The area lies on Silurian and Ordovician strata with Carboniferous limestone immediately surrounding.

This site is a candidate Special Area of Conservation for natural eutrophic lakes and bog woodland, two habitats listed on Annex I of the E.U. Habitats Directive and for the otter, a species listed on Annex II of the same Directive. The site also contains areas of dry woodland, marsh, reedbed and wet pasture.

Drainage within the area is inefficient and the water levels prone to natural fluctuation as a result. The regularly flooded areas still accommodate a variety of specialist plant species such as Amphibious Bistort (*Polygonum amphibium*) and Marsh Foxtail (*Alopecurus geniculatus*), as well as rarer species such as Needle Spike-Rush (*Eleocharis acicularis*) and Lesser Marshwort (*Apium inundatum*).

The lakes and basins are shallow, and the water well mixed and nutrient rich (eutrophic). The aquatic flora is varied with several pondweed species such as Blunt-leaved Pondweed (*Potamogeton obtusifolius*), Shining Pondweed (*Potamogeton lucens*), Broad-leaved Pondweed (*Potamogeton natans*), Reddish Pondweed (*Potamogeton alpinus*) and Various-leaved Pondweed (*Potamogeton gramineus*). Typical in the zone of aquatic plants are Yellow Water-lily (*Nuphar lutea*), Canadian Pondweed (*Elodea canadensis*), Mare's Tail (*Hippuris vulgaris*), Water Milfoil (*Myriophyllum spicatum*), Brooklime (*Veronica beccabunga*), Water Dropwort (*Oenanthe* spp.) and Starwort (*Callitriche* sp.). The aquatic community includes species of limited distribution in Ireland such as the Duckweed species *Lemna gibba* and *Spirodela polyrrhiza*.

Around much of the shoreline there are well developed swamp and marsh communities, typically with a zone of Bulrush (*Schoenoplectus lacustris*) in front of a zone of Common Reed (*Phragmites australis*) which is in turn backed by a more species rich zone of sedges, grasses and herbs, particularly Bottle Sedge (*Carex rostrata*), Common Sedge (*Carex nigra*), Creeping Bent (*Agrostis stolonifera*), Meadowsweet (*Filipendula ulmaria*), Marsh Helleborine (*Epipactis palustris*), Water Plantain (*Alisma plantago-aquatica*), Rough Horsetail (*Equisetum hyemale*), Water Horsetail (*Equisetum fluviatile*) and Wild Angelica (*Angelica sylvestris*). Less widespread species also occur on the wet lake margins; species such as Water Dock (*Rumex hydrolapathum*), Greater Water-parsnip (*Sium latifolium*), Cowbane (*Cicuta virosa*), Tufted Sedge (*Carex elata*), Water Soldier (*Stratiotes aloides*), Arrowhead (*Sagittaria sagittifolia*), Flowering Rush (*Butomus umbellatus*) and Greater Spearwort (*Ranunculus lingua*) may be locally prominent.

There are many variations on this typical zonation of sheltered shores with species such as Reedmace (*Typha* spp.), Branched Bur-Reed (*Sparganium erectum*) and Reed Canary-grass (*Phalaris arundinacea*) gaining local prominence. More exposed shores lack the extensive swamp zones, here smaller species such as Common Spike Rush (*Eleocharis palustris*) can be found.

Level, wet pastures tend to be dominated by Creeping Bent (*Agrostis stolonifera*) and Rush species (*Juncus* sp.) with a scattering of marshland and wet grassland plants such as Marsh Marigold (*Caltha palustris*), Water Forget-me-not (*Myosotis scorpiodes*) and Yellow Iris (*Iris pseudacorus*). Soft Rush (*Juncus effusus*) is most abundant with frequent Hard Rush (*Juncus inflexus*) and Sharp-Flowered Rush (*Juncus acutiflorus*) and less widespread Conglomerate Rush (*Juncus conglomeratus*) also occurring.

Where a general lack of grazing pressure or a particular slope has allowed it, deciduous woodland has re-established itself behind the reedbeds. Two species of Willow (*Salix caprea* and *Salix cinerea*) are common constituents along with Alder (*Alnus glutinosa*), Downy Birch (*Betula pubescens*), Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*). Along submerged margins Alder and Willow are most commonly found with a flooded understorey typically containing Reed Canary-grass, Meadow Sweet, Yellow Flag and in places Tufted Sedge (*Carex elata*) and Greater Tussock Sedge (*Carex paniculata*). Downy Birch occurs along lake edges and also forms stands of wet woodland on cutover bog with varying degrees of wet and dry peat. Purple Moor-grass (*Molinia caerulea*), Marsh Cinquefoil (*Potentilla palustris*) and Bog Moss (*Sphagnum* sp.) occur in areas with pools and dry areas. Where there is dry peat, Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus* agg.) and Gorse (*Ulex* sp.) occur under the Birch canopy. Birch dominated wood is also found in association with Ling Heather (*Calluna vulgaris*) bog.

In areas of wet bog with good Sphagnum cover, bog woodland has developed. Downy Birch characterises this habitat; other typical species include Purple Moor-grass (*Molinia caerulea*) and Bottle Sedge (*Carex rostrata*).

Dry broad-leaved woodland is characterised by Ash (*Fraxinus excelsior*), Hazel, Holly (*Ilex aquifolium*) and Oak (*Quercus* spp.), while shrubs include Blackthorn (*Prunus spinosa*), Spindle (*Euonymus europaeus*) and Guelder Rose (*Viburnum opulus*). The Red Data Book species Bird Cherry (*Prunus padus*) has also been recorded from the site. The clayey soils have a characteristic flora, including Wood Avens (*Geum urbanum*), Wood Sorrel (*Oxalis acetosella*), Primrose (*Primula vulgaris*), Herb Robert (*Geranium robertianum*) and Wood Sedge (*Carex sylvatica*).

The site supports a substantial population of water birds including internationally important numbers of Whooper Swan (average peak 231) and nationally important numbers of Tufted Duck (average peak 247) and Cormorant (average peak 130) as well as important numbers of species such as Greenland White-fronted Goose, Great Crested Grebe, Wigeon, Teal and Pochard. Lapwing, Snipe and Golden Plover also utilise the wet grassland areas. Wildfowl Sanctuaries exist at Inchin Lough, Derrygid Lough, Farnham Lough, Derrybrick Lough, Derrinishbeg Lough and Annagh Lough. Part of the site is designated an SPA under the EU Birds Directive.

Otter, a species listed on Annex II of the E.U. Habitats Directive occurs at the site. Irish Hare has also been recorded. Both of these species are listed in the Irish Red Data Book and are legally protected under the Wildlife Act 1976.

The main threats to the quality of the site are water polluting activities such as run-off from fertiliser and slurry application and sewage discharge which have raised the nutrient status of some lakes to hypertrophic. Housing and boating developments are on the increase, adjacent to and within the site respectively. There is also significant fishing and shooting pressure on and around the lakes. Increased afforestation has resulted in some loss of wetland habitat and also loss of feeding ground for wintering birds such as Greenland White-fronted Geese.

The Lough Oughter area contains important examples of two habitats listed on Annex I of the E.U. Habitats Directive and supports a population of the Annex II species, otter. The site as a whole is the best inland example of a flooded drumlin landscape in Ireland and has many rich and varied biological communities. Nowhere else in the country does such an intimate mixture of land and water occur over a comparable area, and many of the species of wetland plants, some considered quite commonplace in Lough Oughter and its associated loughs, are infrequent elsewhere.

27.11.2002

Lough Oughter SPA (004049)

Site Code: 004049

Lough Oughter is a medium-sized lake that extends over a wide area. Its situation in submerged drumlin country accounts for the extremely ramified nature of its basin. The main feeders to the lake are the River Erne and the Annalee River. These flow over relatively insoluble rock (Ordovician and Silurian strata) so that the lake water is only moderately hard, despite the fact that most of the immediate surroundings are of Carboniferous limestone. Lough Oughter is a shallow lake (maximum depth 10 m) and is considered to be a naturally eutrophic system. Since the 1970s the lake has, however, shown clear signs of organic enrichment and has most recently been classified as being hypertrophic (though chlorophyll levels have dropped markedly in recent years).

The lakes have a well-developed aquatic flora, with a range of pondweeds (*Potamogeton* spp.) and such species as Yellow Water-lily (*Nuphar lutea*), Canadian Pondweed (*Elodea canadensis*), Mares-tail (*Hippuris vulgaris*), Spiked Water-milfoil (*Myriophyllum spicatum*) and Water-starwort (*Callitriche* sp.). The aquatic community includes species of limited distribution in Ireland such as the duckweeds, Fat Duckweed (*Lemna gibba*) and Greater Duckweed (*Spirodela polyrhiza*). Around much of the shoreline there are well developed swamp and marsh communities, typically with a zone of Common Clubrush (*Scirpus lacustris*) in front of a zone of Common Reed (*Phragmites australis*) which is in turn backed by a more species-rich zone of sedges, grasses and herbs. In places, wet woodland is well-developed at the lake margins. This is mainly of willows (*Salix caprea* and *S. cinerea*), along with Alder (*Alnus glutinosa*), Downy Birch (*Betula pubescens*) and Hazel (*Corylus avellana*).

Lough Oughter is of importance for a range of wintering waterfowl. Of particular note is an internationally important population of Whooper Swan (302) that is based in the area and which uses the lakes as a roost - all figures are average peaks for the 5 seasons 1995/96-1999/00. A population of Greenland White-fronted Goose (67) of regional importance also roosts on the lakes and feeds mainly on nearby improved grassland. The site supports nationally important wintering populations of four species, i.e. Great Crested Grebe (92), Mute Swan (128), Wigeon (910) and Goldeneye (123). Other species which occur regularly include Teal (225), Mallard (341), Pochard (60), Tufted Duck (160), Lapwing (523), Curlew (95), Little Grebe (9), Cormorant (83) and Black-headed Gull (357).

Lough Oughter is at the centre of the breeding range of the Great Crested Grebe in Ireland and the site supports in excess of 10% of the estimated national breeding total (115 individuals in 1986-88). A small colony of Common Tern occurs, with 10 pairs on Farnham Lough in 1995.

Otter, a species that is listed on Annex II of the E.U. Habitats Directive, occurs at the site.

Lough Oughter is a very nutrient-enriched lake and numbers of wintering wildfowl, especially diving duck, are likely to be depressed due to the enriched conditions. Water pollution is likely to remain a problem in the near future. Recreational and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern. Increased afforestation in surrounding areas could result in the loss of feeding habitat for wintering birds such as Whooper Swan and Greenland White-fronted Goose.

The Lough Oughter SPA is of importance for both wintering and breeding birds. Of particular note is the internationally important population of Whooper Swan that is based in the area. The site also supports nationally important populations of a further four wintering species. The site is of especial importance for one of the highest breeding concentrations of Great Crested Grebe in the country. Of note is that three of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Greenland White-fronted Goose and Common Tern.

19.8.2004

APPENDIX 5: ENVIRONMENTAL PROTECTION OBJECTIVES:

7.0. Objectives, Indicators and Targets

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 	

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 species¹ 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.

¹ 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.

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 Town Council 	<ul style="list-style-type: none"> ▪ (PA): Masterplans to seek the provision of quality open space 	<ul style="list-style-type: none"> ▪ Qualitative and quantitative – number of Master Plans in operation and the subsequent open space provision and community service provision

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 System² ▪ 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 & Environs Development Plan) 	<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
		<ul style="list-style-type: none"> ▪ Implement Litter Management Plan³ 	<ul style="list-style-type: none"> ▪ Number of Litter Offences recorded under Waste Management Act 1996-2003⁴ ▪ 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.

² Part of the Government's Litter Action Plan.

³ Part 4 of 2003 Act Protection of the Environment Act 2003

⁴ 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.

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 Regulations⁵ ▪ 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
			<ul style="list-style-type: none"> ▪ Air Quality Monitoring⁶ (EPA)⁷ ▪ Monitoring of Solvents Regulations⁸, Section 4 Licensing ▪ EIS Monitoring Compliance ▪ Traffic Counts (Annual Average Daily Traffic) ▪ Number of home-working applications granted over the lifetime of the Development Plan ▪ National Allocation Plan 2008-2012 (emissions) 	<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

⁵ Noise Regulations (1994) S.I. 179 Other Environmental Noise Regulations – S.I. No. 140 of 2006.

⁶ 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.

⁷ 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.

⁸ 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.

		<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 Draft Development Plan are implemented 	<ul style="list-style-type: none"> Quantitative and Qualitative in terms of outstanding areas suffering from traffic congestion
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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 Faillte 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

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 	<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) 	<ul style="list-style-type: none"> ▪ Cavan County Council ▪ EPA 	<ul style="list-style-type: none"> ▪ (R.A): Investigate source and remedy - polluter-pays-principle applies 	<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
		<ul style="list-style-type: none"> ▪ Implement Ground Water Protection Scheme for County Cavan 	<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ (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 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 necessary⁹ 	<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

⁹ Based on funding made available under the main Water Services Investment Programme, the Rural Water Programme and the Serviced Land Initiative.

		<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
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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 	<ul style="list-style-type: none"> Sufficient water supplies over lifetime of the Development Plan 	<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 Information Management System and remedy accordingly where possible 	<ul style="list-style-type: none"> Quantitative - % reduction in loss of water based on maintenance of water supply pipe network Continuous monitoring
		<ul style="list-style-type: none"> Implement Water Management System 	<ul style="list-style-type: none"> Reduction in estimated loss of water supply through pipeline and network rehabilitation and repair/ replacement of old pipe networks 			
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.

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 limits¹⁰ 	<ul style="list-style-type: none"> ▪ Air quality monitoring station in Zone D¹¹. ▪ Permits for industrial processes emissions under Ireland's National Allocation Plan 2008 – 2012 (when finalised)¹² 	<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

Material Assets

Environmental Objectives for Material Assets:

¹⁰ Air Quality Standard Regulations (2002) and Air Framework Directive 96/62/EC (CEC, 1996).

¹¹ 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.

¹² Kingscourt Bricks Limited, Gypsum Industries Limited, Bailieboro Foods Limited and Bailie Foods Ireland, Meath Proteins, Quinn Cement Ltd, Abbott Ireland, Glanbia PLC.

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	▪ Increase % of applications granted on brownfield sites	▪ Number of applications on brownfield or infill sites	▪ Cavan County Council/ Cavan Town Council	▪ (PA): Promotion through pre-planning	▪ Quantitative
		▪ Increased re-use and appropriate maintenance of protected structures including use of upper floors of Protected Structures in towns and villages	▪ Number of applications for use of Protected Structures ▪ Number of applications for re-use of older buildings (in towns/ countryside)	▪ Cavan County Council/ Cavan Town Council	▪ (PA): Ensure proposed development works are referred are sent to DoEHLG Built Heritage Section	▪ Quantitative
M2: Infrastructure	Maintain infrastructure in the County and mitigate the effects of further infrastructure provision	▪ Implement recommendations of Transportation Studies for towns in the County	▪ Number of Transportation Studies and recommendations adopted	▪ Cavan County Council/ Cavan Town Council		▪ Qualitative

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	▪ Prevent damage to or loss of protected structures or national monuments	▪ 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	▪ Cavan County Council/ Cavan Town Council ▪ Heritage Council ▪ DoEHLG (NIAH)	▪ (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	▪ 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

APPENDIX 6 – Assessment of the Likey Significant Effects of the Draft Development Plans on the Environment

Draft Cavan Town and Environs Development Plans - Strategic Environmental Assessment of Objectives and Policies

Please refer to Chapter 5 for full list of ‘**Environmental Objectives**’ and Chapter 9 ‘**Mitigation Measures**’ for a summary of significant effects on the environment and mitigation measures.

Key to Impacts							
Positive	<table border="0"> <tr> <td>Minor </td> <td>Moderate </td> <td>Major </td> </tr> <tr> <td>(Directly or indirectly positive)</td> <td></td> <td></td> </tr> </table>	Minor 	Moderate 	Major 	(Directly or indirectly positive)		
Minor 	Moderate 	Major 					
(Directly or indirectly positive)							
Negative	<table border="0"> <tr> <td>Minor </td> <td>Moderate </td> <td>Major </td> </tr> <tr> <td>(Directly or indirectly positive)</td> <td></td> <td></td> </tr> </table>	Minor 	Moderate 	Major 	(Directly or indirectly positive)		
Minor 	Moderate 	Major 					
(Directly or indirectly positive)							
No Impact	-----						
Uncertain Impact	?						
Cumulative Impact	C						
Short Term/ Temporary	S						
Long Term/ Permanent	L						

The following is a summary table of the Environmental Objectives.

Summary of Environmental Objectives																	
B1:	B2:	B3:	P1:	P2:	H1:	L1:	L2:	S1:	S2:	W1:	W2:	W3:	A1:	A2:	M1:	M2:	C1:
Designated H&S	Wider Habitats	Invasive Species	Quality of Life Residential, Working Recreational Environment Sustainable travel	Waste to landfill	Noise, vibration, from Traffic emissions, industrial Processes & Extractive industry	Natural & historic landscape & features within them	Townscape quality	Re-use brownfield lands, Reducing need for greenfield	Reduce Consumption of sand, gravel & rock deposits	Quality of surface, ground and drinking water	Water conservation & sustainable water use, based on longterm projections of available water resources	Mitigate effects of floods	Reduce air pollution & ghg emission	Promote energy efficiency and max use of renewable energy sources	Max use of existing built environment	Maintain infrastructure in county	Conservation of cultural heritage including architecture and archaeology

biodiversity value of sites and to the establishment of local nature areas where the nature conservation and landscape interest of the land will be protected and enhanced.	☺	☺	☺	☺	---	☺	☺	☺	☺	---	☺	---	☺	☺	---	---	---	?
Policy CSP7 The Core Strategy shall be revised upon the completion of a Strategic Flood Risk Assessment for Cavan Town and consideration will be given to the appropriate de-zoning/rezoning of Phase 2, 3 and 4 lands to take into account the requirements of flood risk management and the capacity of the existing infrastructure and the provision of alternative community/environmentally sustainable uses for some or all of the Phase 2,3 & 4 lands, where appropriate	☺	☺	☺	☺	■	■	---	☺	☺	■	---	---	■	?	?	☺	---	☺

Chapter 3 – Economic Development

Development Objectives and Policies for Enterprise Development in Urban Areas	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
INDUSTRY																			
I-O1 Ensure that there is sufficient and suitable lands reserved for new enterprise development at key locations throughout the county.	---	☺	-	☺	■	---	☺	---	-	■	---	-	---	■	---	-	---	---	---
I-O2 Promote new industrial development into serviced towns and villages where existing infrastructural facilities, services, and communications are available at a reason cost				■										■					
EMPLOYMENT																			
E-P1 Promote the existence of an enterprise culture in Cavan, encourage start-up business and reduce barriers to success where possible.	-	---	---	☺	-	■	---	☺	☺	■	---	---	---	■	☺	☺	---	---	
E-P2 New employment will be focused in locations that reduce the demand for travel and be appropriate in density and type of activity to its location.	-	---	---	☺	-	☺	---	☺	☺	■	---	---	---	☺	☺	☺	---	---	

<p>E-05 Generate stronger working relations between, relevant Institutes of Technology, Cavan Institute, industry, and the Cavan Innovation and Technology Centre should be included.</p>	---	--	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>E-06To work in partnership with the IDA, Enterprise Ireland, County Enterprise Board and County Development Board to promote and facilitate the location of industry and enterprise (including the technology sector) and to ensure the provision of necessary infrastructure supports and linkages are developed having regard to the need to ensure conservation and protection of the natural and cultural development of the county.</p>	---	☾	---	☾	■	■	☾	☾	☾	■	---	---	---	■	---	■	■	---	<p>P1: All development will create emissions, though, through the creation of clusters of industry and enterprise in 'Industrial/ Enterprise and Employment' zonings subject to normal development criteria, this may offset air emissions. S2: All new development will require the use of sand, gravel and rock deposits in their construction. W1: This is not a direct impact on water quality, once the new developments are sited to high technical standards but as with all development, the cumulative impact could reduce water quality standards. A2: This may be indirectly positive as the Draft Development Plan's sustainable energy policy will apply to all forms of enterprise.</p>
<p>E-07 To facilitate the re-use of dis-used industrial buildings for alternatives uses.</p>	---	☾	---	☾	☾	■	☾	☾	☾	☾	---	---	---	■	---	☾	☾	☾	

Development Objectives and Policies for Energy	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
ENERGY																			
EG-P1 To encourage the use of waste biomass in energy production.	---	☉	---	☾	☾	☾	---	---	☾	---	---	---	☾	☾	---	---	---		
EG-P2 To support the waste-to energy projects under REFIT scheme (Renewable Energy Feed In Tariff).	---	☉	---	☾	☾	☾	---	---	☾	---	---	---	☾	☾	---	---	---		
EG-P3 To support national and international initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which makes use of the natural resources of the County in an environmentally acceptable manner, where it is consistent with proper planning and sustainable development of the area.	---	---	---	☾	---	☾	■	---	---	---	---	---	■	☾	☾	☾	---	■	B1: Requirement for appropriate assessments for wind energy developments for example, which include mitigation to reduce the impact of wind energy developments L1: Wind energy development and other sustainable energy developments have a cumulative impact on the landscape and townscape. W3: Energy projects such as hydroelectric developments will need to be strictly controlled to ensure no flooding takes place as a result of ineffective dams etc. C1: The provision of some sustainable energy developments could have an impact on the traditional heritage in terms of scale of architecture and archaeology and the cultural landscape.
EG-O1 To encourage the production of energy from renewable sources, including in particular that from biomass, waste material, solar, wave, hydro and wind energy, subject to normal proper planning considerations, including in particular, the potential impact on areas of environmental or landscape sensitivity.	---	☉	---	☾	☾	☾	---	---	☾	---	---	---	☾	☾	---	---	---		
EG-O2 To support the National Climate Change Strategy and, in general to facilitate measures which seek to To support the National Climate Change Strategy and, in general to facilitate measures which seek to reduce emissions of greenhouse gases.	---	☉	---	☾	☾	☾	---	---	☾	---	---	---	☾	☾	---	---	---		
Development Objectives and Policies for	Biodiversity, Flora and			Population and Human			Landscape and Soils (including				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation

<p>of shopping, commercial, community and residential uses in appropriate higher density development around pedestrian friendly streets and squares with high quality urban design.</p> <p>TCD – P2 Forge a link between planning and design to produce better living environments for people.</p> <p>TCD-P3 Seek to maintain a good mixture of retail units within town core areas in order to ensure the vitality and viability of the town centre.</p> <p>TCD-O1 To ensure a new expanded town centre will create strong physical and functional links with the existing town centre.</p> <p>TCD –O2 Public safety will be promoted through the provision of pedestrian-oriented street-level uses, sufficient footpath widths, adequate visibility from adjacent buildings and primary pedestrian access from buildings to adjacent footpaths.</p> <p>TCD-O3 Protect historic fabric through conservation, preservation and redevelopment.</p> <p>TCD-O4 Provide sufficient, safe and accessible parks, plazas and greenways for active and passive enjoyment.</p> <p>TCD-O5 To promote mixed use developments comprising retail, commercial and housing within the Town Centre Area.</p> <p>TCD-O6 The scale, layout, form and design of all new town centre development must respect and enhance the existing town character.</p>																										
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CHAPTER 4: PHYSICAL INFRASTRUCTURE- Roads and Transportation

Integration of Land Use and Transportation Planning	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
<u>RT OBJ 1</u> It is a strategic aim of this Development Plan to co-ordinate transport and land use planning. This places a requirement on both the transport and settlement strategies to be mutually consistent, not only with each other, but with national direction as per the National Spatial Strategy and the Smarter Travel policy	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	---	☾	---	---	
<u>RT OBJ 2</u> Cavan County Council and Cavan Town Council aim to continue to implement the recommendations of the Transportation Plans for Cavan Town.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
PUBLIC TRANSPORT																			
<u>PT OBJ 1</u> It is an objective of Cavan County Council and Cavan Town Council to co-operate with the relevant transport bodies and authorities to secure improvements and further developments of the public transport system	---	---	---	☾	---	---	---	---	---	---	---	---	---	■	---	---	■	---	
<u>PT OBJ 2</u> <i>It is an objective of Cavan County Council and Cavan Town Council to carry out an audit of bus stops throughout the county and to assess and monitor their suitability</i>	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	

WALKING & CYCLING

Development Objectives and Policies for Cycling and Walking	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
<u>W&COBJ 1</u> To promote and facilitate the development of cycling and walking facilities in the Town and Environs Area.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 2</u> To promote the development of cycling by the development of cycle links.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
W&C-02 To support the recommendations of the National Cycle Network Study (2010) - Cavan Lakelands Cycle Loop which proposes extending the route from Cavan Town to Killeshandra Village via Killykeen Forest Park	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 3</u> To encourage the provision of secure bicycle parking facilities in towns, at neighbourhood centres, at public facilities such as schools, libraries and in all new developments (refer to car and bicycle parking standards).	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 4</u> To comply with the 'European Charter of Pedestrian Rights' in order to improve facilities for pedestrians and access to such facilities for people with disabilities	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 5</u> Increase commuting on foot and by bike among children and adults	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 6</u> Increase road safety for pedestrians and cyclists	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 7</u> Increase awareness of the health benefits of walking and cycling	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>W&C OBJ 8</u> Increase walking and cycling related tourism in Cavan Town and Environs area	---	---	---	☾	---	---	---	---	W &	---	---	---	---	☾	☾	---	---	---	

									C									
<u>W&C OBJ 9</u> Reduce car dependency for trips to work and education	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>W&C OBJ 10</u> Reduce traffic volumes and speeds where pedestrian and cyclist volumes are high.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
ROAD INFRASTRUCTURE OBJECTIVES																		
<u>RI-01</u> To improve all Council roads to an appropriate standard subject to the availability of resources.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-02</u> To improve road safety for all road users and reduce fatalities/accidents on Cavan Roads.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-03</u> To improve the capacity of the road infrastructure within County Cavan in accordance with national/regional policy.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-04</u> To have a well maintained road network basis.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-05</u> To improve access for mobility impaired people.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-06</u> To provide safer routes to educational establishments within the plan area	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-07</u> To preserve free from development proposed road realignment/improvement lines and associated corridors where such development would prejudice the implementation of County Council plans	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-08</u> To ensure that access to buildings and public spaces are accessible to people with mobility needs. Car parking shall generally be provided in accordance with 'Buildings for Everyone –a Universal Design Approach', 2012 published by the National Disability Authority and other relevant documentation	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---
<u>RI-09</u> To promote road safety measures in conjunction with Government Departments and other agencies to avoid the creation of traffic hazards and to ensure traffic management and safety issues are adequately addressed at pre-planning and planning application stage.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---

<u>RI-10</u> To have regard to the Local Action Biodiversity Plan for County Cavan in the provision of any new Council roads.	☾	☾	☾	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RI-011</u> To ensure that all new developments are assessed with regard to their impact on the operation of the public road network and where appropriate to require a Traffic & Transport Assessment in accordance with standards set out in the 'Traffic and Transport Assessment Guidelines' published by the National Roads Authority.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RI 012</u> To ensure that all new developments within the zone of influence of existing public roads or new public roads provide suitable protection against traffic noise in accordance with the requirements of S.I. No. 140 (2006) Environmental Noise Regulations. The costs of implementing any additional noise mitigation measures shall be borne by the developer	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RI-013</u> <i>To have regard to the Department of Environment, Community & Local Government Spatial Planning and National Roads Guidelines'. NRA documents 'Policy Statement on Development Management and Access to National Roads' and 'Traffic and Transport Assessment Guidelines'.</i>	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
DISTRIBUTOR RELIEF ROADS																			
<u>D/RR-01:</u> To assess the need for and the economic benefits of distributor/relief roads or new streets in the town and environs area.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
ROAD SAFETY																			
<u>RS-01</u> The Road Safety Officer will continue to endeavour to improve road safety awareness generally in the County, through promotion of the "Safe Systems" approach.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RS-02</u> The Road Safety Officer will continue to provide Road Safety Education and Training in schools throughout the County.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RS-03</u> To continue to identify and implement a programme of Traffic Calming Schemes and Low Cost Safety Remedial Schemes on roads throughout the County, in association with the National Roads Authority	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RS-04</u> To continue to co-operate with Gardaí through participation in regular Collision Prevention Programme meetings.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	

<u>RS-05</u> To ensure that Road Safety is an integral part of all new planning applications and to ensure that formal Road Safety Audits are included in Planning Conditions where appropriate.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>RS-06</u> To ensure that formal Road Safety Audits are an integral part of the design process for all new public road re-alignment schemes	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
ASSET MANAGEMENT																			
<u>AM-OBJ-1</u> To ensure that the MapRoad Asset Management Software Programme becomes fully operational.	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	
<u>AM-OBJ-2</u> To complete the Pavement Condition Ratings Survey of all Non National Roads.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
<u>AM-OBJ3</u> To ensure that a central database for Public Lighting is completed and maintained.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
PARKING																			
Policies: <i>PP – 01: Ensure that all new developments shall provide on-site parking and appropriate layout and design standards for the safe manouvering of vehicles and pedestrians. New developments shall comply with the parking and servicing standards set out in Table 4.1 of chapter 4.</i> <i>PP – 02: Ensure that where proposals for multiple land uses (such as office and retail) which function concurrently on the site, the combined calculations based on the Parking Standards, shall apply. (Note: unless it can be reasonably demonstrated that certain uses operate at different times, the Council may apply flexibility of standards in calculating the parking requirements).</i> <i>PP - 03“To encourage the use of electrically operated cars and bicycles, in line with Council and National Policy. Any non-residential developments shall be encouraged to provide facilities for battery operated cars to be recharged in accordance with the following: standards: metered-fast charging 220-240V, 32A three phase.</i>	---	---	---	☾	---	---	---	---	---	---	---	---	---	☾	☾	---	---	---	

<p><i>All proposals for developments which require residential parking spaces, including parking spaces for the disabled, shall be assessed for the provision of EV Charging Points on a case by case basis. Any EV Charging points which shall be constructed shall be capable of accommodating future charging points as required – residential space facilities to be coded/metered, slow charging 220V-240V, 13A single phase.</i></p> <p><i>As sales of battery operated cars increase to meet the Government objectives of 10% car ownership by 2020, The Council will it would be expected that such spaces would be specifically allocated to that use similar to parking spaces suitable for the disabled and parent and child.”</i></p> <p><i>PP – 04: In circumstances where the applicant cannot provide the dedicated parking spaces, the Council may accept a financial contribution in respect of the shortfall in the number of spaces. (Note: This will be at the discretion of the Council as it is only likely to apply to the Town Centre Locaitons or where the Council already provides, or intends to provide Public Car Parking facilities).</i></p> <p><i>PP – 05: In exceptional circumstances, the Council may at their discretion accept a reduced car parking requirement, where the applicant can clearly demonstrate that this would not impact on traffic safety and where it is considered to be in the interests of proper planning and sustainable development.</i></p> <p><i>PP – 06: Where a retail/commercial or other development proposed requires the development of car parking facilities, provision will also be made for the provision of parking dedicated for parents; disabled car parking space and spaces for the secure parking of bicycles and motorcycles.</i></p> <p><i>PP – 07: Proposals for all commercial/retail developments shall incorporate planting and landscaping of car parks.</i></p>																										
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the case of development works, require the provision of acceptable mitigation measures in order to minimise the risk of flooding and negative impacts to water quality.	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	
F-06 To have regard to the “ <i>To ensure that the</i> ” Planning System and Flood Risk Management – Guidelines for Planning Authorities” (DoEHLG/OPW, 2009) <i>are fully implemented as appropriate</i> through the use of the sequential approach and application of the Justification Tests for Development Management and Development Plans, during the period of this Plan.	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	
F-07: To ensure that a flood risk assessment is carried out for any development proposal, where flood risk may be an issue in accordance with the “Planning System and Flood Risk Management – Guidelines for Planning Authorities (DoECLG,OPW). This assessment shall be appropriate to the scale and nature of risk to the potential development.	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	
F-08 To ensure that all new developments are designed and constructed to meet the following minimum flood design standards where streams, open drains or other watercourses are being culverted, the pipework shall be designed to adequately accommodate the maximum anticipated flows . (Access should be provided for maintenance as appropriate).	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	
F-09 To give adequate allowance for climate change in designing surface water proposals a multiplication factor of 1.2 shall be applied to all river return periods of up to 100 years except in circumstances where the OPW have provided advice specifying the particular multiplication factor for return periods of up to 100 years. In the case of rainfall, a multiplication factor of 1.1 shall be applied to rainfall intensities to make allowance for climate change requirements.	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	
F-010 To ensure that all Greenfield developments the limitation of surface water run-off to pre-development levels will be required. Where a developer can clearly demonstrate that capacity exists to accommodate run-off levels in excess of Greenfield levels, then the Planning Authority shall give consideration to such proposals on a case-by-case basis.	---	☾	---	☾	---	---	☾	---	---	---	☾	---	☾	---	---	---	---	

<p>F-O11 To ensure that, in the case of brownfield developments, whilst existing surface water drainage measures will be taken into account, some attenuation measures for surface water may be required at the discretion of the Planning Authority, in the interests of balanced and sustainable development.</p>	---	☾	---	☾	---	---	☾	---	---	---	☾	☾	---	---	---	---	---		
<p>FO-12 To ensure that in the case of proposed developments for larger schemes, the use of Sustainable Urban Drainage Systems (SUDS) design, construction and maintenance will be favoured by the Planning Authority.</p>	---	☾	---	☾	---	---	☾	---	---	---	☾	☾	---	---	---	---	---		
<p>Development Objectives and Policies Private Servicing of Sites Policies</p>	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
<p>PSS-P1 To require that the septic tanks and proprietary effluent treatment systems comply in full with the requirements of the Environmental Protection Agency Wastewater Treatment EPA Code of Practice 2009.</p>	☾	☾	☾	☾	---	---	☾	---	---	---	☾	☾	---	---	---	---	---		

Chapter 4 continued...../ Water Quality

Development Objectives and Policies for Water Quality	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
WQ-01: To participate in the implementation and promote compliance with the requirements of the Water Framework Directive through the River Basin Management Plans and associated programmes of measures					---	---		---	---	---				---	---	---	---	---	
WQ-02 To co-operate with relevant stakeholders ¹³ including the River Basin Management Group and associated programme of measures.	---	---	---		---	---		---	---	---				---	---	---	---	---	
WQ-03: To ensure the protection and improvement of all drinking water, surface water and ground waters throughout the county by implementing the EU Water Framework Directive, and any other associated legislation.			---		---	---		---	---	---				---	---	---	---	---	
WQ-04: To work in co-operation with all organisations and all major stakeholders to ensure a co-ordinated approach to the protection and improvement of the water resources.	---	---	---		---	---		---	---	---				---	---	---	---	---	
WQ-05: To continue to improve water quality and maintain water quality which is already at Good and High Ecological Status.			---		---	---		---	---	---		---	---	---	---	---	---	---	

Chapter 4.....continued/: Waste Management

¹³ Representatives from local authorities within the River Basin District, Regional Authorities, Department of Environment and Local Government, Department of Agriculture, Food and Rural Development, Department of the Marine and Natural Resources, Environmental Protection Agency, Geological Survey of Ireland, Central Fisheries Board, Regional Fishery boards, Teagasc, Coillte, Office of Public Works, relevant stakeholders and any other organisation, as appropriate

<p>WM-05: To encourage recycling facilities (i.e. bottle banks, bring centres etc) in close proximity to commercial/residential developments.</p>	---	---	---	☾	☾	---	☾	☾	☾	☾	☾	---	---	☾	---	---	---	---	
<p>WM-06:To adhere to document 'waste Requirements for apartments and Housing Developments in Cavan Town & County' or as may be amended, refer to Appendix....</p>	---	☾	---	☾	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>WM-07: To promote and facilitate communities to become involved in environmental awareness activities, community based recycling initiatives or environmental management initiatives that will lead to local sustainable waste management practices.</p>	---	☾	---	☾	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>WM-08: To ensure the provision of an adequate residential and commercial waste collection service within Cavan Town and Environs Area.</p>	---	☾	---	☾	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	<p>B2: An adequate waste collection is very important as it prevents changes to food sources for specific animals such as foxes 'urban foxes'. It is important not to impact on this as this many have consequences for human health.</p>

<p>proliferation of unsightly lines, aerials and/or antennae, and to limit continuous disruption to public roads from the alternate provision of infrastructure by different companies.</p>				☉			☉												
<p>T&IT-O4 Require the provision of electricity cables underground, especially in the urban environment and in areas of public open space.</p>	---	---	---	☉	---	---	☉	---	---	---	---	---	---	---	---	---	---	---	
<p>The Planning Authority will consider all applications for support structures provided the proposals are supported with documentation ensuring that the use of the structure shall be within the criteria laid down by the International Radio Protection Agency and be licensed and monitored by the Director of Telecommunications in respect of power outputs and radio emissions.</p>	---	---	---	☉	---	■	C	---	---	---	---	---	---	---	---	---	---	---	
<p>The Planning Authority will consider all applications in the context of the clustering or co-location concepts expressed in the Department of Local Government's Guidelines. The Planning Authority will generally consider any location with three or more separate support structures as having attained a visual or landscape capacity to absorb any further structures.</p>	---	---	---	☉	---	---	☉	---	---	---	---	---	---	---	---	---	---	---	

consultation with the relevant voluntary sector organisations.																			
<p>HO13 Ensure the development of social and affordable housing units is carried out in consultation with the applicant/developer.</p> <p>The Planning and Development (Amendment) Act, 2002 has provided for a number of alternative options to satisfy the requirements to reserve lands under section 94 (4) (A) of the Planning and Development Act for social and affordable housing. In considering these options it will be the preference of the Council, subject to agreement, to require developers to build units of accommodation and transfer them into the ownership of the Council, or persons nominated by the Council, at an agreed cost. Where a financial contribution is accepted, this will be ring-fenced and used only by the Council in its functions under Part V and/or functions in the provision of housing under the Housing Acts.</p>																			

Chapter 6 - Social Strategy and Community Facilities

Development Objectives and Policies for Social Inclusion &	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
SI –P1 Seek to improve equality of access to and provision of community infrastructure in the county.	---	---	---																
SI-P2 Counteract social exclusion.																			
SI-P3 Ensure the staff of Cavan County Council and Cavan Town Council are aware of social inclusion issues and that all members of society have access to services and information provided by the Authorities as well as the opportunity to help shape policy and service delivery.																			
SI-O1 Promote equality of access to community																			

Committee and other structures..																				
PWD –O5 Ensure access to information on local authority services for people with disabilities and similar access to information on services provided by the DoEHLG and bodies under its aegis.				☾																
PWD –O6 Ensure a high level of awareness among all staff in regard to the requirements of person with disabilities.				☾																
PWD –O7 Encourage and facilitate access to appropriate housing and accommodation for persons with disabilities				☾																
PWD-O8 Ensure representative and consultative structures are in place with people disabilities, representing the range of disabilities				☾																

Chapter 6 Social Strategy and Community Facilities.....continued/

Development Objectives and Policies for Travelling Community	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
Travelling Community Policy TC- P1 Ensure access to community infrastructure is provided for minority groups in the county.	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
TC-P2 Have a special focus on housing issues for the Traveller Community through the Traveller Accommodation Programme.	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
T TC –O1 To recognise and promote the special character of the Travelling Community.	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
TC-O2 To promote equal access to all facilities for this minority group				☾☾															
TC-O3 To work on an interagency basis at strategic and operational level to deliver actions that will bring about greater				☾															

equality for the Traveller Community (Traveller Interagency Working Group)																			
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Chapter 6: Social Strategy & Community Facilities.....continued/

Development Objectives and Policies for Ethnic Minorities	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
EM-P1 Ensure the integration of minority groups into our communities whilst recognising and catering for their cultural differences and special needs.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
EM-O1 Promote awareness of the changing ethnic profile of our communities and the need to enable integration of minority groups.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
EM-O2 Promote the use of other languages when providing information regarding social infrastructure e.g. language classes, location of social welfare offices, libraries.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
EM -O3 Facilitate the provision of social infrastructure for minority groups in our County with an emphasis on integration while recognising diversity.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	

Development Objectives and Policies for Open Space and Amenity	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
OP-P1 Recognise the amenity, leisure and social importance of the provision of attractive useable open space and amenity areas.	--		---		---	---	---		---	---		---	---		---	---		---	B2: A biodiversity element into public open spaces, linking of green spaces in order to create a habitat (as part of the Development

<p>suitable lands are zoned for the establishment, improvement and expansion of current facilities, as appropriate.</p>	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>E-07 Encourage and facilitate the development of suitable recreational and amenity space in the vicinity of schools.</p>	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>E-P3: Applications for new educational developments shall demonstrate consistency with the following documents issued by the Department of Education and Skills:</p> <ul style="list-style-type: none"> ▪ Technical Guidance Documents – 025: ‘Identification and Suitability Assessment of Sites for Primary Schools’. ▪ Technical Guidance Document 027 – ‘Identification and Suitability Assessment of sites for Post Primary Schools’. 	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>E-P4: All applications for new educational developments shall be assessed for their compliance with the ‘Code of Practice for Planning Authorities and the Provision of Schools’.</p>	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---	---	---	
<p>Development Objectives and Policies for Libraries</p>	Biodiversity,	Flora and	Fauna	Population and Human Health	Landscape and Soils (including minerals)	Water	Air & Climatic	Material Assets	Cult Herit	Commentary	Key Success Factors/	Mitigation						
<p>Policy</p> <p>L-P1 Cavan County Council's Library Service mission is to provide educational, informational, cultural and recreational library resources and services in a professional and inclusive way, enabling people living in County Cavan to improve the quality of their lives. “Libraries Matter: Cavan County Library Service Development Plan 2010 – 2015” sets out what is needed, what is achievable and how it can be achieved, in the</p>	B1	B2	B3	P1 P2 H1	L1 L2 S1 S2	W1 W2 W3	A1 A2	M1 M2	C1									

context of a time of economic restraint.																	
Development Objectives and Policies for Arts and Culture	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
Strategic Aims Strategic Aim 1 Support artistic excellence and innovation in the arts Strategic Aim 2 Consolidate and build on strategic partnerships across all art forms Strategic Aim 3 Raise the public profile of the arts across County Cavan Strategic Aim 4 Foster public engagement and participation Strategic Aim 5 Strengthen the management and operation of the Arts Office	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---		
Development Objectives and Policies for Burial Grounds and Places of Public Worship	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
Burial Ground and Places of Public Policy BG&PPW –P1 Seek the protection and maintenance of existing burial grounds, where appropriate and make provision, where necessary for the future need for burial grounds in the County.	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---		
BG&PPW –O1 Ensure that the management and maintenance of burial grounds is in accordance with the principles of best conservation practice.	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---		
BG&PPW –O2 Encourage local community groups to develop, manage and maintain new burial facilities	---	---	---	☾	---	---	---	---	---	---	---	---	---	---	---		

Development Objectives and Policies for Fire Service	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
Fire Service Policy FS –P1 Continue to co-operate with the County Fire Service in the operation of its duties and in the design of new buildings.	---	---	---		---	---	---		---	---	---	---	---	---	---	---	---	---	
FS – O1 Review and monitor applications for fire safety certificates through the Chief Fire Officer.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
FS- O2 Promote the fire service Fire Prevention Programme.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
FS –O3 Ensure the effective working relationships and co-operations between the fire service and the other local authority services is maintained and promoted.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
FS-O4 Carry out ongoing risk analysis.																			
Development Objectives and Policies for Childcare	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
Childcare Policies C –P1 Recognise the importance of the provision of quality and accessible childcare facilities to ensure full and equitable participation in society for parents and guardians as well as providing for the educational, social and emotional needs of children.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	
C –P2 Co-operate with local development partnerships/groups, the HSE, the County Childcare Committee and the County Development Board in the provision and monitoring of childcare services.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---	

situ, where appropriate. Such items include water pumps, signage, lamp standards, post boxes, milestones, paving, street lighting, kerbing, plaques, statues, other monuments and stone walls etc	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	☾	☾	
BH -O1 To protect, preserve and enhance the architectural heritage of County Cavan by taking into consideration the advice contained in the 'Architectural Protection, Guidelines for Planning Authorities', 2004.				☾				☾								☾	☾	
BH -O2 To encourage the sympathetic retention, reuse and rehabilitation of Protected Structures and their settings and to promote their sensitive adoption to accommodate modern requirements.	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	☾	☾	
BH -O3 To actively encourage and promote the conservation of Cavan's built heritage. To promote best practice conservation in works to protected structures and to encourage the use of tradesmen and professionals trained in the use of traditional skills, materials and building techniques	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	---	☾	
BH-O4 To identify and retain good examples of historic street furniture and other non structural elements that contribute to the character of an area and help create a distinctive sense of place or are in themselves unique elements of our built heritage. These should be retained in situ, where appropriate. Such items include water pumps, signage, lamp standards, post boxes, milestones, paving, street lighting, kerbing, plaques, statues, other monuments and stone walls etc	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	☾	☾	

Development Objectives and Policies for Older Buildings: Shopfronts/Vernacular Architecture/Industrial Architecture	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
OB -O1 To encourage the retention of original windows, doors, renders, roof coverings and other significant features and fabrics of historic buildings, whether protected or not.	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	---	☾	☾	
OB -O2 To encourage the retention, rehabilitation and reuse of older buildings that are not Protected Structures in recognition of their contribution both individually and collectively to the unique character, heritage and identity of local areas and the County.	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	---	☾	☾	

OB -03 To seek the retention of original and early fabric of older buildings, including windows, doors, roof material, glazing and render or external finishes. The Planning Authority will encourage reinstatement of known original or early features where possible.																	
Vernacular Architecture																	
VA- 01 Protect vernacular architecture, such as thatched cottages, farmhouses and old school houses in County Cavan for the benefit of future generations																	
Shopfronts																	
SF -01 Seek the repair and retention of traditional timber and/or rendered shop fronts and pub fronts, including, where appropriate, those that may not be Protected Structures.																	
SF -02 To seek to promote the maintenance and repair of the traditional timber, Vitrolite and rendered shopfronts and pub fronts.																	
Industrial Heritage																	
IH -01 To protect our industrial architecture and to encourage appropriate new uses for vacant structures.																	

Development Objectives and Policies for Non-Structural Elements	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation	
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1		
NSE- P1 To identify and retain good examples of historic street furniture and other non structural elements that contribute to the character of an area and help create a distinctive sense of place or are in themselves unique elements of our built heritage. These should be retained in situ, where appropriate. Such items include water pumps, signage, lamp standards, post boxes, milestones, paving, street lighting, kerbing, plaques, statues, other monuments and stone walls etc.																				

Development Objectives and Policies for Architectural Conservation Areas	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
	---	---	---	☾	---	---	---	☾	---	---	---	---	---	---	---	☾	---	☾	
ACA -01 Produce and publish character appraisals and area specific policies for each ACA, in order to preserve, protect and enhance the character of these areas.																			
ACA – 02 Ensure all planning applications in an ACA or proposed ACA should be referred to the prescribed bodies prior to a decision being made.																			

Development Objectives and Policies for Archaeological Heritage	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Archaeological Heritage Objectives																			
AH -O1 To protect and enhance archaeological monuments, their settings and zones of archaeological potential.																			☾
AH -O2 To facilitate appropriate guidance in relation to the protection of the archaeological implications of a proposed development.				☾															☾
AH –O3 To promote public awareness of the rich archaeological heritage in the area.				☾															☾
AH -O4 To secure the preservation of sites and features of historical and archaeological interest.				☾															☾
AH -P1 Ensure the preservation in-situ of any part of our archaeological heritage is to be undertaken by Archaeological assessment ¹⁴ which is to be carried out by a suitably qualified professional archaeologist.				☾															☾
AH -P2 The avoidance, as far as possible, of developmental impacts on the archaeological heritage of the County. The preservation in-situ of archaeological monuments and sites as a preferred option.																			
AH -P3 Cognisance will be taken of the ‘Code of Practice between ESB National Grid and the Minister of the Environment																			

¹⁴ Costs of archaeological work necessitated by development are to be considered a legitimate part of development costs.

Heritage and Local Government in relation to Archaeological Heritage	---	---	---		---	---	---		---	---	---	---	---	---	---	---			
Development Objectives and Policies for Recorded Monuments	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
Recorded Monuments Policies																			
RM –P1 To protect and enhance archaeological monuments, their settings and zones of archaeological potential.	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---		
RM-P2 To promote public awareness of the rich archaeological heritage in the area.	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---		
RM –P3 To secure the preservation of sites and features of historical and archaeological interest	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---		
RM-O1 To facilitate appropriate guidance in relation to the protection of the archaeological implications of a proposed development.and Local Government in its capacity of being charged with the implementation of the National Monuments Acts.	---	---	---		---	---	---		---	---	---	---	---	---	---	---	---		
RM-O2 To promote pre-planning consultations in relation to the archaeological heritage with the Planning Authority and with the Department of the Environment, Heritage																			
RM-O3 To endeavour to ensure the dissemination of the results of archaeological excavation in a timely and appropriate manner.																			

Chapter 8 - Natural Heritage

Development Objectives and Policies for Natural Heritage	Biodiversity, Flora and Fauna			Population and Human Health			Landscape and Soils (including minerals)				Water			Air & Climatic		Material Assets		Cult Herit	Commentary Key Success Factors/ Mitigation
	B1	B2	B3	P1	P2	H1	L1	L2	S1	S2	W1	W2	W3	A1	A2	M1	M2	C1	
NH&EN-P1 Conserve, protect and manage the Cavan Town and Environs natural heritage assets for future generations while encouraging appreciation/ understanding and enjoyment of the amenity value for the present generation.					---	---			---	---		---			---	---	---	---	
NH&EN-P2 Maximise the social, economic and environmental benefits that may be derived from conservation and management of Cavan's Natural Heritage and green infrastructure.					---	---			---	---		---			---	---	---	---	
NH&EN-P3 To promote an understanding and awareness of Cavan's unique natural heritage and elements of this heritage which should be conserved, managed and enhanced.					---	---			---	---		---			---	---	---	---	
NH&EN -P4 To implement, in partnership with Cavan County Heritage Forum, relevant stakeholders and the wider community, Cavan County Heritage and Biodiversity Plans and any revisions thereof.					---	---			---	---		---			---	---	---	---	

<p>DS-01 To ensure an Appropriate Assessment in accordance with Article 6(3) and Article 6(4) of the Habitats Directive, and in accordance with the Department of the Environment, Heritage and Local Government <i>Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009</i> and relevant EPA and European Commission guidance documents, is carried out in respect of any Plan or Project not directly connected with or necessary to the management of the site but likely to have significant effect on a Natura 2000 site(s), either individually or in combination with other plans or projects, in view of the site's conservation objectives. (Buffer Map)</p>	☾ ---	☾ ☾ ---	☾ ☾ ---	---	---	☾ ☾ ---	---	---	---	---	---	---	---	---	---	---	---	
<p>DS-02 To protect and conserve the conservation value of Special Protection Areas, Special Areas of Conservation, Natural Heritage Areas and proposed Natural Heritage Areas as identified by the Minister for Arts, Heritage and the Gaeltacht and any other sites that may be proposed for designation during the lifetime of this plan</p>	☾ ☾	☾ ☾	☾ ---	---	---	☾ ☾	---	---	☾ ---	☾ ☾	---	---	---	---	---	---	---	

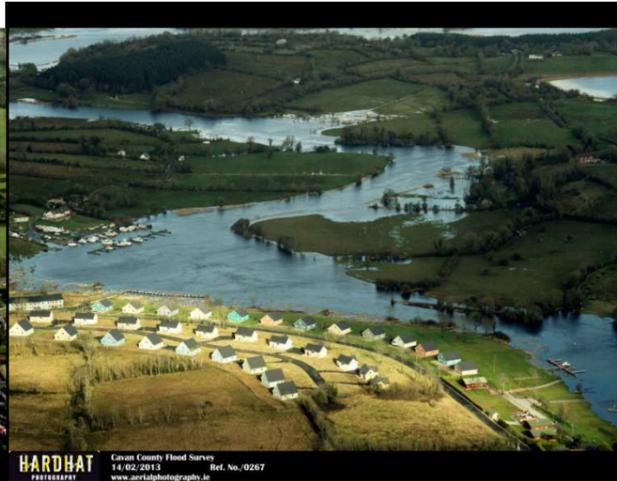
Development Objectives and Policies for Geopark	Biodiversity, Flora and Fauna B1 B2 B3			Population and Human Health P1 P2 H1			Landscape and Soils (including minerals) L1 L2 S1 S2				Water W1 W2 W3			Air & Climatic A1 A2		Material Assets M1 M2		Cult Herit C1	Commentary Key Success Factors/ Mitigation
<p>Geopark Policy: GP-P1 To conserve and manage the geological resources of a discrete area to develop sustainable tourism, enterprise and community life.</p>	☾ ☾	☾ ☾	☾ ---	---	---	☾ ☾	---	---	☾ ---	---	---	---	---	---	---	---	---		
<p>GP-O1 To increase the geotourism and recreational potential of Cavan Town & Environs and County Cavan through increased social use of the landscape, with attendant conservation, economic, social and community benefits within the region.</p>	☾ ☾	☾ ☾	☾ ---	---	---	☾ ☾	---	---	☾ ---	☾ ☾	---	---	---	---	---	☾	---		

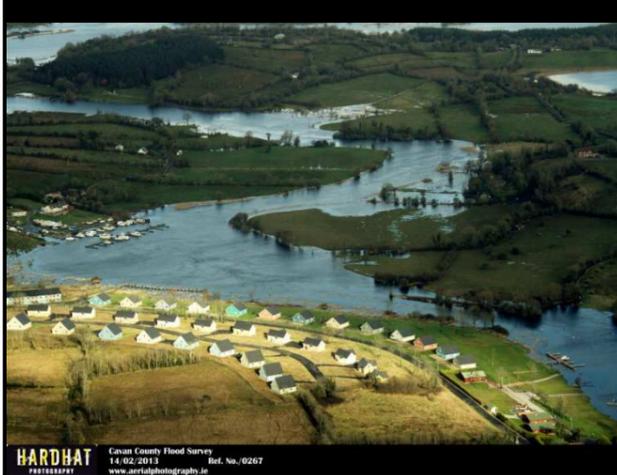
<i>of invasive species currently established within, and adjacent to the Plan Area, within the lifetime of the current plan.</i>					---	---			---	---			---	---	---	---	
WETLANDS																	
WL-P1 To protect existing wetlands from destruction, infilling, fragmentation and degradation.					---	---			---	---			---	---	---	---	
WL-O1 To resist development that would destroy, fragment and degrade wetlands.					---	---			---	---			---	---	---	---	
WOODLANDS, TREES, HEDGEROWS & STONEWALLS																	
WTHS-P1 To encourage the retention of mature trees and the use of tree surgery rather than felling where possible when undertaking, approving or authorising development.					---	---			---	---			---	---	---	---	
WTHS-P2 To protect Champion and Heritage Trees where identified on the Tree Register of Ireland and Heritage Tree Database when undertaking, approving, or authorising development					---	---			---	---			---	---	---	---	
WTHS-P3 To encourage the use of native species wherever possible in Cavan Town Council and Cavan County Council's own landscaping work, and on Council property.					---	---			---	---			---	---	---	---	
WTHS-P4 To promote and encourage planting of native hedgerow species of local provenance.					---	---			---	---			---	---	---	---	
WTHS-P5 To encourage the retention of hedgerows and stonewalls and other distinctive boundary treatments in rural areas and prevent loss and fragmentation, where possible. Where removal of a hedgerow or stone wall is unavoidable, mitigation by provision of the same type of boundary will be required.					---	---			---	---			---	---	---	---	
WTHS-O1 To continue to co-operate with relevant stakeholders to improve public access to State forests for amenity purposes and consider development which will enhance the amenity provided by existing trees and woodlands.					---	---			---	---			---	---	---	---	
WTHS-O2 To promote awareness, understanding and best practice in the management of Cavan's woodland, tree, hedgerow and stone wall resource.					---	---			---	---			---	---	---	---	
PUBLIC RIGHT OF WAY																	

<p>PRW-P1 To preserve and protect for the common good, existing public rights of way which give access to places of natural beauty or recreational utility as indicated in appendix....map....</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
<p>PRW-P1 It is an objective of Cavan Town & Environs Development Plan: To seek to identify and protect over the lifetime of the plan further existing rights of way which give access to places of natural beauty or recreational utility.</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
GREEN INFRASTRUCTURE																			
<p>GI-P1 To undertake a Green Infrastructure Strategy for Cavan Town and County Cavan during the lifetime of this Development Plan and to ensure that County Cavan's Natura 2000 sites are central to this strategy.</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
<p>GI-P2 To protect existing green infrastructure in the county and to provide additional green infrastructure, where possible.</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
<p>GI-P3 To require that all Land Use Plans protect, manage and provide where possible green infrastructure in an integrated and coherent manner</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
<p>GI-O1 To develop and support the implementation of a Green Infrastructure Strategy for County Cavan during the lifetime of this plan. GI-O2 To identify sites of local biodiversity value in County Cavan over the lifetime of this plan.</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
<p>GI-O2 <i>To implement the aims and recommendations of the Green Infrastructure Strategy, once developed, within the lifetime of the plan and future development plans.</i></p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	
DERELICT SITES																			
<p>ODS -P1 To review Derelict Sites Register annually and to proactively work within the legislation to remedy same</p>	☾	☾	☾	☾	---	---	☾	☾	---	---	☾	---	☾	☾	---	---	---	---	

use development of commercial and office uses enterprises in a high quality environment with limited residential development.	---	---	---		---				---	---	---		---		---		
Development Objectives and Policies for Mixed use (peripheral)	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
To facilitate opportunities for the development of mixed-use development of commercial and office uses enterprises in a high quality environment.	---	---	---		---				---	---	---		---		---		
Development Objectives and Policies for Commercial and Associated Services	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
To protect provide for and/or improve retail centre facilities.	---	---	---		---					---	---		---		---		
Development Objectives and Policies for Amenity /Recreation	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
To preserve and provide for open space and recreational amenities.	---		---	---		---	---		---	---	---	---		---	---	---	
Development Objectives and Policies for Public /Community	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation									
To protect and provide community and public facilities.	---	---	---	---		---	---		---	---	---	---	---	---	---	---	

Development Objectives and Policies for Integrated Waste Management Facility/ Industry	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation
To promote the development of the integrated waste management facility with complimentary activities and uses.	---	☾ ---	---	☾ ☾ ■	■ ---	☾ ---	☾	
Residential Strategic Reserve- Phase 2,3 and 4 lands (as per phasing map)	Biodiversity, Flora and Fauna B1 B2 B3	Population and Human Health P1 P2 H1	Landscape and Soils (including minerals) L1 L2 S1 S2	Water W1 W2 W3	Air & Climatic ic A1 A2	Material Assets M1 M2	Cult Herit C1	Commentary Key Success Factors/ Mitigation
To identify lands that are not suitable for residential devleoment within the current development plan period	☾ ☾ ☾	☾ ☾ ☾	☾ ☾ ☾ ☾ ☾	☾ ☾ S S	☾ ? ?	S ? ?	? ?	
Mixed Use Strategic Reserve: To facilitate opportunities for the development of mixed-use development of commercial and office uses enterprises in a high quality environment	---	☾ ■ ■	---	☾ ☾ ■	---	☾ ---	---	
Mixed Use Adjacent to Town Core (Strategic Reserve) To facilitate opportunities for the development of mixed-use development of commercial and office uses enterprises in a high quality environment	---	☾ ■ ■	---	☾ ☾ ■	---	☾ ---	---	
Mixed Use Peripheral – Strategic Reserve To facilitate opportunities for the development of mixed-use development of commercial and office uses enterprises in a high quality environment	---	☾ ■ ■	---	☾ ☾ ■	---	☾ ---	---	
ENVIRONS SPECIFIC OBJECTIVES								
1. Masterplan to be prepared in conjunction with relevant stakeholders for development of a technology park. <i>(Proposals shall be subject to the policies and objectives contained in the</i>	-	☾ ■ ■	---	☾ ☾ ■	---	☾ ---	---	





STRATEGIC FLOOD RISK ASSESSMENT – STAGE 1: Flood Risk Identification for the Draft Cavan County Development Plan

APPENDIX 7 of the TO THE DRAFT ENVIRONMENTAL REPORT (SEA)

February 2014

PART A: BACKGROUND

1. Introduction

This report sets out a framework for the Strategic Flood Risk Assessment (SFRA) required for the preparation of the Draft Cavan County Development Plan for County Cavan. This report includes the background of the requirements of the EU Floods Directive; Legislative context for the Planning system in terms of the Guidelines issued on Planning and Flood Risk Management; the context of the Regional Flood Risk Assessment and the implications for County Cavan; the Strategic Environmental Assessment (SEA) process and the implications of Flood Risk Assessment in the framing of certain policies and objectives for the Draft County Development Plan. This document represents Stage 1 of the Strategic Flood Risk Assessment (SFRA) as recommended in the Guidelines and recommends the approach for undertaking Stages 2 & 3 of the SFRA.

2. The Planning System & the Flood Risk Management Guidelines

The Department of the Environment, Heritage & Local Government and the Office of Public Works (OPW) published a joint document - 'Planning Guidelines: The Planning System and Flood Risk Management', in November 2009. These Guidelines were issued under Section 28 of the Planning and Development Act (2000, as amended) and require that Planning Authorities introduce flood risk assessment as an integral part of their development planning functions. The Guidelines recommend a clear methodology for the carrying out of flood risk at all stages in the Planning process which set out that a regional flood risk appraisal and management policy recommendations are necessary to set a policy framework for County Development Plans and Local Area Plans.

The purpose of this SFRA is to support the Strategic Environmental Assessment (SEA) of the Draft Plan, and in this way inform the policies and objectives of the plan.

The precautionary approach should be adopted in carrying out Flood Risk Assessments and the following key guiding principles should be followed in all instances:

- I. Avoidance of development in areas at risk of flooding, by not permitting development in flood risk areas, unless fully justified and capability exists to manage risk without impacting elsewhere;
- II. Application of a Sequential Approach to flood risk management based on:-
 - Avoidance
 - Reduction; and
 - Mitigation of flood risk in assessing suitability of locations for development.
- III. The incorporation of flood risk assessment into the process of making decisions on planning applications and appeals.

Having regard to the DEHLG Guidelines, this section sets out the key policy recommendations to avoid and manage flood risk within County Cavan, based on the Regional Flood Risk Appraisal which includes:-

- The identification of appropriate policy responses for priority areas, including areas that transcend administrative boundaries and where there appears to be significant flood risk;
- Requirements on foot of the guidelines for co-operation, implementation and co-ordination of more detailed area level strategic flood risk assessment in Development Plans.

In the overall context of implementing the Floods Directive, flood risk appraisal and management strategies, it is important to differentiate between flooding arising from natural phenomena (Rivers, Coastal and Pluvial), for which the OPW is the lead Authority; and flooding arising from Urban Stormwater drainage, water supply systems and wastewater infrastructure, which are the direct responsibility of Local Authorities. Cognisance must also be taken of the Water Framework Directive and its implications in relation to the management of flooding.

3. Types of Flooding

Flooding is a natural occurrence that can happen at any time in a wide variety of locations and plays a role in shaping the natural environment. There are essentially two major causes of flooding:

- a. River - caused by prolonged and/or intense rainfall; and
- b. Coastal – caused by higher than normal sea levels, largely as a result of storm surges and resulting in the sea overflowing onto land.

Both types of flooding can be further explained under the following categories:

- **Overland flow** occurs when the amount of rainfall exceeds the infiltration capacity of the ground to absorb it. This is common after intense rainfall and eventually ends up in the piped or natural drainage system;
- **River flooding** occurs when the capacity of a watercourse to convey water through an area is exceeded, blocked or restricted and this spills out into its floodplain
- **Flooding from artificial drainage systems** can occur after intense rainfall and occurs when flow entering systems, such as urban stormwater drainage systems, exceeds its discharge capacity and the system becomes blocked or cannot discharge due to high water level in the receiving watercourse;
- **Estuarial flooding** occurs when there are high flows in rivers entering the sea and a high tide prevents water from flowing out to sea which may flood river banks;
- **Coastal flooding** occurs when sea water encroaches on land due to failure of coastal defences both natural (e.g. dunes), or manmade, or due to exceptional climatic or other factors. When this occurs, it can result in sewer flooding in urban areas, overland flow and flooding from groundwater in rural and urban areas;
- **Groundwater flooding** occurs when natural water levels stored in the ground rises above normal groundwater levels, as a result of prolonged rainfall. The capacity of the underground reservoir is exceeded and the water seems to rise up from the ground;

4. Strategic Flood Risk Assessment (SFRA) and the Strategic Environmental Assessment (SEA)

The SEA process addresses and any likely significant effect on the environment and their amelioration, for the implementation of development plans through all stages of the plan-making

process. In accordance with the Guidelines, Flood risk identification (Stage 1) to assess whether full flood risk assessment is required, should ideally be carried out in a manner that is integrated with the SEA process, rather than constituting an additional and separate process. Any subsequent stages of flood risk assessment should also be carried out in a way that is integrated with the SEA process. Within the process of preparing the draft development plan, the draft SEA environmental report will consider the environmental effect of the draft plan against the environmental criteria for the plan area, including mitigation measures and future monitoring of effects.

Flood Risk Assessment should be incorporated into the development plan structure by way of a coherent and transparent approach as to how it has been considered in making spatial planning decisions.

A Summary of the likely effects of the plan on the environment through exposing of new development and their occupants to potential flood risks and any adverse impacts as a result, should be addressed in the SEA process and summarised in the environmental report element of the overall development plan.

5. The Draft County Development Plan – Floodrisk Management Policy Framework for the Development Plan

The Draft Plan, the area to which the plan relates is the administrative area of County Cavan. The plan is strategic in nature and sets out the broad strategies, including core strategy and settlement framework on a County-Wide basis. The plan which includes Zoning Plans; policies and specific objectives for all of the Large Towns; Medium Towns and Small Towns & Villages throughout the County – of which there are 28 no. in total. Tier 1: Cavan Town & Environs; Tier 2: ; Tier 3: ; Tier 4: A separate Plan is prepared for the Cavan Town and Environs.

6. Disclaimer

Compliance with the requirements of the Planning System and Floodrisk Management Guidelines for Planning Authorities and the EU Floods' Directive¹⁵ is a 'work in progress' and is currently based on emerging and incomplete data, as well as estimates of the locations and likelihood of flooding. In particular, the assessment and mapping of areas of flood risk awaits the publication of the Catchment-based Flood Risk Assessment and Management Plans (CFRAMs). As a result this Strategic Flood Risk Assessment for County Cavan is based on preliminary available information.

As such, all information in relation to flood risk is provided for general policy guidance only. It may be substantially altered in light of future data and analysis. As a result, all landowners and developers are advised that Cavan County Council and its agents cannot accept responsibility for the losses or damages arising due to assessments of the vulnerability to flooding of lands, uses and developments. Owners, users and developers are advised to take all reasonable measures to assess the vulnerability to flooding of their lands/property in which they have an interest, prior to making

7. Flood Risk Assessment

7.1 Structure of a Flood Risk Assessment

The Guidelines recommend that a staged approach is adopted when undertaking a Flood Risk Assessment (FRA). The recommended stages are briefly described below: -

• Stage 1 – Flood Risk Identification

To identify whether there may be any flooding or surface water management issues that will require further investigation. This stage mainly comprises a comprehensive desk study of available information to establish whether a flood risk issue exists or whether one may exist in the future.

• Stage 2 - Initial Flood Risk Assessment

If a flood risk issue is deemed to exist arising from the Stage 1 Flood Risk Identification process, the assessment proceeds to Stage 2, which confirms the sources of flooding, appraises the adequacy of existing information and determines the extent of additional surveys and the degree of modelling that will be required. Stage 2 must be sufficiently detailed to allow the application of the sequential approach (as described in Section 1.3.3) within the flood risk zone.

• Stage 3 - Detailed Flood Risk Assessment

A detailed FRA is carried out where necessary to assess flood risk issues in sufficient detail and to provide a quantitative appraisal of potential flood risk.

7.2 Geographic Scales of a Flood Risk Assessment

Flood Risk Assessments are undertaken at different scales by different organisations for many different purposes. The scales are as follows: -

• Regional Flood Risk Appraisal

A Regional Flood Risk Appraisal (RFRA) provides a broad overview of the source and significance of all types of flood risk across a region and highlights areas where more detailed study will be required. These appraisals are undertaken by regional authorities.

• Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) provides a broad (area-wide or county-wide) assessment of all types of flood risk to inform strategic land use planning decisions. The SFRA allows the Planning Authority to undertake the sequential approach (described below) and identify how flood risk can be reduced as part of the development plan process.

• Site Flood Risk Assessment

A Site Flood Risk Assessment (Site FRA) is undertaken to assess all types of flood risk for a new development. This requires identification of the sources of flood risk, the effects of climate change on the flood risk, the impact of the proposed development, the effectiveness of flood mitigation and management measures and the residual risks that then remain.

This assessment is for a *Draft Plan* and therefore is at SFRA scale.

7.3 The Sequential Approach

The sequential approach in terms of flood risk management is based on the following principles: -

AVOID - SUBSTITUTE - JUSTIFY - MITIGATE – PROCEED.

¹⁵ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risk: Official Journal L288/27-34.

The primary objective of the sequential approach is that development is primarily directed towards land that is at low risk of flooding (**AVOID**). The next stage is to ensure that the type of development proposed is not especially vulnerable to the adverse impacts of flooding (**SUBSTITUTION**).

7.4 The Justification Test

The Justification Test is designed to rigorously assess the appropriateness, or otherwise, of particular developments that, for various reasons, are being considered in areas of moderate or high flood risk (**JUSTIFICATION**).

The test is comprised of two processes, namely the Plan-Making Justification Test and the Development Management Justification Test. Only the Plan, and this is described as follows former (Plan-Making Justification Test) is relevant to a Strategic Flood Risk Assessment for a Plan, and this is described as follows.

Justification Test for Development Plans

“Where, as part of the preparation and adoption or variation or amendment of a development/local area plan, a planning authority is considering the future development of areas in an urban settlement that are at moderate or high risk of flooding, for uses or development vulnerable to flooding that would generally be inappropriate as set out in Table 3.2 of the Guidelines, all of the following criteria must be satisfied: -

- 1) *The urban settlement is targeted for growth under the National Spatial Strategy, regional planning guidelines, statutory plans as defined above or under the Planning Guidelines or Planning Directives provisions of the Planning and Development Act 2000, as amended.*
- 2) *The zoning or designation of the lands for the particular use or development type is required to achieve the proper and sustainable planning of the urban settlement and in particular:*
 - a. *Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement*
 - b. *Comprises significant previously developed and/or under-utilised lands;*
 - c. *Is within or adjoining the core of an established or designated urban settlement;*
 - d. *Will be essential in achieving compact or sustainable urban growth;*
 - e. *There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.*
- 3) *A flood risk assessment to an appropriate level of detail has been carried out as part of the Strategic Environmental Assessment as part of the development plan preparation process, which demonstrates that flood risk to the development can be adequately managed and the use or development of the lands will not cause unacceptable adverse impacts elsewhere.*

N.B. The acceptability or otherwise of levels of any residual risk should be made with consideration for the proposed development and the local context and should be described in the relevant flood risk assessment” (See p. 37 of the Flooding Guidelines).

MITIGATION is the process where the flood risk is reduced to acceptable levels by means of land use strategies or by means of detailed proposals for the management of flood risk and surface water, all as addressed in the Flood Risk Assessment. The decision to **PROCEED** should only be taken after the Justification Test has been passed.

7.5 Purpose of the Strategic Flood Risk Assessment

The purpose of this SFRA is to integrate an assessment of flood risk into the planning process, specifically to:

- (i.) Provide for an improved understanding of flood risk issues within the County Development Plan,
- (ii.) Identify whether flood risk is an issue in the settlements for which the development management framework (e.g. zoning map or settlement boundary) is being altered.

This SFRA presents available flood related data to identify areas within which a detailed Flood Risk Assessment (Stages 2 & 3) will be required. It also reviews the existing text and policies in the Development Plan in relation to flooding and proposes changes where necessary. The concluding section discusses the approach to monitoring and review of this SFRA.

PART B: STRATEGIC FLOOD RISK ASSESSMENT – STAGE 1

8. STRATEGIC FLOOD RISK ASSESSMENT

8.1 Stages

The Strategic Flood Risk Assessment for the plan area is based on two stages: -

- Stage 1 Flood Risk Identification;
- Stage 2 Initial Flood Risk Assessments.

8.2 Stage 1 – Flood Risk Identification

This purpose of this stage is to identify whether there are any flooding or surface water management issues relating to the plan area that may warrant further investigation. Sources that were consulted are outlined below:

8.2.1 Regional Flood Risk Appraisal

A *Regional FRA* was carried out and published as Chapter 8 to the Strategic Environmental Assessment of the *Border Regional Planning Guidelines 2010-2022*. This document provided guidance on the issues to be addressed in any SFRA.

The *Regional FRA* referred types of flooding affecting key towns in the region. Cavan Town was noted as a Key Town within the county as being at risk to Fluvial flooding. Developed and Undeveloped lands adjacent to the Cavan River are identified at being at risk and are subject of Further Assessment under the CFRAM study for the Shannon RBD. It is recommended that prior to the completion of the CFRAM study, an evidence-based approach should be adopted to the application of the sequential approach & justification test in zoning of susceptible lands for development.

8.2.2 Office of Public Works Publications

The Office of Public Works (OPW) is the lead agency for flood risk management in Ireland and is the national competent authority for the EU Floods Directive. OPW works in close partnership with all Local Authorities in delivering the objectives of the CFRAM Programme.

To comply with the EU *Floods’ Directive*, the OPW commenced a CFRAM (Catchment Flood Risk Assessment and Management) programme in Ireland in 2011.

The CFRAM Programme comprises three phases: -

1. The Preliminary Flood Risk Assessment (PFRA): 2011;
2. The CFRAM Studies and parallel activities: 2011-2015;
3. Implementation and Review: 2016 onwards.

The Programme provides for three main consultative stages: -

1. 2011 Preliminary Flood Risk Assessments;

2. 2013 Flood Hazard Mapping; www.floodmaps.ie

3. 2015 Flood Risk Management Plans.

8.2.3 Preliminary Flood Risk Management

The *Floods' Directive* required Member States to undertake a national preliminary flood risk assessment by 2011 to identify areas where significant flood risk exists or might be considered likely to occur. In August 2011, the OPW published the National Preliminary Flood Risk Assessment, Draft for Public Consultation which comprised a Report and a set of maps.

This national screening exercise identified where there may be a significant risk associated with flooding, based on available and easily derivable information. The objective of the PFRA is to identify Areas for Further Assessment (AFA's) and this further assessment will take place through Catchment Flood Risk Assessment and Management Studies (CFRAMs).

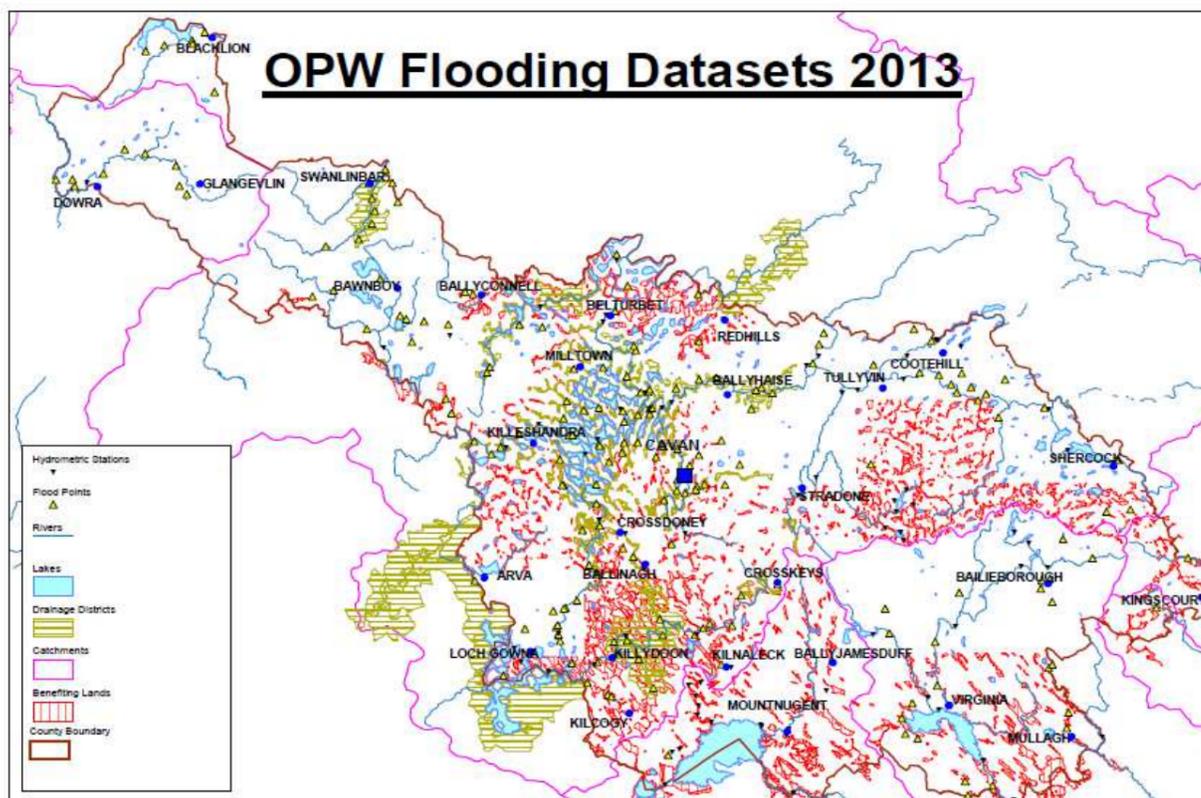
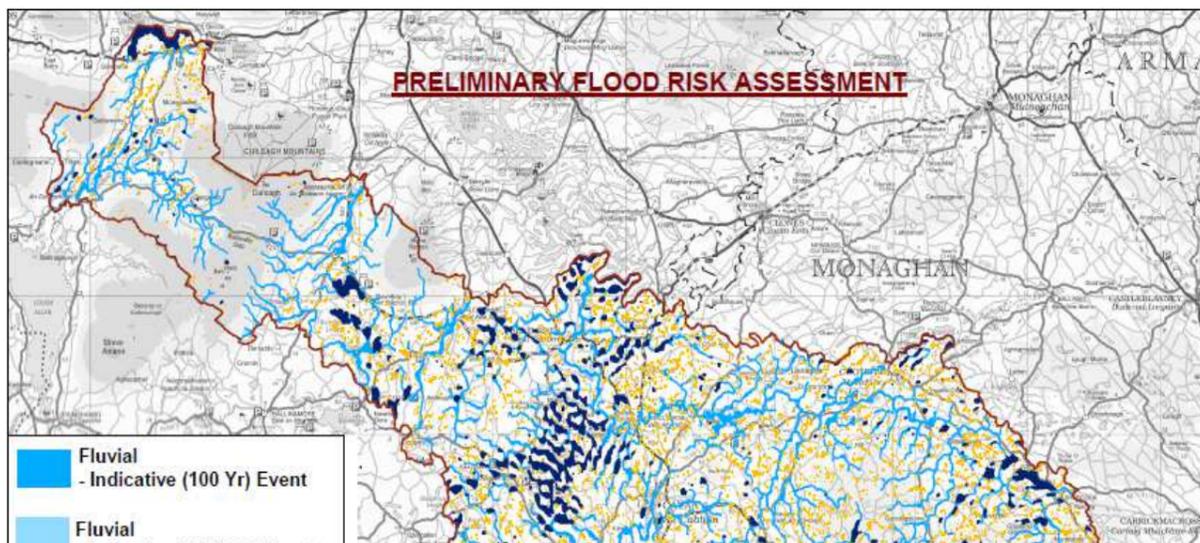
County Cavan falls into four separate 'catchment areas'; the Shannon Catchment; the North West Catchment; the Neagh-Bahn and the Eastern District.

The OPW has prepared *maps identifying the Areas of Further Assessment. The OPW stated that the maps, although *draft* and indicative, may be of use to the Local Authorities in a number of areas of activity, particularly in the performance of their planning function in relation to the implementation of the *Flooding Guidelines*.

*OPW PFRA MAPPING

Note: The OPW PFRA (Preliminary Flood Risk Assessment) mapping is very crude and never to be used for individual site level decisions. The PFRA was a national screening exercise, and the maps are indicative based on simple analysis (rather than modelling) undertaken at a national level, and are not suitable for site-specific assessments. It is not a detailed assessment of flood risk and should not be considered as such. (Further details are available on <http://www.cfram.ie/pfra/>.) See Preliminary Flood Risk Assessment Maps for County Cavan below:

Map A: Preliminary Flood Risk Assessment



8.3. CATCHMENT BASED MANAGEMENT PLANS

Phase 2 of the CFRAM programme is the production of CFRAM studies. The OPW in cooperation with various Local Authorities are producing Catchment Flood Risk Assessment and Management Studies. These CFRAMS aim to map out current and possible future flood risk areas and develop risk assessment plans. They will also identify possible structural and non-structural measures to improve the flood risk of the area.

The four CFRAMS that will affect the Draft Plan are the Northwest West CFRAM; the Neagh-Bann CFRAM; the Shannon Catchment and the Eastern District. A scoping of the CFRAMS for these Catchments was undertaken and identified as areas of potential significant flood risk, and worthy of further risk review.

The CFRAM areas for County Cavan were defined as follows:

8.3.1 North Western River Basin District

The North Western district is a cross-border river basin district with approximately 7,400 km² in Ireland and 4,900 km² in Northern Ireland. It takes in all of County Donegal, large parts of Fermanagh, Cavan, Derry, Monaghan and Tyrone, significant areas of Leitrim and Longford and a small portion of Sligo.

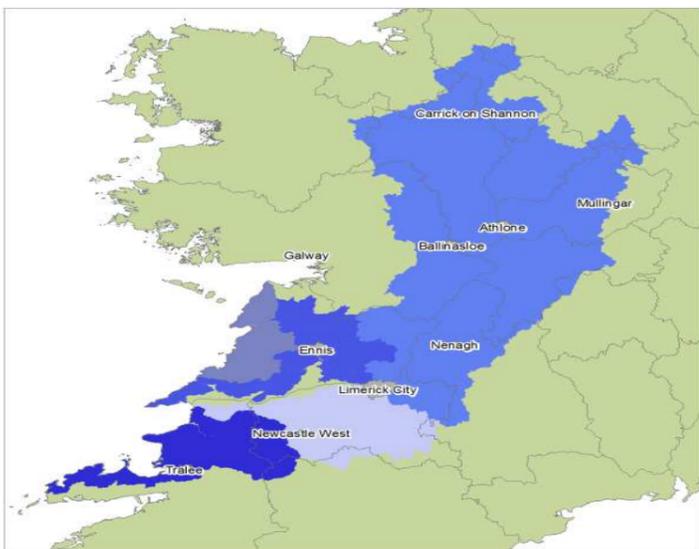
The main aims of the North West CFRAM Study are to: -

- i. assess flood risk, through the identification of flood hazard areas and the associated impacts of flooding;
- ii. Identify viable structural and non-structural measures and options for managing the flood risks for localised high-risk areas and within the catchment as a whole;
- iii. prepare a strategic Flood Risk Management Plan (FRMP) and associated Strategic Environmental Assessment (SEA) that sets out the measures and policies that should be pursued to achieve the most cost effective and sustainable management of flood risk;
- iv. ensure that full and thorough public and stakeholder consultation and engagement is achieved.

8.3.2 Shannon Catchment Flood Risk Assessment and Management Study (CFRAMS)

The Office of Public Works are working in partnership with their consultants, Local Authorities and other stakeholders to deliver the CFRAM Study for the Shannon River Basin District (RBD). Work on the study started in January 2011 and will be completed by December 2016.

The Shannon RBD includes the entire catchment of River Shannon and its estuary, covering some 17,800km² and 20% of the island of Ireland. The RD covers parts of 17 counties: Limerick, Clare, Tipperary, Offaly, Westmeath, Longford, Roscommon, Kerry, Galway, Leitrim, Cavan, Mayo, Cork, Laois, Meath and Fermanagh.



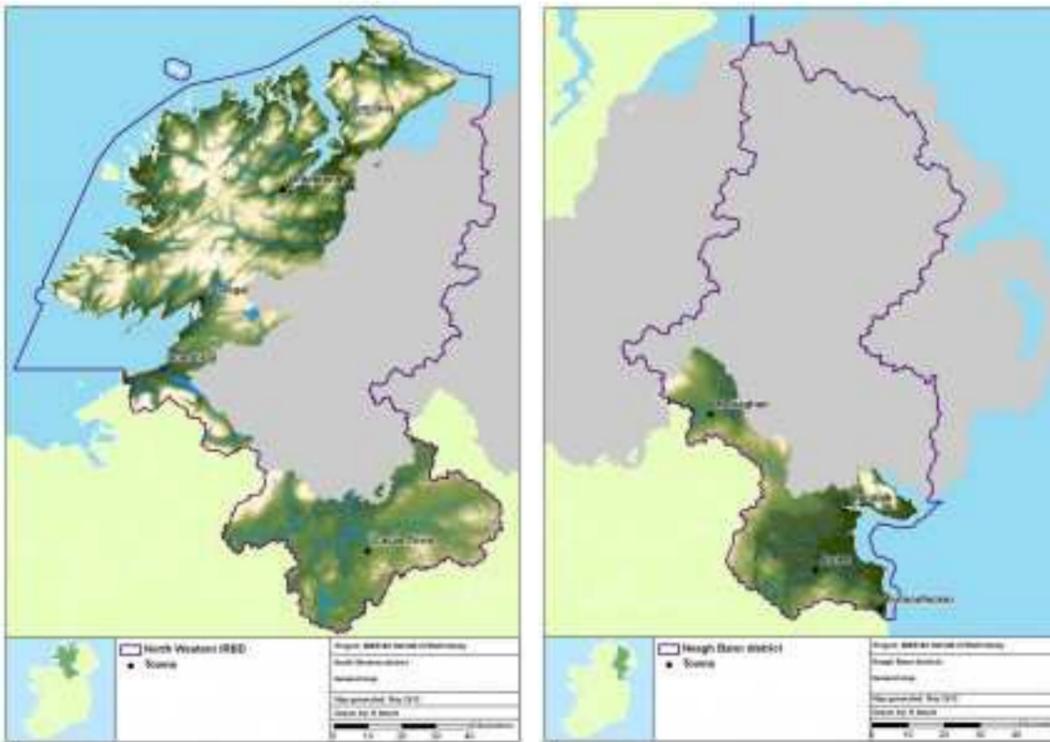
8.3.3 North Western – Neagh Bann CFRAM Study

The North Western – Neagh Bann Catchment-based Flood Risk Assessment and Management (CFRAM) Study commenced in the North Western and Neagh Bann districts in April 2012 and will run until the end of 2016.

The North Western district is a cross-border river basin district with approximately 7,400 km² in Ireland and 4,900 km² in Northern Ireland. It takes in all of County Donegal, large parts of Fermanagh, Cavan, Derry, Monaghan and Tyrone, significant areas of Leitrim and Longford and a small portion of Sligo. The district is home to less than half a million people and has a low average population density. Less than 2% of the land area is urbanised and many people live in small villages or single dwellings in rural areas. Most of the main urban areas are located at rivers, including Ballybofey, Buncrana, Cavan town, Donegal town, Letterkenny and Lifford. The fertile soils of the Foyle and Erne basins support beef, dairy, sheep and pig farming as well as crop cultivation. Further west the landscape is mountainous, with many coniferous forest plantations and some sheep and cattle grazing. The spectacular coastline, the surfing beaches and the remote beauty spots attract many tourists.

The Neagh Bann district is also a cross-border river basin district with approximately 2,000 km² in Ireland and 6,000 km² in Northern Ireland. It takes in all of County Armagh, large parts of Antrim, Lough, Monaghan and Derry, significant areas of Down, Meath and Tyrone and small areas of Cavan and Fermanagh. The district is home to over half a million people.

Most of the main urban areas are located alongside rivers including Ardee, Dundalk, Carrickmacross, Castleblaney, Dungannon, Monaghan and Newry. In rural areas many people live in small villages or single dwellings. Agriculture, mainly livestock grazing on pasture land, is the main activity in the district.



8.3.4 Eastern District CFRAM Study

The Eastern Catchment Flood Risk Assessment and Management (CFRAM) study commenced in the Eastern district in June 2011 and will run until the end of 2016. With a land area of approximately 6,300 km², the Eastern district accounts for one tenth of the land area of Ireland. It is home to rich agricultural land, holiday coastline, the city of Dublin and the towns which form the Greater Dublin Area and its commuter belt. Around 1.6 million people, 40% of Ireland's population, live in the Eastern district with the majority living in the Greater Dublin Area.



9. Flood Risk Review

Following the National Preliminary Flood Risk Assessment (PRFA) process a number of communities were identified within the respective catchment areas for County Cavan, as being 'Areas for Further Assessment'. The Flood Risk Review Report for Shannon Catchment and the Northwest –Neagh Bahn District CFRAMs set out the recommendations for 'Area for Further Assessment' based on the site visits (by consultant), but these recommendations form just one of the 'strands' that fed into the finalisation of the definitive CFRAM list. Consequently, some of the 'Areas for Further Assessment' recommendations in the Flood Risk Review Report did not necessarily make it into the final list of AFAs reported to the European Commission and being taken forward in the CFRAM Studies. A summary of these recommendations is outlined below in Table 1.

Table 1 - The Draft Preliminary Flood Risk Assessment Matrix - Table 2

Community/ Settlement	*www.CFRAM.ie Interactive Maps	Possible Areas for Further Assessment	Fluvial Indicative 1% (100 YR)	Probable Areas for Further Assessment
Arvagh			✓	
Ballinagh			✓	
Ballyconnell				✓
Ballyjamesduff			✓	
Belturbet			✓	
Ballyhaise			✓	
Bawnboy		✓		
Butlersbridge		✓		
Cavan Town				✓
Crossdoney			✓	
Cootehill			✓	
Kilnaleck			✓	
Kilinkere			✓	
Killashandra			✓	
Kingscourt			✓	
Lough Gowna				
Virginia		✓		

Source: PRFA –* www.cfram.ie –Indicative Extents an Outcomes for Draft Consultation

Table 2: Final Designation Areas for Further Assessment

ID Number.	County
360568	Cavan Town
360572	Ballyconnell

Source: The National (PFRA) Preliminary Flood Risk Assessment

PART C: RECOMMENDATIONS for the DRAFT PLAN

10. Conclusion & Recommendations

This Stage 1 Strategic Flood Risk Assessment has provided the framework for the completion of a Stage 2 & 3 SFRA, for the purposes of the Environmental Report for the Draft Cavan County Development Plan 2014 – 2020. The SFRA – Stage 1, has identified the key EU, National policy documents and Guidelines that are consulted in the preparation of the SFRA; sources of information and studies undertaken through the Office of Public Works, for the identification of areas or communities/settlements for Further Assessment.

It is recommended that:

10.1 Preparation of Phase 2 & 3 SFRA

- Specific Policies and Objectives be included into the Section of the Draft Cavan County Development Plan (2014 – 2020) to undertake a Stage 2 & 3 SFRA, within a specified time-frame during the lifetime of the Plan and to amend the plan, by way of Variation, to include a full SFRA, based on the settlements/communities identified in the Draft PFRA's
- That the information from the CFRAM studies for: The Shannon; the North-West; the Neagh-Bann and the Eastern District, when made available later in 2014, will inform the flood risk assessments in the County;
- The areas identified through this Stage 1 SFRA that contain flood risk indicators Identify site specific issues and recommendations from these studies to include identification of lands susceptible to flooding. Identify 'benefitting lands' and possible modifications to Zoning Maps.
- Include specific policies and objectives to safeguard against permitting inappropriate land uses and zoning in areas – communities/settlements where a floodrisk has been identified as listed in the Table 1 & 2 above.

10.2. Surface Water Drainage

That the Draft Plan be amended to include an explanation and policies on Surface Water Drainage be included as follows:

Surface Water Drainage is a key issue in terms of flooding and proposals relating to development should be required to include Sustainable Urban Drainage Systems (SUDS).

Surface water drainage systems are designed to channel storm water (rainwater to the nearest suitable river. Rain falling on impervious surfaces is usually directed to surface water drainage systems. Best practice is to separate the surface water drainage system from the foul drainage system to maximise the efficiency of our waste water treatment plants.

It is recommended that the following statement be included in the Draft Plan:

Surface water Drainage Systems are effective at transferring surface water quickly, but they can cause the volume of water in the receiving watercourse to increase more rapidly thereby increasing floodrisk. Sustainable Urban Drainage Systems can play a role in reducing and

managing run-off to surface water drainage systems as well as improving water quality. For larger developments, the use of Sustainable Urban Drainage Systems (SuDS) techniques will be favoured.

10.3. Development Management Standards

In considering the recommendations in the Guidelines on the Planning System and Floodrisk Management, the following standards shall be included in the Draft Plan:

- Individual developments shall be required to provide surface water drainage system that is separated from the foul drainage system;
- In the case of all one-off rural dwellings or extensions, except in circumstances where an existing surface water drainage system exists, and in the opinion of the Planning Authority the site has adequate capacity to accommodate the identified surface-water loading, surface water shall be disposed of, in its entirety within the curtilage of the development site by way of suitably sized soak holes;
- In the case of driveways, drainage measures shall be provided to a detail acceptable to the Planning Authority, so as to avoid run-off from the site to adjoining public road;
- For all other Greenfield developments, the limitation of surface water run-off to pre-development levels will be required. Where a developer can clearly demonstrate that capacity exists to accommodate run-off levels in excess of Greenfield levels, then the Planning Authority shall give consideration to such proposals on a case-by-case basis;
- In the case of a brownfield development, whilst existing surface water drainage measures will be taken into account, some attenuation measures for surface water may be required at the discretion of the Planning Authority in the interests of balanced and sustainable development.
- All new development must be designed and constructed to meet the following minimum flood design standards:- where streams, open drains or other watercourses are being culverted, the pipework shall be designed to adequately accommodate the maximum anticipated flows. (Access should be provided for maintenance as appropriate).
- To give adequate allowance for climate change in designing surface water proposals a multiplication factor of 1.2 shall be applied to all river return periods up to 100 years, except in circumstances where the OPW have provided advice specifying the particular multiplication factor for return periods up to 100 years. In the case of rainfall, a multiplication factor of 1.1 shall be applied to rainfall intensities to make allowance for climate change requirements.

10.4. Monitoring and Review

As an interim measure, the recommended policies to be included in the Draft Plan shall suffice until such time as the additional information in the CFRAM mapping will be made available from the OPW later on in 2014 and the Stage 2 & 3 SFRA's are prepared. The policies and objectives included in the Draft Plan, shall be framed as an 'interim' measure to highlight the importance of avoidance of inappropriate development in areas at risk of flooding.

This Stage 1 SFRA is based on the currently available data and in accordance with its status as a 'work in progress' it shall be subject to modifications and review once the emerging datasets become available. In the interim any development proposal in areas identified at risk of flooding shall be subject to an appropriate level of flood risk assessment.

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¹⁶ The CLÁR Programme aims to tackle rural depopulation, decline and lack of services in rural areas.

¹⁷ Things to consider: - link between car transport and obesity, good pedestrian access, lighting, surfaces, security, encourages walking

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www.unesco.org

Water Framework Directive

www.wfdireland.ie

Glossary

Air Pollutants- are chemical, particulate matter, or biological agents that modifies the natural characteristics of the atmosphere.

Architectural Conservation Area - An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, taking account of building lines and heights, that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or that contributes to the appreciation of a protected structure, and whose character it is an objective of a development plan to preserve.

Aquifer - An underground layer of permeable rock, sediment (usually sand or gravel), or soil that yields water. The pore spaces in aquifers are filled with water and are interconnected, so that water flows through them. Sandstones, unconsolidated gravels, and porous limestones make the best aquifers. They can range from a few square kilometres to thousands of square kilometres in size.

Biodiversity - The number, variety, and genetic variation of different organisms found within a specified geographic region.

Brownfield Sites - Brownfield sites are urban development sites that have been previously built on and the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Carrying Capacity - The equilibrium maximum of the population of an [organism](#) is known as the ecosystem's carrying capacity for that organism. For the human population more complex variables such as [sanitation](#) and medical care are sometimes considered as part of the necessary infrastructure.

For Roads - this is the largest volume of traffic that a particular road or route can carry.

Catchment Area – is a drainage basin or area drained by a stream or other body of water. The limits of a given catchment area are the heights of land—often called drainage divides, or watersheds—separating it from neighbouring drainage systems.

The Cavan Town and Environs catchment area is the surrounding area from which a place draws its population (i.e. a town, hospital or school) or the area served by a water/sewerage scheme.

Development Objectives – is a statement of something which you plan to do or achieve.

Development Plan - The development plan is an aspect of [town and country planning](#) comprising a set of documents, which set out the [Planning Authority's](#) objectives, policies and proposals for the development and use of land in their area. The development plan guides and informs day to day decisions as to whether or not [Planning Permission](#) should be granted, under the system known as [Development Management](#). In order to ensure that

these decisions are rational and consistent, they must be considered against the development plan adopted by the Council, after public consultation and having proper regard to other material factors.

Ecosystem - An ecosystem is a natural [system](#) consisting of all [plants](#), [animals](#) and [microorganisms](#) ([biotic](#) factors) in an area functioning together with all the non-living physical ([abiotic](#)) factors of the environment.

Environmental Objectives – Objective - something which you plan to do or achieve and an Environmental Objective relates to the natural world, especially to its conservation

Emissions - Emissions are gases and particles released into the air as byproducts of a natural or man-made process. One of these processes is the burning of fuels to create electricity and other forms of energy. The emissions from burning fossil fuels contribute significantly to global warming and poor air quality.

Eutrophication - means an increase in [nutrients](#) typically compounds containing [nitrogen](#) or [phosphorus](#) in an [ecosystem](#). It may occur on land or in [water](#). The term is however often used to mean the resultant increase in the ecosystem's [primary productivity](#), in other words excessive plant growth and decay and even further impacts, including lack of oxygen and severe reductions in water quality and in fish and other animal populations.

Geological Diversity - The diversity of minerals, rocks (whether 'solid' or 'drift'), fossils, soils, land forms and geological processes that constitute the topography, landscape and the underlying structure of the Earth.

Geology – is the [science](#) and study of the solid matter that constitutes the [Earth](#) and encompasses such things as rocks, soil, and gemstones, geology

studies the composition, structure, physical properties, history, and the processes that shape Earth's components.

Geomorphology – is the branch of geology that examines the formation and structure of the features of the surface of the Earth.

GIS – Geographical Information Systems. Computer data system which holds data with reference to its geographical location and is capable of capturing, storing, analyzing, and displaying geographically referenced information.

Greenfield Site - A piece of open land that has not been previously built on.

Groundwater Protection and Groundwater Protection Scheme - Protection of underground sources of water (groundwater aquifer).

Certain developments are subject to special controls within defined areas close to aquifers.

Habitat - is the particular kind of environment inhabited by a particular [species](#). It is essentially the natural environment in which an organism lives.

Hedgerows - A natural or semi-natural row of bushes, shrubs and/or trees forming a boundary. Hedgerows define places, act as shelterbelts, and add to biodiversity. They also offer significant wildlife habitat, including wildlife corridors which allow wild animals to move across open countryside, and provide food, nesting and roosting places.

Infill Development - Refers to development taking place on a vacant or undeveloped site between other developments, i.e. an infill site.

Infrastructure - Drainage, water supplies, sewage treatment plants, sewerage networks, lighting, telephone lines, electricity supply, railways, roads, buildings, schools, community facilities and recreational facilities.

Landscape Character – Landscape is all the visible features of an area of land and the Character is the distinctive nature of something.

Local Area Plan - A Plan prepared and adopted in accordance with Section 10 of the Planning and Development Acts 2000-2006. These plans must be prepared for designated towns with a population in excess of 2,000 persons within the functional area of the Authority. They may also be prepared for areas which the Authority considers require economic, physical and social renewal and for areas likely to be subject to large scale development within the lifetime of the plan.

Mitigate – to make something less harsh or severe.

Natural Heritage Area (NHA) - These are the basic areas for wild life conservation in the country with over 800 in existence. These are chosen because they are considered by the Parks and Wildlife section of the DoEHLG to be of importance in an Irish context. As yet the formal process of designation of NHAs is not complete, as the process of consultation with property owners is not complete. It is possible for a landowner to object to the designation of property.

Note: responsibility for the designation of these sites lies with the Parks and Wildlife Section of the Department of the Environment, Heritage and Local Government.

Offset - Allowance made to counteract an effect

Policies – are a set of ideas or a plan of what to do in particular situations.

Population Density - The number of people per unit area (hectare, square kilometre, acre, square mile) determined by dividing the number of people in an area by the size of the area.

Protected Structure - A building, feature, site, or structure identified in the Development Plan as worthy of protection or preservation in accordance with Part IV of the Planning and Development Acts 2000 - 2006.

Recycling Centre - A centre that facilitates the recycling of plastics, glass, corrugated cardboard, newspapers and/or other recycleable goods.

Residential Density - The number of residential units per area unit (hectare).

Run Off – rainfall or other liquid that drains away from the surface of an area.

Salmonid River – is a river that supports salmonid species such as salmon, trout, whitefish, and char. They are particularly sensitive to pollution.

A Special Area of Conservation - is defined in the [European Commission Habitats Directive \(92/43/EEC\)](#), also known as the Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. They are to protect the 220 habitats and approximately 1000 species listed in annex I and II of the Directive which are considered to be of European interest following criteria given in the Directive. They must be chosen from the [Sites of Community Importance](#) by the State Members and designated SAC by an act assuring the conservation measures of the natural habitat.

A **Special Protection Area** or **SPA** - is a designation under the [European Union directive](#) on the Conservation of Wild Birds ([79/409/CEE](#)). Member States of the [European Union](#) have a duty to safeguard the [habitats of migratory birds](#) and certain particularly threatened birds.

Strategic Environmental Assessment (SEA) - is a system of incorporating environmental considerations into policies, plans and programmes. It is sometimes referred to as Strategic Environmental Impact Assessment. The specific term **Strategic Environmental Assessment** relates to [European Union](#) policy.

Sustainable Development - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Topography - Features of a place or district, the position of its rivers, mountains, roads, buildings etc.

Tree Preservation Orders - An order made by the Council for the preservation of any tree, trees, group of trees or woodlands. The order may prohibit the cutting down, topping, lopping or wilful destruction of trees, except with the consent of the County Council, which may be granted subject to conditions.

Vernacular - The traditional architecture of a region, frequently developed in response to the climate, land conditions, or culture of a region.

Water Framework Directive - The EU Water Framework Directive came into force in December 2000 and requires that stricter water quality regulations will have to be taken on board. It demands a more comprehensive and integrated approach to water management and will have significant implications for resources given its scope and ambitious targets. The WFD will govern all aspects of the aquatic environment including surface and groundwaters. A 16-year implementation time frame is envisaged to achieve at least 'good status' for all waters. The catchment-based approach to water quality is enshrined in the Directive and Member States are required to develop River Basin District Management Plans by 2009. Local authorities will have a key involvement in managing the RBD Projects and implementing the RBD Management Plans.