

Strategic Environmental Assessment

Environmental Report on Draft County Development Plan 2015 - 2021

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Leitrim County Council

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I. Non-Technical Summary - Introduction

The development plan is central to achieving greater balance in regional development and enabling all areas to develop to their maximum potential. The plan creates the vision for the area it covers, it specifies the type, amount and quality of development needed to achieve that vision and seeks to protect and enhance the environment and amenities. It creates the policy framework and necessary degree of certainty within which individual development decisions can be made over the life of the plan.

A Strategic Environmental Assessment is undertaken in accordance with the EU SEA Directive 2001/42/EC which has been transposed into Irish law.

The findings of the SEA are expressed in an Environmental Report which is submitted to the Elected Members, or a committee of the Planning Authority, alongside the Plan and other relevant documentation. The Elected Members must take account of the Environmental Report before the adoption of the Plan. When the Plan is adopted, a Statement must be made public, summarising, amongst other things, how environmental considerations have been integrated into the Plan and the reasons for choosing the Plan as adopted over other alternatives detailed in the Environmental Report

Refer to page of Contents for the list of Figures, Tables and Appendices associated with this Report. The page of Contents also contains a list of the Main Issues to be address in the body of this report.

1. Environmental Assessment

The environmental assessment of the policies and objectives of the County Plan is the central component of the Report. The methodology used in the Report included the use of a series of matrixes, which were used to refine, and focus policies and objectives used in the County Plan. In predicting likely significant impacts of the plan, existing data sources were used as baseline data.

Strategic Environmental Assessment (SEA) is a process to ensure that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, communicated to decision-makers, and monitored. The purpose of the environmental report is to identify, evaluate and describe the likely significant effects on the environment of implementing the County Development Plan. The environmental report is the primary element in the SEA process and is recognised as a key mechanism in promoting sustainable development.

2. Methodology

A decision was taken at the outset by the Executive and supported by the Elected Members that the Development Plan, Strategic Environmental Assessment and related documents would be prepared in-house. The work involved was lead by a team of professionals who have a good working knowledge of planning and environmental matters within the County. It was considered that such an approach would lead to a more bespoke Plan. Also and importantly it would lead to efficiencies whereby economic, social and environmental concerns would transpose more directly into the Draft Plan than would have happened had these documents been prepared through a combination of in-house and out-of-house workings.



It can be said that the considerations of the environmental issues raised during the consultation period featured strongly in the making of the Plan and have had a significant influence on the outcome of the Plan.

Those environmental issues that may be more appropriately dealt with at a different level of assessment have accordingly not been dealt in detail in the SEA.

(1) Environmental Themes

The county is endowed with a wide range of environmental resources, which need be acknowledged and dealt with appropriately within the Development Plan. The environmental issues are dealt with under the following themes:

- Population and Socio-economic Profile of the County
- Settlement Strategy
- Water Quality
- Biodiversity (including flora, fauna)
- Landscapes/Geology
- Climate Change and Flood Risk
- Agriculture and Forestry
- Cultural Heritage including Archaeology
- Air, Quality
- Material assets

3. Baseline Data

In order to facilitate the identification, evaluation and monitoring of the impacts of the Plan, baseline data focused on relevant aspects of the environment that are likely to be significantly affected, is presented in the report.

4. Policy Context

The review of the existing County Development Plan and the making of the new Plan must be considered within the context of a hierarchy of policies, plans and strategies which include international, EU, national, regional and local levels.

The Planning and Development Acts 2000-2014 requires that, so far as it is practical, a Development Plan shall be consistent with national plans, policies and strategies, which relate to the proper planning and sustainable development of an area covered by the plan. In addition, Development Plans, should have due regard to any guidelines issued by the Minister for the Environment, Heritage and Local Government.

The Planning and Development Acts, 2000 – 2014, specifically requires Planning Authorities to have regard to ministerial guidelines from the Department of the Environment, Heritage and Local Government.

The Planning Authority will also have regard to any further guidelines published by the Government during the lifetime of the plan.

5. Assessment of Aims, Policies and Objectives

Based on an understanding of the existing and emerging environmental conditions in the County, a series of Strategic Environmental Objectives (SEO's) were developed to assess the potential effects of the implementation of the Draft Plan on the environment.

The SEOs are used as standards against which strategies, policies and objectives of the Draft Plan, including the zoning provisions, can be assessed in order to help identify areas where significant adverse impacts might occur, unless appropriate measures are applied.

The SEOs were applied to strategic goals, framework and policies and objectives of the pre-Draft Plan and a matrix was formed giving a clear indication of the potential environmental impacts of the Draft Plan.

The aims, policies and objectives contained within the Draft Plan are founded on the principle of sustainable development and in particular the protection of the environment and the improvement of the quality of life of those who live in, work in and visit the County. In general terms it is considered that the implementation of the Draft Plan will have a positive impact on the environment. Where a proposed plan or programme may have the potential for a significant impact on the environment, a plan or programme it will not be permitted, unless the Planning Authority is satisfied that such an impact can be avoided or mitigated to an acceptable level*.

The assessment of aims policies and objectives indicated;

- That the implementation of the Draft Plan will, in general terms, have an overall positive impact on the environmental status of the County and wider area.
- Whereas a significant number of aims, policies and objectives will have an overall positive impact, many of these will be accompanied by the potential for environmental conflict; however such conflicts are likely to be mitigated to an acceptable level* The potential conflicts highlighted above are not considered so significant as to compromise the integrity of items and features of acknowledged importance such as; water quality, biodiversity, flora and fauna, the character of the landscape, cultural/architectural/archaeological heritage, soil and in particular human wellbeing.
- That the implementation of the Draft Plan will not give rise to probable environmental conflicts that are unlikely to be mitigated to an acceptable level.

It may therefore be concluded, that the implementation of the Draft Plan will have an overall positive impact on the environmental status of the County and its area of influence and will not, either on its own or taken in combination with other relevant plans or programmes, give rise to any significant adverse environmental impacts that cannot be mitigated to an acceptable level¹.

6. Mitigation

It should be noted that Strategic Environmental Assessment is an integral part of the development of the Draft Plan. Its final iteration incorporates policies that have evolved in a manner that seeks to anticipate and avoid potentially adverse impacts on the environment.

¹ An acceptable level is deemed to occur when the conflict with the status of the SEO would be rendered benign or reduced through mitigation measures and thereby become acceptable in terms of well established principles of proper planning and sustainable development.



Remaining potentially adverse conflicts or impacts may be characterised as ‘residual impacts’. These are unavoidable potential impacts that remain after all mitigation measures have been put in place. The majority of these are potential impacts which are likely to be capable of further mitigation through careful, detailed implementation of Local Area Plans, Town and Village Plans and through the Management Control process.

7. Monitoring

Article 10 of the SEA Directive requires that monitoring be carried out in order to identify at an early stage any unforeseen adverse effects due to the implementation of the Plan, and to be able to take remedial action. Monitoring and review are key elements of the effective implementation of the County Plan. It ensures that social, economic and physical objectives are fulfilled and that quality of life issues can be assessed.

8. SEA Statement

The completed SEA must be accompanied by an Environmental Statement setting out how environmental considerations have been taken into account and integrated into the Plan. The following is an extract from that statement. The full Statement will be displayed alongside the County Development Plan.

II. Alternative Approaches to the making of the Draft Plan

1. Description of Alternatives

Article 5 of the SEA Directive requires the Environmental Report to consider “Reasonable alternatives”. The following five alternatives were formulated and assessed as part of the making of the Draft Plan.

(a) Market Lead Approach – Reactive Planning.

This approach would involve minimal intervention in terms of strategic planning. It would involve allowing development to follow market forces to a greater extent and would take more of a short term planning approach. It would most likely lead to a highly dispersed settlement pattern and would lead to a weakening of towns and villages. Development would not be directed towards properly serviced, robust receiving environments; rather development would be dealt with as it arises on an *ad-hoc* basis.

(b) Economic Lead Planning Approach

This approach would involve the implementation of a long-term strategic planning approach, marked by a strong role for the larger towns (Tier 1 and 2) with the containment of development in areas outside serviced centres and within environmentally sensitive areas. In particular it would have a strong focus on the development of Carrick on Shannon and Manorhamilton as engines for economic growth. This approach would be marked by focusing on the provision of improved and increased infrastructural services and facilities in and between the larger towns and directing development towards these centres.

(c) Environmental Lead Planning Approach

This approach would offer strong protection to those items of the natural environment, which is of acknowledged importance, such as visually sensitive areas, areas of ecological interest and other vulnerable receptors. It would have the effect that environmentally sensitive areas would be managed in the main in terms of their intrinsic value and would in

the main be reserved for their amenity value. The risk of pollution to water quality and avoiding the use of the car or interference with the ecology would be of primary importance, placing very heavy constraints on development outside of serviced areas and in particular on one-off housing in the countryside. Similar to the economic plan lead approach it would have the effect of focusing development on the larger centres with a consequent decline in the social, cultural and economic wellbeing of rural areas.

This approach would have similar impacts to those outlined in (b) above, however the degree of the protection offered to the environment would be greater and the level of economic growth less.

(d) Sustainable Development Lead Planning Approach

This approach would involve the implementation of a long-term strategic planning approach, marked by a strong role for the towns, villages and other centres; Tier 1, 2, 3, 4 centres and other established settlements referred in the plan as Graigs. This approach would be in accordance with the key principles associated with sustainable development, i.e. having due regard to economic, environmental and social considerations. It would provide for a more balanced development pattern throughout the county with a strong emphasis on supporting the social and cultural fabric of the smaller settlements and rural communities.

(e) Do Nothing Approach

The “do-nothing” approach represents a continuation of present trends, without any significant policy changes or infrastructural improvements or consideration of new standards in terms of development management or the views of the public or other interested parties - which might be included in the Draft Development Plan. This approach has therefore been dismissed as a viable option.

2. Assessment of Alternatives

Having regard to the overall principles which underpin the concept of Sustainable Development the “Sustainable Development Plan Lead Approach” was considered to be the preferred option. This approach is best placed to achieve a proper balance between economic, environmental and social considerations. Leitrim is predominantly a rural county and it is the primary aim of the council to protect and reinforce the population base that underpins the important social, cultural and economic fabric that defines the county.

III. The Draft County Development Plan 2015 - 2021

1. Introduction

The County Development Plan 2009 – 2015 came into effect on 13rd February 2009 and remains in effect for a six year period. A variation to the Plan was carried out primarily to ensure that the County Development Plan is compliance with the Core Strategy provisions introduced by the Planning and Development (Amendment) Act 2010, the Border Regional Planning Guidelines 2010 - 2022 and also to update proposals in respect to preferred routes for; the N4 Carrick on Shannon By-pass, the N16 Manorhamilton By-pass and N16 Manorhamilton to County Boundary.

The development plan is central to achieving greater balance in regional development and enabling all areas to develop to their maximum potential. The plan creates the vision for the area. It covers, specifies the type, amount and quality of development needed to achieve

that vision and seeks to protect and enhance the environment and amenities. It creates the policy framework and necessary degree of certainty within which individual development decisions can be made over the life of the plan.

(1) Mission Statement

The Mission Statement for Draft County Leitrim as defined in the Plan is as follows:

The Council's Vision and Mission Statement, is as follows;

Our Vision

"County Leitrim to be a vibrant, socially inclusive, progressive and distinctive county, providing a good quality of life for all who work, live and visits the county and offering equal opportunities for employment to its people; while protecting, conserving and enhancing the best of the natural and built environment."

Our Mission Statement

"To guide and secure the sustainable development of the County, provide efficient and effective local government services and facilities and place people first, so that Leitrim becomes a vibrant, socially inclusive, progressive and distinctive county"

(2) Strategic Goals and Framework

The Strategic Goals, which form the framework for the formulation and evaluation of the policies, objectives and development control standards, are set out in the Draft Plan in respect to; Resources Environment and Heritage Economic Development Transport and Communications and Social Development.

The Strategic Goals set are translated into a Strategic Development Framework. This provides a broad indication of the main areas of growth and development to be provided for, and how this is to be accommodated geographically.

Encourage the further development of Carrick-on-Shannon, Manorbhamilton and Ballinamore. These towns are identified as the principal engines for future economic development of the County. However, the Council recognises the need to provide sufficient incentives for private sector investment in all parts of the county. The Council will seek to ensure that all towns and villages will receive equal opportunity to develop their potential to the fullest, and to prosper. The Council will also seek to ensure that the full range of physical, social and commercial services will be available in them on a self-sustaining basis into the future. The Council will also actively promote and support all efforts to have further Government Offices decentralised to County Leitrim.

Reinforce the commercial viability and attractiveness of all the other towns and villages in the county. The Council is aware of the need to make use of existing infrastructure and facilities and will seek to ensure a balanced range of accommodation and ancillary development where services (physical, commercial and institutional infrastructure) are already in place.

Provide for rural accommodation, where it will help to meet primarily local needs and help to support and maintain communities and services.

Protect important wildlife habitats within Special Areas of Conservation (SAC) and Natural Heritage Areas (NHA).

Designated sites receive full protection under the EU Habitats Directive 43/92/EU and the European Communities (Natural Habitats) Regulations 1997, transposed into Irish law in the Wildlife (amendment) Act 2000. This law gives full protection to Natural Heritage Areas once designated. The Council is required to ensure that proposed developments comply with the requirements of the Habitats of the implications of development proposals is undertaken when planning permission is required. This applies to all development proposals likely to have a significant impact on the Special Areas of Conservation / Natural Heritage Areas [SAC/NHA] irrespective of whether they are located within the area or not.

Enhance the distinctive character of the landscapes of Co. Leitrim in accordance with the European Landscape Convention and the Landscape Assessment Guidelines published by the Dept. of the Environment, Heritage and Local Government. The Plan will have regard to the County's own Landscape Character Assessment.

Protect the archaeological heritage, as required by the European Convention for the Protection of Archaeological Heritage, Valletta 1992, ratified by Ireland in 1997. Archaeological Heritage includes those sites and monuments identified on the statutory Record of Monuments and Places, archaeological sites that may not have been recorded yet, sub-soil archaeology and the context and setting of archaeological sites.

Protect the architectural heritage through the establishment and continual review of the Record of Protected Structures, as required by Section 51 of the Planning and Development Acts 2000. 2014 The Record of Protected Structures shall include structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the county.

Recognise the importance of the improvement of the N4, N16, N15, R280, R202, R209, 208 and R199 as major factors in attracting investment, securing job opportunities and promoting growth throughout the county;

Secure community benefits through the provision of infrastructure, recreational, wildlife, social and other facilities through the use of planning agreements and development charges from new development, where appropriate and relevant;

Promote the implementation of Public Private Partnership (PPPs) between the Local Authority and the private sector for the purpose of providing public infrastructure, community facilities and related services;

Community-based initiatives based on the economic, social and cultural development of the County and wider area;

Support Cross-Border Regional projects supported and funded through the Special European Union Programme Body (SEUPB), for example, the Border Upland Project linking the Geo Tourism of the Marble Arch Caves for Counties Leitrim, Sligo, Cavan and Fermanagh.



Map of County indicating Settlement Hierarchy and Road Network

IV. Population and Socio-Economic Profile

County Leitrim is the smallest in terms of population of the six counties in the Border Region. It has experienced a declining population since the mid 19th century. Over much of the last

century, the population of Leitrim has been in decline. At the time of the 1996 Census of Population, the county had a population of 25,057 people, reflecting a 60.5% population decline in the seventy year period from 1926 and a decline of 7.6% in the period from 1986 to 1996. However, this decline has changed to a steady growth between the 1996 and 2011 census population as indicated below.

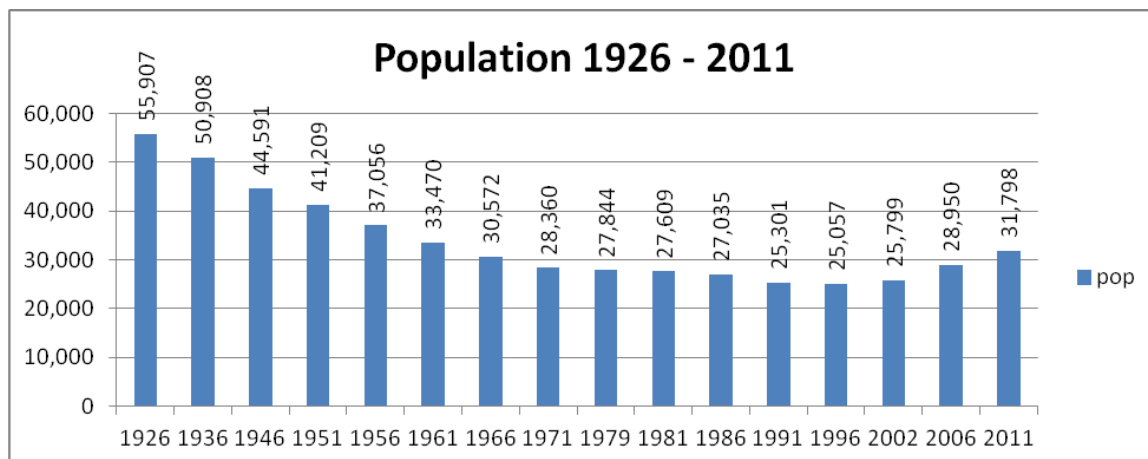


Table 1 Population 1926 – 2011

Source: CSO

The population of Leitrim increased by 3% between 1996 and 2002 (the first increase in the county's population since records began) and the 2002 - 2006 showed a population increase of 12.2%.

Employment and Unemployment

Working Age Population (15 and over, 2011)		24,919
Labour Force (2011)	15,019	Participation Rate 60.3%
Unemployed (2002 Census)		949 Persons (8.7% of Labour Force)
649 Males	300 Females	
Unemployed (2011 Census)		3,047 Persons (20.3% of Labour Force)
2,105 Males	942 Females	
Live Register (December 2012) Number		3,398
Male		2,158
Female		1,240
Youth (U-25)		516
Number Employed		2002: 9,990 2011: 11,972
Employment Growth (2002-2011)		1,982 (+19.8%)

V. Human Health

Human health, in the context of being subjected to significant effects as a consequence of the proposed Leitrim County Development Plan 2015– 2021, was assessed with reference to



how environmental elements and their existing issues and evolution may impact on the health of Leitrim inhabitants and visitors.

Human health encompasses an enormous area of study and includes, *inter alia*, everything from physical and mental disabilities, long-term illness, acute and chronic disease, mental health and aging populations.

As part of the Census of Population in 2011 undertaken by the Central Statistics Office, questions were asked regarding personal perceptions of an individual's health with options to rate personal health from very good to very bad. Leitrim fared quiet well on the human health front, when placed 13 of the 34 other enumeration areas. Health in Leitrim is perceived to be better than any of the Connaught counties and the Border Region with the exception of Cavan.

Epidemiological studies undertaken nationally and on an international scale indicate that a number of environmental factors are casual factors in deteriorating human health. Sources of health problems arising from environmental conditions may arise from areas such as; Air Noise Water Geology and Biodiversity.

The current dispersed rural nature of the County's population gives rise to an increased dependency on unsustainable modes of transport, which could impact on air quality and climate factors; indirectly on human health. In addition, there is also an increased dependency on private waste water treatment systems in rural areas that could have negative impacts on groundwater and drinking water quality, which in turn could have adverse impacts on human health.

'Activities/Uses' that have potential to cause harm to humans will need to undertake an appropriate level environmental assessment considering the likely impact of this 'activity' or use directly and indirectly on humans.

The Draft Plan contains a raft of measures that are aimed at the protection of human health.

VI. Settlement Strategy

The county has undergone significant change during the currency of the existing County Development Plan in terms of residential development and population change. This change has not been consistent throughout the county. A feature of this change has been the high level of residential vacancy, an average of 30.4 % in 2011 for the County, as opposed to 14.7% for the State, (CSO 2011)

County Leitrim is a pre-dominantly rural county with one larger urban centre (Carrick on Shannon) and 6 other main towns (Ballinamore, Drumshanbo, Manorhamilton, Mohill and Kinlough). Carrick on Shannon, Ballinamore and Manorhamilton are designated as 'Key Towns' within their respective Municipal Areas. Mohill, Drumshanbo and Dromahaire have been designated as 'Support Towns' to the respective Key Towns mentioned. Settlement policy broadly guides where new development will occur in the county and is a fundamental component of spatial planning.

A Land Use Strategy in respect to selected towns and villages has been formulated and incorporated into the Draft Plan in respect to the strengthening of towns, villages and other

centres and in order to counteract undue segregation in housing between persons of different social backgrounds.

A twin-track approach has been adopted towards the accommodation of residential development in the countryside.

In the first instance small-scale settlements were identified as Graigs. These are nodes with an established identity consisting in the main of some form community facility and a number of dwelling houses. These nodes that are considered suitable for the development of small scale housing schemes or single dwelling houses

The second part of the approach was to identify the capacity of the countryside to absorb one-off housing having regard to issues in terms of environmental sensitivity, population trends, vacancy rates and the existing level and pattern of development in the area. Areas of High, Medium and Low capacity have been identified with policies assigned to each of the three areas.

VII. Water Quality

Local authorities have the responsibility to protect and improve water quality in all lakes and rivers in the country. These lakes and rivers are a valuable natural resource and provide sources of drinking water, centers for tourism, recreation and amenity uses. Surface water quality has been on the decline in Ireland for many years.

The management of water resources based on catchments or river basin districts have been instigated at European Union level with the introduction of the Water Framework Directive in the year 2000. The European Communities (Water Policy) Regulations 2003 enacted on the 22nd December 2003 brings this legislation into Irish law

County Leitrim straddles three river basin districts which may be simply described as the Erne or NorthWest RBD, the Garavogue/Bonnet or Western RBD and the Shannon RBD.

These large areas have been sub-divided for management purposes into a total of seven Water Management Units. A Water quality status has been assigned to each water body within these seven areas. A water body consists of a defined length of river or a lake. The status was assigned following an extensive monitoring programme which included both biological and physical/chemical metrics. Thresholds were established for each set of metrics which would define boundaries for five status bands – Bad, Poor, Moderate, Good and High. For example, one of the physical/chemical parameters is Phosphorous. For a surface water to achieve a status of “Good” the average Phosphorous level must be below 0.035 ppm. However, if the other parameters do not comply with their criteria for “Good” status, then the water status will be defined by the worst performing parameter. However, most economic development and human activity generates phosphorous making it a suitable marker to inform County Development Policies and likely effects.

Leitrim Co. Council has adopted the three river basin plans committing itself to achieving their goals in accordance with the EU Water Framework Directive. Simply stated, these are, the prevention of the deterioration of the status of any waters and the return of all waters to “Good” status, -by 2015 for those currently at “Moderate” status.

Comprehensive details, including maps, in relation to the status in terms of water quality of each of the 7 Water Management Units which cover the entire County of Leitrim are available at; <http://www.wfdireland.ie/maps>.

The water is sub-divided between groundwater and surface water,(- streams, rivers and lakes), made up of local and regional aquifers which are ultimately connected to surface waters via underground streams, springs or porosity in the soils/rock formations.

Groundwater is protected from the ingress of pollution by heavy clay soils but prone to pollution where soils are thin or in karst areas where the landscape features include outcrops of limestone bedrock, swallow holes or turloughs. In these conventional areas, soils do not have the capacity to absorb nutrients or to kill off bacteria. These areas are not suitable for single house treatment systems (OSTPs) or for the spreading of animal slurries. Areas prone to groundwater pollution would include pockets around Newtowngore, east and north of Manorhamilton and around Leitrim and Gowel.

The primary cause of decline in water quality can be attributed to input of nutrients into lakes and rivers. The main nutrient of concern is Phosphorus, which is a natural nutrient needed for plant growth. Phosphorus is found in abundance in domestic sewage, farmyard run-off, animal slurries, milk washings, silage effluent, artificial fertilizers and many industrial wastewaters.

Whereas an individual wastewater treatment serving a one-off dwelling house may not have a significant impact on the environment, the cumulative impact of such system may give rise to pollution. Considering the poor ground conditions that exist over a significant area of the County and considering that many of the older systems are catering for a different type loading than that envisaged when installed, careful management of the environment is required in order to avoid the risk of pollution and risk to public health. The application of the 2009 EPA Wastewater Treatment Systems for Single Houses is a significant mechanism in ensuring that best practice is followed in terms of assessing the suitability of a site to accommodate wastewater treatment systems. The Council is currently examining treatment systems that have the potential to comply with the the EPA requirements.

VIII. Biodiversity, Flora and Fauna

(1) Special Areas of Conservation (SAC's)

These were established under the 1992 Habitats Directive of the Council of the EU for the conservation of natural and semi-natural habitats and species of flora and fauna. Special Areas of Conservation (SAC's) are the prime wildlife conservation areas in Ireland. Regulations, 1997 set out how these SAC's are to be protected and managed by the relevant Planning Authorities.

(2) Natural Heritage Areas and Proposed Natural Heritage Areas (NHA's)

These habitats are of national importance established under the Wildlife Act. Natural Heritage Areas (NHA's and pHNA's) established under Irish law, similar in general principle to the SACs but covering a somewhat larger geographic area. Figure 21 indicates the location of the NHA's and pHNA's.

(3) Special Protection Areas (SPA's)

Special Protection Areas (SPAs) for the protection of birds, established under the Birds Directive of the EU in 1979. Figure 20 shows the location of the SPA's.

(4) Bird Sanctuaries

County Leitrim is visited by many species of migrant birds and is host to a number of endangered species. The habitats, breeding grounds and refuge areas for such species will be considered for protection as the need arises or as appropriate sites are identified by the Planning Authority.

IX. Landscapes/Geology (including Soil)

County Leitrim contains a great variety of landscapes. High moor topped mountains in the north of the County rise above drumlin covered lowlands and glens which extend to a short but dramatic stretch of coastline. In the south of the County, drumlins cloaked in lush green pastures, extend over many miles and are interspersed with hilly outcrops, loughs, rivers, wet pasture and raised peat bogs. Human interaction with the natural environment has created a wide range of distinctive rural landscapes and settlement patterns. A Landscape Character Assessment of the county informed the designation of areas of Outstanding Natural Beauty, High Visual Amenity and the capacity of areas to absorb forestry and windfarms.

X. Climate Change and Flood Risk Management

Current climate change scenarios almost all suggest an increase in the amount of rainfall during winter. Flood-generating rainfall events will be more frequent, and catchments will be wetter for longer.

The Office of Public Works (OPW) is the lead State body for the coordination and implementation of Government policy on the management of flood risk in Ireland. The OPW is also the national authority for the implementation of the EU Directive on the Assessment and Management of Flood Risks [2007/60/EC]. For further information in respect to flood risk management see the OPW site².

XI. Agriculture and Forestry

In any strategy for the future of Leitrim's farming, considerable thought will have to be given to ways of offsetting the continuing decline in farm numbers and in full-time farmers by farm diversification or the creation of new sources of off-farm income. There is a huge need to ensure that rural communities continue to be viable and that will necessitate a sustainable agricultural base for the County.

Over the last census period (2006 – 2011) there has been a significant decline in livestock numbers both nationally and locally in the case of Leitrim. Such a drop represents a decline in traditional agricultural activity within the County.

² Accessible at <http://www.opw.ie/en/FloodRiskManagement/>



A significant number of planning applications for farm buildings, (particularly slatted sheds) have been made within the last decade. This has resulted in significant changes to agricultural practice in terms of the long term housing of animals and the subsequent spreading of slurry on land. The inappropriate spreading of slurry can have a significant environmental impact. Alongside these changes it is reasonable to conclude that there have been significant improvements in the environmental management of farms arising mainly from the requirements of the REPS scheme. These changes have resulted in both positive and negative environmental impacts.

Leitrim also has a relatively high level of afforestation, with one in every seven acres of land being planted. Almost two-thirds of plantings have been by the public sector.

Whereas the Council has a consultative role in respect to afforestation, the management of afforestation is largely outside the control of the Planning system. Afforestation has the potential to have both positive and negative environmental impacts. In terms of positive impacts the planting of deciduous trees can add to the biodiversity of an area. Afforestation can become an amenity in terms of providing recreational areas.

Much of the plantings have been of Norse evergreens, which have the potential to increase acidity levels in watercourses, with consequential adverse effects on fishing stocks. Such planting schemes can also lead to a loss in biodiversity, an adverse impact on the character of the landscape, social isolation and damage to public roads.

XII. Cultural Heritage (including Architecture and Archaeology)

Leitrim is reasonably well supplied with arts and cultural centres, facilities and events. It has a higher than average range of 'arts education' courses for a population of its size. The County has a rich archaeological and architectural heritage.

County Leitrim exhibits high levels of community-based activity. It is estimated that there are over 300 community groups in the County. This is a very significant resource which should be fostered and developed.

One of the main issues to be addressed in the County Development Plan is how we can protect our architectural and archaeological heritage while recognising the need for continued development. Sympathetic re-use and/or development of structures, including appropriate contemporary design additions near a protected structure, can allow our architectural and archaeological heritage to continue to offer aesthetic, environmental and economic benefits for future generations.

The archaeological heritage of County Leitrim is a unique resource, which has shaped our landscape and our cultural identity. Archaeological remains of special interest are included in the 'Record of Monuments and Places'. The National Monuments Acts 1930 – 1994 provide for protection of our archaeological heritage. The Department of the Environment, Heritage and Local Government National Monuments Section has a specific role in relation to the protection of the archaeological heritage.

Each Local Authority has a legal responsibility to include a Record of Protected Structures in its County Development Plan. The Council can add or delete from the Record of Protected Structures at any time but the Review of the County Development Plan is a good time to consider these changes.

Places, areas, groups of structures or townscapes of special interest may be designated as Architectural Conservation Areas (ACA's).

XIII. Air Quality

A suite of new EU Directives setting out a completely new approach to the monitoring, assessment and management of air quality has been adopted in recent years. The objectives of the new Directives include avoiding, preventing and reducing the impact of harmful air emissions on human health and the environment.

Ireland does not have serious outdoor air quality problems. This is largely due to the eradication of the burning of coal in many urban areas during the 1980s and the early 1990s.

Air pollution can affect the health and well-being of sensitive population groups and ecosystems. The EPA has overall responsibility for the co-ordination of ambient air quality monitoring in Ireland in accordance with EU Directives.

XIV. Material Assets

Material assets within Leitrim include the following:

- Built environment (protected structures/ archaeological monuments)
- Infrastructure (roads, telecommunications, wastewater, drinking water)
- Natural assets (quarries, agricultural production, forestry and SAC's, SPA's and NHA's).

Certain material assets are dealt with under separate Sections within the main Section of this Report, e.g. protected structures / archaeological monuments, forestry, SAC's SPA's and NHA's. The following material assets are dealt with in the main Section XXXII Material Assets.

- 1. Public Wastewater Treatment Plants**
- 2. Drinking Water Supply**
- 3. Roads**
- 4. Rail, Bus and Port Infrastructure**
- 5. Telecommunications & Information Technology**
- 6. The Extractive Industry**
- 7. Unconventional Gas Exploration and Extraction (UGEE)**



XV. Significant Environmental Issues & Additional Mitigation Measures

1. Introduction

The development of the County has the potential to impact on the environment at a regional, county and local level. New development brings with it a need for supporting infrastructure, community services and facilities. Key environmental issues that arise include; water supply, treatment of waste water and transportation. Increased population growth in the region is likely to give rise to an increase in car use, particularly where public transport and rail freight is not readily available. This can lead to negative impacts in terms of carbon emissions, air quality and human health.

The more significant environmental issues identified during the SEA process include settlement patterns, water quality, biodiversity, landscape and cultural heritage, afforestation, energy supply, climate change, flood risk, waste management. The provision of a good quality of life for the people who live, work or visit the region is considered to be a key objective of the SEA process. Securing economic development and social equity, together with preserving and enhancing the urban and rural character of the region, are closely associated with environmental issues.

The Council is cognisant of the significant planning and environmental issues and public concerns relating to the use of Unconventional Gas Extraction and Exploration involving hydraulic fracturing. These concerns have been highlighted in; the media, in submission received at pre-draft stage and by the Elected Members. These concerns have been reflected in the formulation of the Draft Plan.

To date, air quality and noise pollution have not been raised during the consultation process as significant environmental issues, however they have been scoped-in, due to potential indirect environmental impacts.

XVI. Assessment of Strategic Aims, Policies and Objectives

This section examines the potential effects of implementing the Draft Plan on the environment. This is achieved through the examination of Strategic Aims, Policy, and Objective, proposed by the pre-Draft Plan under headings that indicate whether the implementation of the Draft Plan is likely to improve, conflict or have a neutral effect on the environment (see table below).

The assessment of aims policies and objectives outlined indicated;

- That the implementation of the Draft Plan will, in general terms, have an overall positive impact on the environmental status of the County and wider area.
- Whereas a significant number of aims, policies and objectives will have an overall positive impact, many of these will be accompanied by the potential for environmental conflict; however such conflicts are likely to be mitigated to an acceptable level* The potential conflicts highlighted above are not considered so significant as to compromise the integrity of items and features of acknowledged importance such as; water quality, biodiversity, flora and fauna, the character of the

landscape, cultural/architectural/archaeological heritage, soil and in particular, human wellbeing.

- That the implementation of the Draft Plan will not give rise to probable environmental conflicts that are unlikely to be mitigated to an *acceptable level.

It may therefore be concluded, that the implementation of the Draft Plan will have an overall positive impact on the environmental status of the County and its area of influence and will not, either on its own or taken in combination with other relevant plans or programmes, give rise to any significant adverse environmental impacts that cannot be mitigated to an acceptable level³.

XVII. Likely evolution of the environment in the absence of the plan

The absence of the County Development Plan would have the following implications in respect to the environment;

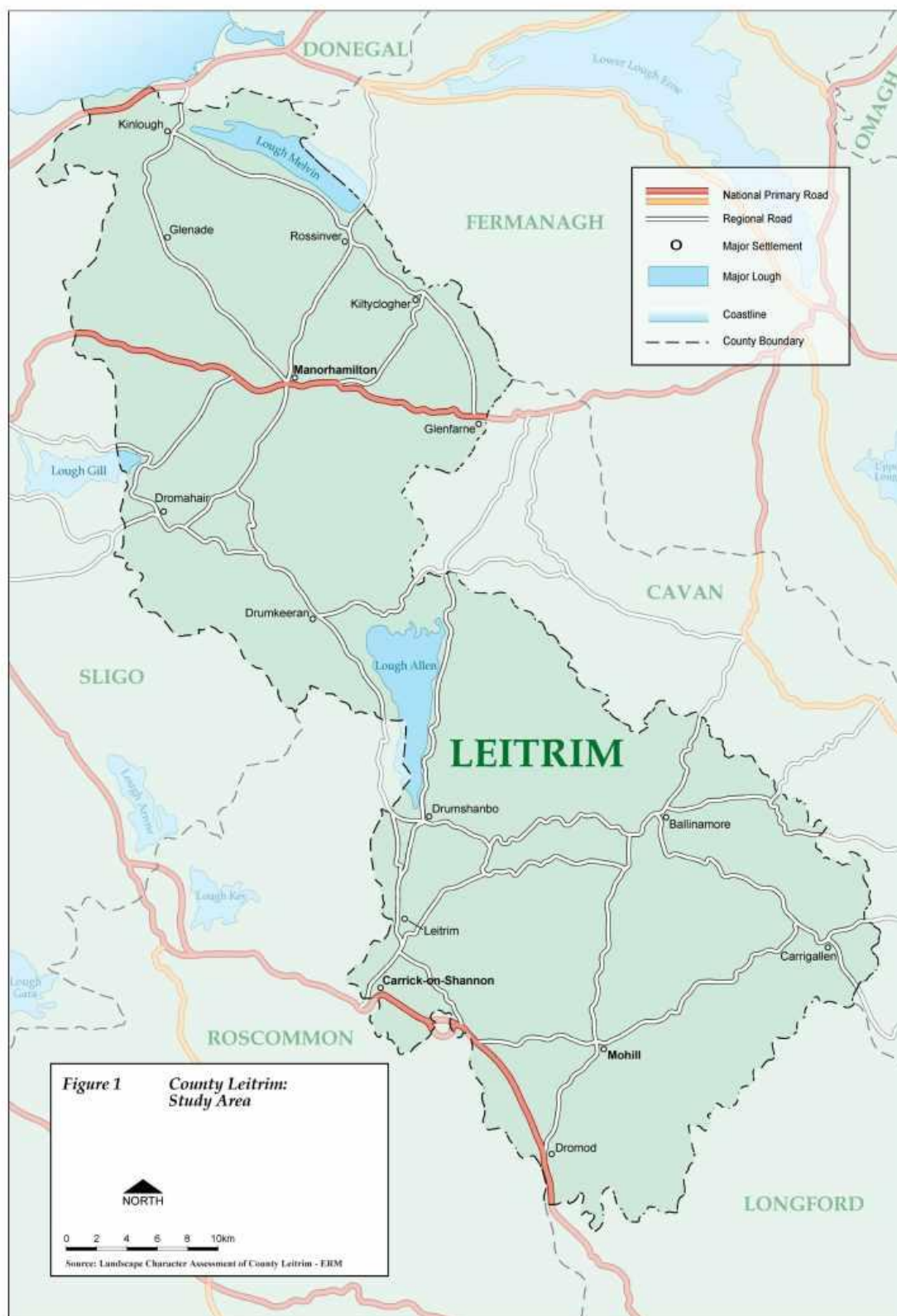
1. In general terms there would be no framework for the proper planning and sustainable development of the county. Development would fail to proceed in an orderly and integrated way.
2. There would be no framework for the provision of infrastructural services with a consequent adverse impact on the economic, social, cultural and environmental status of the county.
3. In general terms socio-economic development of the county would fail to realise its potential, with particular reference to the sustainable development of; community services and facilities, housing, agriculture, forestry, industry and commerce, retailing, tourism, quarrying and mining.
4. Development would occur on an adhoc basis
5. In general terms the natural and built environment of the county would receive less protection and would most likely suffer as a consequence.
6. In particular the Architectural, Archaeological and Cultural Heritage of the County would receive less protection and would suffer as a consequence. Items of acknowledged importance such as; the character of towns and villages, the rural character of the countryside, valued landscapes, important views, the coastline would receive inadequate protection.
7. Water quality would be put under significantly more pressure and would most likely suffer as a consequence. The council would be under significantly greater pressure to meet its commitments under the Water Framework Directive.
8. There would most likely be an increase in 'greenfield' development as opposed to the use of 'brownfield' sites which is often more desirable.
9. There would be an increase in the use of the car with consequent adverse environmental impacts on air quality and "greenhouse" gases, an increased pressure on non-renewable resources, and generally a reduction in the quality of life.
10. Development in an unplanned and *ad-hoc* manner would have an indirect negative effect on human health as a result of negative effects on other environmental elements such as air, water quality and biodiversity, as described previously.

³ An acceptable level is deemed to occur when the conflict with the status of the SEO would be rendered benign or reduce through mitigation measures and thereby become acceptable in terms of well established principles of proper planning and sustainable development.

11. In general the result of the cumulative impacts referred to above would have a negative impact on the natural and man-made environment and the overall quality of life. In particular the county would fail progress in an environmentally sustainable way and would therefore fail to realise its potential into the long-term.

End of Non-Technical Summary

MAIN REPORT



XVIII. Main Report - Introduction

Figure 1 Map of the County and the surrounding area.

This is an Environmental Report in respect to the making of the Leitrim County Development Plan 2015 – 2021. The formulation of the report is iterative and it is subject to change so as to reflect any significant changes that may impact on the environment.

In accordance with the SEA Directive, where certain strategic actions forms part of a hierarchy of plans/programmes and where matters are more appropriately assessed at a different level within the hierarchy, then additional assessment is not dealt with in this report.

1. Legislative Background

A Strategic Environmental Assessment is undertaken in accordance with the EU SEA Directive 2001/42/EC which has been transposed into Irish law under the following Regulations:

- European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011), amending the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2004 (S.I. No.435 of 2004);
- Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004);
- Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (S.I. No. 201 of 2011);
- European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011).

The above legislation requires certain plans and programmes which are prepared, or on behalf of, the Council, including the County Development Plan, to undergo SEA. The findings of the SEA are expressed in an Environmental Report which is submitted to the Elected Members alongside the Plan and other relevant documentation. The Elected Members must take account of the Environmental Report before the adoption of the Plan. When the Plan is adopted, a Statement must be made public, summarising, amongst other things, how environmental considerations have been integrated into the Plan and the reasons for choosing the Plan as adopted over other alternatives detailed in the Environmental Report.

The Department of the Environment Heritage and Local Government has issued guidelines to Regional Authorities and Planning Authorities on the implementation of SEA Directive (2001/42/EC). In summary these guidelines divide the SEA process into a number of steps:

- 1) Screening to determine whether an SEA is required
- 2) Scoping to determine environmental issues
- 3) Preparation of an Environmental Report

2. Content of Environmental Report

The content of an environment report given under Article 13E (1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 - 2011 – see Appendix B The Content of an Environmental Report.

3. Methodology

A decision was taken at the outset by the Executive and supported by the Elected Members that the Development Plan, Strategic Environmental Assessment and related documents would be prepared in-house. The work involved was lead by team of professionals who have a good working knowledge of planning and environmental matters within the County. It was considered that such an approach would lead to a more bespoke plan. Also and importantly it would lead to efficiencies whereby economic, social and environmental concerns would transposed more directly into the Draft Plan than would have happened had these documents been prepared through a combination of in-house and out-of-house workings.

Alternative approaches to the preparation of the Draft Plan were formulated and considered at an early stage of the process. The “Sustainable Development Plan Led Approach” was selected as the preferred alternative and this approach takes full account of the three central tenants of sustainable development which are based on social, economic and environmental considerations.

As part of the Plan making process a significant level of consultation was undertaken in addition to the statutory requirements. This included; the preparation of a Background Issues Paper, notices in local parish newsletters, consultations with elected representatives, Strategic Planning Policy Committee, Border Regional Authority, Environmental Protection Agency, and inter-Departmental Consultations were undertaken. Information in respect to the Plan making process was provided on the Council web site. Environmental issues featured strongly in the making of the Plan and whereas the individual issues raised were fully considered, most notably in the Manager’s Reports, they may not have been dealt with directly in the Environmental Report. The Manger’s Reports contained recommendations that were suitably incorporated into the Plan, The SEA and the Natura Impact Report. The ‘Directions’ considered by the Elected Members and further considered and adopted by Strategic Planning Policy Committee were of particular importance in terms of the making of the Plan. It can be said that the considerations of the environmental issues raised during the consultation period featured strongly in the making of the Plan and have had a significant influence on the outcome of the Plan.

The consideration of environmental concerns cannot be exhaustive, generally the significant impact on the environment of implementing the plan have been given due consideration. Those environmental issues that may be more appropriately dealt with at a different level of assessment have accordingly not been dealt in detail in the SEA.

The SEA process was carried out as an iterative ongoing process. For the most part the team charged with preparing the report met on a regular basis in order to progress the overall Plan making process.

An outline of the approach to the preparation of the SEA Report is given below.



Table 2 Approach to preparation of SEA Report

Action	Comments
1. Screening	An Environmental Report is mandatory for a County Development Plan, therefore no Screening was undertaken
2. Scoping Report	Scoping Report was prepared setting out the policy context and baseline environmental data
3. Consultation with the Environmental Authorities	The Environmental Authorities were consulted in respect to the Scoping Report and on the Draft Strategic Environmental Report.
Preparation of Environmental Report and Draft County Development Plan	The current development plan and relevant International, National, Regional and Local Plans and Guidelines were considered as appropriate. A key part of the plan making process was the consideration of the outcome of workshops held with the elected members, the pre draft submissions and Interdepartmental consultations. Position papers on key issues were prepared and informed the making of the Plan.
Formulation and Assessment of Alternatives	Alternative approaches to the making of the Plan were considered and the most appropriate option selected.
Mitigation	Mitigation was considered and suitable measures were formulated
Monitoring	Environmental objectives, Indicators and targets were formulated against which the implementation of the Plan could be assessed.
Ongoing consideration of the Plan making process	The submissions from notified bodies, the public and other interested parties were considered as well as the outcomes from the public meetings and workshops/meetings held with the elected representatives. Also the plan making process was informed by internal consultations and generally by unfolding considerations. All of the foregoing considerations gave rise to significant proposal in terms of formulating the Draft Plan. During each stage of the plan making process environmental issues featured strongly.
Assessment of aims, policies and objectives	Strategic Environmental Objectives were developed against which the environmental impacts of each of the aims, policies and objectives of the Plan have been assessed.

(1) Environmental Themes

The county is endowed with a wide range of environmental resources, which need be acknowledged and dealt with appropriately within the Development Plan. The environmental issues are dealt with under the following themes:

- Population and Socio-economic Profile of the County
- Settlement Strategy
- Water Quality
- Biodiversity (flora, fauna)
- Landscapes/Geology (including Soil)
- Climate Change and Flood Risk
- Agriculture and Forestry
- Cultural Heritage (including Architecture and Archaeology)
- Air, Quality
- Material assets
- The interrelationship between the above

The following National Guidance has been referred to in the preparation of this Environmental Report;

- 1) EPA (2003) Development of Strategic Environmental Assessment (SEA) Methodologies for Plans & Programmes in Ireland - Synthesis Report.
- 2) DECLG (2004) Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans & Programmes on the Environment Guidelines for Regional Authorities & Planning Authorities (Section 28 Guidelines).
- 3) DECLG (2009) Appropriate Assessment of Plans & Projects in Ireland – Guidance for Planning Authorities.
- 4) DECLG & OPW (2009) The Planning System & Flood Risk Management Guidelines for Planning Authorities (Section 28 Guidelines).
- 5) EPA (2012) Review of Effectiveness of SEA in Ireland – Key Findings and Recommendations

4. Scoping

A scoping report was prepared in order to identify the relevant environmental issues so that they can be given proper consideration in the Environmental Report. Also as part of the scoping process, consultation was undertaken with the three statutory Environmental Authorities

5. Baseline Data

In order to facilitate the identification, evaluation and monitoring of the impacts of the Plan, baseline data focused on relevant aspects of the environment which are likely to be significantly affected, is presented in this report.

6. Directions from the Elected Members/Strategic Planning Policy Committee (SPPC)

It was agreed by the Elected Members (at a meeting held on the 8th April 2013) that the Members of the SPPC would issue Directions in respect to the making of the Draft Plan. The Managers Report and the issue of Directions in respect to the making of the Draft Plan was further considered by the Members at a meeting held on 8th July 2013. It was agreed by the



Members at the meeting that items 1 – 7 outlined below would be brought forward to the SPPC for their consideration.

Following the consideration of the Pre-Draft Manager's Report and a presentation by the executive of the Council, the following 'Directions' were adopted by the Strategic Planning Policy Committee following a meeting held on 22nd August 2013 (in accordance with in accordance with Section 11 (4) (c) of the Planning and Development Acts 2000 – 2014).

1. **The Economic Development of the County** with particular reference to;
 - The Maintenance and creation of sustainable employment
 - Development of Tourism
 - Attracting and facilitating inward investment
 - The strengthening the commercial core of towns and villages
 - Supporting rural communities.
2. **The protection of the Environment** with particular reference to;
 - Climate Change
 - The protection and improvement of water quality
 - The protection of environmentally sensitive areas
 - Protection of Heritage and Cultural Assets.
 - The environmental and health impacts of Hydrocarbon Exploration and Extraction (with reference to EPA research and anticipated National policy)
3. **Urban and Rural Housing** with particular reference to;
 - Facilitating local housing needs
 - Part V requirements - Social and Affordable Housing
 - The level of vacant residential accommodation
 - Unfinished Estates
4. The Mission and Vision Statements
5. Ensuring the alignment of the Plan with National and Border Regional Policy/Guidance
6. Reviewing the substantive issues raised in the Pre-Draft Public Consultations
7. Provision of infrastructural services and facilities, including;

Issues in respect to Roads, Public Water Supply, Wastewater Disposal, Waste Management, Energy Supply, Educational facilities, Information and Communication Technology, Cultural Facilities and Library Service, featured during pre-draft stage.

In general terms the issues raised in the 'Background Issues Paper' and those raised by the Prescribed Bodies in their submission were given particular consideration in the making of the Plan.

The following additional Directions were added following discussions;

- A. The draft Development Plan take into account recommendations of the County Manager in regard to submissions from the pre draft consultation phase
- B. In addition that the Preparation of the Draft Development Plan should provide for Key areas identified in the presentation to the SPC Meeting, (items 1-7 above).
- C. Further to directions A & B the S.P.C. also directed that drafting of the Development Plan should:
 1. Provide for the best strategic basis to deal with the area of Hydrocarbon Exploration and Extraction (UGEE) in the absence of the outcome of National research and policy implications arising therefrom

2. Provide for the protection of the strengths of the County in relation to key performing sectors
3. Provide for the broad indirect consequences of individual strategic policies
4. Encourage the recreational use of key water based assets and further development of areas such as bathing areas, the Shannon & Shannon Erne waterways, particularly for local use.
5. Take into account :
 - a. Assisting & Supporting Community Groups
 - b. Active Role in the use of built environment
 - c. Policy in relation to rural house design
 - d. Protection of hedgerows/ cultural nature of rural based county
6. Provide for review of Wind Farm Capacity mapping
7. Provide for a review and update policy in regard to Unfinished Housing Developments
8. Encourage growth of Town Centre development through interventions such as review car parking policy of Development Plan

7. Difficulties Encountered

This report was in the main informed by existing data as provided for in the SEA Guidelines produced by the DoEHLG 2004 which that the SEA process “does not require major new research”.

There were some areas where there was insufficient data available, however when this information becomes available during the making of the plan it will be included.

The absence of a GIS format and of a centralised council GIS-based information system together with the relevant GIS expertise, time constraints and limited resources placed some constraints on the preparation of this Report.

8. Submissions from Environmental Authorities on SEA Scoping Report

List of Environmental Authorities notified under Article 13D (1) of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 – 2011;

1. The Environmental Protection Agency
2. Minister for the Environment, Community and Local Government
3. Minister for Agriculture, Food and Marine.
4. Minister for Communications, Energy and Natural Resources
5. Minister for Arts, Heritage and Gaeltacht Affairs
6. Adjoining Planning Authorities

Submissions were received from;

- The Environmental Protection Agency.
- The Development Applications Unit, Department of Arts, Heritage and Gaeltacht Affairs (a late submission).

(1) Summary of Submission from EPA (6th June 2013)

The submission from the Environmental Protection Agency (EPA) refers to its earlier submission in respect to the Pre-Draft Consultation Stage, dated 30th April 2013. The



submission provides further comment in relation to ensuring consistency with other Plans and Guidance. The EPA also provides further information in relation to sources of environmental information.

The EPA refer to the mention of hydrocarbon extraction and exploration in the Scoping Report and in this regard submit that there would be merit in considering a commitment to establish a “Non Renewable Energy Strategy” under which such an activity could be considered in an integrated way.

(2) Summary of Submission from Department of Arts, Heritage and Gaeltacht Affairs

This submission considers that the Scoping Report is comprehensive and gives due recognition to Special Protection Area, Special Area of Conservation and Natural Heritage Area within the County. The Department notes that there is no reference or acknowledgement of proposed Natural Heritage Areas (pNHA's) within the report.

The submission refers to a number of environmental legislative type requirements and also to sources of environmental information/guidance. It makes recommendations/comments on what should be considered in; the Development Plan, The Strategic Environmental Report and the Habitats Impact Assessment.

The Department recommends that the following recommendation in respect to making of the Plan;

- *The County Development Plan fully adheres to the Border Regional Authority Regional Planning Guidelines;*
- *Policies and objectives in the Plan fully reflect the obligations to conserve and protect natural heritage and designated sites (It is the view of the Department that the Wind Capacity Areas outlined in the current plan fail in this regard);*
- *Any development resulting from the County Development Plan complies with proper planning and sustainable development;*
- *The Department of Arts, Heritage and the Gaeltacht is fully consulted regarding assessments to address possible environmental impacts and especially impacts in relation to designated sites resulting from the CDP (e.g. marinas, walking trails, etc.).*
- *Maps and site synopses of the designated and proposed sites are included in the appendices to the plan.*

9. Submission on Draft Plan

A wide range of issues have been raised during the making of the Draft Plan, and these issues are dealt with in a comprehensive manner in the Manager's Report. Accordingly, this Environmental Report should be read in conjunction with the Manager's Report. The recommendations from the Manager's Report have been incorporated into the Draft Plan and also into this SEA Report. It is therefore not proposed to deal with the submissions in this Report.

Submissions were received from the following three Environmental Authorities;

1. Department of the Environment, Community, Department of Communications (sub No 65),
2. Department of Energy and Natural Resources and Local Government (sub 65) and
3. The Environmental Protection Agency (sub 108)

These submissions were considered and dealt with in the Manager's Report, June 2014.

Likewise, submissions from other ‘notified bodies’, including the Border Regional Authority (sub 13), Taisece sub 32), Office of Public Works (sub 108), Inland Fisheries Ireland (sub 124), and Irish Water sub 96), the ESB (sub 140), Irish Peatland Conservation Council (sub 144), Eirgrid (sub 145) and an have been considered in the Manager’s Report..

A high level of concern has been expressed in the submissions received and by the Elected Members in relation to Unconventional Gas Exploration and Extraction. Also, a significant level of public concern has been raised in respect of windfarms. Both of these issues are dealt with under a separate section within the Manager’s Report.

Where recommendations arose from the submissions they have been incorporated into the Draft Plan, as appropriate.

10. Transboundary Environmental Effects

Under section 13 F(1) requires that a copy of the draft development plan and associated environmental report be forwarded to a member state where the planning authority considers that implementation of the plan is likely to have significant effects on the environment of a member state. In terms of Transboundary environmental effects it is considered that the implementation of the plan would not have a significant environmental effect. The requirement to notify the Northern Ireland State Authority does not therefore arise. Notwithstanding the foregoing it is considered appropriate that inter county consultations should take place with Fermanagh Council having regard to the importance of maintaining close cross border co-operation.

11. SEA Statement

The SEA Statement will be produced on adoption of the Plan and will be made available for public inspection. The main purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, the views of statutory consultees and other submissions received during the consultation phases have been taken into account in the adopted Plan and the arrangements put in place for monitoring. It illustrates how decisions were taken, making the process more transparent.

The SEA Statement should include the following information:

1. Summary of how environmental considerations have been integrated into the Plan;
2. Summary of how submissions received during consultation have been taken into
3. account in the Plan;
4. Reasons for choosing the recommended strategy, in the light of other reasonable
5. alternatives considered;
6. Measures that are to be undertaken to monitor the significant environmental effects of implementing the Plan.

12. Checklist on Contents of Environmental Report

Table 3 is a checklist based on the contents of an Environmental Report as set out under Article 13E (1) of the SEA Regulations mentioned above. Column 1 sets out the requirements of the aforementioned Regulations. Column 2 outlines the relevant chapters where these requirements are addressed. Column 2 will be completed in the Environmental Report.



Table 3 Checklist of Contents of Environmental Report

Requirement under Article 13E (1) of the SEA Regulations 2004 - 2011	Relevant chapter(s) within Report (to be completed) xx
A non-technical summary of the information provided under the above headings.	Chapter 1
An outline of the contents and main objectives of the plan or programme, or modification to a plan or programme, and relationship with other relevant plans or programmes.	Chapters 16 and 17. Also 19.
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme, or modification to a plan or programme.	Chapters 21, 22, 23, 24, 25, 26, 27, 28, 29 and in particular 30.
The environmental characteristics of areas likely to be significantly affected.	Chapters 22, 23, 24, 25, 26, 27, 28
Any existing environmental problems which are relevant to the plan or programme, or modification to a plan or programme, including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or the Habitats Directive.	Chapter 29
The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme, or modification to a plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation.	Chapter 17 and 29
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Chapters 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme, or modification to a plan or programme.	Chapter 29
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.	Chapter 18
A description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan or programme, or modification to a plan or programme.	Chapter 31

13. Policy Context

The review of the existing County Development Plan and the making of the new Plan must be considered within the context of a hierarchy of policies, plans and strategies which include international, EU, national, regional and local levels as indicated below:



XIX. Relevant Policy, Plans, Programmes and Guidelines

In the making of the County Development Plan cognisance must be taken of certain International, National and Regional policies, plans and programmes. An indicative list of such documents is set out in Table 4. The principle requirements in relation to international Plans and Programmes have been incorporated into the National and Regional Plans and Programmes. The relationship between such plans and the Draft Plan is considered below; however neither the list nor the relationships discussed are exhaustive.

Table 4 Relevant National & International strategic actions and policy objectives

International and European Plans/Programmes

Strategic Environmental Assessment (SEA) Directive 2001/42/EEC

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

Convention on Wetlands of International Importance 1971 (amended 1982 and 1987)

(Ramsar Convention)

Directive 79/409/EEC on the conservation of wild birds

UN Convention on Biological Diversity

Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

Pan-European Biological and Landscape Diversity Strategy (1995)

European Biodiversity Strategy (1998)

Freshwater Fish Directive (78/659/EEC)

EU Thematic Strategy for Soil Protection

Directive 2000/60/EC Water Framework Directive

Directive 2007/60/EC Flood Risk Management Assessment and Management of Flood Risk

EU Drinking Water directive (98/83/EC)

EU Nitrates Directive (91/676/EEC)

EU Groundwater Directive (1980/68/EEC)

EU Surface Water Directive (75/440/EEC)

EU Urban Waste water Directive (91/271/EEC)

EU bathing Water Directive (76/160/EEC)

EU Dangerous Substances in Water Directive (79/464/EEC)

European Climate Change Programme Aims to reduce emissions;

Kyoto Protocol (1997)

Directive 2001/92/EC Energy performance of buildings

Air Framework Directive, Directive on Air Quality

Assessment and Management (Framework Directive) (1996/62/EC)

Directive on national emission ceilings for certain atmospheric pollutants (2001/81/EC)

Directive 99/31/EC Landfill Directive

Directive 2002/96/EC, The WEEE Directive on waste electrical and electronic equipment

Granada Convention for Protection of the Architectural Heritage of Europe 1985

European Convention for Protection of the Architectural Heritage of Europe 1992

European Landscape Convention (2000)

European Strategy for Sustainable Development (2006)

6th Environmental Action Plan of the European Community (2002)

The EU Environment and Health Strategy 2004- 2010

Agenda 21 (1992). Action for Sustainable Development

‘The Gothenburg Strategy’ Communication from the Commission on Sustainable Europe for a Better World 2001

EU ‘Air Framework Directive’ Directive on Air Quality Assessment and Management

(Framework Directive) (1996/62/EC)

EU Directive on National Emission Ceilings for Certain Atmospheric Pollutants

WHO Air Quality Guidelines (1999).

National Plans/Programmes

National Development Plan 2007 – 2013

Our Sustainable Future - A Framework for Sustainable Development in Ireland (DECLG, 2012)



National Biodiversity Plan: Action for Biodiversity 2011 – 2016

National Climate Change Strategy 2007 – 2012

National Renewable Energy Action Plan

National Action Plan for Social Inclusion 2007 – 2016

National Heritage Plan 2002

National Landscape Strategy

Food Harvest 2020— A Vision for Irish Agri-food and fisheries

Putting People First – An action programme for Effective Local Government

Supporting Economic Recovery and Jobs – Locally

Regional Plans/Programmes

Regional Planning Guidelines for the Border Region 2010-2022

River Basin District Management Plan 2009 – 2015

Replacement Waste Management Plan for the Connacht Region 2006 – 2011

Draft Regional Strategic Framework for the Central Border Region:

Other Relevant Documents include;

County Development Plan 2009 – 2015

Carrick on Shannon Local Area Plan 2010 – 2016

Urban Framework Plans for Ballinamore, Drumshanbo, Manorhamilton and Mohill.

Social, Economic and Cultural Strategy for Co. Leitrim 2002 – 2012

Carrick on Shannon Vision 2020

The above documents may be viewed on the Council web site at;
http://www.leitrimcoco.ie/eng/Services_A-Z/

Other relevant Plans and Programmes, including the Leitrim County Council Corporate Plan 2010 - 2014 may be viewed on the Council web site at;
<http://www.leitrimcoco.ie/eng/Publications/>

The Department of the Environment, Community and Local Government have published a wide range of Planning related Guidance and Information on their web site at;
<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/>

Of these documents the more recent document entitled “Review of Effectiveness of SEA in Ireland is of particular importance in relation to the SEA process. This particular document may be viewed at;

<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,32043,en.pdf>

1. National and Regional Context

The Leitrim County Development Plan must conform to various national and regional policies. The Planning and Development Acts 2000-2014 requires that, so far as it is practical, a Development Plan shall be consistent with national plans, policies and strategies, which relate to the proper planning and sustainable development of an area covered by the plan. In addition, Development Plans, should have due regard to any guidelines issued by the Minister for the Environment, Heritage and Local Government.

The Planning and Development Acts, 2000 – 2014, specifically requires Planning Authorities to have regard to ministerial guidelines from the Department of the Environment, Heritage and Local Government. These guideline documents include those mentioned above.

The Planning Authority will also have regard to any further guidelines published by the Government during the lifetime of the plan.

2. The National Development Plan 2007-2013

The National Development Plan forms the basis on which national capital expenditure will be based over the next number of years. It sets out within a sustainable economic and budgetary framework indicative seven-year investment allocations for the various sectoral areas, totalling €184bn.

It includes the following objectives;

- Continuing sustainable national economic and employment growth,
- Consolidating and improving Ireland's international competitiveness,
- Fostering balanced regional development,
- Promoting social inclusion.

3. National Spatial Strategy

This National Spatial Strategy for Ireland 2000 – 2020 (NSS) is a twenty year planning framework designed to achieve a better balance of social, economic, physical development and population growth between regions. Its focus is on people, on places and on building communities. Through closer matching of where people live with where they work, different parts of Ireland will for the future be able to sustain;

A better quality of life for people

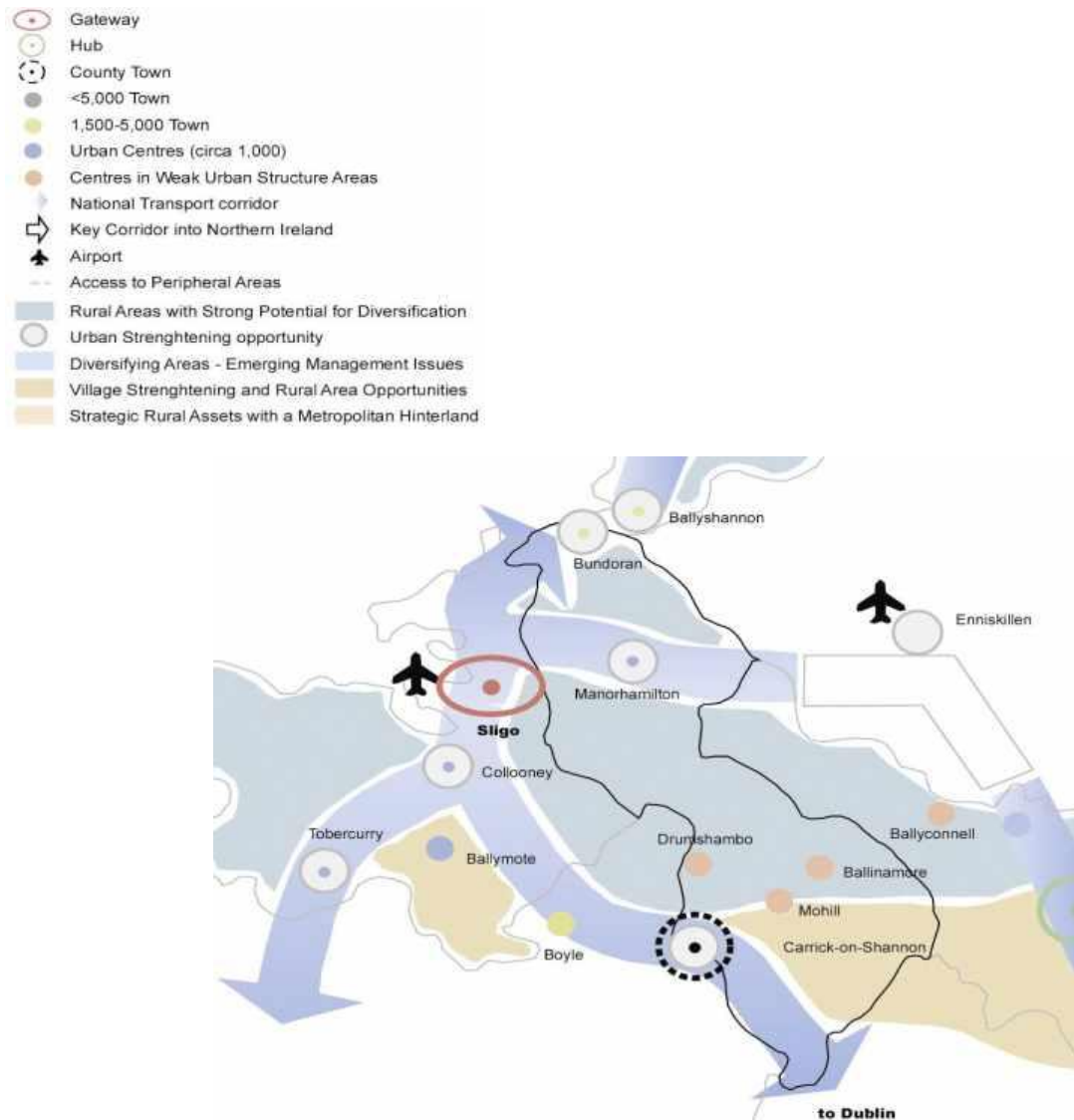
A strong, competitive economic position and

An environment of the highest quality.

Its aim is to facilitate balanced regional development throughout the country.

The strategy has identified Leitrim as a predominantly rural county ‘with strong potential for diversification’. Sligo is the gateway town for the region.





The Border Region - Taken from the National Spatial Strategy, 2002.

Figure 2 Leitrim in the Context of the National Spatial Strategy

4. National Development Plan 2007 – 2013

The National Development Plan (NDP) Transforming Ireland — A Better Quality of Life for All sets out the roadmap to Ireland's future. The NDP integrates strategic development frameworks for regional development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals. The objective of the NDP is to deliver a better quality of life for all within a strong and vibrant economy that maintains our international

Competitiveness and promotes regional development, social justice and environmental sustainability.

In a county context the NDP sets out an investment programme for the promotion, fostering and encouragement of economic and social development in the Region.

5. Our Sustainable Future - A Framework for Sustainable Development in Ireland (DECLG, 2012)

The establishment of a more sustainable pattern of development for Ireland is one of the key challenges of Government and ultimately for society. This framework document essentially aims to promote the policy that economic growth, social cohesion and environmental protection go hand in hand to meet the overarching goal of delivering wellbeing in a pluralistic society that promotes participation, a society in which everyone takes responsibility for the environment.

With the ultimate goal centering on creating a resource-efficient Europe, this document aims to provide a long-term framework for actions in many policy areas and supporting policy agendas for climate change, energy, transport, industry, agriculture, fisheries, biodiversity, leisure and tourism and regional development.

6. National Biodiversity Plan: Action for Biodiversity 2011 – 2016

Ireland's second National Biodiversity Plan contains 102 actions towards understanding and protecting biodiversity in Ireland and overseas.

Actions for Biodiversity 2011-2016 builds upon the achievements since 2002, when the first National Biodiversity Plan was published. The current plan focuses on actions that were not fully completed and addresses new and emerging issues. It has been developed along the lines of other plans, in particular the EU Biodiversity Action Plan and the CBD Strategic Plan and takes account of their aims, objectives and targets. Government Departments and State agencies representing all the relevant sectors were consulted on a series of draft action points in advance of the preparation of this Plan, in parallel with a comprehensive public consultation process.

7. Food Harvest 2020— A Vision for Irish Agri-food and fisheries

With a primary goal of producing Irish agri-food in as environmentally sustainable method as possible, this strategy, during its preparation underwent an SEA, and emissions were quantified and measures prepared to reduce current concentrations. In general terms it is anticipated the strategy will have a positive impact on the environment of Leitrim and its environs.

8. Climate Change

Human-induced climate change is a global issue and is the primary environmental challenge of this century. Increased levels of greenhouse gases such as carbon dioxide act to enhance the natural greenhouse effect and accelerate irreversible changes in the climate. What is distinctive about the current period of global warming, compared to previous cycles of climate change, is the extent and rate of change, which exceeds natural variation. The impacts of climate change present very serious global risks and threaten the basic components of life, including health, access to water, food production and the use of land. As the earth gets warmer the damage from climate change will accelerate.

(a) Long-term Effects

The global average temperature has risen by 0.76°C over the past 100 years, with the 1990s being the warmest decade in the last millennium. It is predicted that climate change impacts will increase significantly if global temperatures increase by more than 2°C above pre-industrial times. Research has shown that the potential effects of climate change in Ireland



include greater risks of coastal flooding due to sea-level rises and storm surges; water shortages, more intense rainfall events; and impacts on agriculture and biodiversity.

(b) Emission Sources

Greenhouse gas emissions arise from a range of sources including transport, energy production, agriculture and industrial processes. In Ireland, while agriculture is the largest source, transport is by far the fastest growing sector, with emissions more than double what they were in 1990. Irish per capita emissions of greenhouse gases remain among the highest in Europe, reflecting the large contribution from agriculture.

(c) National Climate Change Strategy 2007-2012

The National Climate Change Strategy 2007-2012 follows on from the first national strategy, published in 2000 and reviewed in 2002, and takes account of the public consultation process which followed the further review in Ireland's Pathway to Kyoto Compliance (2006). The purpose of this Strategy is twofold:

to show clearly the measures by which Ireland will meet its 2008-2012 commitment; and to show how these measures position us for the post-2012 period, and to identify the areas in which further measures are being researched and developed to enable us meet our eventual 2020 commitment.

Through innovation, energy efficiency and more sustainability in our personal choices, we can achieve the necessary lowering of the carbon intensity of our economy without sacrificing competitiveness, economic performance or quality of life. The Strategy shows, sector by sector, that the range of existing and additional measures which have already been developed, will reduce Ireland's greenhouse gas emissions by over 17 million tonnes (Mt) of carbon dioxide equivalent in the period 2008-2012.

(d) Energy Road Map 2050 (EU)

The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 in the context of necessary reductions by developed countries as a group. The Commission analysed the implications of this in its "Roadmap for moving to a competitive low-carbon economy in 2050". The "Roadmap to a Single European Transport Area" focussed on solutions for the transport sector and on creating a Single European Transport Area. In this Energy Roadmap 2050 the Commission explores the challenges posed by delivering the EU's decarbonisation objective while at the same time ensuring security of energy supply and competitiveness. Source:

http://ec.europa.eu/clima/policies/roadmap/index_en.htm

9. Statement of Strategy 2011 – 2014 - Department of Communications, Energy and Natural Resources (DCE&NR)

This Statement of Strategy reflects the broad and challenging agenda for the DCE&NR in the coming years and the Government's agenda for substantial and permanent public service reform. This agenda is designed to boost competitiveness in the economy and productivity in the Department and its Agencies. It clearly defines the Department's mandate, mission and strategies, and sets the key outcomes and indicators to measure our performance over the period 2011 – 2014. It recognises that the Department is central to delivery of policies which have increased in national strategic importance in recent years and under which demanding targets have been set for the future.

High level Objective 1: Communications

A robust, modern communications system contribute to sustainable economic growth, jobs, competitiveness and social inclusion by: facilitating and promoting timely investment in Next Generation Broadband networks; enhanced internet engagement by citizens and business; and supporting job creation, business development and innovation, especially in the digital media sector.

Developing Ireland as a “digital Island” is a key priority for Government to promote economic recovery and employment. This vision for a fully digitally enabled society embraces citizens, business and public services and requires policy intervention across a range of areas.

High Level Objective 2: Broadcasting

To promote a vibrant broadcasting sector, the provision of value for money and high quality output by the State Broadcasting Companies, a strong high quality private broadcasting sector, development of media policy generally and to ensure that an appropriate regulatory framework is in place to achieve this.

The Department aims to develop a policy and legislative framework to facilitate the provision of quality broadcasting services in Ireland, and to optimise the opportunities presented by the emerging technologies for the provision of new Irish-based broadcasting services.

We also seek to ensure that the approach taken to issues arising from the convergence of telecommunications and broadcasting will optimise the contribution of broadcasters, programme makers, other product generators, infrastructure operators and other participants in broadcasting-related activities to the development of the Information Society in Ireland.

High Level Objective 3: Postal

To ensure Irish customers, both business and residential, enjoy competitively priced, high quality postal services on a par with the highest quality standards in key comparator EU economies.

The postal sector comprises providers and operators of local, regional, national and international postal services that produce, collect, sort, transport and deliver physical information and goods. Approximately 80% of postal transactions are business-related. The provision of high quality, competitively priced postal services will continue to play a role in underpinning national competitiveness. Electronic communications services provide both threats in the form of electronic substitution and opportunities in the form of delivery of electronic ordered goods.

As of 1 January 2011 the postal market has been fully liberalised. The Postal Services Act 2011 provides the statutory framework for the market in that the legislation sets out the universal service obligation and regulatory environment for the promotion of competition and innovation in the sector. The sector as a whole is facing the challenge of declining volumes arising from economic difficulties and the effects of e- substitution. An Post, as a State Company and the largest participant in the market, is most exposed to these trends.

High Level Objective 4: Energy

To ensure security, continuity and competitiveness of energy supply for the economy and for consumers, and to promote the sustainability of energy supply and demand.

The fundamental objectives of energy policy are the security, sustainability and competitiveness of energy supply for the economy and society, are set firmly in the context of EU and global energy developments. Ireland faces similar energy challenges to those being confronted worldwide. Ireland’s situation is made more acute by our small energy market, peripherality and continued reliance on imported fossil fuels. There are

opportunities both on energy security and enterprise development grounds to be realised in harnessing in a cost efficient way the full potential of renewable and bio energy resources and in delivering radical energy efficiency improvements.

Our key objectives for the period of this Strategy include: ensuring competitiveness in energy markets with resultant benefits for consumers; the continued development of renewable energy infrastructure; the delivery of significant network infrastructure – in particular EirGrid’s ‘Grid 25’ and the East-West Interconnector in line with binding EU renewable energy targets. Further development of emergency planning and gas storage between now and 2014 is also vital. A significant national multi-faceted programme in the context of energy efficiency will be central in delivering consumer saving, business profitability, climate change targets and jobs over this period.

Pursuit of the strategies below and achievement of the outcomes will involve significant investment by the State Energy Companies and private sector energy companies. It will also require appropriate regulation by the Energy Regulator. More generally, it is intended that a new Energy Policy Framework with a horizon to 2030 will be drafted.

High Level Objective 5: Natural Resources

To manage our inland fisheries, mineral, hydrocarbon and other geological resources in a sustainable and productive manner. While the Department has key regulatory functions in the natural resources area, the development of policy, legislation and oversight of the petroleum, mining and inland fisheries sectors are key objectives for the purpose of developing our knowledge of Ireland’s hydrocarbon resources (both Oil and Gas), minerals (especially Lead and Zinc) and encouraging exploration for and development of commercial discoveries.

The Department is also the parent Department for the Geological Survey of Ireland, which is the national centre for the gathering and provision of geoscience information and advice to support policy-making and its implementation by central and local government in relation to infrastructural development, environmental protection and geo-hazard mapping.

Inland fisheries are enjoyed by circa 80,000 anglers and generates over €100 million in economic activity. The development of the sector, covering 77,000 Kilometres of freshwater rivers and streams and a quarter of a million hectares of lakes, in compliance with EU legislative obligation under Habitats, Water Management and other EU Directives is a major task of the Department.

High Level Objective 6: Corporate Management

To promote and operate a culture of value for money and continual evaluation of our performance in a measureable, transparent and accountable manner. To develop our staff and deliver the public service reform agenda whilst providing a high quality service to our customers and stakeholders. These areas support the Department’s line divisions in achieving the sectoral objectives set out in the Statement of Strategy and take responsibility for specific cross cutting issues. The corporate management area has lead responsibility for implementing government policy in respect of Public Service Reform.

10. Border Regional Planning Guidelines 2010 – 2022

The Border Regional Authority includes the geographical area of Counties Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo. The Planning and Development Acts, 2000 (as amended) requires Regional Authorities to provide a long-term strategic planning framework for the sustainable development of the Region for a 12 year period up to 2022. The Planning Act also requires the Regional Planning Guidelines (RPGs) to be reviewed again in 2016.

The Regional Planning Guidelines are a long term strategic planning document which aims to direct the future growth of the Border Region, and seeks to implement the planning framework set out in the National Spatial Strategy (NSS) published in 2002. It achieves this through appraisal of the critical elements involved in ensuring proper planning and sustainable development, and through the protection of sensitive and environmentally important locations. The RPGs inform and provide direction to County Development Plans of constituent Councils within the Border Region.

The first RPGs for the Border Region were adopted in May 2004 and set out a strategic framework for planning and development for the Region up to 2016. This RPG review updates the 2004 document and provides a further outlook up to 2022.

The Guidelines are closely aligned with the National Spatial Strategy and the National Development Plan and also the Regional Development Strategy in Northern Ireland.

The Guidelines provide an integrated model for growth and development with spatial planning closely aligned with the economy and proposed infrastructure within all relevant sectoral areas. The approach has been complimented by more detailed consideration of climate change, environmental management and flood risk management.

In relation to economic development the issues arising from the RPG's in respect of the development plan relate to the need to ensure the supply of large-scale land and infrastructure required for major investment, sufficient zoned industrial and commercial lands and consideration of the sequential approach in this regard. In addition, the RPG's indicate the need to make provision for agricultural diversification and rural enterprise such as afforestation and renewable energy subject to appropriate environmental considerations. The RPG's also note the need to provide opportunities for the establishment of enterprises based on the processing of natural products as well as recognizing the importance of the retail sector and the level of retail leakage to Northern Ireland. Furthermore, in the context of major enterprise and industrial development, the RPG's note that there must be policies for the development of such major enterprise and industry in locations where waste water treatment systems with capacity to produce waste water discharges of a standard that will not impact negatively on downstream European sites, can be provided.

The key strategic goals of the RPG's include the following, key matters for the Development Plan.

- Fostering the development of the Region's most important asset, its people by providing an improved quality of life.
- To ensure that the development of Letterkenny acts as the strategic driver of growth for the County and to facilitate integrated sustainable development between urban and rural areas.
- To improve connectivity and mobility links.
- To promote innovation, economic growth and competitiveness in the County's development potential and to facilitate emerging sectors to provide sustainable jobs for the future.
- _To protect and enhance the quality of the natural environment and built heritage.

Appendix C is an extract from the RPG's and shows Mapping of Key Spatial Elements within the Border Region.

Table 1.5 of the RPG's identify the N4 Carrick on Shannon to Dromod and the N16 Glenfarne to Glencar (including the Manorhamilton Bypass) as "Significant Road Schemes in Planning within the Border Region."

The following Priority Projects within Leitrim that emerged from the Assessment of Needs 2009, have been identified in the RPG's

- County Leitrim Water Conservation Project
- Carrick-on-Shannon Sewerage improvement Scheme -including Satellite Dewatering
- South Leitrim Regional Water Supply Scheme
- UV Equipment Carrick on Shannon Water Treatment Plant

As part of the overall strategic framework, the development of the Border Region the RPG' regongise the strategic importance of Carrick on Shannon *further enhancing the urban structure in the Region by building on the strengths of the Hubs of Cavan and Monaghan, the Primary Development Centre of Drogheda, the Regionally Strategic Town of Carrick on Shannon, and other key towns and villages.*

The RPG's are available at: <http://www.border.ie/>

11. Local Government Local and Regional Government Reform

This recently unveiled local and regional government reform measure, contained within the reform programme "Putting People First: Action Programme for Effective Local Government" (2012) is intended as a comprehensive mechanism for the reform of local government in Ireland. Local and regional bodies are involved in the development and implementation of policies and the provision of funds which are designed to give effect to the strategic goals of the NSS.

The establishment of three Regional Assemblies, as well as the amalgamation of a number of Local Authorities, as set out in Putting People First, will have an important impact in relation to the delivery of services and funding and the creation of policies in support of individual Gateways.

The three new assemblies will be as follows:

Southern Region Assembly which will evolve from the existing Southern and Eastern Regional Assembly (consisting of Munster and the south-east counties of Carlow, Kilkenny and Wexford);

Eastern and Midland Region Assembly which will be newly established (consisting of the province of Leinster other than the south-east counties in the Southern Region); and Connacht-Ulster Region Assembly which will evolve from the existing Border, Midland and Western Regional Assembly (consisting of the province of Connaught and the counties along the Border with Northern Ireland other than County Louth).

These Assemblies will assume all of the responsibilities previously held by the eight Regional Authorities. Within the context of the NSS, this means that these Assemblies will now be responsible for the delivery and administration of regional and economic

Strategies; including the continued management of EU Regional Operational Programmes, all of which will be influential in the future development of the designated Gateway and Hubs, as well as the continuing implementation of the RPGs, which will run until 2016, pending their replacement by the new regional strategies mentioned above, the preparation of which will commence in 2014/15.

“Putting People First” (2012), Action Programme for Effective Local Government. Dublin: Stationary Office is available at:

<http://www.environ.ie/en/Publications/LocalGovernment/Administration/FileDownload,31309,en.pdf>

12. Replacement Waste Management Plan 2006-2011

Section 22 of the Waste Management Act, 1996 and the Waste Management Planning Regulations, 1997 oblige all local authorities in the country to establish and implement Waste Management Plans to promote responsible waste management.

Leitrim County Council is committed to promoting responsible waste management in County Leitrim. Since 2001 all local authorities in the province have participated in the Connaught Waste Management Planning process. However, the number of planning regions was reduced in 2012 from ten to three. In accordance with Section 22 (3) of the Waste Management act, 1996 -2012, Leitrim County Council is committed to the North West Region comprising Galway, Mayo, Roscommon, Sligo and Leitrim as well as Donegal, Cavan and Monaghan. In accordance with Section 22 (2) of the Waste Management Act, 1996 to 2012, an evaluation of the Replacement Waste Management Plan for the Connacht Region 2006 – 2011 was completed in 2012.

The process of preparing a Waste Management Plan for the new North West Region has commenced and it is expected that the new plan will be in place in 2015. These Waste Management Plans have to follow the hierarchical approach, which recommends waste avoidance and prevention, Re-use, recycling and energy recovery as preferred options to waste disposal.

13. Regional Strategic Framework for the Central Border Region:

The Regional Strategic Framework (RSF) is a Framework for the development of the Central Border Region, for the period up to 2027 and embraces the opportunities that regional thinking might create. The document aims to inform and effect policy change, and create a region that can make a distinctive contribution to regeneration and growth of the island economy. This is emphasised within the Vision of “A sustainable region that delivers the best quality of life for its people and makes a distinctive contribution to economic and social renewal and growth on the island”.

The RSF has been developed to influence the Government of Ireland and Northern Ireland to consider the Central Border Region as an investment priority. It also seeks to address the inequalities and social outcomes between the Central Border Region and other regions of Ireland and Northern Ireland. Alongside addressing inequalities that exist within the Central Border Region, the RSF will ensure that this Region plays a more involved role within Europe through networking and engaging, as well as securing investments for key initiatives and projects.

Copies of the RSF and other associated documentation are available to download from ICBAN’s website: <http://www.icban.com/The-RSF>.

The RSF identifies priorities for developing the assets of the Central Border Region:

1. Smart and Internationally Competitive –Development of intellectual and enterprise assets.
2. People-Centered and Inclusive - Development of People, skills and organisational assets.



3. Sustainable - Development and Protection of Natural Assets.
4. Accessible and Connected - Development of Physical Assets.

The key ambitions of the Regional Strategic Framework reflect the challenges and opportunities at local / regional, national and international levels:

- To develop and deliver strategic responses to the key identified needs, which will enable the Region to develop and grow economically and socially
- To influence the Governments of Ireland and Northern Ireland on their investment priorities for the Region, by providing evidence base to justify investments
- To address the inequalities in economic and social outcomes between the Central Border Region and other regions of Ireland and Northern Ireland and the inequalities which persist within the Region itself, by contributing to the balanced development of the area
- To identify opportunities for local authorities and other stakeholders to work together to realise opportunities and to respond to the challenges facing the area. This is particularly important in a cross-border Region where the existence of the Border may make it more difficult to work together across different legal and organisational structures.
- To play a more involved role as an EU region, by not being peripheral in either a geographic or participative sense. There is a desire to embrace the learning potential within the EU through networking and engaging, as well as securing investments for key initiatives and projects. This will help implement the aims of EU 2020 Strategy and in particular cross-border programmes such as INTERREG. This RSF can assist in suggesting and identifying potential opportunities for further consideration and development by stakeholders.

14. The Waterways Corridor Study (Upper Shannon Navigation Area)

The Waterways Corridor Study 2005 of the Upper Shannon Navigation is the fourth study on the Shannon Navigation. The study recognises and seeks ways to realise the potential of the waterways within a framework of conservation along the Upper Shannon Navigation upstream from Roosky including the Carnadoe Waters, Boyle

-River Navigation, Lough Allen and Lough Key and up to the 6th lock of the Shannon-Erne Waterway in Leitrim Village.

The Shannon Waterway corridor is not defined as a set distance on either side of the waterway, but as the area that impacts directly on, or is impacted on by the waterway. In the case of the river this incorporates the permanent natural and constructed channel and the floodplain or callows, natural designations and any built infrastructure within these components. The Report has looked at the corridor in terms of different aspects;

- From an ecological perspective the corridor extends as far as the relevant designated area;
- In terms of archaeology and built heritage a broad distance of 500m from mean high water has been taken;
- The landscape assessment looks for distinctive features for a boundary;
- And from a planning perspective major settlements located on or near the waterway are taken in their entirety.

The study area was broken up into 5 areas having regard to the topographical nature of the landscape; socio-economic influences of villages/towns; existing development strategies and public perception of areas. The five areas are defined as follows:

1. Lough Allen, including Dowra, Drumkeeran and Drumshanbo;

2. From Drumshanbo to Carrick-on-Shannon and up - stream of the Boyle River to and including Cootehall;
3. Lough Key including Boyle and Knockvicar;
4. Carrick-on-Shannon to Roosky, including Jamestown, Drumsna and Dromod; and
5. From Lough Boderg to the Carnadoe Waters including Strokestown

Source: The Waterways Corridor Study 2005 (Upper Shannon Navigation Area)

15. Lough Allen Catchment Plan

The plan identifies ways to promote the economic, social and cultural development of this catchment area with particular emphasis on the tourism development potential from this natural resource. The plan has been adopted by the elected Members. Due regard is given within the plan to the protection and conservation of the key elements of this environmental asset, indeed the environmental protection is a central tenant of the plan. The protection of environmentally sensitive areas such as, candidate Special Areas of Conservation, proposed Natural Heritage Areas, Areas of Outstanding Natural Beauty, Areas of High Visual Amenity, Outstanding Views and Prospects and Heritage features has been provided for in the plan. Landscape Character Areas and the role and impact of economic activities such as; tourism, farming, forestry, fisheries, energy production have been properly considered in the plan. The protection of wildlife and the water quality of the area have likewise been considered. The overall strategy contained in the Lough Allen Plan is supported in the current. The Lough Allen Plan is a non-statutory plan, subservient to the County Development Plan and may be viewed as a guidance document. It will act to clarify and support the aims and objectives of the County Development Plan in relation to the sustainable development of the area.

16. River Basin District Management Plans

The Water Framework Directive (WFD) is a key initiative aimed at improving water quality throughout the European Union. It applies to waterbodies including rivers, lakes, groundwater and coastal waters. The WFD requires an integrated approach to managing water quality on a river basin basis, with the aim of maintaining and improving water quality. The Directive requires that management plans are prepared on a river basin basis and specifies a structured approach to development these plans. River basin management plans have been finalised for each river basin districts in Ireland. The plans identify the specific environmental objectives to be achieved by the end of 2015 and the programme of measures, which are the actions that will be taken to achieve them.

The Directive aims at preventing any deterioration in the existing status of waters, including the “maintenance of high status” where it exists, and at ensuring that all water achieves at least “good status” by 2015.

There is a wide range of existing legislation that contributes to the protection of our waters; a summary of relevant legislation at www.westernrbd.ie. It includes existing directives, daughter directives and measures to reduce pollution, for example the Urban Wastewater Treatment, Nitrates, Bathing Waters, Shellfish, Habitats and Dangerous Substances Directives. The Water Framework Directive encompasses all of this legislation. These controls are already being implemented in Ireland; however, the challenge is to coordinate these controls for optimum effect.

The comprehensive view also applies to human activities: if they affect the water environment, they have to be taken into account.

Much work has gone into finding out the facts: identifying all the waters in each district, finding out their current status and condition, listing the uses made of the waters and the pressures on them.



The aims, policies and objectives of the Development Plan should integrate with, and support, the objectives set out in River Basin Management Plan.

17. Lough Melvin Programme

The Lough Melvin catchment drains an area of approximately 26,000 ha, 42% of which lies within Northern Ireland. The lake has a surface area of over 2,000 ha being the 10th largest lake in Ireland and is situated within the counties of Leitrim (ROI) and Fermanagh (NI). The main catchment landuses are extensive agriculture, housing and plantation forestry.

Lough Melvin is a mesotrophic (low-medium nutrient status) lake which has been designated as a candidate Special Area of Conservation (SAC) under the E.U. Habitats Directive. It supports unique fish populations; three sub-species of brown trout; Atlantic Salmon and; a unique Arctic Char population. Significant vegetation communities also occur within the catchment area including Molinia meadows and sessile oak woodlands.

The health of Lough Melvin and its ecological communities is particularly vulnerable to catchment pressures and landscape uses. The most significant threat is nutrient enrichment and reduced biodiversity through trophic change.

Lough Melvin Programme

The aim of the Lough Melvin Nutrient Reduction Programme was to develop a Catchment Management Plan (CMP) for Lough Melvin that will promote good ecological status and address the primary catchment threats and consequent loss of biological integrity.

For further information follow the following link;

[Lough Melvin Catchment Management Plan](#)

18. Habitats Directive

The requirements relating to Land Use Plans are set out in Article 6 of the Habitats Directive (43/92/EU). In accordance with the requirements of the Directive as outlined in Department of the Environment Heritage and Local Government (DEHLG) Circular letter SEA 1/08 & NPWS 1/08 dated 15 February, 2008, a the Development Plan must be 'screened' to determine whether an Appropriate Assessment is required.

The Natura Impact Report on the Draft Plan concluded;

While the Report led to the making of certain amendments to the Plan, it was determined that further assessment was not required at this stage.

19. Combination Impacts

The Draft Plan, together with this accompanying SEA Environmental Report and Habitats Impact Report should be read in the context of other relevant plans and policies relating to the County and wider area. It is important to note that the management and care of the environment falls within the responsibility of a very wide range of Departments and Agencies. Within rural areas for instance, major land-uses can be entirely managed by

Departments dealing with agriculture, forestry, the marine or energy – all of which have separate specialist approval and evaluation procedures that protect environmental resources, (initial afforestation, which can have significant environmental impacts, is considered as exempted development under the Planning and Development Regulations). Similarly, it is important to note that other agencies make plans for the development of road, rail and energy infrastructure which must be accommodated by county and local plans. Such agencies are responsible for the separate environmental assessments in respect to the implementation of these plans.

There are significant bodies of European and National legislation that determine how environmental resources are to be managed. These exist and are implemented at a national level – with no local discretion. Such regulations cover a wide range of environmental concerns, including; the quality of air and water [surface, ground, drinking, marine and bathing waters], River Basin Districts, the management of ecological resources [habitats, species] and cultural heritage including archaeological and architectural heritage.

In general terms such Plans and Programmes are founded on the principle of sustainable development. Their impacts vary and are wide ranging and are generally positive in terms of the protection of the environment. The Draft Plan has been formulated so as to be aligned with, and where appropriate support, other relevant Plans and Programmes. It is considered that the Draft Plan will act in combination with other relevant Plans and Programmes towards the protection and enhancement of the environment.

20. The Aarhus Convention

The Aarhus Convention grants the public rights regarding access to information, public participation and access to justice, in governmental decision-making processes on matters concerning the local, national and transboundary environment. It focuses on interactions between the public and public authorities.

XX. Alternative Approaches to the making of the Draft Plan

1. Introduction

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

In accordance with Article 5, the Report should ensure that;

- ‘Reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated’ (Article 5.1)
- The Environmental Report includes ‘an outline of the reasons for selecting the alternatives dealt with’ (Annex 1(h))
- A statement is prepared summarising ‘... the reasons for choosing the plan or programme as adopted, in the light of the reasonable alternatives dealt with.’ (Article 9.1(b))

As outlined in DEHLG SEA Guidelines, certain strategic issues in County Development Plans may have already been determined at national or regional level. Also, lower tier plans such as Area Plans, will be framed in a policy context set by levels above them. The preparation of Development Plans must have regard to national and regional policy and guidelines and demonstrate consistency with same. Having regard to the foregoing the strategic alternatives available in the preparation of the Draft County Development Plan are limited.

It is a requirement under the Schedule 2B of the Planning and Development (SEA) Regulations 2004 – 2011 to give; “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...”

2. Alternatives Considered

The following five alternatives were formulated and assessed as part of the making of the Draft Plan.

(1) Market Lead Approach – Reactive Planning.

This approach would involve minimal intervention in terms of strategic planning. It would involve allowing development follow market forces to a greater extent and would take more of a short term planning approach. It would most likely lead to a highly dispersed settlement pattern and would lead to a weakening of towns and villages. Development would not be directed towards properly serviced, robust receiving environments; rather development would be dealt with as it arises on an ad-hoc basis. It would most likely have the following impacts.

- Dispersed settlement pattern.

- Negative impact on towns and villages in terms of their vitality and viability.
- Significant long-term adverse impacts on the quality of life within the county.
- Ad-hoc development patterns with continued pressure on the edge of towns and areas within the countryside already under pressure from roadside development.
- Demand for the uneconomic extension of community services and facility.
- The coalescence of certain towns and villages.
- Provision of services and facilities in an unplanned way - as the need arises.
- Lack of clear guidance to developers in terms of the preferred location for development with increased risk of difficulties in terms of securing desirable development and securing planning permission.
- Less public involvement in terms of determining the future development of the county.
- Lack of integration with other development plans and programmes at local regional, national and international level.

Increased risk of;

- non-compliance with Water Framework Directive
- damage to environmentally sensitive areas
- negative impacts on cultural heritage.

(2) Economic-Lead Planning Approach

This approach would involve the implementation of a long-term strategic planning approach, marked by a strong role for the larger towns (Tier 1 and 2) with the containment of development in areas outside serviced centres and within environmentally sensitive areas. In particular it would have a strong focus on the development of Carrick on Shannon, Ballinamore and Manorhamilton as engines for economic growth. This approach would be marked by focusing on the provision of improved and increased infrastructural services and facilities in and between the larger towns and directing development towards these centres.

This approach would most likely have the following impacts;

- Present opportunities for stronger economic growth.
- Offer strong protection of environmentally sensitive areas.
- Present less risk of pollution.
- It would lead to unbalance development within the county and a lack of opportunity for the economic and social development of large tracks of rural communities.
- It would give rise to a significant movement in terms of population distribution from the countryside with an inevitable decline in the population of large tracks of rural areas
- A significant loss in terms of the social and cultural fabric of the smaller scale rural communities
- It would have a negative impact on the vitality and viability of the villages and other smaller settlements.
- Significant loss of existing economic, physical, social and cultural infrastructure where it is currently underutilised in smaller settlements and rural areas.

(3) Environmental-Lead Planning Approach

This approach would offer strong protection to those items of the natural environment, which is of acknowledged importance, such as visually sensitive areas and areas of ecological



interest. It would have the effect that environmentally sensitive areas would be managed in the main in terms of their intrinsic value and would in the main be reserved for their amenity value. The risk of pollution to water quality and avoiding the use of the car or interference with the ecology would be of primary importance, placing very heavy constraints on development outside of serviced areas and in particular on one-off housing in the countryside. Similar to the economic plan lead approach it would have the effect of focusing development on the larger centres with a consequent decline in the social, cultural and economic wellbeing of rural areas.

This approach would have similar impacts to those outlined in 2 above, however the degree of the protection offered to the environment would be greater and the level of economic growth less.

(4) Sustainable Development Lead Planning Approach

This approach would involve the implementation of a long-term strategic planning approach, marked by a strong role for the towns, villages and other centres; Tier 1, 2, 3, 4 centres and other established settlements referred in the plan as Graigs. This approach would be in accordance with the key principles associated with sustainable development, i.e. having due regard to economic, environmental and social considerations. It would provide for a more balanced development pattern throughout the county with a strong emphasis on supporting the social and cultural fabric of the smaller settlements and rural communities.

This approach would most likely have the following impacts;

- Present opportunities for a more balanced economic development pattern.
- Offer increased support for rural communities particularly those that have suffered continuous population decline.
- Secure the vitality and viability of the villages and other smaller settlements.
- Secure a more balanced population profile within the county.
- Protect areas under pressure from development.
- Limit development in environmentally sensitive areas.

(5) Do Nothing Approach

The “do-nothing” approach represents a continuation of present trends, without any policy changes or infrastructural improvements or consideration of new standards in terms of development management or the views of the public or other interested parties - which may be included in the draft plan. Whereas it is acknowledged that the “do-nothing approach” can form the basis of comparison against which the environmental effects of the plan may be measured, it is noted that the Department of the Environment Heritage and Local Government guidelines on the preparation of SEA’s states; “the “do nothing” scenario is not one of the “reasonable alternatives” which are required to be considered under the SEA Directive. Nor would it necessarily be in keeping with the principle of sustainable development which is fundamental to the 2000 Act”. This approach has therefore been dismissed as a viable option.

3. Assessment of Alternatives

Having regard to the overall principles which underpin the concept of Sustainable Development the “Sustainable Development Plan Lead Approach” was considered to be the preferred option. This approach is best placed to achieve a proper balance between

economic, environmental and social considerations. Leitrim is predominantly a rural county and it is the primary aim of the council to protect and reinforce the population base that underpins the important social, cultural and economic fabric that defines the county. This approach will have the effect of protecting the environment while supporting population growth in the county to a level which is consistent with both the efficient utilisation of the county's resources and the aspirations of that population for income levels, living standards, employment opportunities and job choices which are compatible with that elsewhere in the state.

4. Difficulties in compiling the information

The alternatives were formulated mainly as concepts and considered by a focus group within the Planning Department. There were no significant difficulties encountered during this process. Any difficulties in exploring the alternatives were mainly related to time constraints.

XXI. The Draft County Development Plan 2015 – 2021

1. Introduction

The current County Development Plan 2009 – 2015 came into effect on 13th February 2009 and remains in effect for a six year period. A variation to the Plan was carried out primarily to ensure that the County Development Plan is compliance with the Core Strategy provisions introduced by the Planning and Development (Amendment) Act 2010, the Border Regional Planning Guidelines 2010 - 2022 and also to update proposals in respect to preferred routes for; the N4 Carrick on Shannon By-pass, the N16 Manorhamilton By-pass and N16 Manorhamilton to County Boundary.

The development plan is central to achieving greater balance in regional development and enabling all areas to develop to their maximum potential. The plan creates the vision for the area. It covers, specifies the type, amount and quality of development needed to achieve that vision and seeks to protect and enhance the environment and amenities. It creates the policy framework and necessary degree of certainty within which individual development decisions can be made over the life of the plan.

2. Mission Statement

The Vision Statement and Mission Statement for Drat County Leitrim are set out as follows:

Our Vision

“County Leitrim to be a vibrant, socially inclusive, progressive and distinctive county, providing a good quality of life for all who work, live and visits the county and offering equal opportunities for employment to its people; while protecting, conserving and enhancing the best of the natural and built environment.

Our Mission Statement

“To guide and secure the sustainable development of the County, provide efficient and effective local government services and facilities and place people first, so that Leitrim becomes a vibrant, socially inclusive, progressive and distinctive county.

3. Strategic Goals and Framework

The Strategic Goals, which form the framework for the formulation and evaluation of the policies, objectives and development control standards, are set out in the Draft Plan in respect to; Resources Environment and Heritage Economic Development Transport and Communications and Social Development.

The Strategic Goals set are translated into a Strategic Development Framework. This provides a broad indication of the main areas of growth and development to be provided for, and how this is to be accommodated geographically.

Encourage the further development of Carrick-on-Shannon, Manorhamilton and Ballinamore. These towns are identified as the principal engines for future economic development in the County. However, the Council recognises the need to provide sufficient

incentives for private sector investment in all parts of the County. The Council will seek to ensure that all towns and villages will receive equal opportunity to develop their potential to the fullest, and to prosper. The Council will also seek to ensure that the full range of physical, social and commercial services will be available in them on a self sustaining basis into the future. The Council will also actively promote and support all efforts to have further Government Offices decentralised to County Leitrim;

Reinforce the commercial viability and attractiveness of all the other towns and villages in the County. The Council is aware of the need to make use of existing infrastructure and facilities and will seek to ensure a balanced range of accommodation and ancillary development where services (physical, commercial and institutional infrastructure) are already in place;

Provide for rural accommodation, where it will help to meet primarily local needs and help to support and maintain communities and services;

Protect important wildlife habitats within Special Areas of Conservation (SAC), Natural Heritage Areas (NHA), Proposed Natural Heritage Areas (pNHA) and Special Protection Areas (SPA's);

Designated sites receive full protection under the EU Habitats Directive 43/92/EU and the European Communities (Natural Habitats) Regulations 1997, transposed into Irish law in the Wildlife (amendment) Act 2000. This law gives full protection to Natural Heritage Areas once designated. The Council is required to ensure that an appropriate assessment of the implications of development proposals is undertaken when planning permission is required. This applies to all development proposals likely to have a significant impact on the Special Areas of Conservation / Natural Heritage Areas [SAC/NHA] irrespective of whether they are located within the area or not;

Enhance the distinctive character of the landscapes of Co. Leitrim in accordance with the European Landscape Convention and the Landscape Assessment Guidelines published by the Dept. of the Environment, Heritage and Local Government;

Protect the archaeological heritage, as required by the European Convention for the Protection of Archaeological Heritage, Valletta 1992, ratified by Ireland in 1997. Archaeological Heritage includes those sites and monuments identified on the statutory Record of Monuments and Places, archaeological sites that may not have been recorded yet, sub-soil archaeology and the context and setting of archaeological sites;

Protect the architectural heritage through the establishment and continual review of the Record of Protected Structures, as required by Section 51 of the *Planning Act* 2000. The Record of Protected Structures shall include structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the county;

Recognise the importance of the improvement of the N4, N16, N15, R280, R202, R209, 208 and R199 as major factors in attracting investment, securing job opportunities and promoting growth throughout the county;

Secure community benefits through the provision of infrastructure, recreational, wildlife, social and other facilities through the use of planning agreements and development charges from new development, where appropriate and relevant;

Promote the implementation of Public Private Partnership (PPPs) between the Local Authority and the private sector for the purpose of providing public infrastructure, community facilities and related services;

Community-based initiatives based on the economic, social and cultural development of the County and wider area;

Support Cross-Border Regional projects supported and funded through the Special European Union Programme Body (SEUPB), for example, the Border Upland Project linking the Geo Tourism of the Marble Arch Caves for Counties Leitrim, Sligo, Cavan and Fermanagh.

XXII. Population and Socio-Economic Profile of the County

County Leitrim is the smallest in terms of population of the six counties in the Border Region. It has experienced a declining population since the mid 19th century. Over much of the last century, the population of Leitrim has been in decline. At the time of the 1996 Census of Population, the county had a population of 25,057 people, reflecting a 60.5% population decline in the seventy year period from 1926 and a decline of 7.6% in the period from 1986 to 1996. However, this decline has changed to a steady growth between the 1996 and 2011 census population as indicated below.

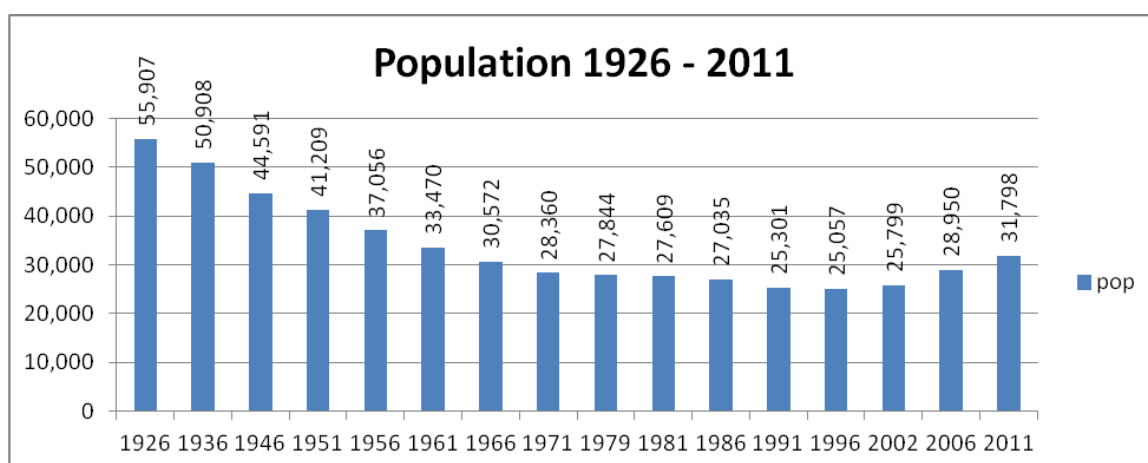


Table 5 Population 1926 – 2011

Source: CSO

The population of Leitrim increased by 3% between 1996 and 2002 (the first increase in the county's population since records began) and the 2002 - 2006 showed a population increase of 12.2%.

1. Population Trends

Leitrim has experienced a 23% increase in population over the period 2002 to 2011 which compares favourably with the 17% increase that the state has experienced in the same period.

Whereas the population increases outlined above indicated significant growth, it is reasonable to assume, (given the downturn in the economy in more recent times, and generally more cautious predictions for the future), that these trends in increasing population may slow and possibly even decline through outmigration and emigration. However, the growth indicated in the 2011 census occurred despite three years of economic adjustment.

Considering the strategic importance of Carrick on Shannon in terms of its status as the County town, its growth rate over the period 1996 - 2011 and its potential to act as an engine for economic growth, it is likely that the population increase during the lifetime of the plan will occur to a larger extent in Carrick on Shannon, as opposed to elsewhere in the County.

2. Summary Profile of County

Source: Data Profile of the Irish Central Border Region (ICBAN) Draft April 2013.
www.icban.com

Area Gross Area: 1,588 km² (158,885ha) Land Area: 1,502 km²

Population Density (2011) 21.2 persons / km²

Population 2002: 25,799 2011: 31,798

Population Change 2002-2011: +23.3%

Population Projection 2022: 35,700

Towns, with Population over 1,000 (2011)

Carrick-on-Shannon	3,314 (in Leitrim, plus 666 in Roscommon)
Manorhamilton	1,336
Kinlough	1,018

Age Profile (2002) 0-24 years: 34.3% 25-64 years: 49.6% 65+ years: 16.1%

Age Profile (2011) 0-24 years: 31.8% 25-64 years: 53.3% 65+ years: 14.8%

Average Age (2011) 38.4 years

Dependency Ratio (2011) 57.3%

3. Employment & Unemployment

Working Age Population (15 and over, 2011) 24,919

Labour Force (2011) 15,019 **Participation Rate** 60.3%

Unemployed (2002 Census) 949 Persons (8.7% of Labour Force)
 649 Males 300 Females

Unemployed (2011 Census) 3,047 Persons (20.3% of Labour Force)
 2,105 Males 942 Females

Live Register (December 2012) Number 3,398
 Male 2,158
 Female 1,240
 Youth (U-25) 516

Number Employed 2002: 9,990 2011: 11,972

Employment Growth (2002-2011) 1,982 (+19.8%)

Numbers Employed: Top 5 Sectors (2011 Census)

Health & Social Work 1,603 persons
 Wholesale & Retail Trade 1,538 persons

Agriculture, Forestry, Fishing	1,215 persons
Education	1,093 persons
Manufacturing Industries	1,032 persons

4. Business & Enterprise

Paye / Vat Registered Firms (2010)	Firms: 1,330	5,817 Persons
Micro-Enterprises (2010, <10 employees)	Firms: 1,240	2,386 Persons
Paye / Vat Registered Firms (2007)	Firms: 1,573	7,118 Persons
Change in Enterprises (2007-2010)	Firms: -243 (-15.5%), -1,301 (-18.3%) Persons	

Most Firms: Business Sectors 2010 (excluding Agriculture)

Top three sectors account for 65% of all firms

1. Wholesale, Retail & Motor Trades	344 Firms
2. Construction	326 Firms
3. Accommodation / Food	192 Firms

Examples of Key Firms / Activities (the list is indicative only) :

Bank of America / MBNA	Call centre for credit card business
Elastometall Ireland	Shock absorber products
Merenda Wood Products	Wood veneers, recycled wood briquettes
Mirror Controls International (MCI)	Mirror controls components
Olimotion Ireland	Large scale hydraulic rams
Valspar Industries Ireland	Paints and other industrial coatings
Masonite	Door panels / facings, worldwide firm
Vistamed	Medical devices / catheters

Key Sectors

Agriculture:	Census Employment:	2002: 1,275	2011: 1,215
	No. of Farms:	2000: 3,724	2010: 3,673

5. Tourism:	Number of Overseas Tourists	2009: 27,000	2011: 31,000
	Revenue Generated by Overseas Tourists	2009: E14m	2011: E11m

6. Age/Sex

In April 2011 Leitrim had a population of 31,798, consisting of 16,144 males and 15,654 females.

The population of pre-school age (0-4) was 2,456, of primary school going age (5-12) was 3,602 and of secondary school going age (13-18) was 2,333. There were 4,706 persons aged 65 years and over. The number of persons aged 18 years or over was 23,747.



7. Marital Status

Of the 24,919 persons aged 15 years and over, 9,194 were single, 12,639 were married, 761 were separated, 605 were divorced and 1,720 were widowed.

8. Living Arrangements

There were 12,308 private households in Leitrim in April 2011, of which 3,755 were single person households. Of the 8,180 families in the area, 2,600 were couples with no children. The average number of children per family was 1.4 compared with 1.4 nationally. This data reveals an older age profile than that of the state which would indicate a relatively, high dependency rate.

Household Composition

	Leitrim		State
	No. of households	% breakdown	% breakdown
One Person	3,755	30.5	23.7
Couple without children	2,470	20.1	18.9
Couple with children	4,166	33.8	34.9
Lone parent family	1,115	9.1	10.9
Other	802	6.5	11.6
Total	12,308	100.0	100.0

9. Migration and Nationalities

94.3 per cent of the usually resident population aged over 1 lived at the same address one year before the census. A further 2.6 per cent lived elsewhere in the same county, 2.2 per cent lived elsewhere in the State while 0.9 per cent lived outside the State twelve months before the census on April 10, 2011.

Non-Irish nationals accounted for 11.8 per cent of the population of Leitrim compared with a national average figure of 12.0 per cent. UK nationals (1,665 persons) were the largest group, followed by Polish (764 persons).

10. Languages

12,644 persons could speak the Irish language and of these 4,225 spoke the language daily. 2,497 persons spoke a language other than Irish or English at home and of these 477 could not speak English well or at all. Polish was the most common foreign language spoken at home with 757 speakers.

11. Religion

There were 27,394 Roman Catholics in the area at census time. A further 2,293 were adherents of other stated religions (e.g. Church of Ireland, Islam, Presbyterian, and Orthodox), while 1,696 persons indicated that they had no religion.

XXIII. Human Health

1. Introduction

Human health, in the context of being subjected to significant effects as a consequence of the proposed Leitrim County Development Plan 2015– 202, was assessed with reference to how environmental elements and their existing issues and evolution may impact on the health of Leitrim inhabitants and visitors.

2. Baseline Environment

Human health encompasses an enormous area of study and includes, *inter alia*, everything from physical and mental disabilities, long-term illness, acute and chronic disease, mental health and aging populations.

3. Health

As part of the Census of Population in 2011 undertaken by the Central Statistics Office, questions were asked regarding personal perceptions of an individual's health with options to rate personal health from very good to very bad. Leitrim fared quiet well on the human health front, when placed 13 of the 34 other enumeration areas. Health in Leitrim is perceived to be better than any of the Connaught counties and the Border Region with the exception of Cavan.

Human health encompasses an enormous area of study and includes everything from physical and mental disabilities, long-term illness, acute and chronic disease, mental health and aging populations.

Proposed 'Activities/Uses' that have potential to cause harm to humans will be required to undertake an appropriate level of environmental assessment considering the likely impact of this 'activity/use', directly and indirectly, on humans.

Sources of health problems arising from environmental conditions may arise from areas such as: Air, Water, Noise, Light, Geology and Biodiversity.

The expansion and upgrading of existing health care facilities, including accident and emergency services, the provision of day-care centres and community centres will all be encouraged by the Council, in anticipation of the expected growth in demand for such facilities.

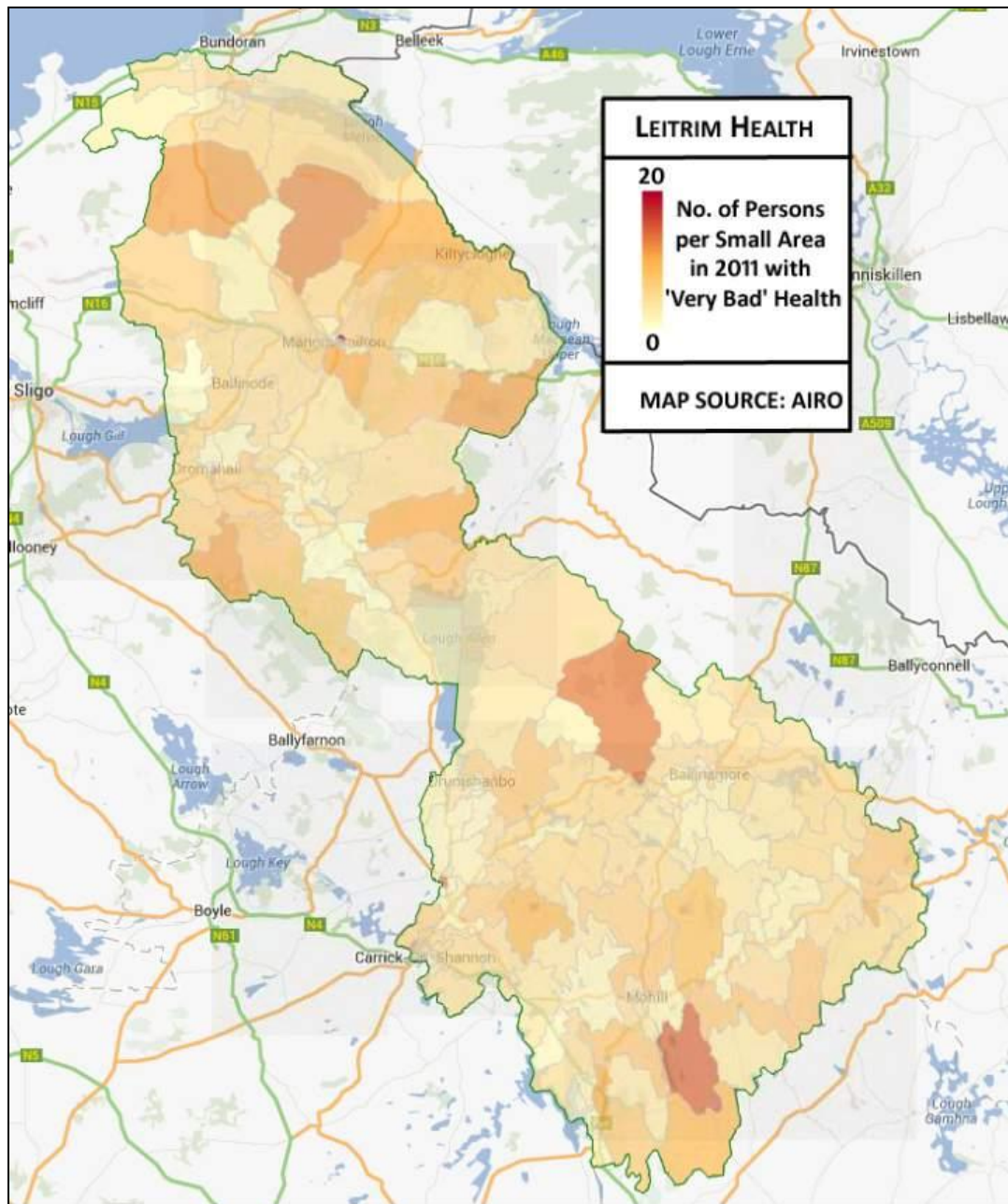


Figure 3 Health of the Population of County Leitrim in 2011

Source: All-Ireland Research Observatory

In 2011, 27,584 Leitrim residents stated they were in very good or good health, representing 86.7 per cent of total persons. This compares to 88.3 per cent of total persons nationally. A total of 449 Leitrim residents stated they were in bad or very bad health in 2011, representing 1.4 per cent of total persons in this area. Again this compares with 1.5 per cent of total persons nationally. Figure 3 above provides an illustration of the areas within the County with very bad health. It is noticeable that many of the areas with high numbers of persons in 'very bad' health are also the locations of hospitals and nursing homes. However, it is also interesting to note that some of the more rural areas have high numbers of persons in 'very bad' health and this is most likely attributable to an ageing population.

Health conditions most frequently diagnosed by doctors in the HSE West region of Ireland include chronic back conditions and hypertension, rheumatoid arthritis, heart failure, heart attack and anxiety / depression.

4. Services

The Health Services Executive provides information regarding the location of various health services within the Leitrim and wider area. Figure 4 below identifies the locations of Health Centres, Hospitals, Nursing Homes and Pharmacies in the Leitrim and surrounding areas. This shows a spread of these health services throughout the County, primarily centred upon the main urban settlements, although nursing homes are not location dependent upon centres of population. Hospital facilities are less evenly spread throughout the region with the population dependent upon hospital services outside the County for some health services.



Figure 4 Distribution of Health Services in 2013 relative to County Leitrim

Source: Health Service Executive

5. Hazardous Sites

The Seveso II Directive applies to some thousands of industrial establishments where dangerous substances are present in quantities exceeding the thresholds in the directive. At present there are no Seveso sites within the functional area of Leitrim County Council that are designated Upper or Lower tier sites under the *European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006*.

The *Leitrim County Council Major Emergency Plan 2012-2013* identifies the following sites as being potentially hazardous: -

1. Masonite Ireland Carrick on Shannon: Manufactures of timber door and mouldings
2. Eaton Automotives Manorhamilton: Manufactures of Car fittings
3. Modular Cold stores Mohill: Manufactures Cold Stores

6. Potential Impacts

Epidemiological studies undertaken nationally and on an international scale indicate that a number of environmental factors are casual factors in deteriorating human health. The following section describes some of the potential human health problems arising from environmental conditions.

7. Air

Air quality has been identified as heavily influencing human health. Airborne pollutants include particulates and noxious gases and their presence in concentrations above specified emission limit values are breaches of the *Air Pollution Act, 1987*. For example, concentrated

levels of sulphur dioxide in ambient air can affect vegetation (*via* acid rain) and human health, particularly those suffering from asthma and chronic lung diseases. Studies have found that emissions of sulphur dioxide generally tend to be concentrated in urban areas, associated with high usage of non-renewable fuels. Limiting the sulphur content of smoky coal helps to protect human health and the environment by reducing air pollution, particularly during the winter months.

The *EPA Act 1992* introduced Integrated Pollution Control (IPC) for specific 'activities'. It outlines that it is the responsibility of the Environmental Protection Agency (EPA) for the issuing and implementing of such a licence. There are 5 no. Licenses issued for County Leitrim: -

Reg. No.	Company Name	Address
P0021-01	Masonite Ireland	Derryoughter, Drumsna, Carrick-on-Shannon, County Leitrim.
P0021-02	Masonite Ireland	Derryoughter, Drumsna, Carrick-on-Shannon, County Leitrim.
P0209-01	Valspar Industries (Ireland) Limited	Willowfield Road, Ballinamore, Co. Leitrim.
P0333-01	A.S. Richardson Company Limited	& Newtowngore, County Leitrim.
P0625-01	Glenfarne Products Limited	Wood Annagh, Glenfarne, County Leitrim.

Emissions from these sites will need to be controlled in line with conditions of the individual licenses, including emissions to air, otherwise potential to negatively impact on human health may emerge.

8. Noise

Excessive noise can potentially lead to hearing impairment, hypertension, ischemic heart disease, annoyance and sleep disturbance. Changes in the immune system and birth defects have also been attributed to noise exposure. Elevated noise levels can create stress, increase workplace accident rates and stimulate aggression and other anti-social behaviour. For humans the most persistent sources of noise pollution are attributable to vehicle and aircraft noise, prolonged exposure to loud music and industrial noise. The National Roads Authority have prepared strategic noise mapping providing a graphical representation of weighted predicted annual average (Lden) and annual average night time (Lnight) road traffic noise levels in Co Leitrim.

The map has been developed in accordance with S.I. No. 140 /2006 (the Environmental Noise Regulations) and is a representation of the average environmental noise levels over one complete year. This map forms part of a national noise mapping strategy which can be primarily used as a strategic tool for large scale planning or policy matters, but is not suitable for local noise assessments. The N4 and N15 national roads were the only Leitrim roads deemed to be carrying in excess of 3 million vehicle passages per year assessed as part of this national study.

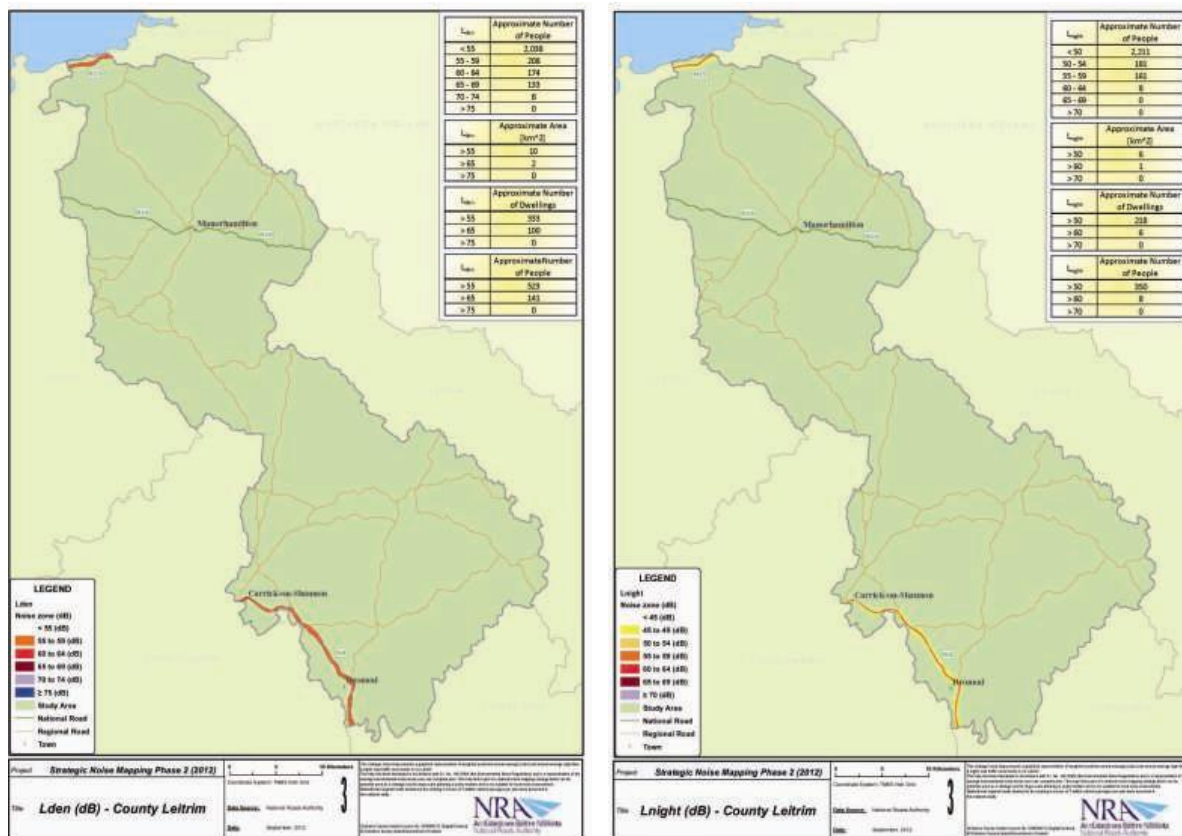


Figure 5 Strategic Roads Noise Mapping, County Leitrim, 2012

Source: National Roads Authority

There are psychological definitions of noise also, for example, fireworks may traumatise individuals. The most common noise-traumatized persons are those exposed to military conflicts, but often loud groups of people can trigger complaints and other behaviours about noise.

Noise complaints are received at the rate of about 12 per year. In order of frequency they are;

1. Noise from entertainment venues after 22.00. 2. Noise from neighbours. 3. Noise from wind turbines.

The first might indicate a conflict between the desire to have people living in the town centre whilst also encouraging the development of a night time culture with pubs, night-clubs and take-aways.

Noise from neighbours is frequently vexatious and often reciprocated but there does seem to be a relationship between construction standards and complaint incidence.

A Noise Action Plan for the county was prepared in 2013. In this first Plan, the objective was to assess noise generated by the various modes of transport, to identify residences which were exposed to excessive noise levels and to determine whether mitigation works were justified. It is expected that future versions of this Plan will require the designation of "quiet" areas and assess the impact from other noise sources and at lower thresholds.

9. Light

Light pollution is not regarded as an issue of concern for the County. Complaints received to date in relation to light pollution can simply be addressed by a requirement to have all external lighting to be fitted with cut-off baffles to direct the light downward and inwards to the site.

10. Water

As well as the direct relationship between drinking water and its impacts on human health, including water-borne diseases, such as hepatitis and leptospirosis and protozoan-causing cryptosporidiosis, giardiasis and amoebiasis. A number of additional drinking water-based diseases include acute illnesses associated with *Escherichia coli* and other bacteria. Proper drinking water treatment including adequate settlement, coagulation, filtration and chlorination should aim to prevent drinking water-related disease and infection. Indirect effects of human health from surface waters may also include mental health issues which are proven to be positively influenced by aquatic ecosystems including lakes, seascapes, rivers and canals. Figure 6 below details the quality of river waters in the County and surrounding area based on EPA tests. Review of the map indicates a greater potential for 'high' and 'good' status river waters in the north of the county when compared with the southern half.

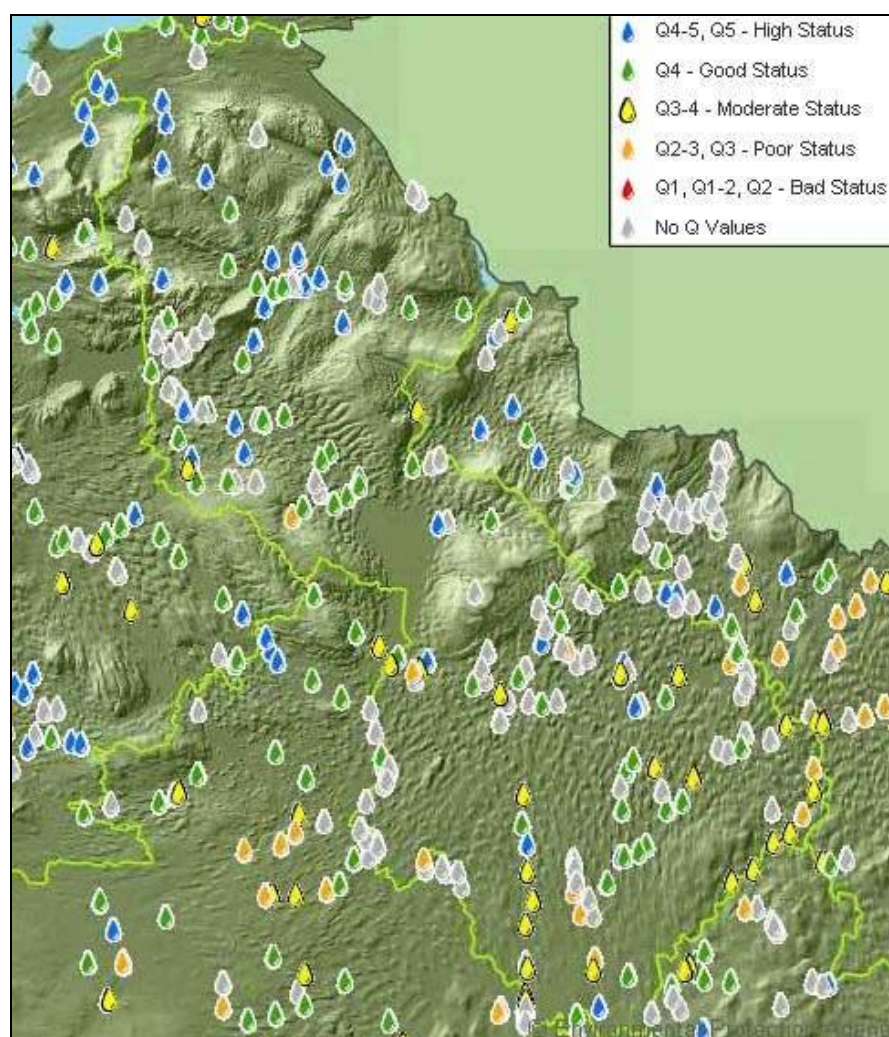


Figure 6 River Water Quality, County Leitrim, 2012

Source: Environmental Protection Agency

11. Geology

The geology of an area can be a factor influencing the concentration of radon, a radio-active gas which causes lung cancer, released into homes and other developments. The Dromahair-Glencar area of Leitrim is identified as a high radon area, experiencing levels above acceptable concentrations. Radon measurements have been carried out by the Radiological Protection Institute of Ireland (RPII) in a number of homes in each 10 km grid square of the National Grid. Houses were chosen at random to give a uniform distribution across the country and findings were used to predict the percentage of homes in each 10 km grid square with radon concentrations in excess of the national Reference Level of 200 Bq/m³. An extract of this mapping is included in Figure 7 below.

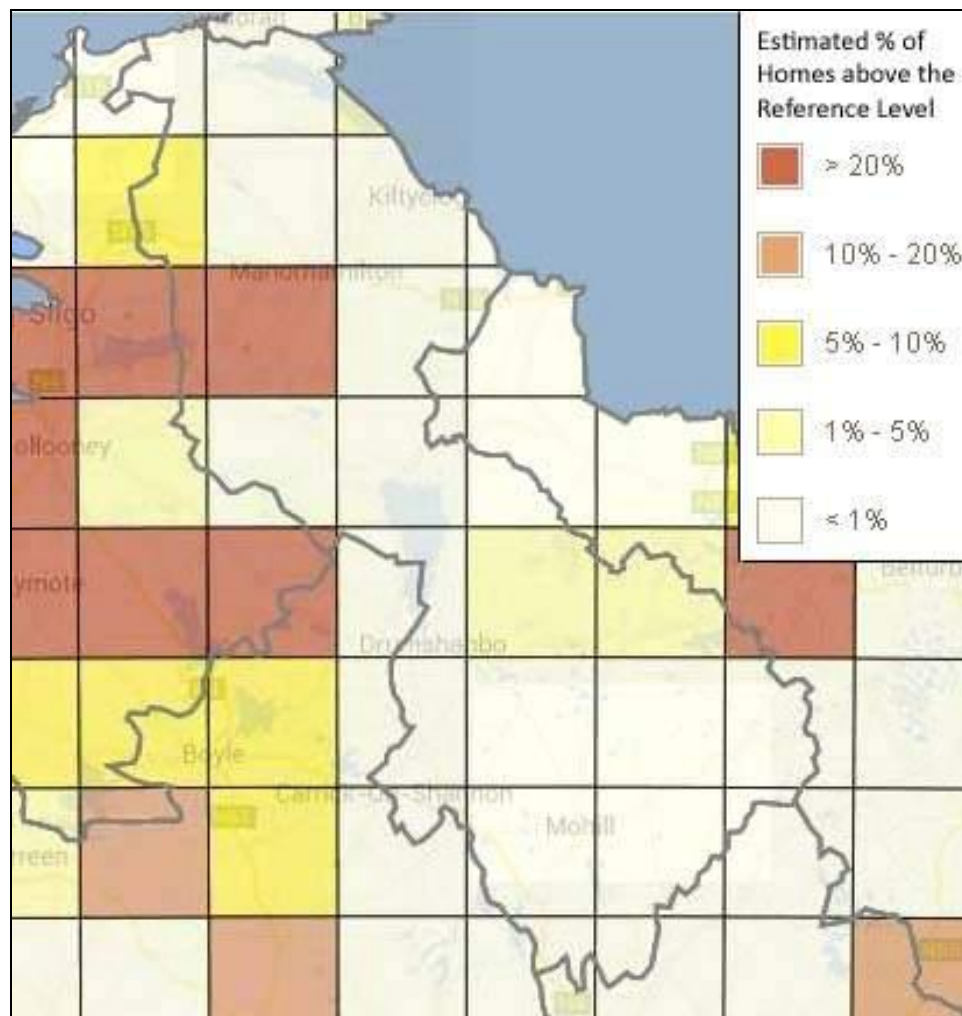


Figure 7 Estimated % of Homes above Radon Reference Level

Source: Radiological Protection Institute of Ireland

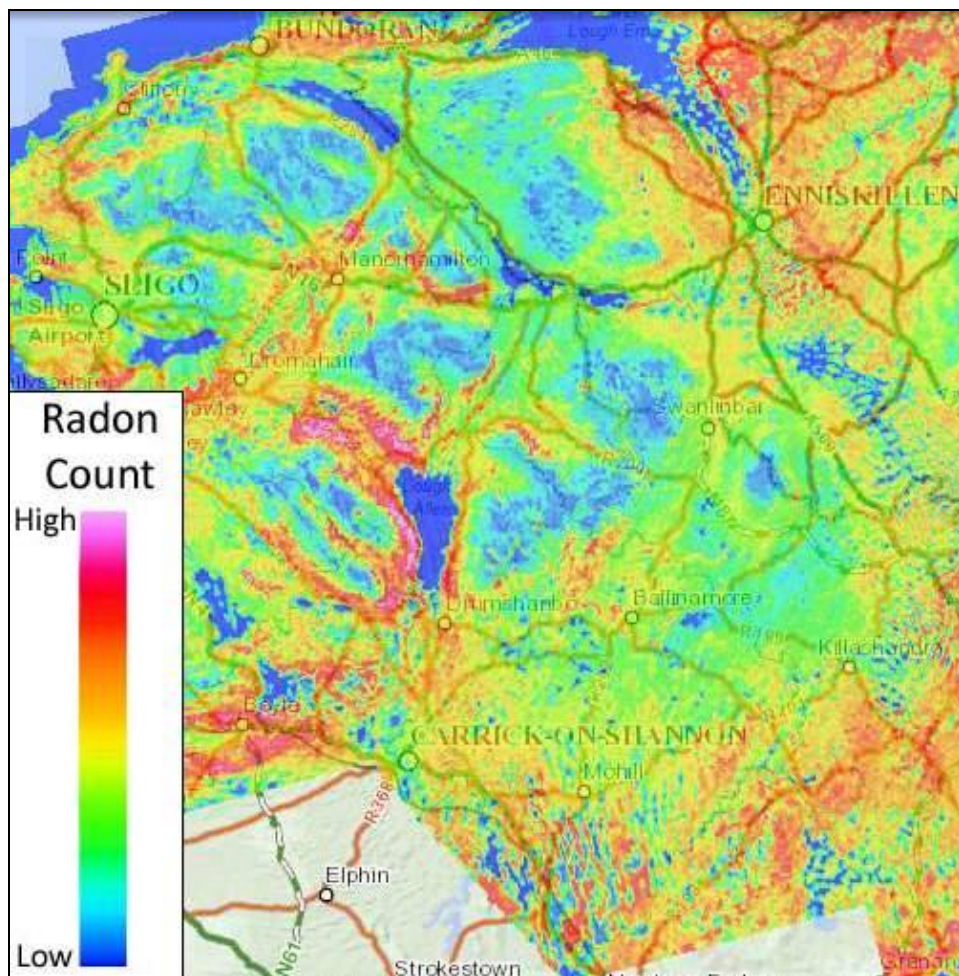


Figure 8 Radon Mapping Count

Source: GSI (Tellus Border Project)

Based on analysis of the information illustrated in Figure 7, a high radon level can be found in any home in any part of the country, but these homes are more likely to be located in High Radon Areas. However, a more detailed assessment of the distribution of radon within County Leitrim has been recently undertaken as part of the Tellus Border Project. Figure 8 illustrates this distribution based on a count of radon calculated based on viscosity levels. The distribution map appears to suggest lower counts of radon in general within mountainous upland regions and higher levels of radon count often along the main routes serving the county.

12. Biodiversity

Biodiversity loss can have significant direct human health impacts if ecosystem services are no longer adequate to meet social needs. The World Health Organisation (WHO) emphasises that good human health and productive livelihoods depend upon ecosystem products and services, such as availability of fresh water, fresh air, food and fuel sources. In addition, significant medical and pharmacological discoveries are made through greater understanding of the biodiversity in Ireland and worldwide. Biodiversity loss may limit discovery of potential treatments for many diseases and health problems. Health promotion, health research, health monitoring, disease prevention, community health and the costs of public health management are all positively affected by ecosystem goods and services and put at risk by biodiversity loss and ecosystem change.

13. Settlement Pattern

The current dispersed rural nature of the County's population gives rise to an increased dependency on unsustainable modes of transport, which could impact on air quality and climate factors; indirectly on human health. In addition, there is also an increased dependency on private waste water treatment systems in rural areas that could have negative impacts on groundwater and drinking water quality, which in turn could have adverse impacts on human health.

14. In Conclusion

'Activities/Uses' that have potential to cause harm to human health will need to undertake an appropriate level of environmental assessment considering the likely impact of any such 'activity' or use directly and indirectly on human health.

XXIV. Settlement Strategy

1. Introduction

The Development Plan must have regard to the settlement policies of National and Regional objectives and in particular to the National Spatial Strategy, the Regional Planning Guidelines for Border Region and the Sustainable Rural Housing Guidelines for Planning Authorities. An extract from the Regional Planning Guidelines relating to a settlement strategy within the County may be found in *Appendix C*.

The National Spatial Strategy (NSS) outlines four broad objectives for a sustainable rural policy framework, as follows;

- (1) To sustain and renew established rural communities and the existing stock of investment in a way that responds to the various spatial, structural and economic changes taking place, while protecting the important assets rural areas possess;
- (2) To strengthen the established structure of villages and smaller settlements both to assist local economies and to accommodate additional population in a way that supports the viability of public transport and local infrastructure and services such as schools and water services;
- (3) To ensure that key assets in rural areas such as water quality, the natural and cultural heritage and the quality of the landscape are protected to support quality of life and economic viability;
- (4) To ensure that rural settlement policies take account of and are appropriate to local circumstances.

These objectives are reflected in the policy and objectives of the Draft County Development Plan.

It is the policy of the Council to enable every household to have available an affordable dwelling of good quality, suited to its needs, in a good environment and, as far as possible, at the tenure of its choice.

The Council will pursue this goal;

- by the direct provision of housing,
- by facilitating and co-operating with approved voluntary housing associations and other social and affordable housing providers,
- by facilitating the development of the private rented sector as an attractive tenure and the implementation of the Rental Accommodation Scheme
- by providing paths to home ownership from social housing and in response to demand for affordable housing,
- by continuing to operate grant schemes to assist older people and people with a disability in private housing,
- by being favourably disposed towards the development of new houses in appropriate locations and refurbishment and extension of existing houses in the county.

Standards for residential developments are detailed in the Development Control section of the Draft Plan. All housing developments, including those carried out by or on behalf of the Council itself, will be required to conform with the policies and standards set out in this Development Plan. Proposals for housing developments shall be guided by the design standards and principles set out in the guidance document entitled; "Quality Housing for

Sustainable Communities”, 2007, produced by the Department of the Environment, Heritage and Local Government.

2. Strategy in respect to selected towns and villages

County Leitrim is a pre-dominantly rural county with one larger urban centre (Carrick on Shannon) and four other main towns (Ballinamore, Drumshanbo, Manorhamilton and Mohill). Settlement policy broadly guides where new development will occur in the county and is a fundamental component of spatial planning.

A Land Use Strategy in respect to selected towns and villages has been formulated in respect to the strengthening of towns, villages and other centres and in order to counteract undue segregation in housing between persons of different social backgrounds. The strategy has informed the Draft Plan. The settlements have been considered within a hierarchy of centres as outlined below.

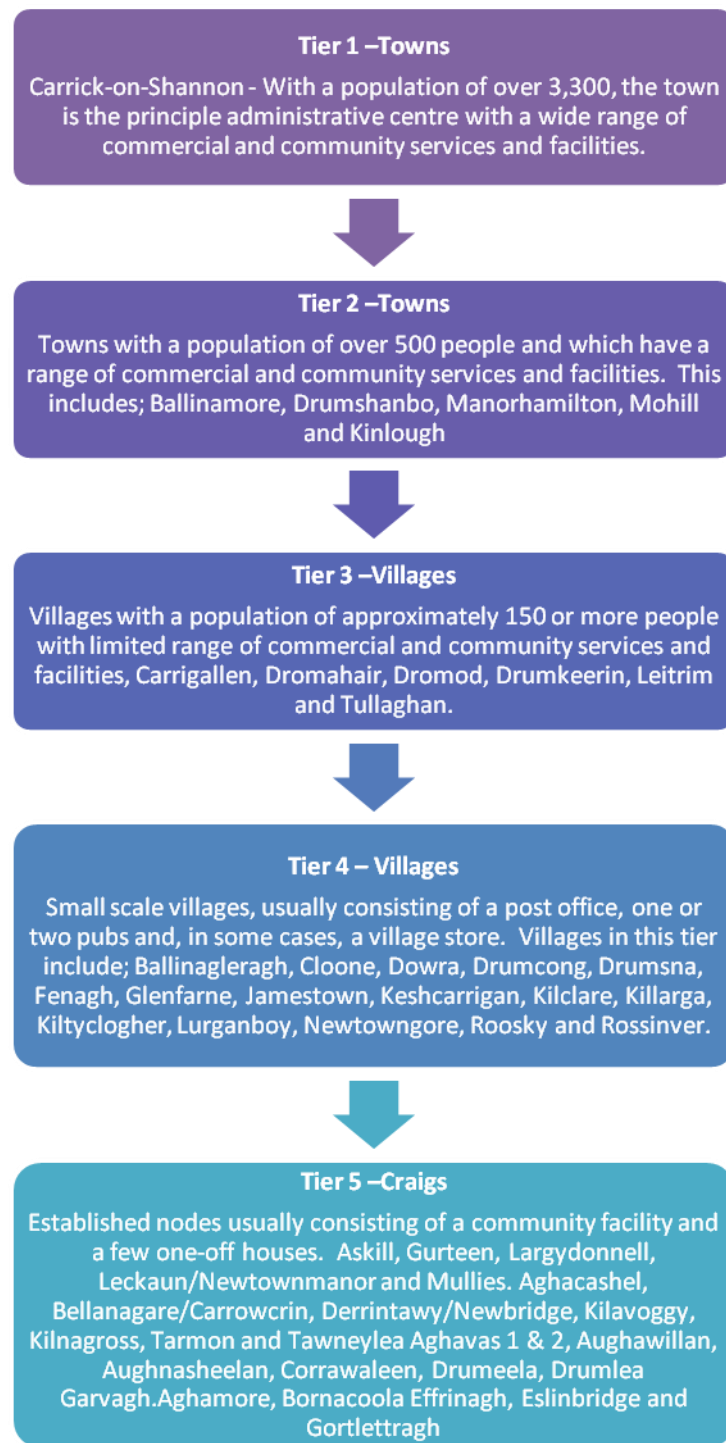


Figure 9 Hierarchy of Towns and Villages and other Centres

Source: Leitrim County Council

Growth in the residential sector has been significant in particular areas of the County, however this growth not been accompanied by a commensurate level of local employment opportunities, infrastructure, amenity and service provision. Creating local and sustainable employment opportunities, counteracting population decline in certain areas while ensuring that those items of acknowledged interest, including the character and of Towns and Villages, are not compromised, is a significant challenge facing the county.

The detailed zoning of lands in Carrick on Shannon (a Tier 1 town) will be dealt with in the review and preparation of the new Local Area Plan due to commence following the adoption of the County Development Plan 2015 - 2021. The Draft Plan does not propose any significant change to the overall quantum of residential lands to be made available to meet housing land requirements. Following a review of zoning, changes are proposed in Ballinamore, Drumshanbo, Dromod, Kinlough, Cloone, Dowra, Glenfarne (Brockagh Lower), Kiltyclogher, Roosky, and Rossinver, *Refer to Book of Maps Volume 3 (Appendix E) of the Draft Development Plan for details.*

3. Land use strategy for Housing in respect to Housing in the Countyside

The need to ensure that lands are zoned appropriately in order to serve; the, economic social and cultural requirements of the County which include;

Retail, Transport, Education, Childcare, Recreational/Leisure, Health, Community Supports and Environment. There is a need to cater for different housing needs e.g. first time buyers, families, homeless persons, persons with disabilities, the Travelling Community, older people and students and holiday homes.

It is the function of the Council to ensure there is adequate and appropriate Social and Affordable Housing. The Council seeks to facilitate the development of vibrant communities with appropriate facilities and a clear identity.

The vacancy rate varies widely across the country, with Leinster's rate falling from 11.6 per cent to 10.6 since 2006. The vacancy rate in Connacht fell slightly from 21.4 to 21.3 per cent, while Munster and Ulster saw their rates rise over the past five years.

The CSO 2011 indicated that there were 12,334 households within the County. The CSO 2011 also indicated that there were 18,128 dwelling within the County. With a 5,526 vacant dwellings this represents a vacancy rate of 30.4%, the highest in the Country. The average occupancy per household in 2011 is given in the census as 2.6.

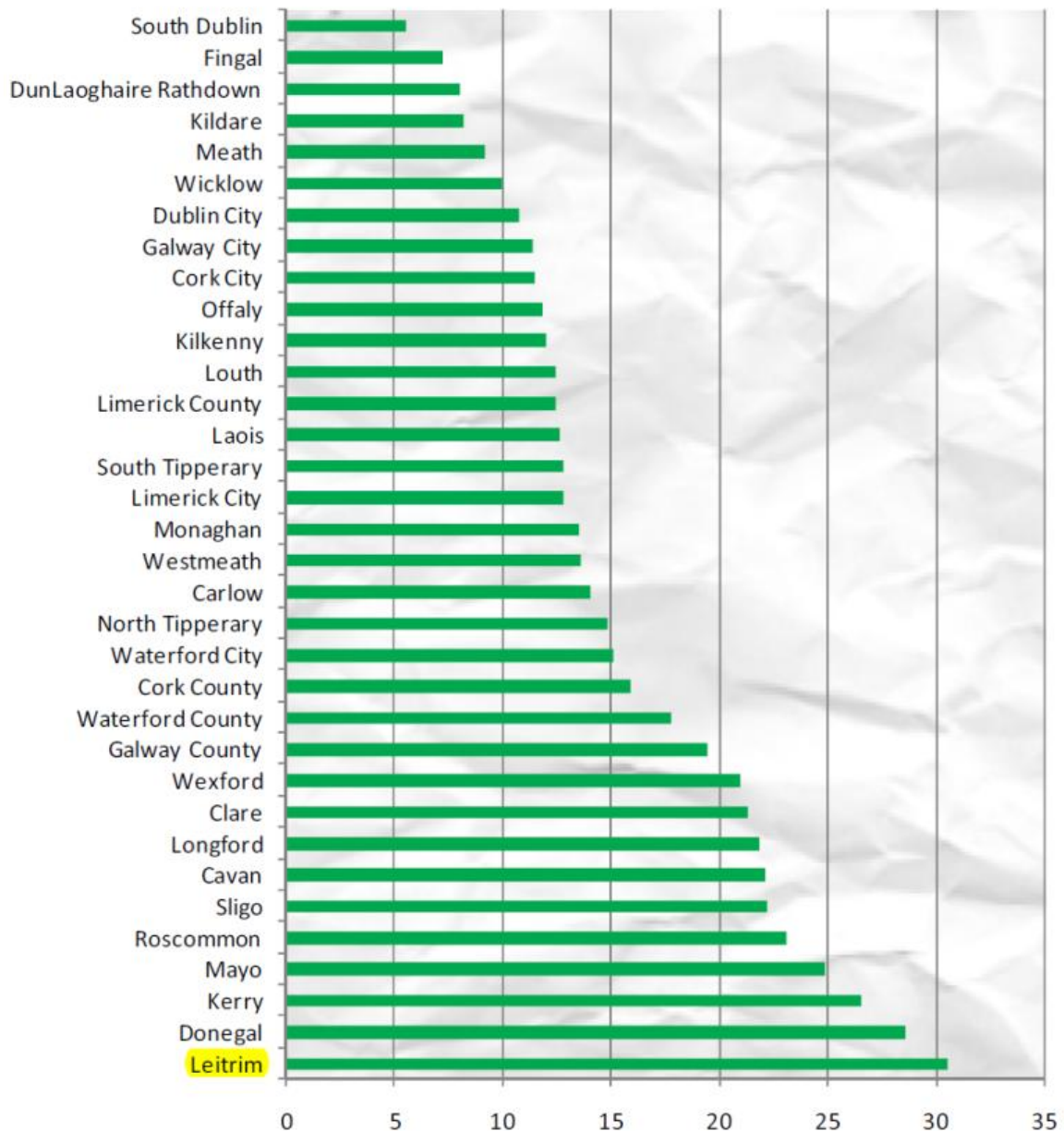


Table 6 Vacant dwellings as a percentage of total housing stock, 2011

Source: <http://www.cso.ie/en/media/csoie/census/documents/Prelim,complete.pdf>

There are certain areas of the county where there is a high capacity to absorb one-off housing and where such development is welcome in terms of sustaining rural communities, e.g., whereas countryside schools and other community facilities are available and under threat. It is considered appropriate therefore that the Council facilitates development in these areas. At the same time there are some areas within the countryside that are under pressure from development in terms of one-off housing, particularly along the approach roads to some of our towns and villages and within certain visually sensitive areas. These are areas where there is a significant level of one-off housing, usually roadside development, which cumulatively tend to place constraints on the sustainable development of towns and villages and raises a range of environmental concerns. The capacity of the countryside to absorb development in areas under pressure and environmentally sensitive areas is therefore limited.

Having regard to the foregoing and in order to achieve the basic aims of the Council as set out above in term of increasing the population of the county while protecting the environment, it is considered appropriate to formulate a land use strategy in respect to the accommodation of residential development within the countryside. In doing so it is the aim of the strategy to protect environmentally sensitive areas and areas under pressure from an inappropriate form of development and thereby provide for the needs of those people with a strong justification to live in these areas. At the same time there is the need to facilitate residential development towards areas within the countryside with a low population growth/vacancy profile in order to sustain the cultural heritage, social fabric and vitality of these areas.

4. Policy formulation

Having regard to the foregoing a twin-track approach has been adopted towards the accommodation of residential development in the countryside.

In the first instance small-scale settlements were identified as Graigs. These are nodes with an established identity consisting in the main of some form community facility and a number of dwelling houses. These nodes that are considered suitable for the development of small scale housing schemes or single dwelling houses. See Figure 10.

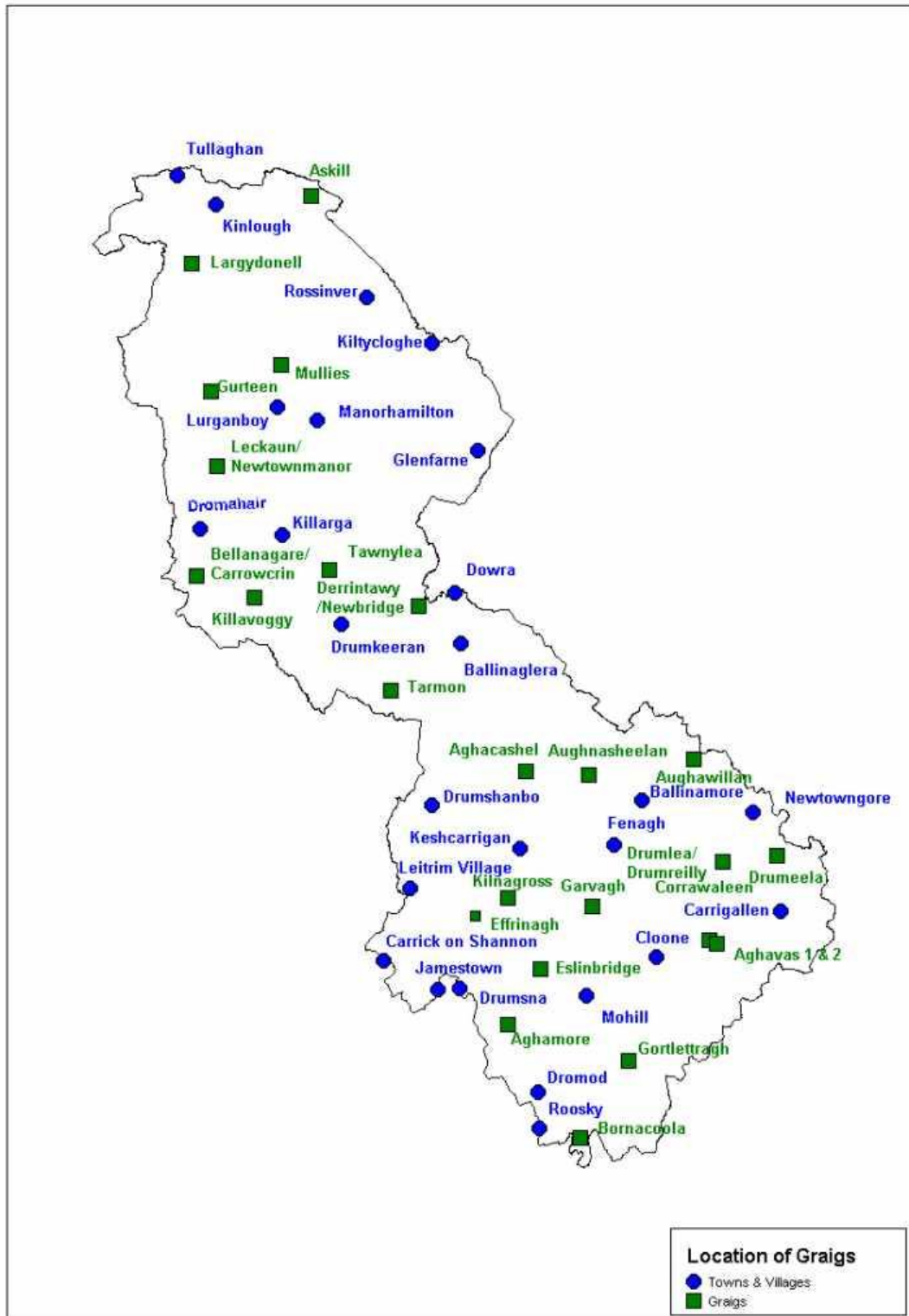


Figure 10 Location of Graigs

The second part of the approach was to identify the capacity of the countryside to absorb one-off housing having regard to issues in terms of environmental sensitivity, population trends, vacancy rates and the existing level and pattern of development in the area.

5. Determination of Areas of High Medium and Low Capacity

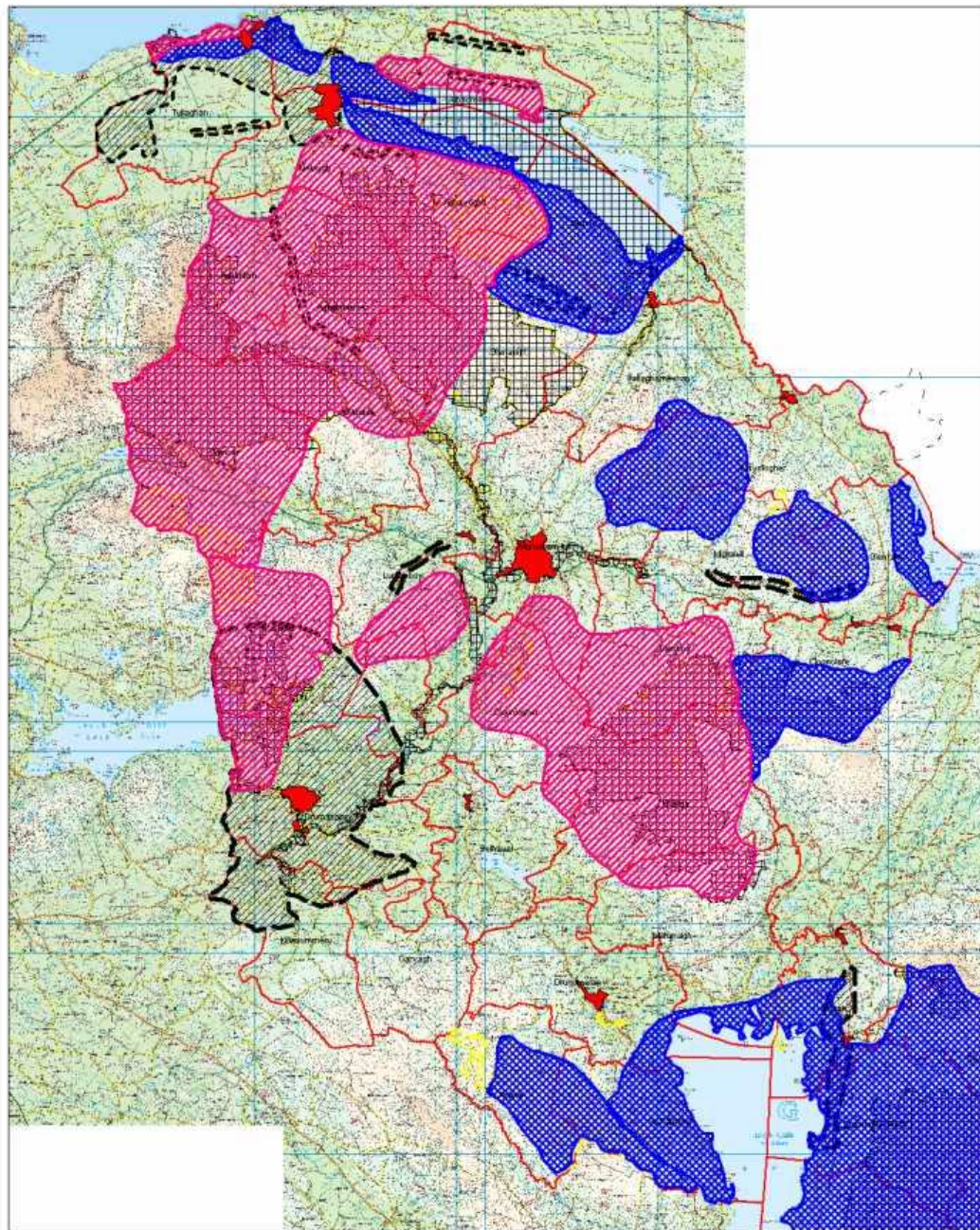
The determination of areas of high, medium and low capacity in terms of accommodating one-off housing depends on; environmental considerations, population trends, vacancy rates and the extent of areas under pressure from development. In this regard the following actions were taken;

- 1) Environmentally sensitivity areas including; – Candidate Special Areas of Conservation, Natural Heritage Areas and proposed Natural Heritage Areas, Special Protection Areas, Areas of Outstanding Natural Beauty (AONB's) and Areas of High Visual Amenity (HVA's) were identified and mapped, refer to Figure 11 and Figure 12.
- 2) Similarly vacancy rates were mapped in respect to house vacancy rates.
- 3) Local areas that are clearly under significant development pressure were also mapped.

(1) Environmental Considerations

Candidate Special Areas of Conservation, Natural Heritage Areas and proposed Natural Heritage Areas, Special Protection Areas, Areas of Outstanding Natural Beauty (AONB's) and Areas of High Visual Amenity (HVA's) are considered to be environmentally sensitive areas and are often the most attractive places in which to build. Accordingly it is necessary to protect these areas from excessive levels of development while securing the protection of the social fabric of these areas and the reasonable expectations of persons with a justifiable need to live in these areas. These areas are therefore considered to be areas of low capacity in terms of the accommodation of one-off housing. See Figure 11 and Figure 12– “Environmentally Sensitive Areas and Areas under pressure from one-off housing”.





Special Areas of Conservation
 Natural Heritage Areas
 Areas of Outstanding Natural Beauty
 Areas of High Visual Amenity
 Areas under pressure from development



Figure 11 Environmentally Sensitive Areas and Areas Under Development Pressure (NORTH)

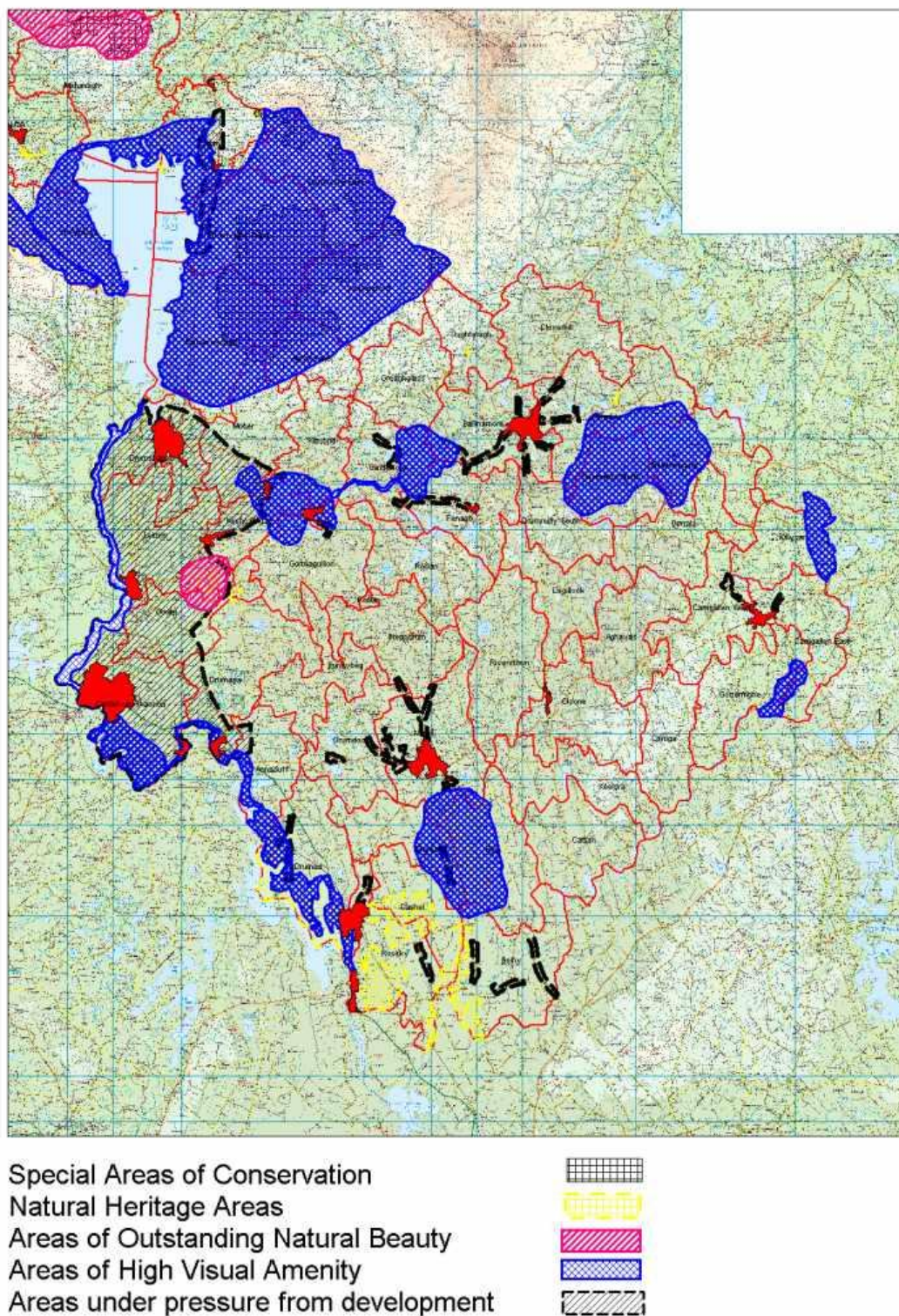


Figure 12 Environmentally Sensitive Areas and Areas Under Development Pressure (SOUTH)

6. Selection of Areas of High, Medium and Low Capacity.

The overall consideration of; environmentally sensitive areas, local areas under pressure, vacancy rates and the need to avoid the coalescence of towns/villages were the guiding factors used to determine, high capacity, medium capacity and low capacity in terms of

accommodating residential type development within the countryside. Figure 13 and Figure 14 indicates Areas of High, Medium and Low Capacity in terms of accommodating one-off housing in the Countryside.

Subject to normal planning requirements there will be a presumption in favour of the development of one-off housing in areas of high capacity. Developments in areas of medium capacity and low capacity will be limited to those who can demonstrate their need to live in the area with a stronger justification needed in the case of areas of low capacity.

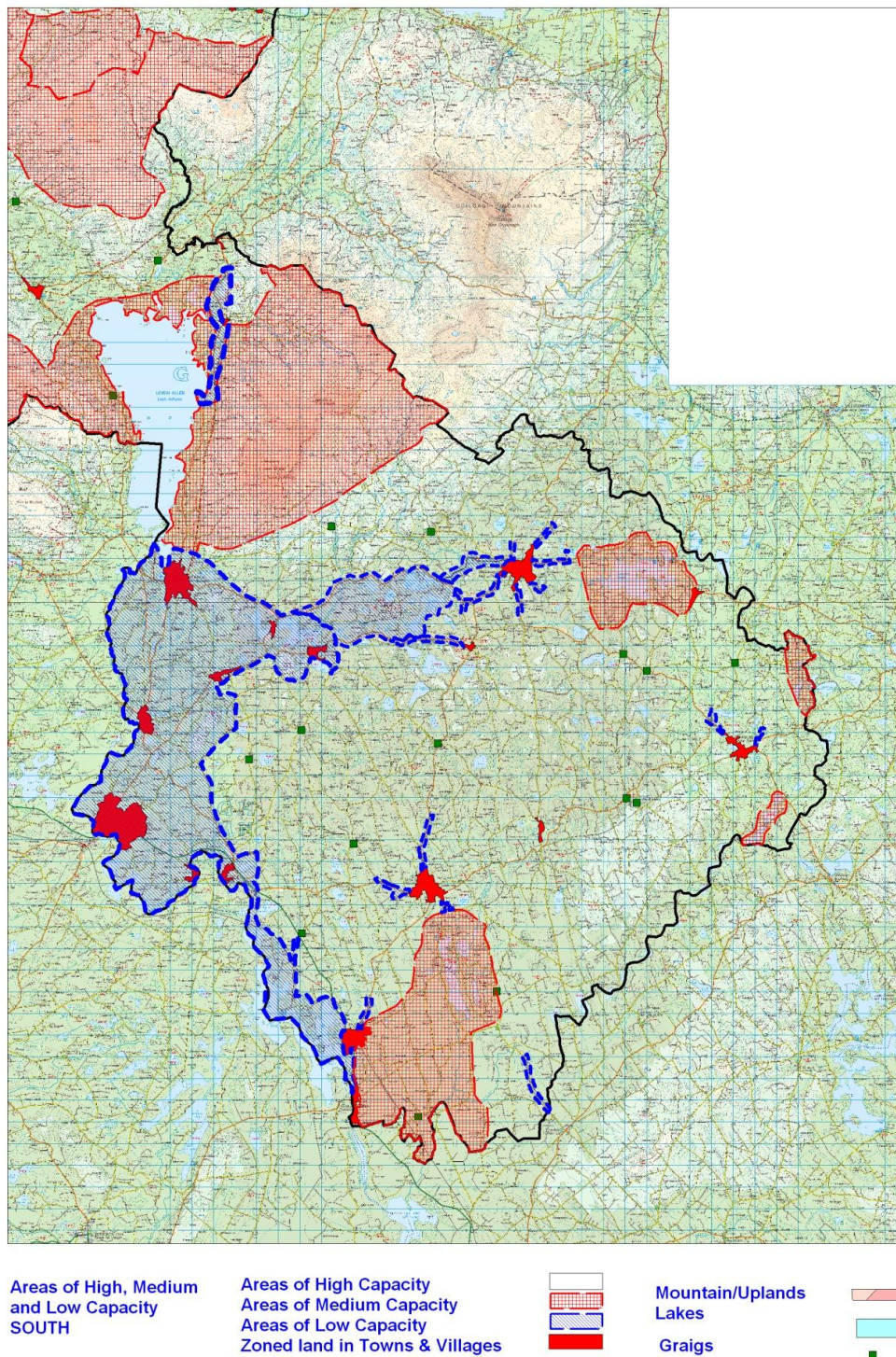


Figure 13 Areas of High Medium and Low Capacity (NORTH)

See Volume 3 (Appendix E) of the Draft County Development Plan 2015 – 2021 for larger scale maps



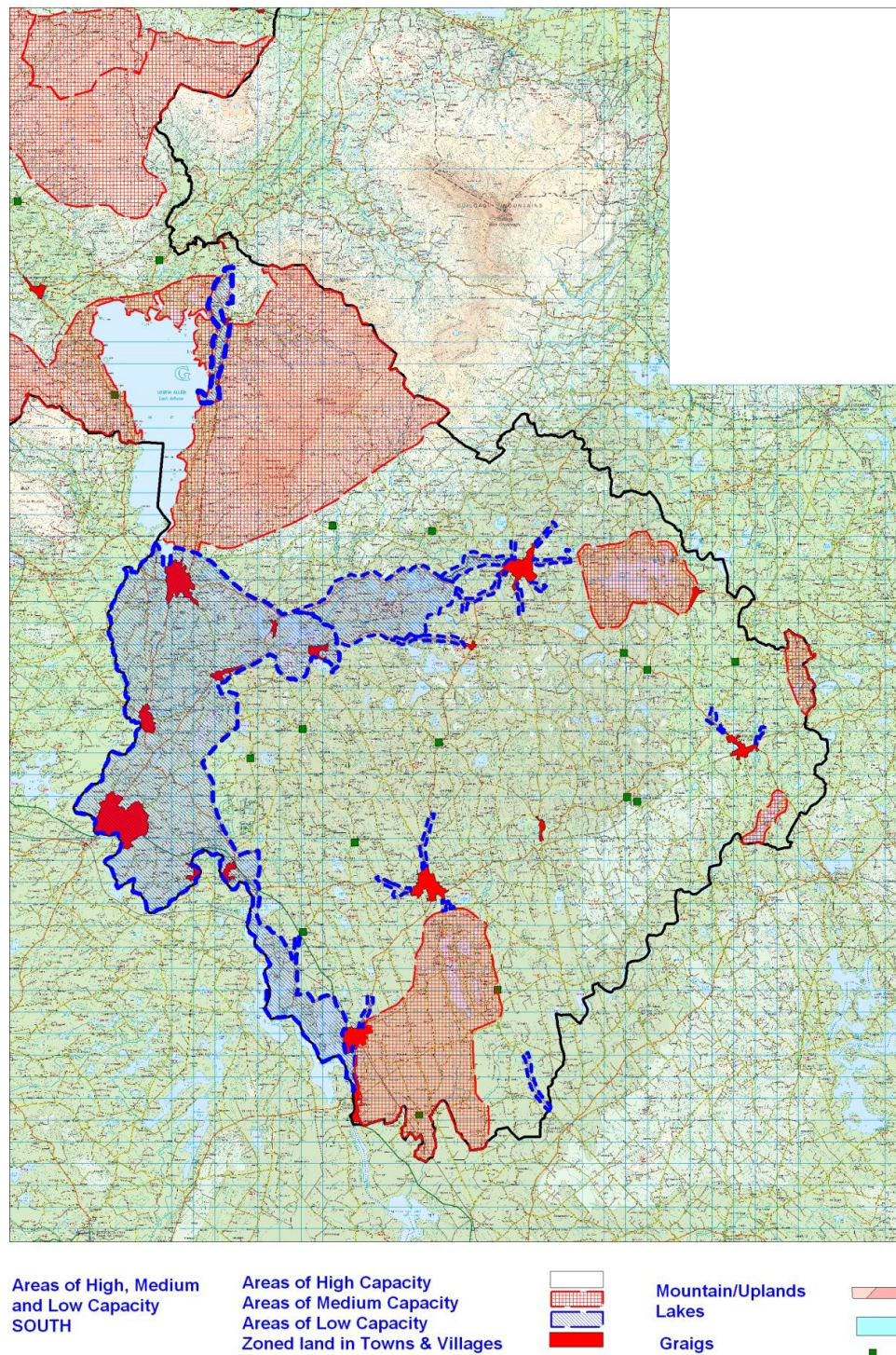


Figure 14 Areas of High Medium and Low Capacity (SOUTH)

(See Volume 3 [Appendix D] of Draft County Development Plan 2015 – 2021 for larger scale maps)

7. One-off Housing in the Countryside

In terms of the different types of rural areas, Leitrim can be classified as a 'structurally weak rural area'. In this context the Council will be favourably disposed towards granting planning permission for residential development to those who wish to live in the County, whether they are existing residents of the County seeking to remain here, family members of existing residents, returning emigrants or new migrants coming to the County for the first time, subject to compliance with the policies, objectives and development control standards set out in this plan. The current policy is largely based on mapping the capacity of the countryside to absorb one-off housing. The mapping indicates areas of High Capacity/High Availability and areas of Medium Capacity/Medium Availability. Whereas it was proposed in the Environmental Report 2009 – 2015 to include areas of Low Capacity/Low Availability, the adopted Plan merged Low Capacity/Low Availability with Medium Capacity/Medium Availability.

(1) Trends in one-off Housing in the Countryside

The data provide in respect to the number of planning permissions granted for one-off dwelling during the years from 2001 to 2012 indicate a dramatic change from a peak of 589 dwellings in 2005 to 18 dwellings in 2012.

Local Authority	Type of Dwelling	statistical indicator	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Leitrim (County Council)	One off houses	Planning Permissions Granted (Number)	328	226	259	444	589	321	333	259	134	42	39	18
Leitrim (County Council)	One off houses	Units for which Permission Granted (Number)	328	226	259	444	589	321	333	259	134	42	39	18
Leitrim (County Council)	One off houses	Average Floor Area per Unit (Sq Metres)	187.4	189.4	187.4	195.8	193.7	204.6	233.8	241.0	262.9	245.3	244.5	255.8
Leitrim (County Council)	One off houses	Total Floor Area for which Permission Granted (000 Sq Metres)	61	43	49	87	114	66	78	62	35	10	10	5

Table 7 One-off Housing 2001 - 2012

Source: <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp>

This dramatic decline in housing activity is a national phenomenon which has been widely reported upon. However, based primarily on interaction between the Planning Department and Agents who prepare applications, it would appear that compliance with the EPA Code of Practice in relation to wastewater treatment systems serving one-off housing has acted to restrain demand to some extent. In this regard it should be noted that it has been estimated by the Council that over 90% of possible sites within the County would, under normal circumstances, fail the requirements of the EPA Code of Practice.

Considering the current economic climate, it is somewhat remarkable that the floor area of dwellings has remained high, with an increase over the period 2001 – 20013.

Whereas an individual wastewater treatment serving a one-off dwelling house may not have a significant impact on the environment, the cumulative impact of such system may give rise to pollution. Considering the poor ground conditions that exist over a significant area of the County and considering that many of the older systems were installed to a lower standard than that currently required and are catering for a different type loading than that envisaged when installed; careful management of the environment is required in order to avoid the risk of pollution and risk to public health. This is of particular importance where such older systems are located within environmentally sensitive areas.

(2) Accommodation of Wastewater Treatment Systems serving one-off dwellings

Leitrim County Council has identified an opportunity to facilitate the testing (and certification) of a waste water treatment and disposal facility that has the potential to have



no (zero) discharge of effluent. This process involves the transposition of a facility, currently used in Denmark (and other European countries), to the Irish context. The successful testing of such a facility would be of significant importance to the County as much of the soil types in Leitrim are such that effective percolation cannot occur and current environmental requirements prevents the installation of traditional waste water systems (that have a discharge to ground) on such soil types. In order to complete a certification process it is necessary to have a number of the facilities installed, commissioned, used and monitored over a period of time. The scheme is in the initial stages. A date on any application for the NSAI Irish Agrément Bord certification of the system in order to enable its more widespread adoption is dependent on the ongoing monitoring of the scheme once the selected tests systems have been commissioned. It is noted that willows can grow 6 to 8m in height over their 3-year rotation period, after which they are cut back to 150 mm above ground level on a rotation basis. The testing process is in the early stages (Jan 2015).

In addition the Planning Authority is actively involved in considering innovative wastewater treatment systems that have the potential to meet the required standards in respect to the accommodation of wastewater treatment systems.

8. Future Accommodation Needs

The Leitrim Draft Strategy Housing Strategy 2015 – 2021 is being prepared as part of the Plan making process. It serves to set out the housing requirements of the County over the period of the Plan with particular reference to meeting the needs of social and affordable housing. The main recommendations arising from the outcome of the Housing Strategy have been incorporated into the Draft Plan.

Lands for residential purposes within towns and villages have been zoned based on a survey of the potential housing stock (residential units never occupied + under constructed) and population targets as set out in the Plan (and in accordance with the Border Regional Authority Guidelines 2010 – 2022). It should be noted that the housing land requirements were reviewed in July 2011 under a Variation to the County Development Plan 2009 – 2015. Accordingly, the existing zoning of land for residential use is relatively up to date. Based on detailed review of the housing land requirements under the current review, it is not proposed to make any significant changes to the overall quantum of residential housing land. Changes to Part V Social and Affordable Housing are proposed. The requirement for 20% social and affordable requirement has been reduced to a 12.5% social requirement (with no requirement in respect to affordable housing). Part 5 applies to the towns and villages of Carrick-on-Shannon, Ballinamore, Drumshanbo, Manorhamilton, Carrigallen, Dromahair, Dromod, Kinlough, Leitrim and Tullaghan.

The zoning of lands for residential use in respect to Carrick on Shannon will be considered in further detail during the making of the Local Area Plan 2016 – 2022.

XXV. Water Quality

1. Introduction

The Environment enjoyed by the population of Leitrim is monitored and managed by agencies at National and local levels. However, the policies, - and the implementation of those policies, contained within the County Development Plan have a significant impact on the quality of that Environment. The environment is made up of many elements which may be examined and analysed in minute detail. This is an overview of the status of that environment viewed through the prism of the County Development Plan. It looks at the primary elements of water, soil and air and their relationship to the County Development Plan. The primary focus is on water which is more vulnerable than the others, given the type of development experienced to date in Leitrim.

Census 2011

Total Housing Stock	18,128	
Vacant Units	5,526	
Total Permanent Private Units (houses and apartments)	12,228	
Units on public sewers	4,815	
Occupied but not on sewer	7,413	
Occupied not served by public water	2,086	
Spare capacity in WasteWater Treatment Plants	3,202	(after vacant houses are occupied)

Agriculture (stats. From Dept of Agriculture)

No. of cattle in Leitrim	90,895	Vol. of slurry per year	502 million liters
Average Herd size	25	Average farm size	25ha.
per ha.		Average stocking rate	1
Average P level in soil	14	Av. rate of slurry spreading	
17m3/ha		(hay and silage areas)	

The water is sub-divided between groundwater and surface water,(- streams, rivers and lakes), made up of local and regional aquifers which are ultimately connected to surface waters via underground streams, springs or porosity in the soils/rock formations.

2. Groundwater

Groundwater is protected from the ingress of pollution by heavy clay soils but prone to pollution where soils are thin or in karst areas where the landscape features include outcrops of limestone bedrock, swallow holes or turloughs. In these conventional areas, soils do not have the capacity to absorb nutrients or to kill off bacteria. These areas are not suitable for single house treatment systems (OSTPs) or for the spreading of animal slurries. Areas prone to groundwater pollution would include pockets around Newtowngore, east and north of Manorhamilton and around Leitrim and Gowel.

Groundwater in these areas exhibits relatively high levels of nitrates with high bacterial loads. Ground water would not be considered a reliable source of drinking water in these areas. These are not suitable areas for conventional small scale effluent treatment systems where the disposal method is to ground. It should be noted that these areas generally have



bountiful supplies of groundwater and will prove an attractive option for domestic and farming use when water charges are applied. However, they do pose a threat to public health. It is noteworthy that approximately 2086 houses (5,424 people) in the county are currently (2011) using groundwater supplies which are largely unmonitored.

E-coli, Cryptosporidium and VTEC's (viruses) pose significant health threats to the community from non-treated or partially treated supplies in these areas. Source protection measures are applied for supplies serving in excess of 50 houses. These include restrictions on land use, fencing and prohibitions on development. However, locations of smaller abstractions are not known and are largely without formal protection.

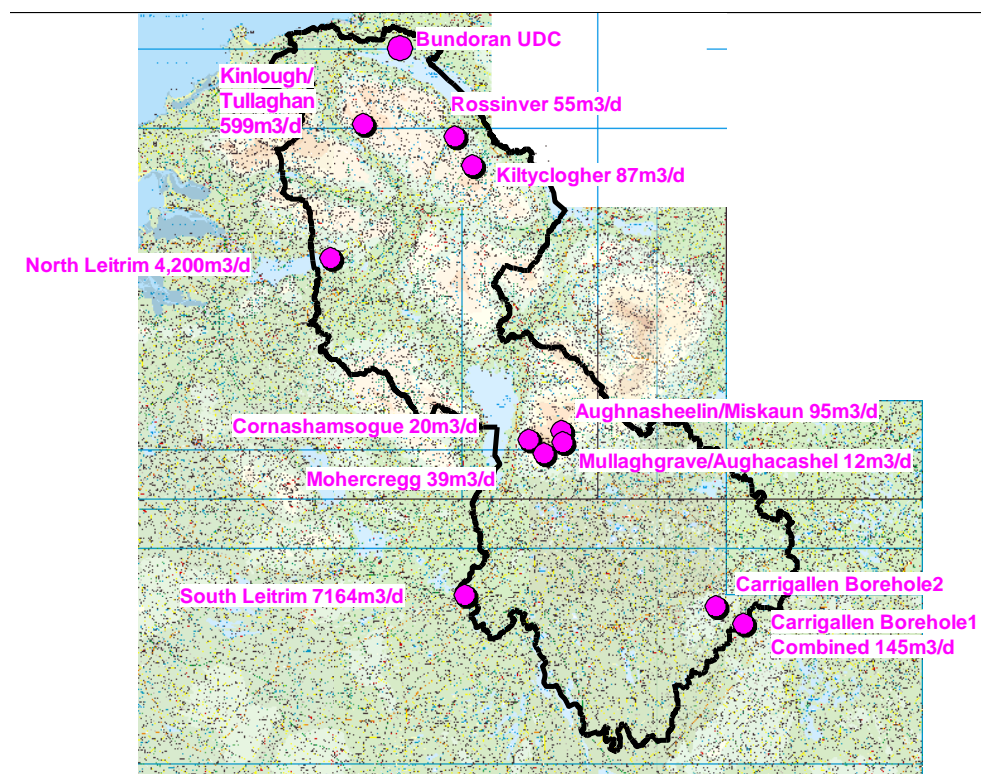


Figure 15 Drinking Water Sources serving >50 persons

A groundwater vulnerability map, which relates aquifers to soil distribution and topography, has been produced by the Geological Survey of Ireland. A copy of this map for Leitrim is shown overleaf. The areas shaded red, mauve and brown are areas deemed to be highly and extremely vulnerable to groundwater pollution. It should be noted that most of the areas shown in green are areas where the groundwater is protected by thick impermeable layers of heavy gley soils. In most of these areas, surface water is vulnerable. The status of the surface water shown for each of the Water Management Units reflects this distribution.

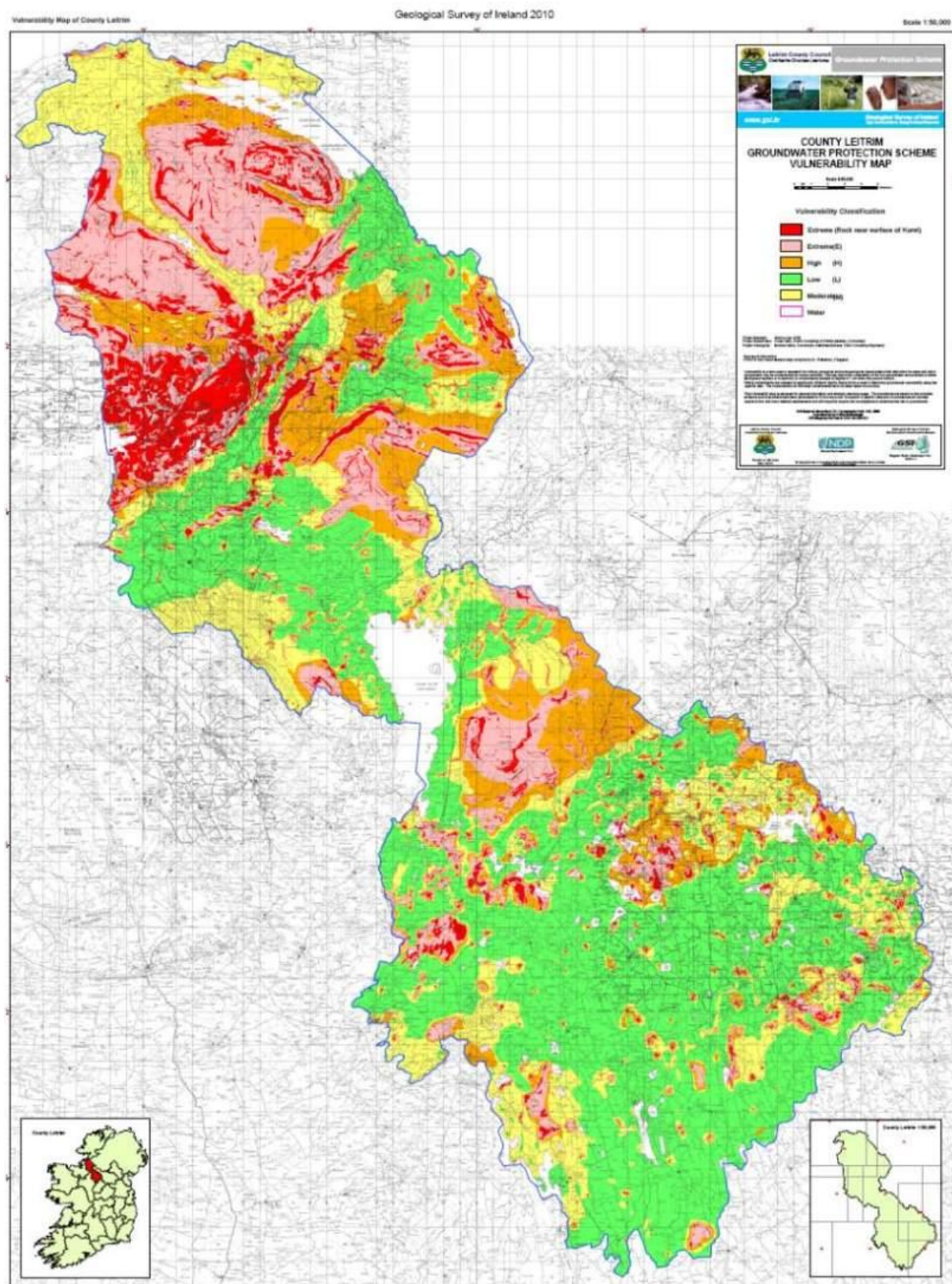


Figure 16 Groundwater Vulnerability in County Leitrim

3. Surface Water

County Leitrim straddles three river basin districts which may be simply described as the Erne or NorthWest RBD, the Garavogue/Bonnet or Western RBD and the Shannon RBD.



Figure 17 Map indicating RBD's within the County

These large areas have been sub-divided for management purposes into a total of seven Water Management Units. A Water quality status has been assigned to each water body within these seven areas. A water body consists of a defined length of river or a lake. The status was assigned following an extensive monitoring programme which included both biological and physical/chemical metrics. Thresholds were established for each set of metrics which would define boundaries for five status bands – Bad, Poor, Moderate, Good and High. For example, one of the physical/chemical parameters is Phosphorous. For a surface water to achieve a status of “Good” the average Phosphorous level must be below 0.035 ppm. However, if the other parameters do not comply with their criteria for “Good” status, then the water status will be defined by the worst performing parameter. However, most economic development and human activity generates phosphorous making it a suitable marker to inform County Development Policies and likely effects.

Leitrim Co. Council has adopted the three river basin plans and in so doing is committed to achieving their goals in accordance with the EU Water Framework Directive. Simply stated, these are ;the prevention of the deterioration of the status of any waters and the return of all waters to “Good” status, -by 2015 for those currently at “Moderate” status.

Comprehensive details, including maps, in relation to the status in terms of water quality of each of the 7 Water Management Units which cover the entire County of Leitrim are available at; <http://www.wfdireland.ie/maps>.

Each water body is assigned a unique identifier and assigned a status which is colour coded for ease of use.

Bad	Red	Good	Green
Poor	Brown	High	Blue
Moderate	Yellow		

Following each map, tables provide the status on each of the parameters for every water body. This identifies, for each water body, the critical parameter that determines the status of the body.

As mentioned above, by controlling the ingress of Phosphorous into surface and ground waters, most of the other parameters will also be taken care of. Phosphorous in water facilitates the growth of algae and weeds which deplete oxygen levels, drive out fish and other less tolerant species and choke spawning grounds. Algae producing toxins render water unsuitable for swimming, farm use and recreational use.

Sources of Phosphorous

Phosphorous originates in the soil and is essential for plant growth. It is absorbed by plants, bio-accumulates in humans and animals and excreted in faeces. It is adsorbed on soil and sand particles to a limited extent. Soils with high levels of Phosphorous (Index 4) will leach phosphorous in periods of high rainfall. Peat soils have very poor retention of Phosphorous and are particularly prone to Phosphorous leaching. Sources include

- Domestic Wastewater treatment plans and Commercial/Urban Wastewater treatment plants
- Malfunctioning sewage pumping stations
- Slurry spreading on wet soils, steep hills or when there is no plant take-up.
- Runoff from farmyards
- Leaking slurry tanks and exposed silage clamps
- Mobile soil and silt – forestry (site clearance, drainage, roading, extraction)
- construction projects (site clearance)
- quarrying, mineral exploitation.

Studies and inspection programmes have shown that there is inadequate provision of storage of animal slurries forcing the “dumping” of slurry at unsuitable times in terms of crop requirements and inclement conditions on wet soils. It is considered that 26 weeks slurry storage is required in County Leitrim.

Wet soils fail to treat effluents from septic tanks and mechanical aeration systems. They also cause ponding of effluent and cause blockage of the sewers. This results in a health hazard and a reduction in surface water quality. Very little of the County is suitable for these conventional systems when thin soil/karst areas are added to the areas covered in thick wet layers of impermeable soil.

There is surplus capacity in almost all of our public WasteWater treatment plants where the unit cost of treatment and P removal is much lower (than in a single house system) and where most of the costs are already being incurred.

Taking account of the average runoff, (rainfall less evaporation), assuming a 5% loss (very optimistic) of Phosphorous from agriculture and the requirement to keep Phosphorous levels in surface waters below 0.035 ppm (a requirement for “Good” status), the Council must be cognisant of the possibility of proliferation of septic tanks within limited or confined

areas and control the level of development to the carrying capacity of the area, having regard to the existing levels of development and the level of development proposed.

It is apparent that the current level of dispersed settlement is having a negative impact on surface water quality due to unsuitable soil conditions and the number of houses outside the sewered areas.

Consideration should be given to amending the development contribution scheme with a view to encouraging low density serviced residential development on the periphery of towns/villages to discourage dispersed settlement patterns. This will bring many other environmental and social benefits also – less travel, improved local businesses and clubs, more efficient service delivery.

The planning authority should identify public Pumping station sites to maximise the area serviced. This should be carried out well in advance of need and not constructed until areas that can be served by gravity have been developed. (This will facilitate a reduction in the number of overflows, enable better maintenance programme, more sophisticated alarm systems and pollution control)

It is recommended that the following policy be suitably incorporated into the Development Plan.

It is the policy of the Council to establish source protection zones for all drinking water sources serving more than 50 people. In these zones development shall be strictly controlled.

Where appropriate proposals for development should be accompanied by a contoured site drainage plan - identifying cut-off drains, the dimensions and locations of silt traps and discharge arrangements, at the Planning Application stage.

XXVI. Biodiversity, Flora and Fauna

1. Introduction

The conservation of biodiversity in Ireland has been strengthened and expanded by EU law, most notably by the [EU Birds Directive](#) and [EU Habitats Directive](#) and also by the [EIA Directive \(85/337/EEC\)](#).

In 1997, the Habitats Directive was transposed into Irish national law and the relevant [Regulations European Union \(Natural Habitats\) Regulations, SI 94/1997](#) represent a fundamental shift in nature conservation policy and law. These Regulations have since been amended by [SI 233/1998](#) & [SI 378/2005](#).

In relation to the ‘unprotected’ habitats and Habitats listed on Annex I of the EU Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora), outside of Designated Sites, the local authority has specific obligations under Regulation 27 of the European Communities (Birds and Natural Habitats) Regulations, 2011, which relates to the duties of public authorities relating to nature conservation. Regulation 27 (Subsection 4) states;

(4) Public authorities, in the exercise of their functions, insofar as the requirements of the Birds Directive and the Habitats Directive are relevant to those functions, shall—

(a) take the appropriate steps to avoid, in candidate special protection areas, pollution and deterioration of habitats and any disturbances affecting the birds insofar as these would be significant in relation to the objectives of Article 4 of the Birds Directive,

(b) outside those areas, strive to avoid pollution or deterioration of habitats, and

(c) take appropriate enforcement action.

The need to conserve biodiversity generally is underlined in the National Biodiversity Plan and Convention on Biological Diversity which Ireland has signed and ratified. Biological diversity means the variety of all life on earth from the smallest and simplest micro-organism to the complex system that is the rainforest. Biodiversity is the result of billions of years of evolution. In Ireland habitat and species diversity constitutes our national biodiversity. Biological diversity, or biodiversity, is the term given to the variety of life on Earth and the natural patterns it forms. The biodiversity we see today is the result of billions of years of evolution, shaped by natural processes and, increasingly, by the influence of humans. It forms the web of life of which we are an integral part and upon which we so fully depend. This diversity is often understood in terms of the wide variety of plants, animals and micro-organisms which have been impacted upon by human beings over time.

Clearing of vegetation has resulted in the replacement of natural habitats with semi-natural habitats. The intensification of agriculture, which took place in the second half of the last century, increased the removal of hedgerows and woodland. In recent years the development of many one-off greenfield sites in the county has also given rise to a sharp increase in the removal of hedgerows. Hedgerows constitute an important natural and historic resource given both their role as wildlife corridors between habitats, their value in terms of visual amenity and their historic significance as townland and field boundaries.

The upgrading, extension and installation of public wastewater infrastructure in towns and villages has and will continue to have a positive impact on the environment in terms of improving the quality of water courses.

The zoning of all towns and villages within the County and in particular the identification of amenity areas and management of these areas through the development management process, will serve to protect and enhance the biodiversity at key locations.

The requirement under article 6 of the E.U. Habitats Directive 92/43/CEE to screen the Plan in respect to the impact of implementation the plan on habitats of significant importance has resulted in the bringing forward of recommendations to clarify and strengthen the protection of these areas. The recommendations include some changes to the management of Windfarms and Afforestation in areas within and close to SAC's, SPA's and NHA's.

Article 10 of the Habitats Directive (Council Directive 92/43/EEC) outlines the need to include linear features and stepping stones for biodiversity in land use plans. Such linear features include hedges, rivers, canals and roadside verges. Examples of stepping stones include marshes and woodlands.

It is important that the proposed Plan should recognise the importance of linear features such as hedgerows and waterways.

Hedgerows form important wildlife corridors and provide areas for birds to nest in, and in addition badger setts may be present. If suitable trees are present bats may roost there and they use hedgerows as flight routes. Hedges also provide a habitat for woodland flora. Where a hedgerow forms a townland or other historical boundary it generally is an old hedgerow. Such hedges will contain more biodiversity than a younger hedge. Hedgerows should be retained where possible.

Where trees or hedges have to be removed there should be suitable planting of native species in mitigation. Where possible hedges and trees should not be removed during the nesting season (i.e. March 1st to August 31st). Bat roosts may be present in trees, buildings and bridges.

Bat roosts can only be destroyed when a derogation under the Habitats Regulations is obtained. It is important that the proposed Plan should recognise the importance of hedgerows. Bats and their roosts are protected by Irish and EU law because all species have declined and some are threatened or endangered. There are 10 known species of bats in Ireland, each with its own lifestyle and habitat requirements. Planning authorities are required to take account of the presence of protected species, including bats, when considering applications for planning permission and may refuse applications on the grounds of adverse effects on these species or if an assessment of the impact of the development on protected species is inadequate. Planning conditions or agreements may be used to ensure the conservation status of protected species is maintained. Notwithstanding the foregoing a grant of planning permission, does not constitute a licence or permit to disturb or interfere with protected species including bats. For further details in relation to bats refer to; <http://www.npws.ie/publications/irishwildlifemanuals/IWM25.pdf>

Negative impacts on biodiversity and designated sites, particularly along rivers, around lakes and in wetlands, can occur as a result of development such as walking routes, cycleways, seating, lighting, loss of riparian zone and mowing of riparian zone, and can lead to erosion and added disturbance by humans and dogs. Such developments along waterways for example could impact on species such as Otter and bat species, which are strictly protected under the Habitats Directive, and Kingfishers, which is listed on Annex I of the Birds Directive. Care therefore needs to be taken to ensure any proposed walkways along rivers are located a suitable distance from the water's edge and, where such proposed developments may impact on a European (Natura 2000) site, screening for appropriate assessment would be required prior to such a development taking place. It is important that the proposed Plan should recognise the importance of waterways and wetlands. Alien invasive species such Japanese Knotweed and Giant Hogweed can be damaging to local biodiversity and a policy is needed to protect against the accidental introduction of such species during development.

Chalara fraxinea, known as ash dieback disease, is a relatively newly described fungal disease of ash which was first named in 2006 although dieback symptoms in ash had been first noted in Poland in the early 1990s. The harmful reproducing stage of the fungus, a new species *Hymenoscyphus pseudoalbidus*, was later discovered in 2010. The disease has spread rapidly across much of Europe, with the majority of European countries where ash is present now reporting the disease. *Chalara fraxinea*, known as ash dieback disease, is a relatively newly described fungal disease of ash which was first named in 2006 although dieback symptoms in ash had been first noted in Poland in the early 1990s. The harmful reproducing stage of the fungus, a new species *Hymenoscyphus pseudoalbidus*, was later discovered in 2010. The disease has spread rapidly across much of Europe, with the majority of European countries where ash is present now reporting the disease. Incidents of ash dieback have

been recorded in 11 Counties including a relatively recent incident in Leitrim. For further details see; <http://www.agriculture.gov.ie/forestservice/ashdiebackchalara/>

A countywide Policy and plan of action is required in order to address the spread and control of invasive species.

(1) The National Biodiversity Data Centre

The National Biodiversity Data Centre has developed an online mapping system, *Biodiversity Maps*, which provides access to data on the distribution of Ireland's biological diversity. This mapping system has been developed with the objective to:

1. Produce an on-line Atlas of Ireland's Biodiversity
2. Provide a portal to biodiversity data & data providers
3. Assist reporting on progress with implementation of EU Directives and international conventions
4. Provide local authorities with data for strategic planning and development control
5. Provide a resource for researchers & assist knowledge transfer
6. Enable an early warning system for invasive species to be developed
7. Track species distributions as they respond to climate change.

Report on the Dirty Dozen non-native invasive species Co. Leitrim (2010), provides detailed information, including distribution maps and species profiles, for the top twelve invasive species in the region.

The National Biodiversity Data Centre web site may be accessed at;

<http://www.biodiversityireland.ie/>

(2) National Parks and Wildlife Service

A significant amount of data in respect to nature conservation, including details of the location, extent and Site synopsis in respect to Special Areas of Conservation, Special Protection Areas and Natural Heritage Areas, is available on the NPWS web site at;

<http://www.npws.ie/mapsanddata/>

(3) Referral of certain Planning Applications to the Department

Under the Planning and Development Regulations the Planning Authority refers all planning applications that might have significant effects in relation to nature conservation to the Minister.

The Development Applications Unit coordinates the evaluation of such applications by the various technical services of the Department, including National Parks and Wildlife Sites. An application is examined with reference to its impact on designated sites and taking into account the provisions of domestic and European legislation. On the basis of this appraisal, the Department may recommend to the planning authority that further information should be requested from the developer (for instance, assessment of impacts on specific species) or that certain planning conditions should be included in a grant of permission. In extreme cases, where significant negative impacts on nature conservation may not be mitigated the Department may recommend to the planning authority that planning permission not be granted.



2. Special Areas of Conservation (SAC's)

These were established under the 1992 Habitats Directive of the Council of the EU for the conservation of natural and semi-natural habitats and species of flora and fauna. Special Areas of Conservation (SAC's) are the prime wildlife conservation areas in Ireland. Regulations, 1997 set out how these SAC's are to be protected and managed by the relevant Planning Authorities. Figure 18 shows the location of the SAC's.

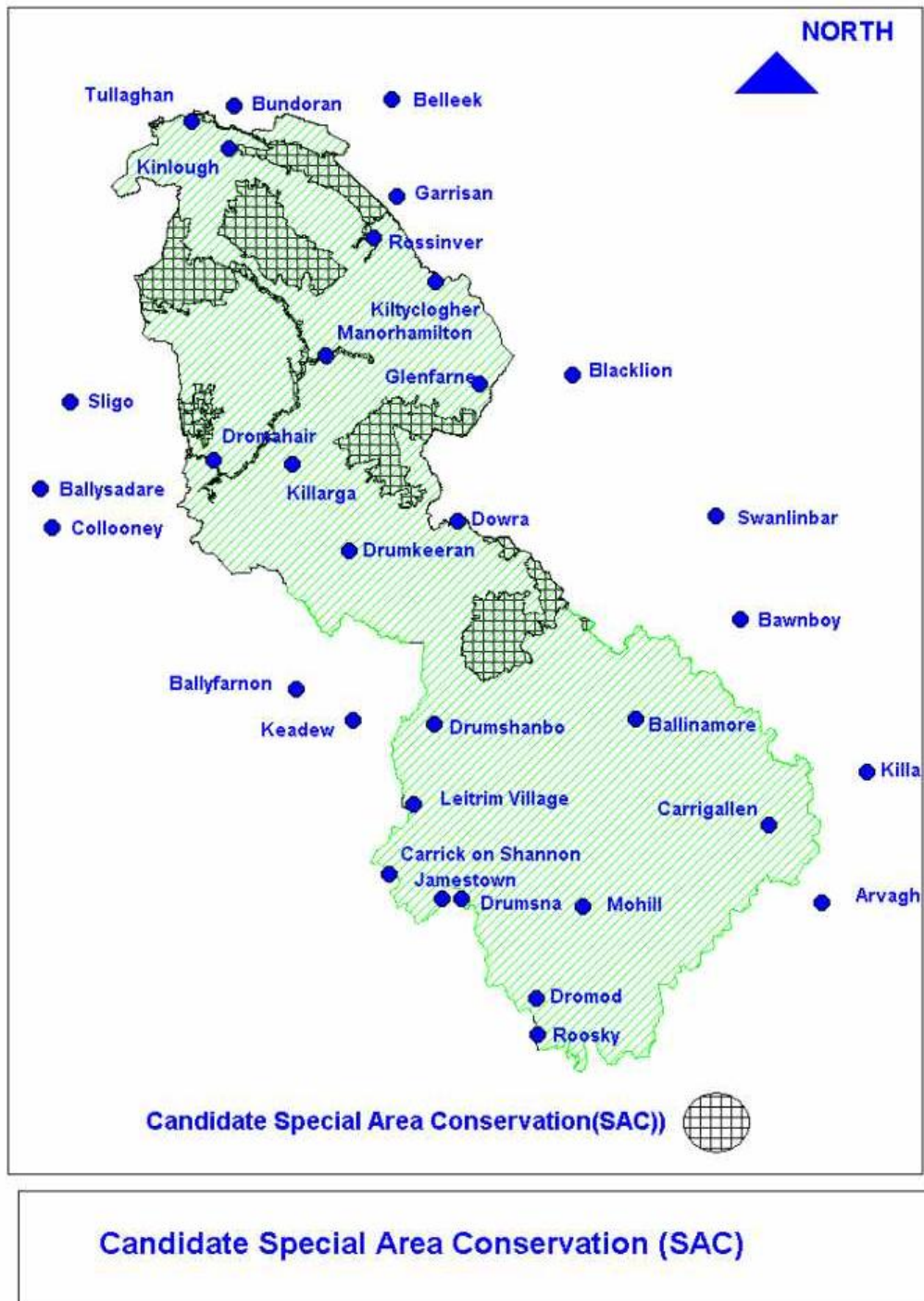


Figure 18 Special Areas of Conservation

3. Special Protection Areas (SPA's)

Special Protection Areas (SPAs) for the protection of birds, established under the Birds Directive of the EU in 1979. Fig 3 shows the location of the SPA's. *Appendix F* gives a site synopsis for each of the sites identified.



Figure 19 Special Protection Areas

4. Bird Sanctuaries

County Leitrim is visited by many species of migrant birds and is host to a number of endangered species. The habitats, breeding grounds and refuge areas for such species will be considered for protection as the need arises or as appropriate sites are identified by the Planning Authority. Four areas have been identified by BirdWatch Ireland as Areas of Ornithological Importance;

Lough Erril, Cloonboniagh Lough, Gortinty Lake and Corry Mountain (host to a migratory population of Plover).

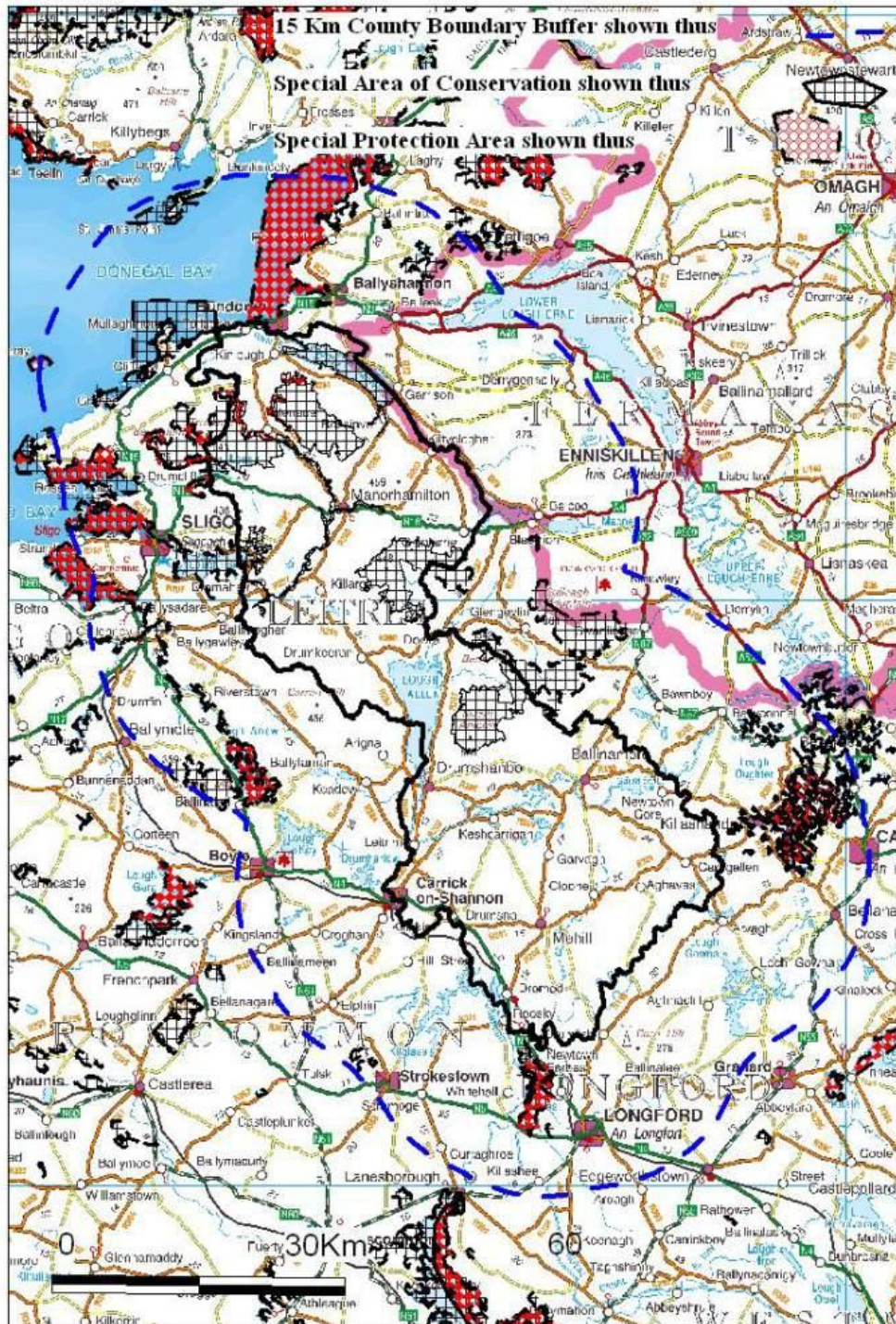


Figure 20 SAC's and SPA's within 15Km of the County.

The Habitats Impact Report has been prepared in respect to the making of the Plan. The Assessment contains full details in respect to the SAC's and SPA's (including a site synopsis of each site) that may be affected by the implementation of the Plan.

5. Natural Heritage Areas and Proposed Natural Heritage Areas (NHA's)

These habitats are of national importance established under the Wildlife Act. Natural Heritage Areas (NHA's) established under Irish law are similar in general principle to the SACs but covering a somewhat larger geographic area. Figure 3 shows the location of the NHA's and *Appendix E* gives a site synopsis for each of the sites identified



Figure 21 Natural Heritage Areas

The Natural Heritage Areas within the County are listed in *Appendix E National Heritage Areas (NHA's)*.

6. Peatlands

The Council is aware of the importance of a number of peatlands, or bogs as they are more commonly known, in the county and recognise that they are an irreplaceable resource with an ecological value. Peatlands are protected under the EU Habitats Directive – Nine bogs have been designated as Natural Heritage Areas in the County

Peatlands represent a valuable repository of the past, archaeology, cultural heritage and natural history and development of the landscape. Peatlands are biological resources forming distinct ecosystems of local and national importance.

They provide a range of ecosystem services, many of which, such as agriculture, turf for domestic heating, peat for electricity generation and employment from industrial production are apparent and some of which are less so. However, unlike other resources such as forestry, peat is not renewable on a human time scale.

In recent years, along with increased understanding and concern over climate change, scientific research has established the importance of peatlands as carbon stores and potential buttresses against some of the projected effects of climate change. As they develop, peatlands slowly remove carbon from the atmosphere and store it in the form of peat. By taking the carbon dioxide from the atmosphere over long periods and by emitting other greenhouse gases such as methane, natural bogs affect and regulate the global climate.

7. Nature Conservation and Protection located outside Designated Sites

In terms of the requirements of Article 10 of the Habitats Directive the Draft Plan acknowledged the importance of ecological areas and corridors (located outside Natura 2000 sites) in supporting the conservation and protection of Natura 2000 sites. The Draft Plan identifies a number of such areas. The Draft Plan contains a range of measures, both direct and indirect, that serve to protect and conserve ecologically sensitive areas, including Natural Heritage Areas, proposed Natural Heritage Areas, Peatlands, Geological Sites, Hedgerows, Trees, Rivers and Lakes. With particular reference to Article 10 of the Habitats Directive, Section 3.7.3.6 *Nature Conservation outside Designated Sites*, of the Draft Plan contains the following statement;

Important ecological corridors within the County include the following water bodies (including their tributaries and lakes where relevant) - the list is not exhaustive and their inclusion is not an indication that they fall within the remit of Article 10 of the Habitats Directive: -

- River Shannon System;
- The land mass of the Leitrim Uplands;
- Shannon-Erne Waterway (Ballyconnell-Ballinamore Canal);
- Bonet River System;
- Duff River;
- The Drumcliff River (including Diffreen River);
- Drowes River/Lough Melvin System;
- Bradoge River;
- River Erne.

XXVII. Landscapes/Geology (including Soil)

County Leitrim contains a great variety of landscapes. High moor topped mountains in the north of the County rise above drumlin covered lowlands and glens which extend to a short but dramatic stretch of coastline. Geological features shaped by glacial action are a distinctive feature of many uplands and are most conspicuous where they enclose glens. In the south of the County, drumlins cloaked in lush green pastures, extend over many miles and are interspersed with hilly outcrops, loughs, rivers, wet pasture and raised peat bogs. Human interaction with the natural environment has created a wide range of distinctive rural landscapes and settlement patterns.

1. Topography and Drainage

In the County two broad topographic zones (Figure 5) may be identified, with Lough Allen providing a convenient divide. In the northern uplands table-like mountains alternate with spectacular glacial glens. Many of these display dramatic colluvial and scree slopes. Glacial erosion and the nature of the underlying geology are the most dominant factors influencing topography in this northern region. By contrast, the deposition of vast quantities of drift geology by glaciers has formed the distinctive, undulating, drumlin landscapes in the southern lowlands. In general the drainage pattern of the County is determined by the principal rivers: the Shannon, Bonet, Duff, Diffreen and by tributaries to Lough Erne and Lough Melvin. The Shannon catchment is by far the largest and drains the centre and south west of the County. The gradient is generally very small and flooding occurs frequently. Similar conditions prevail in the south east of the County where the slow moving tributaries of the Erne drain the landscape. The Bonet, which flows into Lough Gill, drains much of the north west of the County. The north east of the County is drained by tributaries to Lough Melvin which in turn is drained by the Drowes which forms the boundary between Leitrim and Donegal. The extreme North West is drained by the Duff. Elsewhere along the coast small streams flow directly into the sea.



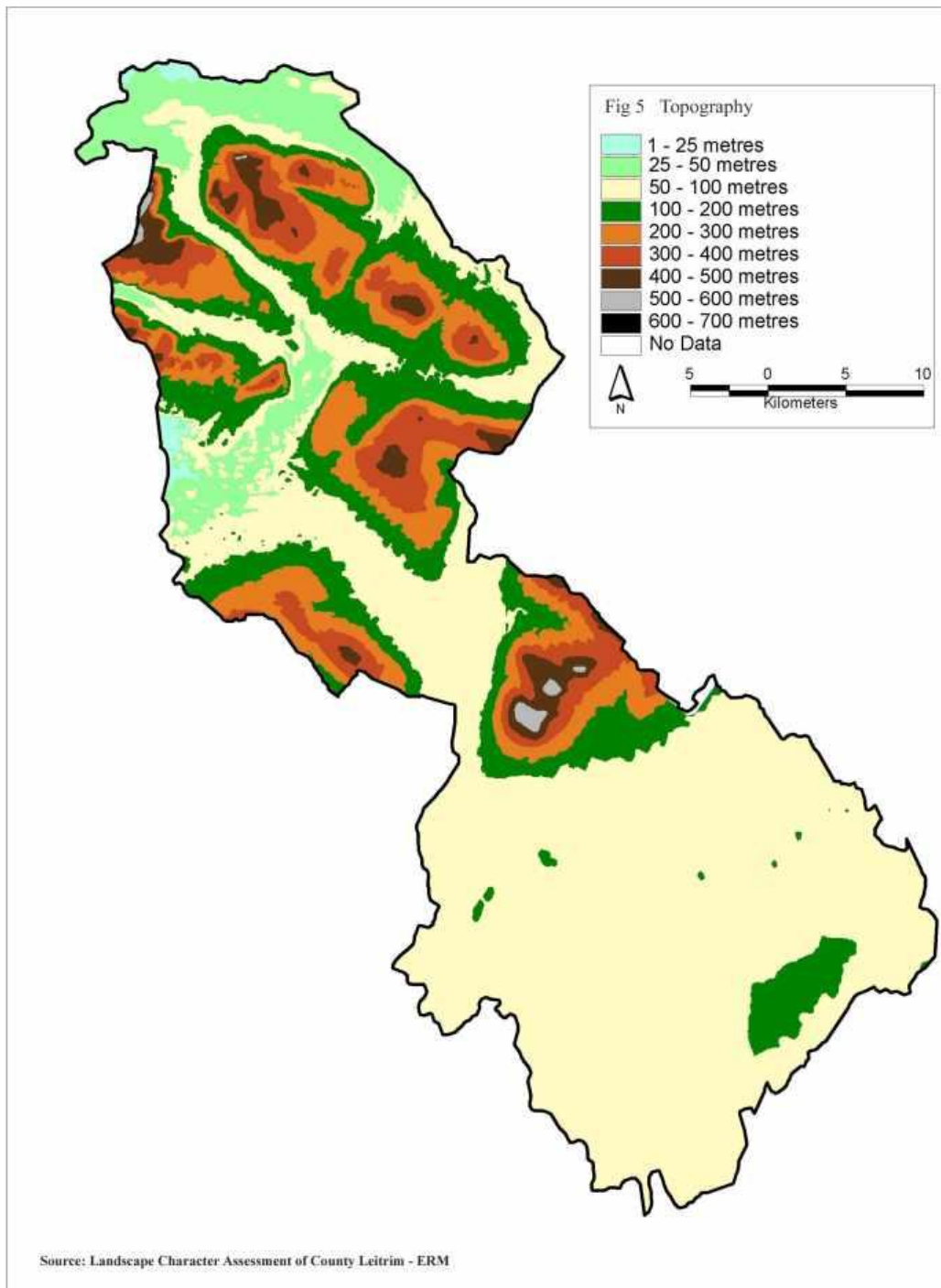


Figure 22 Topography

2. Geology

The underlying geology of Leitrim (Figure 6) is formed from five major rocks formations, each rock type being associated with particular landscapes. The oldest rocks within the County are the highly folded metamorphic rocks, which represent a prolongation of the Ox Mountains in County Sligo. These consist of highly altered quartz-feldspar rich sediments and occasional marbles.

Lower Paleozoic rocks emerge from beneath the glacial deposits in the south east of the County where slates and impure sandstones were tilted and raised during a phase of folding in the Silurian period. Following this phase of uplift and deformation, Devonian red sandstones and conglomerates were deposited by fast flowing rivers. However, these are largely masked by later glacial deposits. Lower Carboniferous rocks including calc sandstones, limestones, calc shales and basal clastics represent different types and phases of deposition and include deposits from rivers, marine transgressions and deltas. These rocks generally occupy the extreme northern and southern portions of the County where the overlying, younger rocks have been eroded. The Upper Carboniferous sandstones and shales are the youngest rocks in County Leitrim and can be found in the north where they form horizontally bedded plateau hills. These were eroded and weathered long before the glaciations of the last three million years but despite this, various levels survive containing clay ironstone and coal seams.

The influence of geology in the County is most noticeable in the northern uplands. However, even in the drift-covered lowlands, isolated rock outcrops, stone walls and building materials reflect the geological foundation of the landscape.

Principal information source for this section is M.J.Gardiner, County Leitrim Resource Survey, An Foras Taluntais, 1973



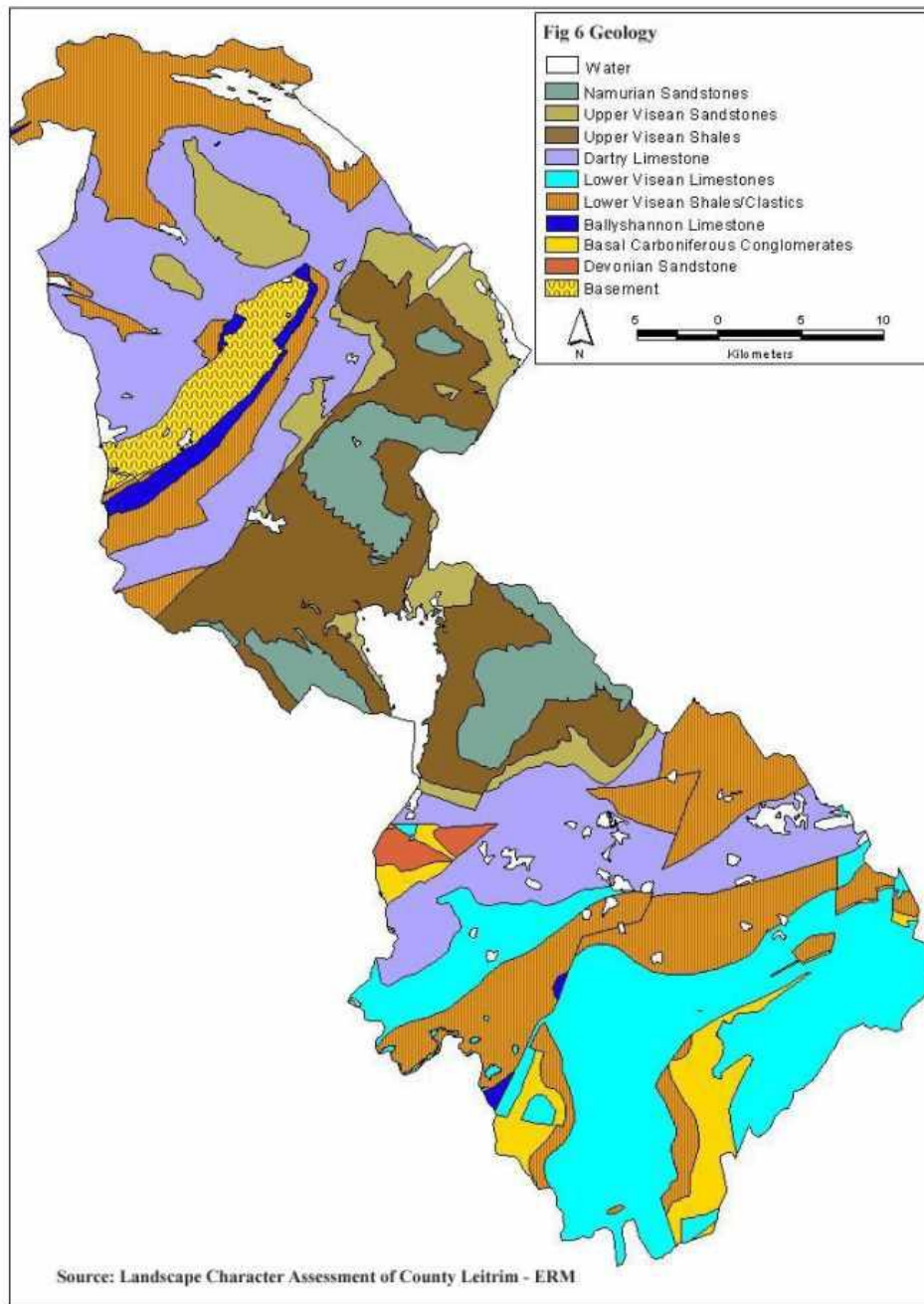


Figure 23 Geology

Geology is now recognised as a fundamental component of natural heritage and as such the conservation of geological heritage features is considered an important aspect of conserving the natural heritage. In 1998, the Geological Survey of Ireland established the Irish Geological Heritage (IGH) Programme which is a partnership between The Geological Survey of Ireland (GSI) and the National Parks and Wildlife Service of The Department of Environment, Heritage and Local Government. Under the IGH Programme important sites that are capable of being conserved as Natural Heritage Areas (NHA) are being identified. Those not selected for NHA designation are being promoted as County Geological Sites (CGS). The IGH Programme has identified a provisional list of 28 County Geological Sites of interest in Leitrim, details of which are listed in Table 8 below. It is considered important that these sites are identified and that the integrity of these sites is suitably protected from inappropriate type development.

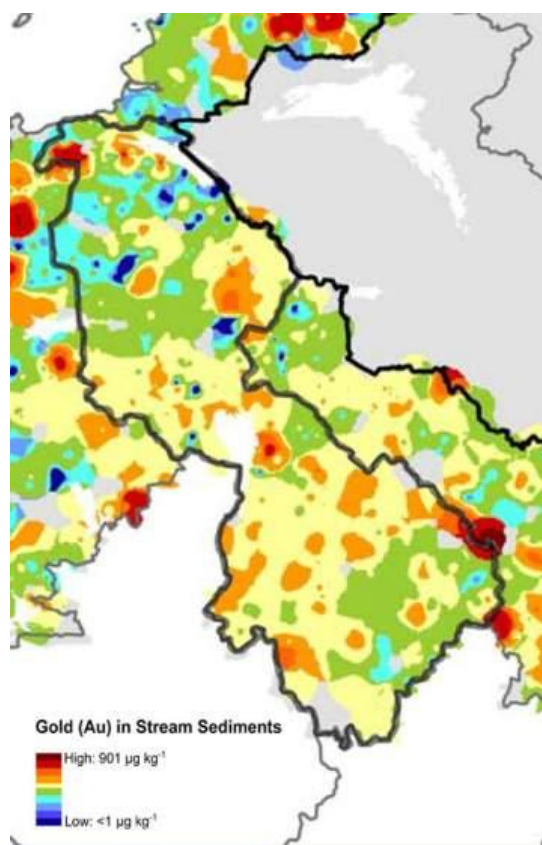
Table 8 County Geological Sites of Interest

Site Name	Principal characteristics - Critical feature(s) key words
Aghagrania stream section	Lower Carboniferous stream section
Carrickbyrne Quarry	Arundian mudmound
Corry shore section	Fossiliferous limestone exposures
Corry shore section	Fossiliferous limestone exposures
Creevelea	Ruins of Creevelea Iron Works which were in production intermittently from 1641 to 1900. Products include the Ha'penny Bridge Dublin.
Doons, The	Relict tower karst
Dough Mountain	Gullies
Finnalaghta Quarry	Lower Palaeozoic D1 structure
Glencar Waterfall	Waterfall
Gortinee	Iron ore in tholeiitic volcanics. Mined as early as the 16thC; smelted at Dromod and Arigna
Keshcarrigan Quarry	Lower Carboniferous
Kilroosk Tonalite (East of Ladies Brae)	Tonalite
Largy/Gorteenaguinnell	Upland karst plateau, dolines
Larkfield	Upper Carboniferous sandstone
Manorhamilton	Garnet-kyanite schist
Manorhamilton	Mineralogy. Under threat
Manorhamilton - O'Donnells Rock (Include Wild Cats Hole)	Lower Carboniferous evaporitic rocks
Mohill Drumlin Field	Drumlin field, 15km by 10km
Boleybrack mine workings	Old mine workings. Two feet of good coal overlie fireclay. Lackagh Sandstone outcrop at same location.
Slieve Anierin	Iron mining
Stony River Section/Slieve Anierin	Iron nodules
Thur Mountain - Dergvone - Scarden River	Upper Carboniferous Shale, Siltstone, Sandstone
Thur mountain (between Manorhamilton and Lough Macnean/Co. Fermanagh)	Bellavally Formation. Evaporites
Tullyoran Quarry	Waulsortian Limestone Quarry
Benbulbin - Gleniff - Glenade complex	Lower Carboniferous stratigraphy, palaeontology, karst
Benbulbin - Truskmore	Benbulbin Shales and Bundoran Shales; Scree slopes, alpine landscapes; mass wasting, gullies
Doons, The - Colgagh	Tower Karst



(1) Tellus Border Survey

The Tellus Border project is an EU INTERREG IVA-funded mapping project that involves the collection of scientific data on soils, sediments, waters and rocks across the six border counties of Ireland (Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth) and the integration of these with existing data collected in Northern Ireland as part of the Tellus project in 2007. The Geological Survey of Ireland is a partner in this cross-border initiative, which is led by the Geological Survey of Northern Ireland in Belfast. New data for over 50 elements in the environment, including gold in stream sediments, is available to view on our interactive viewer [here](#).



Modern mapping techniques will allow us to:

- Generate integrated, high quality data on the environment of the border counties
- Define environmental baselines for measuring future change
- Encourage research and innovation
- Inform sustainable land use planning
- Promote investment in mineral exploration

Extract from Tellus web site on 19/11/2013:

[http://www.tellusborder.eu/NR/rdonlyres/62E5E949-DE1A-41BA-B5EC-BC8E892BDD4A/0/Tellus Border Gold map.pdf?](http://www.tellusborder.eu/NR/rdonlyres/62E5E949-DE1A-41BA-B5EC-BC8E892BDD4A/0/Tellus_Border_Gold_map.pdf?)

Project results will benefit Ireland's environment, economy, agriculture, land management and public health.

These benefits will include:

- High quality data for environmental research
- Improved baseline information to inform planning
- Improved cross-border environmental management
- Increased investment in mineral exploration
- Communication of the value of environmental science to the public
- Improved understanding of wetlands and peat
- New method for landfill/pollution plume detection

An outline of the process and outputs of Tellus Border project were presented to Leitrim County Council and other locally based interested parties in the Council Chamber on 17th December 2013.

Key new mapping by GSI relevant to Local Authorities include:

- National Groundwater Vulnerability Mapping
- National Aggregate Potential Mapping
- Landslide Susceptibility Mapping
- Shallow Geothermal (Ground source) Mapping & Guidance
- Carbon Dioxide storage potential
- Geoheritage and Geopark development
- Quaternary Mapping & Landscape Feature Database
- Geourban, Mapping in urban spatial planning
- Tellus Border Programme, applications in health, mining and economics
- INFOMAR 2026, Ireland's national marine mapping programme
- Geoscience Ireland, the GSI EI Business development cluster
- Geoscience Griffith awards programme, research highlights.

Data is available to view and download on the Tellus Border website <http://www.tellusborder.eu/>.

3. Soils and Agricultural Capability

The various soil types in Leitrim have developed from the combination of numerous factors, most notably of the parent material from which the soils are derived, terrain, climate and vegetation cover. Because most glacial material was carried only a short distance the bulk of material from which soils are derived is similar to the underlying bedrock. Leitrim's soils have been forming since the last glacial episode when all previous land cover was stripped from the land surface.

The majority of soils display significant limitations to agriculture. Combined with the nature of landform, grassland agriculture has been the dominant land use within the County. The majority of the soils are Gleys, which tend to be very sticky in wet conditions. Even for pasture production these soils present difficulties; the weak structure and poor drainage render them susceptible to poaching damage by grazing stock. This factor limits the length of the grazing season and proportion of fodder required. Despite their shortcomings, if well managed and manured these soils have a moderately high pasture production capacity. Gleys are also considered to be relatively productive forest soils. However, poor root penetration can often lead to wind throw. Peats are most extensive soils after Gleys. These are characterised by a high content of organic matter. Two types of peat may be identified; basin peats of which raised bogs and fens are composed, formed in lake basins, hollows, river valleys; and blanket peats which accumulate under conditions of high rainfall and humidity in the uplands of central and north Leitrim. Where drainage is adequate basin peats are suitable for grassland farming and vegetable growing. Blanket peat is generally suited to extensive grazing although sward improvement can be achieved through drainage, manuring and re-seeding.

A small percentage of Leitrim's soils are suitable for tillage. However, a high boulder density and frequent rock outcrops present significant obstacles to successful crop farming. The County's high incidence of rain days and low sunshine hours relative to most of the country further reduce agricultural diversification.

As mentioned previously, the cumulative impact of wastewater treatment systems and particularly the installation of older systems associated with one-off housing in the countryside has the potential to have significant the impacts on the soils and watercourses.

There are also environmental impacts associated with the encasement of soil under artificial surfaces as part of development works.

4. Soil and Biodiversity

Soil contamination has not been a serious issue in the County. Soil contamination occurs through

- the inappropriate disposal of waste (domestic, construction, food wastes, biological/clinical, industrial and sludges)
- accidental spillage/leakage of hydrocarbons (domestic oil tanks, underground tanks/pipework at petrol stations etc).
- heavy repeated applications of slurries to limited areas of farms.
- Accidental release of industrial chemicals (transport or pipework incidents)

Evidence suggests that soil contamination, while confined to discrete areas, has the potential to impose extremely high financial costs on those affected.

With respect to the County Development Plan, it is important that

- new development is encouraged to those areas served by a three bin refuse collection service ie within 200m of the collection route (as per the Waste Presentation ByeLaws)
- That domestic oil tanks are bunded and supported continuously along their base.
- That permitted waste disposal sites (for inert materials) are developed in at least six locations throughout the county (to minimise environmental liability and to reduce the spread of invasive species of plants)

5. Land Cover

The County comprises a mosaic of vegetation and habitat types Figure 24 that has evolved in relation to underlying geology, topography, glacial drift, soil and the influence of man on the environment. In the northern section of the County, north of Lough Allen, the higher areas of land are dominated by blanket bogs and heathland with natural grassland occupying steeper slopes. On the slopes of mountains, coniferous plantations have been established over vast areas although at high altitudes the quality of woodland is often poor. Broad leaf woodland is sparse within this northern area, although it can be found in valleys/ravines and gorges on steeper hillsides and around older hill farms. On the lower, gentler mountain slopes and in the drumlin-covered lowlands, grassland agriculture predominates. Small coniferous plantations are widespread. Deciduous woods often occupy loughside locations with some scattered areas around the coast. The dense network of hedgerows and hedgerow trees give the impression of a well-wooded landscape. In the southern part of the County, grassland agriculture dominates although vast areas are rush infested due to undergrazing. Scattered areas of coniferous plantations can be also found throughout the area and are particularly frequent south and east of Lough Allen. Broad leaf woodlands are generally concentrated in the east of the area with particularly large areas around Lough Rinn and along the Shannon. Again, the dense network of hedgerows on drumlins give the impression of a well wooded landscape. Raised bogs are restricted to the southernmost part

of the County (south of Mohill) where they occupy long, narrow inter-drumlin hollows. Inland wetlands are sparse in southern Leitrim; small areas are often associated with lough margins, interdrumlin wetlands and along the course of the Shannon.

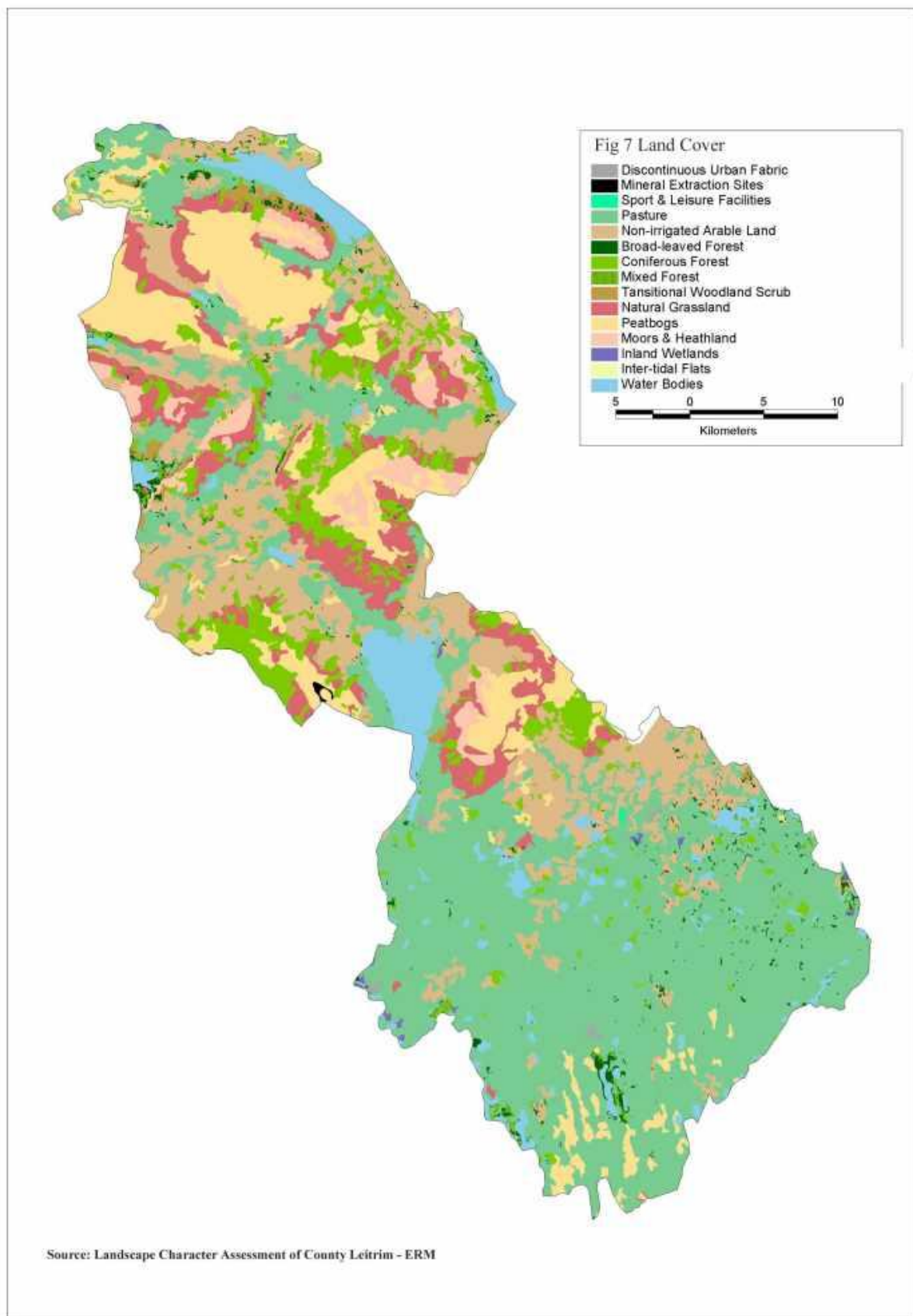


Figure 24 Land Cover

6. Landscape

Leitrim is a county of contrasts: wild and remote upland areas are juxtaposed with intimate agricultural landscapes. Since the agricultural reforms of the previous century and the dramatic effects of famine and emigration, County Leitrim has remained rural. In contrast to so many of the surrounding counties, Leitrim has no large towns and the countryside has been spared from the worst effects of urban expansion and of agricultural mechanisation. Leitrim's landscapes are among the country's finest environmental assets, a resource valued for their scenic, ecological and historical qualities as well as for their economic potential for forestry and tourism.

Leitrim's landscapes are largely rural, dramatic and varied. In very broad terms the County may be divided into two distinct halves with Lough Allen representing a convenient boundary. In the north of the County landscapes are wild and high with several distinct, exposed table-like mountains separating dramatic, sweeping glens floored with drumlins and loughs. Towards the coast the gently undulating glen farmland gives way to subtler landform as it extends to the short rocky coastline that overlooks Donegal Bay. To the south of Lough Allen an intimate landscape of drumlin farmland unfolds where peat bogs, loughs, rock outcrops and river shore landscapes punctuate the relentless undulations.

The intervisibility of these contrasting landscapes is an important characteristic adding to the appeal of the County. On clear days there are extensive views from the high moor topped mountains and their grassy slopes to the lowland landscapes which in places stretch to the horizon. From the bottom of the glens and where views between drumlins allow, the impressive outlines of distant mountains and hills may be seen, reminding the viewer how close the dramatically different landscapes are to each other.

7. Landscape Character Areas

County Leitrim has been sub divided into fourteen unique Landscape Character Areas, Figure 25 refers.

Landscape character areas are units of the landscape that are geographically specific and have their own character or sense of place. They are useful in terms of landscape planning and management, as appropriate policies and actions can be applied at a local level.

The Leitrim Landscape Character Assessment Report divided the County into fourteen distinct landscape character areas, within which there is a repeating matrix of landscape types (physical units). The physical and human influences have shaped the character of the landscape. The character description formed the basis for an analysis of landscape condition and sensitivity to change. This is followed with specific guidelines for landscape management and built form in each character area. The report also identified the sensitivity of areas towards the accommodation of wind farms and afforestation.

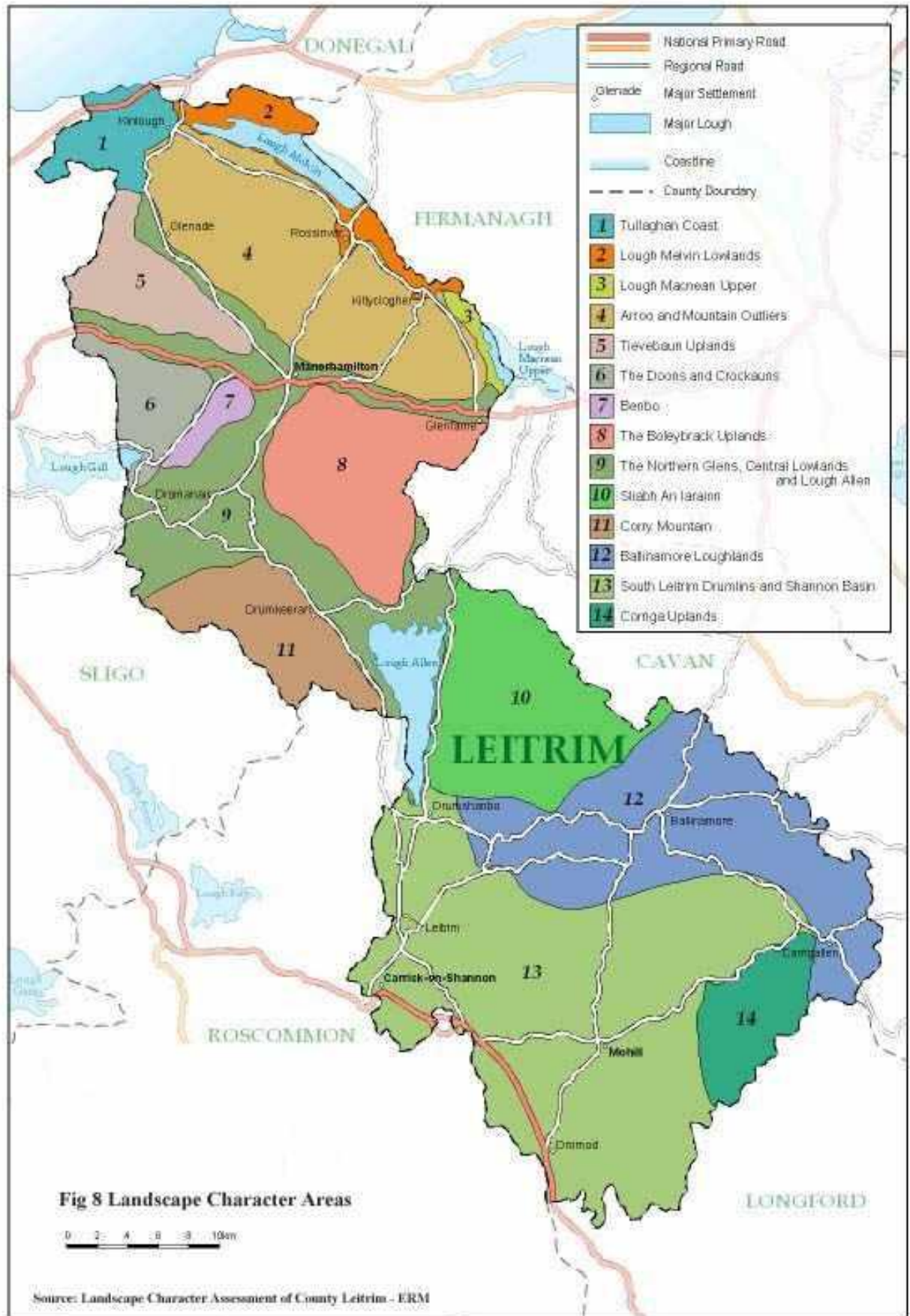


Figure 25 Landscape Character Areas

The designation of areas of Areas of Outstanding Natural Beauty, High Visual Amenity and the capacity of the landscape to absorb Foresty, was informed by the Landscape Character Assessment. These areas are indicated on Figure 26 and Figure 27

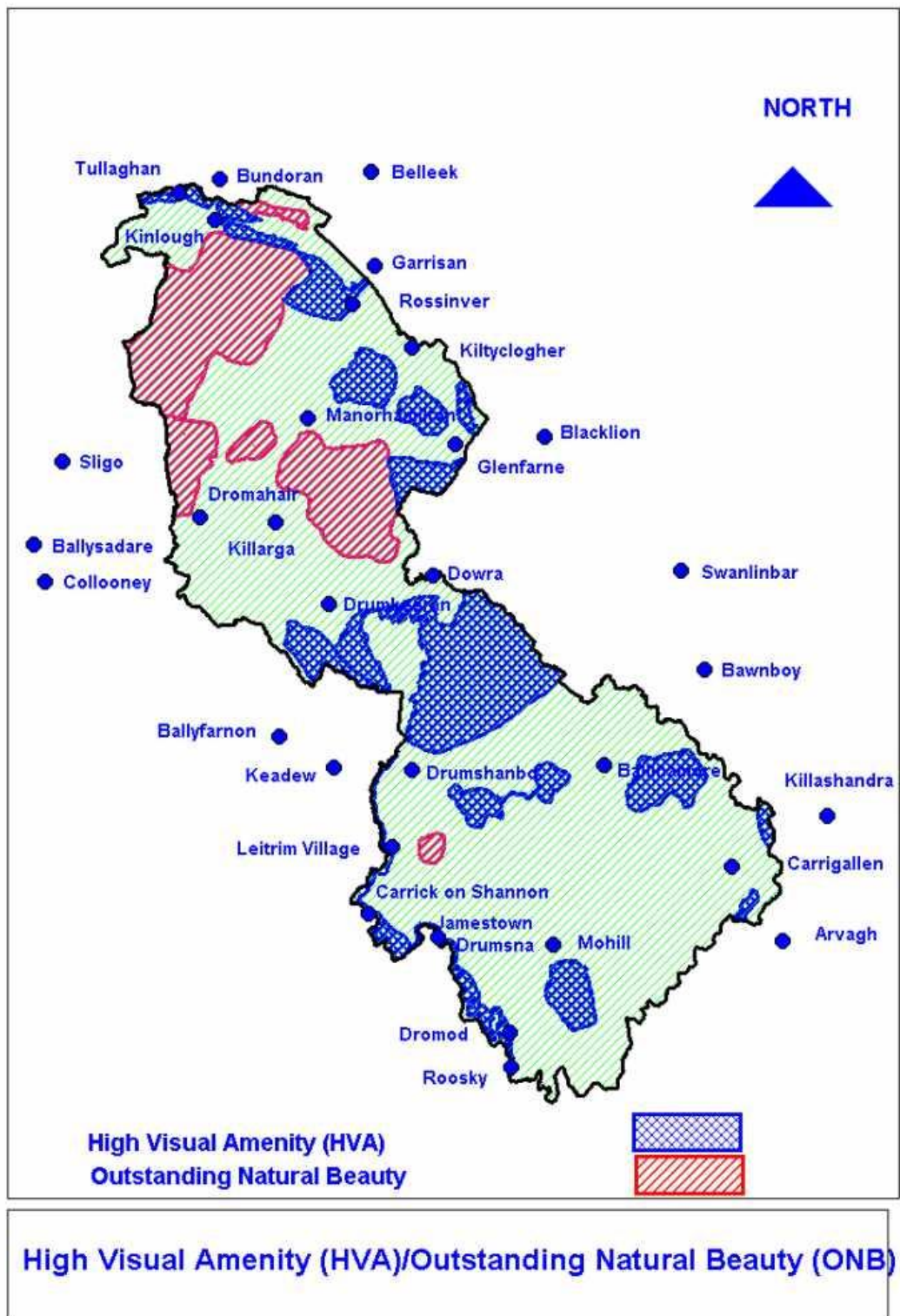


Figure 26 Areas of High Visual Amenity and Areas of Outstanding Natural Beauty

Source: Leitrim County Council

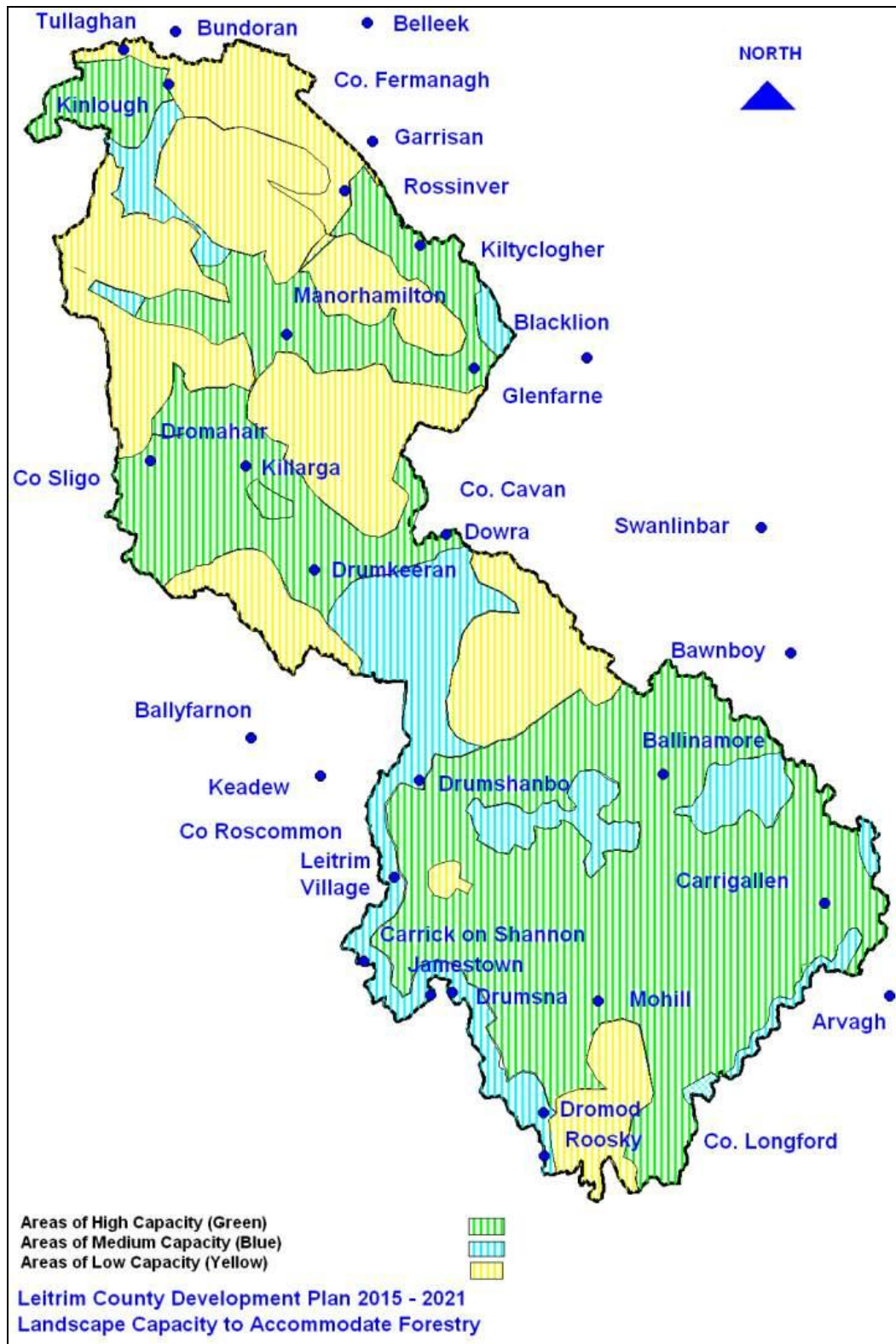


Figure 27 Landscape Capacity to Accommodate Forestry

Source: Leitrim County Council

Developments, such as afforestation, windfarms, the erection of communication masts, peat harvesting, extractive industry and residential development have the potential to have significant impacts on visually sensitive landscapes.

Following public consultation stage of the Draft Plan, the policy approach in relation to the accommodation of Windfarms was changed from a 'map based approach' to a 'criteria based approach'.

XXVIII. Climate Change and Flood Risk Management

1. Climate Change

Current climate change scenarios almost all suggest an increase in the amount of rainfall during winter. Flood-generating rainfall events will be more frequent, and catchments will be wetter for longer. The issue of the impact on the environment of climate change is dealt with in general terms in Section XIX.8 above.

2. Strategic Flood Risk Assessment

A flood is a natural event that can have far reaching effects on people and the environment. In County Leitrim the Shannon catchment is by far the largest and drains the centre and south west of the County. The gradient is generally very small and flooding occurs frequently. During the months of November, December and January heavy rainfall leads to enhanced river-flow and over-topping of river banks causing the river Shannon to flood very easily in certain areas. Most flooding occurs when the volume of water in a river or stream exceeds the capacity of the channel, this occurs due to a combination of events including overflowing river banks, heavy rainfall, coastal storms, and an increase in development.

Directive 2007/60/EC on the assessment and management of flood risks entered into force on 26 November 2007. This Directive now requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. With this Directive also reinforces the rights of the public to access this information and to have a say in the planning process. Flood hazard mapping has been carried out by the OPW and may be viewed at, and information downloaded from, the OPW web site at; <http://www.floodmaps.ie/>

The Office of Public Works (OPW) is the lead State body for the coordination and implementation of Government policy on the management of flood risk in Ireland. The OPW is also the national authority for the implementation of the EU Directive on the Assessment and Management of Flood Risks [2007/60/EC]. For further information in respect to flood risk management see the OPW site at; <http://www.opw.ie/en/FloodRiskManagement/>

The impacts of flooding can be devastating; floodwater can seriously disrupt public and personal transport by cutting off roads and railway lines, as well as communication links when telephone lines are damaged.

Flood Risk is likely to increase in the future with predicted changes in climate, ongoing development and other pressures that may arise, which will have the potential to alter precipitation and drainage patterns, meaning areas which are currently not prone to flooding may be at risk from flooding in the future. The natural processes, by which floods occur, heavy rainfall and high sea levels, cannot be controlled, however human influences affecting these processes can be managed accordingly to ensure that the risks of flooding are minimized or eliminated. Flooding is an important issue when considering location of development.

A Strategic Flood Risk Assessment of the Draft Plan has been undertaken and is contained in a separate document and as an *Appendix A* to this Report. The Assessment includes recommendations to be suitably incorporated into the Draft Plan.



XXIX. Agriculture and Forestry

In any strategy for the future of Leitrim's farming, considerable thought will have to be given to ways of offsetting the continuing decline in farm numbers and in full-time farmers by farm diversification or the creation of new sources of off-farm income. There is a huge need to ensure that rural communities continue to be viable and that will necessitate a sustainable agricultural base for the County.

Leitrim also has a relatively high level of afforestation, with one in every seven acres of land being planted. Almost two-thirds of plantings have been by the public sector.

1. Agriculture

Farm land in Leitrim is generally poor, with the result that farm consolidation has been quite rapid. Since 1980, the number of farm units in Leitrim has decreased by approximately 60%, with a particularly rapid decline in the dairying sector, although average output per dairy farm has almost quadrupled. Unfortunately, further consolidation of this sub-sector is probable, given that almost two-thirds of suppliers produce less than 20,000 gallons per annum – well below the level required for long-term economic viability

The County's agricultural sector is heavily dependent on cattle farming, which is the sector receiving most financial aid at present. Sheep farming in Leitrim is dominated by small herds. The farming sub-sector in Leitrim showing most growth and with the greatest potential is organic farming, where the County is well ahead of the National average and where market growth is high.

The County depends heavily on direct payments from either Europe or the domestic exchequer. Cattle-based farming gets most of the funds but there has also been a good uptake of REPS and the Early Retirement Schemes. A significant portion of gross farm revenue in Leitrim comes from subsidies and about half of farm output is from beef farming with dairying producing another 30%. That leaves only 20% for other activities and that revenue comes from a variety of sources none of which is significant on an individual basis
Source: County Development Board, Social Economic and Cultural Strategy for County Leitrim 2002 – 2012 - A Shared Vision

Table 9 Analysis of Agriculture Sector in Central Border Region 2000 - 2010

Area	No. of Farms		Average Farm Size (ha)		Employment in Agriculture	
	2000	2010	2000	2010	2000	2010
Cavan	5,491	5,282	25.2	26.4	9,457	9,899
Donegal	8,805	9,240	26.2	27.9	13,975	15,503
Leitrim	3,724	3,673	24.6	25.1	6,071	6,654
Monaghan	4,567	4,565	21.8	23.3	8,235	8,740
Sligo	4,505	4,395	24.5	26.3	7,700	8,136
Armagh	2,250	1,767	24.1	28.7	4,551	3,714
Cookstown	1,512	1,237	24.7	28.5	2,723	2,336
Dungannon	2,079	1,696	25.9	29.5	3,758	2,993
Fermanagh	3,593	2,963	30.8	36.0	6,161	5,110
Omagh	2,443	2,036	28.6	32.7	4,231	3,534

ICBAN Region	38,969	36,854	25.6	28.4	66,862	66,619
Rep of Ireland	141,525	139,860	31.4	32.7	257,948	272,016
Northern Ireland	29,891	24,471	29.6	34.1	57,823	46,948

Source: Data Profile of the Irish Central Border Region (ICBAN) Draft April 2013
www.icban.com

The tables below give an indication of the relative importance of the various farming types across the Region, and how they have changed between 2000 and 2010. Another key statistic in the Region shows that the number of sheep has fallen by more than 20% in the period from 2000 to 2010.

Table 10 *Change in Livestock No's in the Central Border Region 2001 - 2010*

Area	Pigs	Cattle	Sheep	Poultry
Cavan	-41,768	-29,754	-27,826	+265,911
Donegal	-860	+2,146	-101,594	-15,629
Leitrim	-3,962	-22,110	-5,818	-38,770
Monaghan	-15,509	-14,827	-12,609	-648,392
Sligo	+851	-20,384	-16,619	+1,993
Armagh	+33,477	+5,534	-42,192	+549,000
Cookstown	-8,476	-2,012	-22,539	+704,000
Dungannon	+19,233	+1,634	-24,606	+2,657,000
Fermanagh	-731	-28,027	-30,031	+203,000
Omagh	-8,874	-6,845	-69,437	+415,000
ICBAN Region	-26,619	-114,645	-353,271	+4,093,113
Rep of Ireland	-205,817	-430,850	-2,146,110	-3,035,964
Northern Ireland	+11,124	-72,123	-892,892	+1,155,000

Source: Data Profile of the Irish Central Border Region (ICBAN) Draft April 2013
www.icban.com

In the case of Leitrim the above changes represent significant reductions in livestock numbers; 53.0% in pigs, 24.3% in cattle, 4.6% in sheep and 94.8% in poultry.

The average number of dairy cows per farm in the State increased from 37 dairy cows per farm in 2000 to 39.9 dairy cows per farm in 2010. Waterford had the largest number of dairy cows per farm with 56.1 dairy cows in 2010, an increase of 5.9% since 2000. Leitrim had the smallest number of dairy cows per farm with 13.9 dairy cows in 2010, a decrease of 16.0% since 2000. Leitrim had the smallest number of other cows per farm with 10.1 other cows in 2010, a decrease of 14.7% since 2000.

The average size of sheep flock in the State decreased from 173 sheep per farm in 2000 to 158 sheep per farm in 2010. The 2010 Census shows that Wicklow had the largest number of sheep per farm with 262.5 sheep. The average number of sheep per farm within Leitrim in 2010 was 153.7 which slightly below the National average of 157.9. Nationally the number of sheep decreased by 32.8% over the ten year period, from 7,555,000 animals in June 2000 to 5,078,952 animals in June 2010. Thus, nationally, sheep numbers displayed the largest percentage drop of any livestock category in the ten year period. However, a 4.6% drop in sheep numbers in Leitrim during the period 2001 – 2010, is relatively small.



The counties with the largest average number of birds (poultry) were Cavan and Monaghan with 11,558.2 birds per farm and the county with the smallest average number of birds was Leitrim with 14.9 birds per farm in June 2010.

Source:

<http://www.cso.ie/en/media/csoie/releasespublications/documents/agriculture/2010/coapre2010.pdf>

Overall the above tables reflect a significant decline in livestock numbers both nationally and locally in the case of Leitrim. Such a drop represents a decline in traditional agricultural activity within the County.

A significant number of planning applications for farm buildings, (particularly slatted sheds) have been made within the last decade. This has resulted in significant changes to agricultural practice in terms of the long term housing of animals and the subsequent spreading of slurry on land. Alongside these changes it is reasonable to conclude that there have been significant improvements in the environmental management of farms arising mainly from the requirements of the REPS scheme. These changes have resulted in both positive and negative environmental impacts.

2. Forestry

The forest parks of Leitrim are rich in flora and fauna, the most noteworthy of which are listed in Table 11, together with a brief description of existing facilities at each park. A list of the top 25 trees in the County has been identified by the Tree Council of Ireland and is given in Appendix G.

FOREST PARKS OF LEITRIM		
Name And Location	Tree Species	Facilities Available
<i>Derrycarne Wood 3.5 km North of Dromod</i>	<i>Beech and Oak are Main species; also: Pine, Birch, Willow, Hornbeam, Old Douglas Firs, Sitka Spruce.</i>	<i>Car Park; Picnic Site; Walks; Access to the Shannon.</i>
<i>Glencar - 11 km North West of Manorhamilton</i>	<i>Main Species: Ash, Oak, Holly, Sycamore, Hazel, Birch and Beech.</i>	<i>Wood Walk; Toilet and Picnic Facilities; Access to the Waterfall for Disabled Persons.</i>
<i>Glenfame Demesne - 1.5 km North of Glenfame</i>	<i>Planted with Sitka and Norway Spruce, Old Scots Pine and European Larch. Also Oak, Ash, Holly, Birch and Alder.</i>	<i>Picnic Site; Boat Quay.</i>
<i>Milltown Wood - 1 km North West of Manorhamilton</i>	<i>Main Species: Ash, Oak, Holly, Sycamore, Hazel, Birch and Beech.</i>	<i>Wood Walks; Car Park.</i>
<i>Garadice Wood – 10 km East of Ballinamore</i>	<i>Main Species: Oak, Beech, Ash, Sycamore, Variety of Native Trees</i>	<i>Wood Walks; Car Park; Toilets and Wash areas for Fishermen; Seating; Map of Area; Noticeboard showing different types of local wildlife; Picnic Facilities.</i>

Table 11 Forest Parks of Leitrim

Source: County Development Board – Social Economic and Cultural Profile of County.

Whereas the Council has a consultative role in respect to afforestation, the management of afforestation is largely outside the control of the Planning system. Afforestation has the potential to have both positive and negative environmental impacts. In terms of positive

impacts the planting of deciduous trees can add to the biodiversity of an area. Afforestation can become an amenity in terms of providing recreational areas.

Much of the plantings have been of Norse evergreens, which have the potential to increase acidity levels in watercourses, with consequential adverse effects on fishing stocks. Such planting schemes can also lead to a loss in biodiversity, an adverse impact on the character of the landscape, social isolation and damage to public roads.

XXX. Cultural Heritage including Archaeology

Leitrim is reasonably well supplied with arts and cultural centres, facilities and events. It has a higher than average range of 'arts education' courses for a population of its size. The County has a rich archaeological and architectural heritage.

Most of the major settlements in Leitrim have a library branch, with a total of almost 55,000 books. The County Library in Ballinamore has 21,000 books. Current projects the Library is involved in include indexing local newspapers and restoring museum items.

Leitrim is renowned for the variety of angling resources it possesses and it hosts a number of national and international angling festivals due to its relatively unpolluted lakes and rivers and their large population of wild fish. Leitrim has a wide range of sports activities including walking, cycling, golf, rowing and GAA.

County Leitrim exhibits high levels of community-based activity. It is estimated that there are over 300 community groups in the County. This is a very significant resource which should be fostered and developed.

1. Built Heritage

Our built heritage is part of the environment we live and work in. It is both everyday and ancient. Built heritage is manmade, take from the earth and reshaped. It includes literally everything built by human beings including buildings, bridges, archaeological sites and field boundary walls. One of the main issues to be addressed in the County Development Plan is how we can protect our architectural and archaeological heritage while recognising the need for continued development. Sympathetic re-use and/or development of structures, including appropriate contemporary design additions near a protected structure, can allow our architectural and archaeological heritage to continue to offer aesthetic, environmental and economic benefits for future generations. There are a number of documents which are important in terms of

Heritage and Conservation:

- Record of Protected Structures – See *Appendix I* for a List of Protected Structures
- Leitrim Heritage Plan
- National Inventory of Architectural Heritage
- Landscape Character Assessment of County Leitrim

2. Archaeological Heritage

The archaeological heritage of County Leitrim is a unique resource, which has shaped our landscape and our cultural identity. Archaeological remains of special interest are included in the 'Record of Monuments and Places'. The National Monuments Acts 1930 – 1994 provide for protection of our archaeological heritage. The Department of the Environment, Heritage and Local Government National Monuments Section has a specific role in relation to the protection of the archaeological heritage. Their powers and functions are contained in the following legislation:

- National Monuments Acts 1930 – 1994
- National Cultural Institutions Act 1997
- Planning and Development Acts 2000 -2014
- Planning and Development Regulations 2001as amended.

3. Architectural Heritage

The principle legislation that provides the protection to our architectural heritage is the Planning and Development Acts, 2000 2014. Building activity and natural resource exploration has increased significantly in recent years. This coupled with an increase in afforestation and changing farming methods has placed the built heritage under increasing threat.

Each Local Authority has a legal responsibility to include a Record of Protected Structures in its County Development Plan. Structures or parts of structures can be added to the Record if they are of special interest under one or more of the following headings: -

- Historical
- Cultural
- Artistic
- Archaeological Scientific
- Social
- Technical
- Architectural

The Council can add or delete from the Record of Protected Structures at any time but the Review of the County Development Plan is a good time to consider these changes.

Places, areas, groups of structures or townscapes of special interest may be designated as Architectural Conservation Areas (ACA's). The protection offered under ACA's affects only the status of the exterior of these buildings, areas or structures. Generally, the buildings involved are not sufficiently important to have an individual listing on the Record of Protected Structures but are very important in the context of their contribution to the local streetscape or area. A list of Protected Structures within the County is given in *Appendix I*.

Other legislation includes:

- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999
- National Monuments Act 1930 and amendments of 1954, 1987, 1994 and 2004
- Heritage Act, 1995
- Convention for the Protection of the Architectural Heritage of Europe (Granada Convention, European Treaty Series no. 121 (1985))



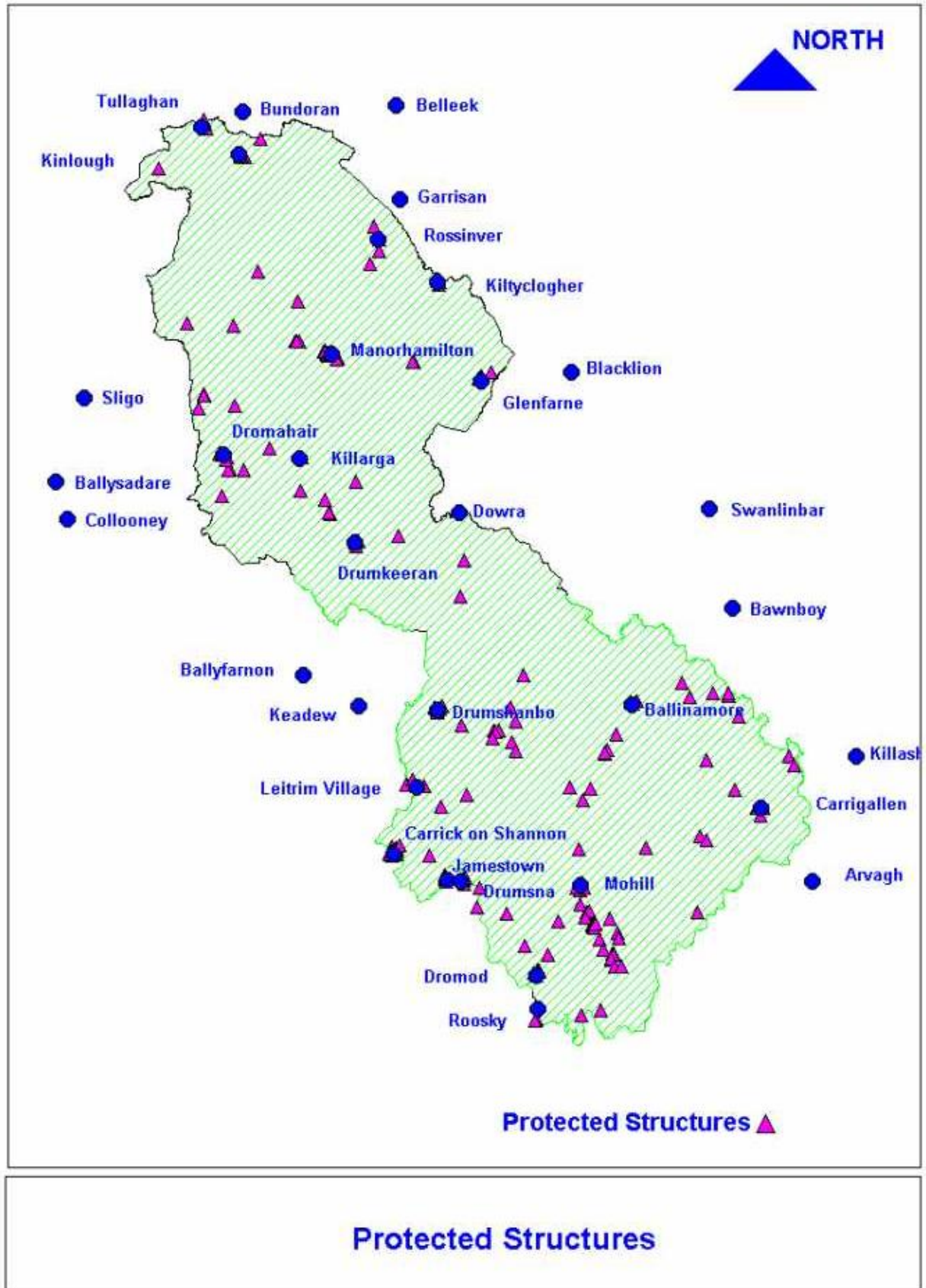


Figure 17 Map of Protected Structures

Source: Leitrim County Council

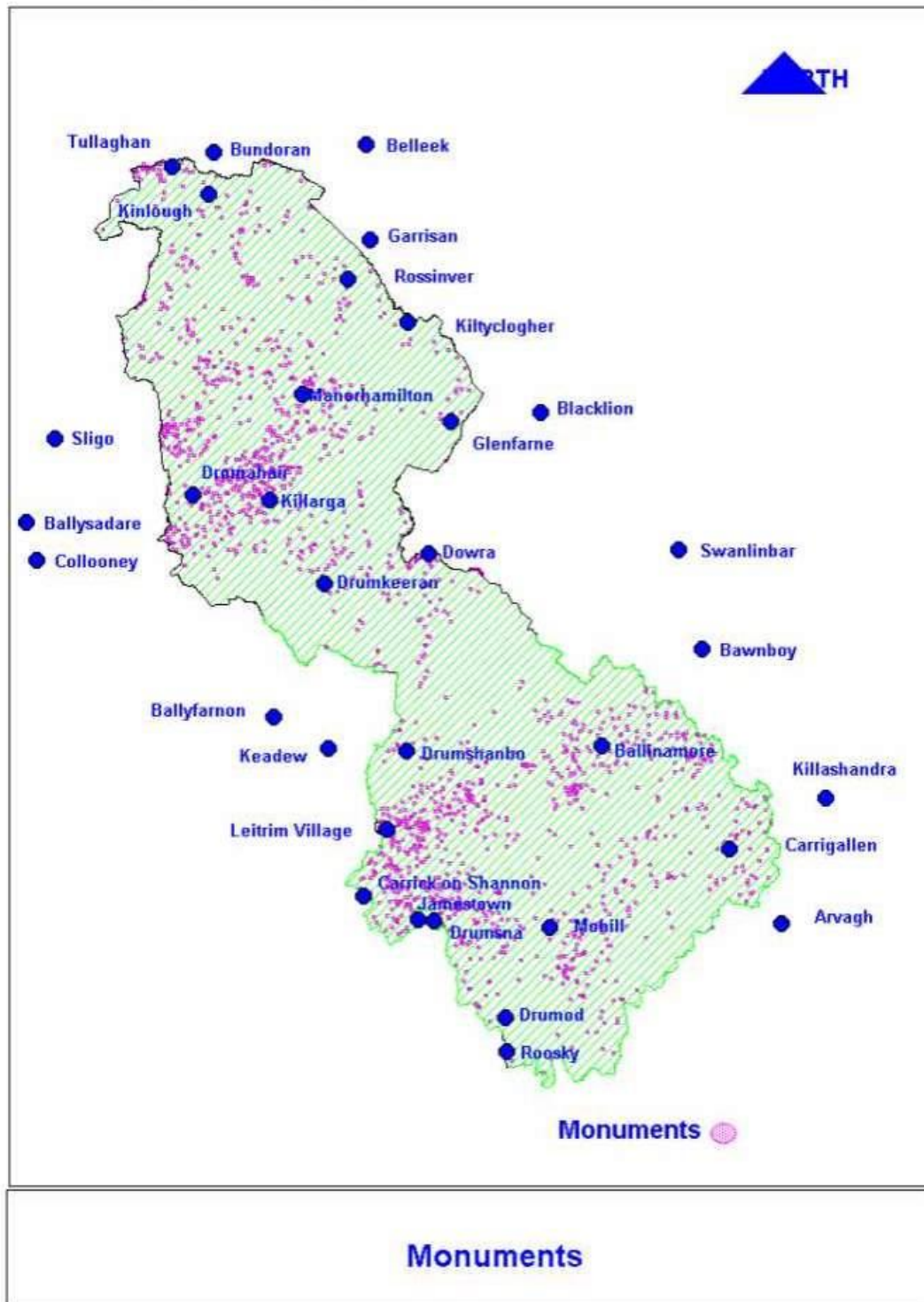


Figure 28 Map of Recorded Monuments

It is acknowledged that development has the potential to impact on sites and places of heritage value. In this regard there is an obvious need to maintain and protect these sites and places. Of particular importance is the need to ensure, through the development plan and development management process, that the integrity of these items of acknowledged importance is not compromised by inappropriate type development.

XXXI. Air Quality

Overall, air quality in Ireland continues to be good and is among the best in Europe. This is due largely to the prevailing clean westerly air-flow from the Atlantic and the relative absence of large cities and heavy industry. However, Ireland faces a number of challenges in the near future when trying to meet our obligations under EU legislation.

A suite of new EU Directives setting out a completely new approach to the monitoring, assessment and management of air quality has been adopted in recent years. The objectives of the new Directives include avoiding, preventing and reducing the impact of harmful air emissions on human health and the environment.

Ireland does not have serious outdoor air quality problems. This is largely due to the eradication of the burning of coal in many urban areas during the 1980s and the early 1990s.

The EPA has overall responsibility for the co-ordination of ambient air quality monitoring in Ireland in accordance with EU Directives.

The EPA does not have any monitoring sites listed in County Leitrim; the nearest site is located in Longford Town.

The biggest threat now facing Ireland's air quality is emissions from road traffic. The implementation of pollution abatement measures in the form of air quality management plans or short-term traffic restrictions, should these prove to be necessary, would be a major new challenge for local authorities.

Air pollution can affect the health and well-being of sensitive population groups and ecosystems.

To maintain our good standard of air quality and ensure that in the future our air will be healthy and clean, Ireland must continue to implement and enforce the ban on bituminous coal. Households and businesses should use more efficient methods to burn fuel and shift from solid fuel to cleaner alternatives, while also striving to reduce the demand for energy consumption. We must also reduce traffic emissions through implementing policies to reduce travel demand; increase the use of alternatives to the private car such as cycling; walking and public transport and improve the efficiencies of motorised transport.

For further information in relation to air quality see the EPA Report 'Air Quality in Ireland 2011' and related details at;

<http://www.epa.ie/pubs/reports/air/quality/epairqualityreport2011.html>

XXXII. Material Assets

Material assets within Leitrim include the following:

- Built environment (protected structures/ archaeological monuments)
- Infrastructure (roads, telecommunications, wastewater, drinking water)
- Natural assets (quarries, agricultural production, forestry and SAC's. SPA's and NHA's)

The provision and safeguarding of infrastructural investment is a critical component of the sustainable development strategy of the County. Without an environmentally sound means of supplying water, disposing of wastewater and solid waste, these principles cannot be met.

1. Irish Water

The function of the Water Services Department in Leitrim County Council is support Irish Water in the operate and maintain water and sewerage facilities serving towns and villages throughout the County.

Irish Water are statutorily responsible for both investing and operating water services infrastructure in its role as a provider of drinking water and waste water services to household, commercial and industrial customers in Ireland (not served by Group Water Schemes). Water and wastewater services formerly operated by the Council were handed over to Irish Water in 2014. The Council are operating these services from the 1st January 2014 under a 'Service-Level Agreement' with Irish Water and will work in co-operation with Irish Water to ensure the provision of a proper level of water service throughout the County. Leitrim County Council will engage with Irish Water and seek Capital Investment to extend and improve the water services infrastructure in County Leitrim to meet the expanding domestic, commercial and industrial needs of the County and to improve the provision of water services in those areas where deficiencies exist at present.

2. Public Wastewater Treatment Plants

There are 26 public waste water treatment plants (WWTP's) serving the County; 11 of them are newly built and operated by a private contractor and are operating to a high standard. The remaining plants are older plants and were designed to produce a lower quality effluent. When conditions are favourable these older plants can produce a high quality effluent but they struggle on occasions to meet the strict standards in their licenses. In terms of wastewater treatment, the capacity of existing and proposed infrastructure must be adequate to properly accommodate the existing and estimated future population of the County.

Table 12 indicates the status of WWTP's within the County. In particular the table indicates; the existing hydraulic capacity, the existing loading, committed loading, existing surplus capacity, and proposed capacity within the period of the Plan.

Table 12 Status of Public Wastewater Treatment Plants

Location	Existing Hydraulic Capacity (pe)	Existing Loading (pe)	Committed Loading (pe)	Proposed Treatment Capacity (pe within Plan period)	Existing Surplus Capacity (pe)
Carrick on Shannon (Leitrim only)	9,500	5,520	6,750	9,500 (existing capacity)	3,980 (existing surplus)
Bundle 2 Plants to be upgraded in the short term					
Location	Existing Hydraulic Capacity (pe)	Existing Loading (pe)	Total Committed Loading (pe)	Proposed Treatment Capacity (pe within Plan period)	Potential Surplus Capacity (pe)
Ballinamore	2,000	1,252	1,704	1,800	548
Carrigallen	600	527	700	800	273
Dromod	1,500	624	1,200	1,200	576
Drumshanbo	4,000	1,211	1,874	1,800	589
Leitrim Village	1,000	716	1,069	1,200	484
Manorhamilton	2,000	1,906	2,610	2,600	694
Mohill	2,000	1,322	1,691	1,800	478

Bundle 1 DBO Plants recently upgraded

Location	Existing Hydraulic Capacity (pe)	Total Committed Loading (pe)	Proposed Treatment Capacity (pe within Plan period)	Existing Excess Capacity (pe)
Ballinaglera	200	55	<i>no upgrade proposed</i>	145
Dromahair	2,200	1,350	<i>no upgrade proposed</i>	850
Cloone	250	162	<i>no upgrade proposed</i>	88
Drumcong	250	130	<i>no upgrade proposed</i>	120
Drumkeeran	750	522	<i>no upgrade proposed</i>	228
Drumsna	1,000	312	<i>no upgrade proposed</i>	688
Killargue	200	120	<i>no upgrade proposed</i>	80
Kiltyclogher	500	166	<i>no upgrade proposed</i>	334
Kinlough	2,100	1,442	<i>no upgrade proposed</i>	658
Roosky (Reserved)	1,100	481	<i>no upgrade proposed</i>	619
Tullaghan (Reserved)	1,000 (reserved)	600	see note below	

Other Plants				
Aughnasheelin	100	60	<i>no upgrade proposed</i>	40
Fenagh	250	164	<i>no upgrade proposed</i>	86
Glenfarne	75	75	<i>see note below</i>	0
Jamestown	200	81	<i>no upgrade proposed</i>	119
Keshcarrigan	250	350	<i>proposed upgrade</i>	
Newtowngore	250	175	<i>no upgrade proposed</i>	75
Rossinver	50	50	<i>see note below</i>	0

Tullaghan is currently operating to full capacity. It is proposed to connect to the Bundoran WWTP when the plant is upgraded in 2016. A capacity of 1,000 (pe) has been reserved by the Council in the Bundoran plant when it is commissioned. The Plants at Glenfarne and Rossinver are standalone Plants built primarily to serve Local Authority Housing; private connections will be limited according to the capacity of the respective plants.

The 'existing hydraulic capacity' refers to the maximum hydraulic loading that the plant has been designed to accommodate. It does not refer to the treatment capacity of the plant which is dependent on the required standard of the final discharge.

The 'committed loading' refers to the loading from existing occupied and unoccupied buildings that are connected to the wastewater system.

The 'potential surplus' in respect to Bundle 2 Plants refers to the surplus in the 'existing loading' following the proposed upgrading of the Plants.

The 'existing excess capacity' in respect to Bundle 1 DBO plants and Other Plants refers to an excess in respect to the 'committed loading'.

Source: Water Services and Environmental Services Leitrim County Council

The hydraulic capacity indicated does not necessarily reflect the treatment performance required to comply with the Emission Limit Values that are set out in the current discharge licence. The committed loading takes into consideration the full contribution from existing vacant development. Where those units remain vacant, a certain spare treatment capacity will invariably be available. The proposed capacity of these plants will be finalised following detailed surveys and the agreement of the Department /Water Ireland. It should also be noted that the existing loadings indicated in the table are based on standard calculations methods and are subject to change following a survey of the flow rates and possible improvement works on surface water separation at the respective locations.

In relation to the accommodation of future development and in particular to the zoning of lands, it is noted that Section 3.1.3 of the Draft Plan contains the following statement;

"Where land is zoned for a particular use, permission may be refused if, in the opinion of the planning authority, the infrastructure is not adequate to service the proposed development. Planning permission may also be conditional on the provision of certain key pieces of infrastructure."

Leitrim County Council has assessed the needs in the Waste water infrastructure in the County and has identified and prioritised the requirement to upgrade 7 no. Wastewater Treatment Plants (WWTP's) located at; Ballinamore, Carrigallen, Dromod, Drumshanbo, Leitrim Village, Manorhamilton and Mohill. Leitrim County Council has completed a Design Review Report and proposals have been submitted to Irish Water for inclusion in their investment Plan 2014-2016.

The Council will seek to maximise the use of natural, low carbon systems in the treatment of urban waste water and urban surface water run-off.

(1) Waste Water Discharge Authorisation

A system for the licensing or certification of waste water discharges (WWD) from areas served by the public sewer networks was brought into effect by Mr John Gormley, Minister for the Environment, Heritage and Local Government on 27th September 2007. The licensing and certification authorisation process was introduced on a phased basis commencing on 14th December 2007 in accordance with the requirements of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

The licensing and certification process gives effect to a number of EU Directives by the imposition of restrictions or prohibitions on the discharge of dangerous substances and thus preventing or reducing the pollution of waters by waste water discharges.

All discharges to the aquatic environment from sewerage systems owned, managed and operated by water service authorities will require a waste water discharge licence or certificate of authorisation from the EPA. The authorities are required to apply to the Agency for a licence or certificate of authorisation by set dates depending on the population equivalent of the area served by the sewer network

The authorisation process provides for the Agency to place stringent conditions on the operation of such discharges to ensure that potential effects on the receiving water bodies are strictly limited and controlled. In overall terms the aim is to achieve good surface water and ground water status in addition to complying with standards and objectives established for associated protected areas by 2015 at the latest.

The regulations focus on discharges from areas served by water services authorities sewer networks. These regulations **do not** regulate:

- Waste water treatment plants other than the actual discharge
- Odours from waste water treatment plants including associated infrastructure (pumping stations), or
- Noise from waste water treatment plants including associated infrastructure (pumping stations).

The licensing and certification processes are open and transparent and access to the application documentation is freely available on the Environmental Protection Agency website.

Any person may make written submissions to the Agency in relation to an application for a licence and thus participate in the processing of a particular application. The Agency welcomes and encourages such participation. The Agency must have due regard to all submissions received in its consideration of each licence application. Although the [Regulations](#) do not provide for submissions in respect of WWD Certificate of Authorisation applications, the Agency will take comments regarding any certificate of authorisation application into account. Leitrim County Council also has a Public Awareness Section on Waste Water Licensing on the Water Services section of their website. It contains annual reports and correspondence between Leitrim County Council and the EPA.

3. Drinking Water Supply

There are 6 Public Water Supplies in Leitrim. Monitor takes place in respect to 88 Group Schemes, 9 of which are privately owned. Results are returned annually to the EPA and they are published by the EPA website and on Leitrim County Councils website. Public water supply subject to independent random audits by the EPA to monitor production procedures and standards. Percentage compliance has improved steadily over the years and now stands at 99.89% for Group Water Schemes and 98.96 for Public Water Supplies. Leitrim County Council. These levels of compliance perform well when compared to other councils nationally and internationally. The standard of drinking water in Ireland has improved to be on par with our European counterparts. It is anticipated that these compliance percentages will improve further in the coming years through a programme of continual improvement works.

The water supply schemes identified and prioritised by Leitrim County Council for investment are as follows: -

North Leitrim Regional Water Supply Scheme Phase 2 -- Contract 3a --Extension of Moneyduff Water Treatment Plant;

North Leitrim Regional Water Supply Scheme Phase 2 – Contract 3b – Extension of supply to Rossinver and Kiltyclogher.

4. Roads

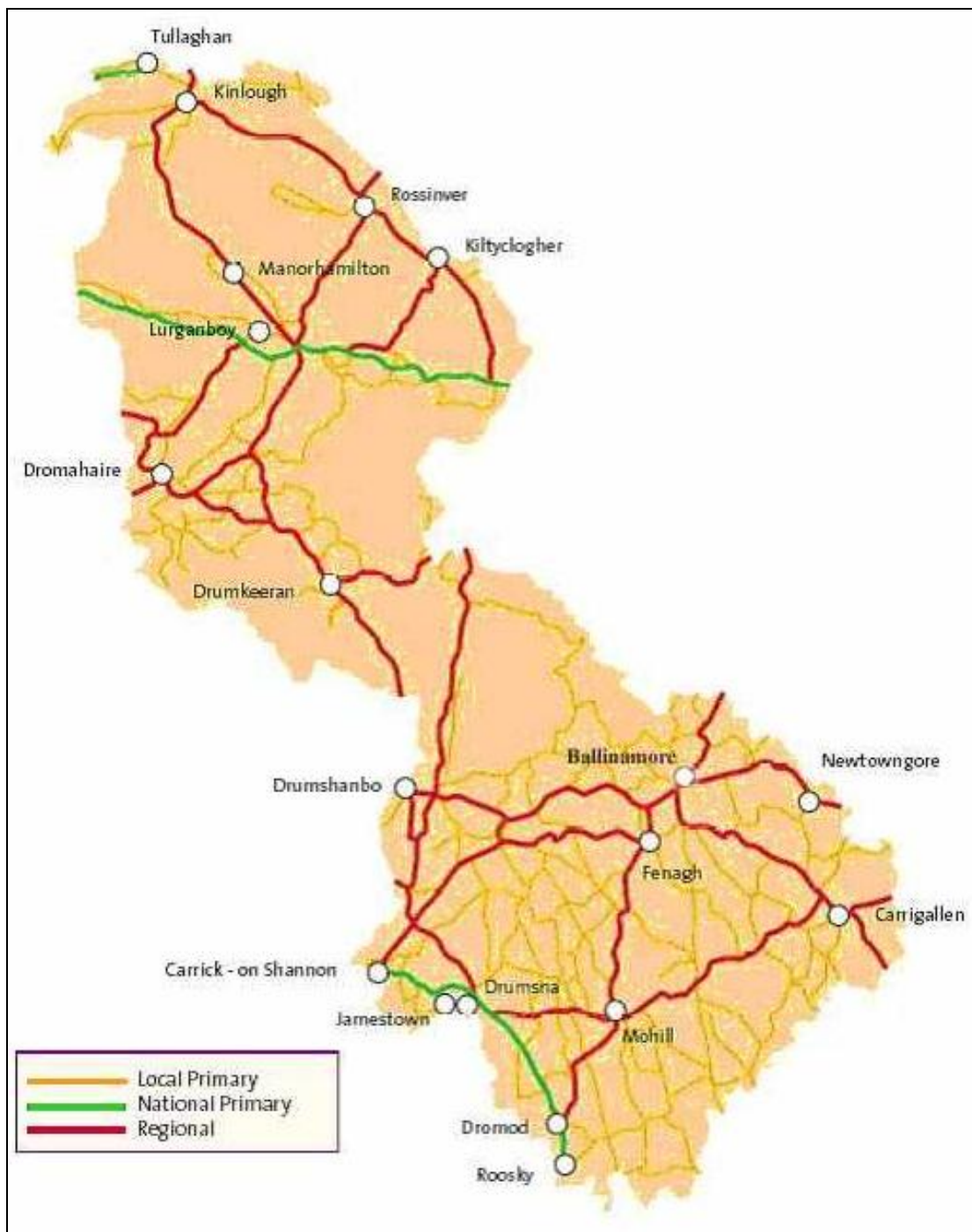


Figure 29 Map of Road Network

Source: Leitrim County Development Board, Economic, Social and Cultural Strategy for County Leitrim 2002 – 2012 – A Shared Vision

Current modes of transport within the county include road networks, foot/ cycle paths, bus services, taxis, hackneys. Historically the needs of agriculture and the dispersed nature of population have resulted in an extensive road network in the county. As well as the extensive regional and local road network Leitrim lies within the main transport corridors of N15 (Sligo –Leitrim- Donegal), the N16 Sligo-Leitrim- Enniskillen and the N4 Sligo – Leitrim - Dublin.

Leitrim has 56 km of National Primary route, 336 km of Regional and 1,778 km of Local Roads.¹ Less than 3% of the County's road network is national primary. It is one of the few counties in the State without a National Secondary Route. Due to the small population in Leitrim, the ratio of (road) km/person of 0.087 is one of the highest in the State. The key strategic road routes in the County are detailed in Core Strategy Map

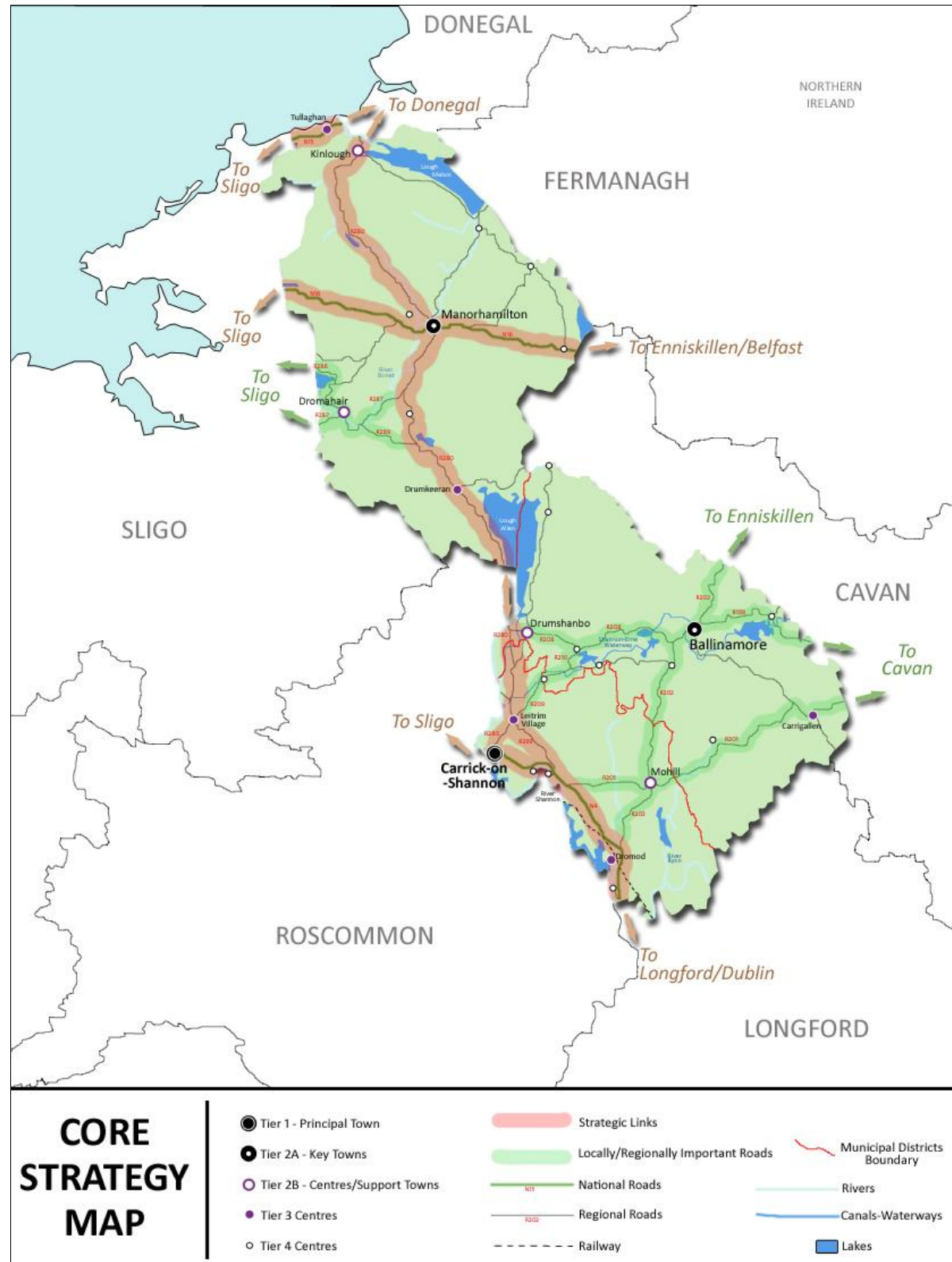


Figure 30 Core Strategy Map

The regionally and locally-important routes and include the following: -

- The R199 {Ballinamore to the Cavan County Boundary}
- All of the R201 {from the junction of the N4 at Annaduff, via Carrigallen, to the Leitrim Cavan County boundary}
- All of the R202{Dromod to Cavan County Boundary}
- The R208 from junction of the R280, to Junction of R202
- The R209 from the Junction of the R280 to the Junction of the R210
- All of the R210 {Junction with R209 to junction with R208}
- All of the R287 from the Junction of the R280 to the Leitrim/Sligo boundary
- The R289 from the Junction of the R280 to the junction of the R287.
- All of the R299 {N4 to R280}.
- All of the R288 and its continuation along the R286, via Park's Castle, to the Sligo Leitrim/Boundary

It is widely accepted that the coverage and condition of the road network is of particular importance to the economic development and the maintenance of economic competitiveness in national and international markets.

In Ireland the road network accounts for 89% of freight traffic and 96% of passenger traffic. The importance of the road network to Leitrim cannot be over emphasised, particularly as only the southwest of the County is serviced by rail.

It is acknowledged that the upgrading of existing roads and provision of new roads has the potential to have significant impacts on the environment. In this sustainable means of transport are to be encouraged and individual projects should be carefully assessed in terms avoiding where possible significant environmental impacts.

5. Rail, Bus and Port Infrastructure

There are two rail stations serving the County, at Dromod and Carrick-on-Shannon on the Sligo-Dublin rail line; the commuting distance from Carrick-on-Shannon to Dublin is just over two hours (160Km).

Bus Éireann operates a number of expressway services across the County in addition to a limited number of local services. Rural Lift and other local transport services operate within the County.

The nearest airports are Sligo, Knock International airport and St Angelo's Enniskillen. The nearest ferry ports are Larne and Dublin.

There are a number of disused railway lines traversing the County. It may be desirable to develop these tracks as amenity routes as indicated on Figure 31.

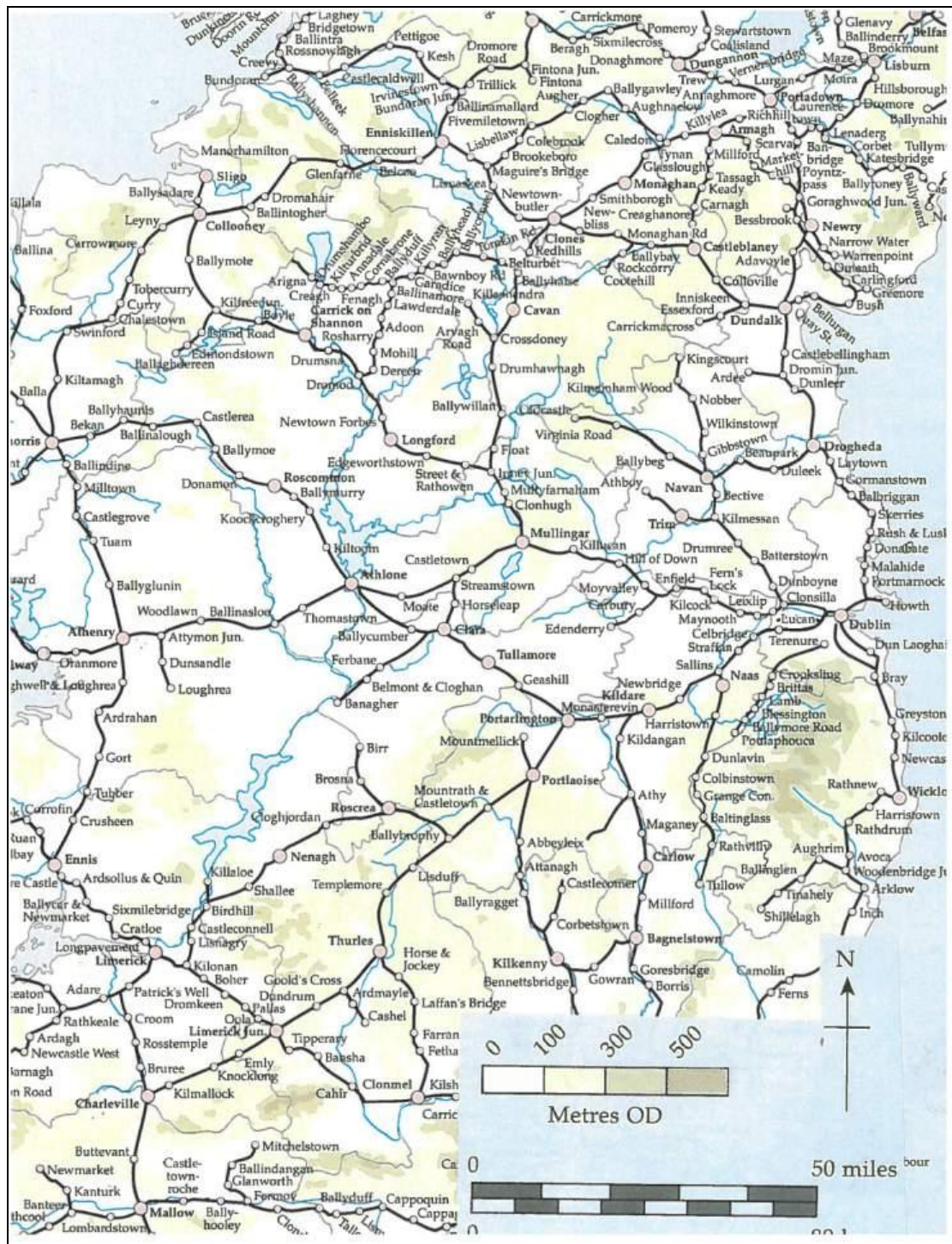


Figure 31 Extract from Map of Railway Network in 1923

Source; Atlas of the Irish Rural landscape Editors F.H.A. Aalen, Kevin Whelan and Mathew Stout [page 215] Cork University Press. 1997[ISBN 1-85918-095-7].

The Sligo, Leitrim & Northern Counties Railway (SLNCR), ran from Enniskillen, in County Fermanagh at its eastern end, where it joined with the Great Northern Railway through Florencecourt, Belcoo, Glenfarne, Manorhamilton, Dromahair, Ballintogher and onto Collooney, where it joined with both the Midland Great Western Railway and the Great Southern and Western Railway. Proposal for the development of the SLNCR as a 'Greenway' are currently (September 2013) at an early stage.

The Cavan and Leitrim Narrow Gauge Railway consisted of a main line 54 km (34 mi) long that ran between Dromod and Belturbet (where it met the mainline), with a 24 km (15 mi) branch from Ballinamore to Arigna. The line opened for goods traffic on 17 October 1887 and for passengers on 24 October 1887.

Opportunities for the development of disused railway lines as amenity corridors should be availed of where possible and such should be provided for in the Plan. Development that would compromise the potential for such amenity use should be avoided.

6. Telecommunications & Information Technology

Broadband provides high speed always on internet connectivity and is currently the leading technology in the Information Communication Technology (ICT) sector. The Irish economy has evolved from the production and distribution of physical goods to that of a knowledge based economy. Leitrim County Council acknowledge the opportunities offered by Information Communication Technology and aspire to maximise access opportunities throughout the County. Access to ICT is essential to ensure economic growth. To date Leitrim County Council has participated in a number of initiatives to promote Broadband, these include the construction of Metropolitan Area Networks in Carrick on Shannon and Manorhamilton.

7. The Extractive Industry

There are a number of quarries located within the county, most of which are in the northern part of the County. See Figure 17 below for the location of register of quarries. Section 261 of the Planning Development Regulation requires all operators to have planning permission to carryout quarrying. The Council under its statutory obligations regulates the operation of quarries, including the control of dust, wastewater and nuisance to acceptable levels.

The extractive industry largely consists of the operation of quarries and peat extraction.

Leitrim currently contains a small number of active quarries, eight in total, located principally in the north of the County. Of the eight, four are located in the Manorhamilton area, two in the Dromahair/Drumkeerin area and two in the south of the county.

These quarries were part of a total of thirteen that sought registration with the Council as part of the original Registration of Quarries process in 2005. Of the thirteen that sought registration eight were registered with the remaining five declared abandoned.

Subsequent to the registration process and following the finding by the European Court of Justice that Ireland had incorrectly transcribed the Habitats Directive and the Environmental Impact Directive into Irish law, a Review of Quarries was undertaken in 2012. This review aimed to identify and assess all quarries within the county. A total of 476 quarries were identified through historical Ordnance Survey and Geological Survey of Ireland mapping and datasets. The vast majority of these quarries were found to be abandoned with a small number found to be unauthorised and which were subject to enforcement proceedings. The quarries that originally registered in 2005 also formed part of the review. Of these a number were determined to be required to apply for Substitute Consent.

Active quarries within the county are subject to periodic inspections of their activities on a regular basis with inspections being under on a quarterly basis to ensure compliance with operating conditions.

Figure 32 indicates the location of registered quarries within the County.

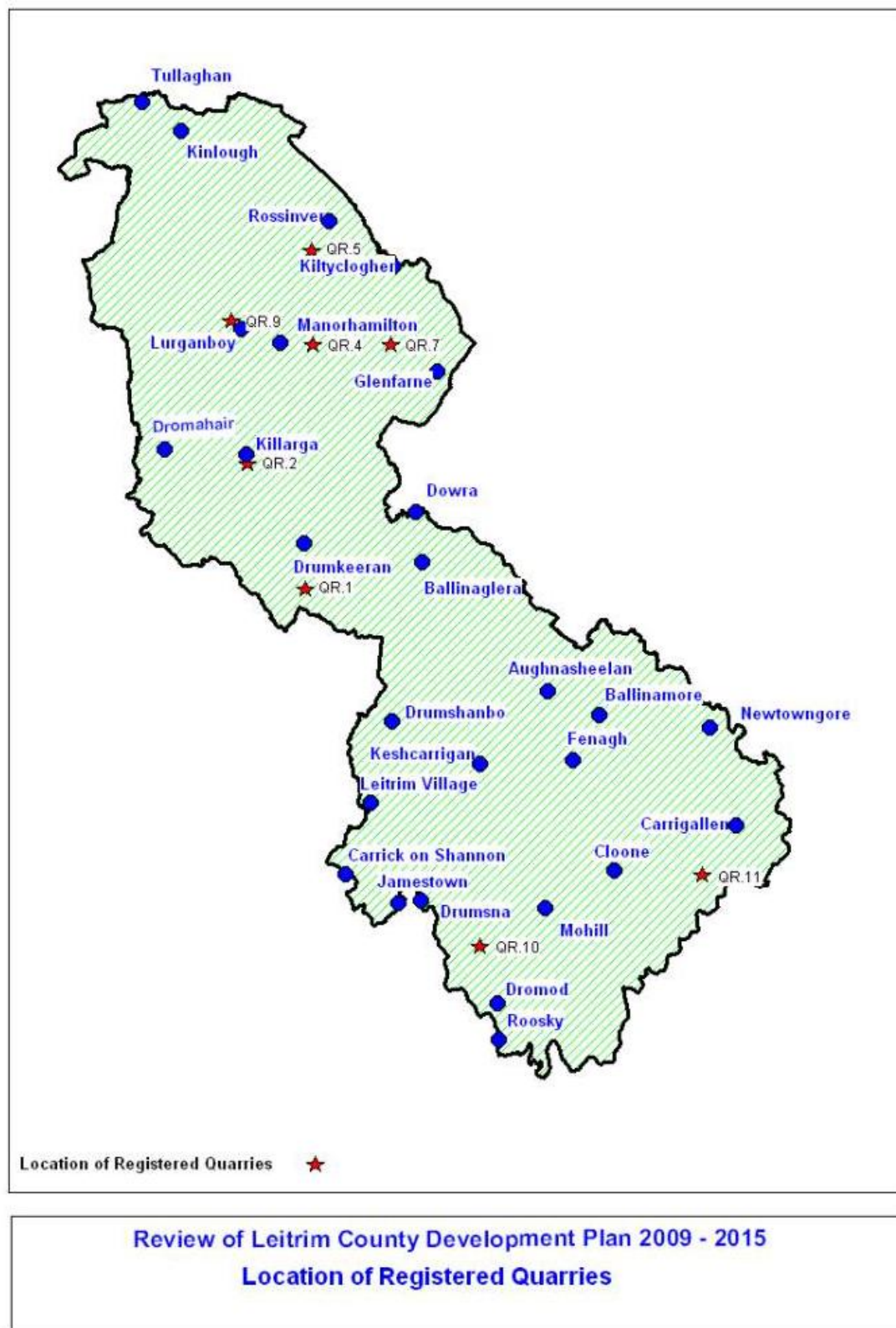


Figure 32 Register of Quarries

Appendix H provides details in respect to the registration of quarries.

8. Unconventional Gas Exploration and Extraction (UGEE)

Introduction

The Council is cognisant of the significant planning and environmental issues and public concerns relating to the use of hydraulic fracturing. These concerns have been highlighted in; the media, in submission received at pre-draft stage, and more particularly during the consultations on the Draft Stage and by the Elected Members. The level of such concerns has been reflected in the formulation of the Draft Plan.

The issue of Unconventional Gas Exploration and Extraction (UGEE) is currently being considered by a National Steering Committee which has been set up by the Minister for Communication Energy and Natural Resources. The Terms of Reference for a comprehensive programme of research have now been drawn up by the committee, which includes the EPA and the DCENR. The objectives of this further research are to establish (i) whether unconventional gas exploration and extraction projects/operations can be carried out whilst also protecting the environment and human health and (ii) what is 'best environmental practice' in relation to such projects/operations.

<http://www.epa.ie/pubs/reports/research/ugeepublicconsultation/ugeeresearchrevisedtermssofreference.html>

A two year onshore petroleum licensing options were awarded to Tamboran Resources PTY Ltd (over parts of counties Cavan, Leitrim and Sligo); Lough Allen Natural Gas Company Ltd (over parts of counties Cavan, Leitrim, Roscommon and Sligo). The licences expired on 28th February 2013. The Minister Communication Energy and Natural Resources has indicated that licenses mentioned are not exploration authorisations.

The Minister of State has indicated that the use of hydraulic fracturing in exploration drilling will not be authorised until there has been time to consider the second stage of the EPA led research which will not be completed until 2016. The Plan is governed by National policy/guidance, which it is anticipated will issue following the conclusion of the EPA study. Refer to;

<http://oireachtasdebates.oireachtas.ie/debates%20authoring/debateswebpack.nsf/takes/dail2012101100030#DDD01100>

In addition the Minister has also advised that the use of hydraulic fracturing in exploration drilling will not be authorised, until there has been time to consider the second stage of the EPA led research.

<http://oireachtasdebates.oireachtas.ie/debates%20authoring/debateswebpack.nsf/takes/dail2012101100030#DDD01100>

Submission by Department of Environment, Community and Local Government

It is noted that the issue of Hydrocarbon Exploration and Extraction has been dealt with in some detail in the Manager's Report on submission received in respect to the Pre-Draft stage and also in the Manager's Report in respect to the Draft Plan. The concerns raised by the Department of Community and Local Government in relation to the current policies in the Draft Plan have been noted. The Department recommend that the blanket prohibition be removed and that the Draft Plan be suitably amended. It is noted that there was a high level of submissions in relation to this issue

Considerations

In relation to exploration of hydrocarbon or extraction of hydrocarbon by the means of hydraulic fracturing the following considerations should be taken into account in the making of the Plan;

In the absence of Guidance from the Minister following the conclusion of the EPA led research programme referred to above, the development of Hydrocarbon by means of fracturing should be considered premature; pending the determination of national policy in this regard.

In order to develop a coherent policy in respect to Energy Supply, a Strategic Energy Policy should be developed and the outcome incorporated into the Plan either before its adoption or as soon as may be thereafter. The Strategy should include the consideration of a range of energy supplies with particular emphasis on the development of non-renewable sources of energy. In the event that such a strategy is not completed prior to the adoption of the Plan, an objective should be included in the Draft Plan to do so.

Precautionary Principle

An applicant for planning permission for the exploration of hydrocarbon or extraction of hydrocarbon including by the means of hydraulic fracturing should be required to demonstrate by appropriate evidence and assessment that reasonable scientific doubt can be excluded as to adverse impacts of the proposed development, alone or in combination with other developments, on the environment.

The application of the 'Precautionary Principle' should apply where evaluation does not allow the risks to the environment and humans to be determined with sufficient certainty.

Environmental Assessment Requirements

Article 2 (3) of the the European Union Impact Assessment) Petroleum Exploration) Regulations 2013 A, states;

(1) Where the holder of a licence proposes to undertake activities under the licence, the holder shall apply to the Minister for permission to undertake the activities.

(2) Where an application is made to the Minister under paragraph (1), and the Minister considers that the activities, the subject of the application would be likely to have significant effects on the environment by virtue, inter alia, of their nature, size and location, he or she shall require the applicant to submit an environmental impact statement in respect of the activities the subject of the application.

Refer to; <http://www.irishstatutebook.ie/2013/en/si/0134.html>

The *EIA Directives* and implementing legislation require that the EIA process must in particular identify, describe and assess the direct and indirect effects of a project on: (a) human beings, fauna and flora, (b) soil, water, air, climate and the landscape, (c) material assets and the cultural heritage and (d) the interaction between those factors. The purpose of EIA is to ensure that, prior to any decision to grant or refuse consent for a particular development, the decision-making body and the public are fully informed of all potential environmental risks and impacts, and so that appropriate mitigation measures can be adopted to eliminate or minimise the risks to the environment and to human health if the competent authority decides to grant consent.

Any development plan or proposal for development which is likely to have significant effects on European Sites under the *Habitats* and *Birds Directives* must also be the subject of an appropriate assessment of its implications for the site in view of the site's conservation objectives. This assessment must be carried out in light of the best scientific knowledge in the field and, subject to some very limited exceptions (which would be unlikely to apply in respect of hydraulic fracturing), consent cannot be granted unless there will be no adverse impact on the integrity of the site.

A number of other European Directives may have significant implications in relation to any approval of hydraulic fracturing and associated development such as the *Water Framework Directive*, the *Groundwater Directive*, the *Air Quality Directive* and the *Floods Directive*. Proposed Developments Plans must also be the subject of a strategic environmental assessment in accordance with the *SEA Directive*.

Should a planning application involving hydraulic fracturing be submitted to the Council, it would need to clearly demonstrate compliance with the requirement of Article 6 of the *Habitats Directive*.

XXXIII. Significant Environmental Issues & Additional Mitigation Measures

1. Introduction

One of the defining characteristic of the County is the quality, uniqueness and blend of its environmental assets. These environmental assets including; the landscape, water quality, cultural heritage and rural character are set within an array of attractive relatively small scale towns and villages that provide key services and facilities to the County as a whole. These environmental assets are set within a strong sense of community spirit/voluntary organisations. Together they play a central role in defining the character of the County. The sensitive and equitable development of these assets in a should be regarded as central to the improvement of the quality of life of those who live, work in and visit the County

The development of the County has the potential to impact on the environment at a regional, county and local level. New development brings with it a need for supporting infrastructure, community services and facilities. Key environmental issues that arise include; water supply, treatment of waste water and transportation. Increased population growth in the region is likely to give rise to an increase in car use, particularly where public transport and rail freight is not readily available. This can lead to negative impacts in terms of carbon emissions, air quality and human health.

In general terms the Draft Plan is considered robust in terms of setting out a sustainable framework of the development of the County while protecting those items of acknowledged interest within the County. There is a distinct trust in the Draft Plan towards the protection of the environment, the sensitive development of 'environmental goods and services' and avoiding inappropriate type development.

The more significant environmental issues identified during the SEA process include settlement patterns, water quality, biodiversity, landscape and cultural heritage, afforestation, energy supply, climate change, flood risk, waste management. The provision of a good quality of life for the people who live, work or visit the region is considered to be a key objective of the SEA process. Securing economic development and social equity, together with preserving and enhancing the urban and rural character of the region, are closely associated with environmental issues.

To date, air quality and noise pollution have not been raised during the consultation process as significant environmental issues, however they have been scoped-in, due to potential indirect environmental impacts.

Many of the environmental issues referred to herein have an inter-county and regional dimension. In addressing these issues it is considered important that there is, where appropriate, a high level of co-operation, integration, and consistency in the approach, by all authorities and agencies concerned with the management of the environment, particularly at the making of county and local area development plans.

Generally, the environmental impacts mentioned herein can often act across a number of topic areas e.g. the provision of infrastructure may impact on cultural heritage, biodiversity, water quality, landscapes and material assets. The impacts can vary in scale and extent, some are short term and reversible, others are more long-term and may be permanent.



Also, whereas individual impacts may be minor, the cumulative impacts, particularly when viewed over the longer term can be significant.

In addition to the Mitigation Measures set out in Section XXXIII.11 below (by way of recommendations), it should be noted that the issue of Mitigation is considered further in Section XXXVIII.

2. Population

An increase in population has the potential to impact on biodiversity, water quality, landscape, cultural heritage and air quality. Individual and cumulative changes in the quality of the environment at local, regional and national level has the potential to impact to varying degrees on human health and wellbeing.

Waste discharges from municipal wastewater treatment plants and certain agricultural activities particularly slurry spreading and afforestation is a significant pressure on water quality and hence public health. The cumulative impact of one-off housing in the countryside and rural housing clusters that are served by wastewater treatment systems, are a significant risk to water quality. This is an issue that applies across the County. This is of particular concern where ground conditions are poor and where rural housing is located within environmentally sensitive areas

High levels of radon buildings that are occupied by people pose a risk to human health within certain areas of the region. This is of particular concern in the case of buildings erected prior to the change in the Building Regulations in 1998 where radon levels are relatively high and where radon control measures have not been undertaken.

An increase in traffic/pedestrian movement can give rise to an increased risk in terms of road safety.

In the European Union (EU) more than 40,000 people die and in excess of 1.7 million are injured in road accidents each year, costing an estimated €160 billion (EU Community Database on Accidents on the Roads in Europe). Road traffic injuries are currently placed at number nine on the World Health Organisation (WHO) top ten health problems. It is estimated that the scale of the problem is such that by 2020 it will become number three.

Road Safety is a key priority in national government policy and this has been reflected in the more recent formation of the Road Safety Authority (RSA).

Ireland's fourth Road Safety Strategy (2013 – 2020) – 'Closing the Gap' - will run until 2020 and aims to make Ireland one of the safest countries in terms of road deaths in the EU. It will also focus on new measures to reduce the number and severity of serious injuries arising from road collisions.

Local Authorities, working in collaboration with other stakeholders within the Region, have a key role to play in bringing Ireland's road safety record into line with "best practice" countries throughout the World.

A Draft Noise Action Plan 2013 has been prepared by Leitrim Local Authorities to address environmental noise from major roads with more than three million vehicles per annum. The action planning area covers the N4 (Dublin-Sligo) and N15 (Sligo-Letterkenny).

The plan has been prepared in accordance with the requirements of EU Directive 2002/49/EC (known as the Environmental Noise Directive, or “END”), which was transposed into Irish Law by the Environmental Noise Regulations 2006, SI No. 140 of 2006. The Draft Noise Action Plan may be viewed on the Council web site at;

<http://www.leitrimcoco.ie/eng/News/Draft-Noise-Action-Plan.pdf>

3. Human Health

Human health encompasses an enormous area of study and includes, *inter alia*, everything from physical and mental disabilities, long-term illness, acute and chronic disease, mental health and aging populations.

‘Activities/Uses’ that have potential to cause harm to humans will need to undertake an appropriate level environmental assessment considering the likely impact of this ‘activity’ or use directly and indirectly on humans.

The Draft Plan contains a raft of measures that are aimed at the protection of human health.

4. Water Quality

The main pressures on surface and groundwater quality within the County are point and diffuse, physical modifications, climate change and other local issues. Point and diffuse sources include wastewater from urban and rural developments such as industrial discharges, soiled surface water, landfills, quarries, contaminated sites, agriculture, wastewater from substandard wastewater units, forestry, discharge of dangerous substances and illegal dumping. Water bodies that depend on a small catchment are particularly vulnerable to pollution and as such the protection of water quality is of significant importance.

Inputs of nutrients, namely phosphorous and nitrogen, at concentrations in excess of natural levels, resulting in over-enrichment and eutrophication present one of the most significant risks to water quality within the region.

The protection of sources of drinking water, the protection of bathing waters and the protection of fishing stocks is of particular concern within the region.

The protection and improvement of water quality crosses a number of environmental topic areas including health and biodiversity and is a major environmental concern.

The River Basin District process referred to earlier has resulted in the carrying out of a comprehensive assessment of water quality (and associated issues) within the region and its catchment area. Accordingly, the integration of the aims and objectives of the River Basin District Management Plans and associated programme of measures into the Plan is a key consideration in terms of securing good water quality standards and associated habitats within the region.

5. Biodiversity, Flora and Fauna

Throughout the island of Ireland there has been a decline in many of the native species through habitat loss, competition, development and agriculture.



Notwithstanding the need to manage a wide range of habitats and species of acknowledged importance, it is considered that the management of Natura 2000 sites (SAC's and SPA's) and Natural Heritage Sites located within and adjoining the County is of primary importance.

Moreover, developments associated with agricultural activities, windfarms, afforestation, urban development, and a wide range of infrastructural works (including road works, water abstraction, wastewater disposal) within or close to the areas of ecologically sensitive sites must be carefully planned and managed so as not to compromise the integrity of these sites.

Wastewater discharges, runoff from agriculture, leachate from landfills and contaminated sites and nutrient input from forestry can all have detrimental effects on water quality resulting in subsequent impacts to biodiversity. Annex II species such as salmon are particularly sensitive to pollution.

Certain development works on shorelines and floodplains and the associated infilling of wetlands is a potential environmental problem within the County.

Invasive non-native plant and animal species are one of the greatest threats to biodiversity affecting the County and wider area.

Certain developments within or in the vicinity of the Natura 2000 network of sites and corridors have the potential to have significant environmental impacts. The development of Windfarms, Hydrocarbon Exploration and Extraction, Quarries, Wastewater Treatment System, Afforestation and certain Agricultural activities, have the potential to have significant environmental impacts.

Climate change may impact on the rich biodiversity, flora and fauna of the region in terms of changes in precipitation patterns and temperature variations. There is growing concern that the region may be affected in different ways by climate change with a pronounced east/west split developing as changes progress.

Other factors that may impact on biodiversity of the region include;

- Loss of environmentally sensitive 'greenfield sites' to development works.
- Changes in hydrology including drainage and flooding
- Peat/Turf extraction
- Overgrazing/undergrazing
- Damage arising from intensive recreating/amenity use
- Damage arising from quarrying activities
- Loss of hedgerows.
- Loss of local biodiversity pockets.

Wind-farms are permitted with conditions under the Planning process. In almost all cases an Environmental Impact Statement is required. Forestry does not generally come within the Planning control system.

Both industries tend to locate on steep terrain, require extensive road development and direct or indirect drainage on a large scale. Both pose an obvious threat to water quality. Less obvious are the changes imposed on the local flora and fauna, loss of foraging and breeding areas and changes in flora and insect populations (due to changes in water level). Existing conditions are sparse and wild and survival depends on mobility over large areas. Species protected in designated areas are dependent on areas well outside those designated

in the county development plan. Accordingly, in areas such as North Leitrim where there are many SACs, SPAs and NHAs in relatively close proximity to each other, and where most of these areas are at elevated levels, it might be prudent to afford the non-designated areas the 160m contour same protection as the designated areas. One option to do this would be the inclusion of all areas above the 160m contour in a zone of special protection equivalent to an NHA. (95% of all development is below this level). Species involved include hen harrier, peregrine falcon, chough, hare, several species of bats and various migrant birds.

EIS's are generally based on extremely limited field surveys eg assessing local fauna over two half-day periods in a year.

6. Landscape/Geology (including Soil)

Existing pressures on landscape are primarily related to impacts on sensitive views resulting from the cumulative impacts arising from inappropriate siting and design of development works. Throughout the region there is inconsistency in the pattern, siting and design of buildings within the countryside, and is particularly evident in Counties Donegal, Cavan and Louth. The cumulative impact of insensitive development on our landscape has a significant impact on the visual amenity and rural character of the region. This is an issue that clearly has a cross-border and inter-county dimension. Anecdotal evidence suggests that more stringent controls on one-off housing within Northern Ireland has lead to increased development pressure in some rural areas of the region, particularly evident in Donegal. Pressures on our landscape mainly come from the following developments types:

- One-off housing in the countryside;
- Wind farms;
- Afforestation;
- Quarrying;
- Major infrastructural projects including road works;
- Agricultural activities, including changes in agricultural practices, and in some cases, the abandonment of farming.

Precipitation changes, predicted as one of the global warming impacts on Ireland, could have significant implications for slope stability and landslides and their resultant impacts on water management activities.

Eroded soil washed into rivers during heavy rainfall contains an increased nutrient content, which can damage the balance of nutrient poor, aquatic ecosystems by shifting their species composition, supporting more nutrient-loving species. This can lead to the eutrophication of rivers and lakes. Considering the east/west split in terms of the affects of climate changes mentioned below, the impacts of soil erosion and soil stability is likely to vary accordingly across the region. As discussed previously, extraction activities, when mismanaged, are resulting in pressures on water quality. In particular, peat cutting can be damaging to vegetation, hydrology and landscape.

Under the IGH Programme important sites that are capable of being conserved as Natural Heritage Areas (NHA) are being identified. Those not selected for NHA designation are being promoted as County Geological Sites (CGS). The IGH Programme has identified a provisional list of 28 County Geological Sites of interest in Leitrim. It is considered important that these sites are identified and that the integrity of these sites is suitably protected from inappropriate type development.



7. Climate Change

With regard to climate change, inputs of greenhouse gases which require the use of fossil fuels, add to the carbon dioxide emissions produced within the region.

A dispersed settlement pattern is likely to give rise to a high dependency on the use of the car which in turn gives rise to an increase in greenhouse gases as well as other environmental problems such as unsustainable demand on non-renewal resources, air pollution, traffic congestion, road safety, increased travel times and associated quality of life issues.

Green House Gas - Carbon reduction EU Energy Roadmap

The EU Energy Road Map 2050 and the medium term targets of 20% reduction in energy demand and 20% of energy being sourced from renewable sources by 2020. (The 2050 roadmap requires a 43% reduction on energy usage over 2005 levels, 90% of electrical energy from renewable sources and 75% of total energy from renewable sources by 2050). Achievement of these targets would suggest that we will need to achieve average Building Energy Ratingss of A3, the use of geothermal, biomass and green electricity for space heating, the use of biofuels for transport and electric cars, electrification of railways and a significant expansion of on-shore and off shore wind, wave energy farms, strengthening of the grid (Nationally and Internationally), smart metering and supply smoothing using thermal power stations.

This level of change is now considered to be essential to avoid catastrophic environmental and economic damage. The scale of this change requires action immediately (during the currency of this plan) and will require adoption of

“Smart travel” and a change in settlement patterns – accelerated urbanisation to reduce travel distances, ease of service provision, shared transport, public transport, electric transport.

The immediate adoption of “near zero” energy design standards for all buildings including commercial and industrial.

Of increasing concern is the issue of flooding, the increased severity of which has been linked with climate change. An increase in the incidence and severity of flooding is evident in recent years in areas such as Carrick on Shannon, Dromod, and Leitrim Village.

Volatile Organic Compounds (VOCs), Petroleum Vapour, Methane

Emissions of Green House gases are low and relatively dispersed within County Leitrim. Two dry cleaners, approximately ten car repair/furniture premises, 39 petrol stations and three landfills are now being monitored and emissions controlled in accordance with National legislation. Work is ongoing on four smaller and older municipal landfills with a view to quantifying the environmental risk and undertaking appropriate works to minimise their impact. (From work done to date, these risks appear to be very small)

8. Air Quality

In relation to air quality there are no significant concerns at local or regional level.

9. Cultural Heritage including Architectural and Archaeological

Development of infrastructure, in addition to development resulting from economic growth and increasing population, is placing pressure on sites or features of architectural, archaeological, geological or cultural heritage interest. In particular certain developments on or near sites of heritage value have the potential to have a negative impact on the integrity of these sites.

The more recent, and well documented, surge in property development has placed pressure on the urban form and character of many centres throughout the county and wider area. Inappropriate urban design and layout including residential and commercial developments have impacted on the heritage and character of towns and villages. Urban sprawl has had a significant adverse impact on the urban form and character of many urban centres, including smaller scale towns and villages within the region. Such a pattern of development also gives rise to excessive and inefficient demand on rural infrastructural services and facilities, which has a negative impact on the vitality and viability of urban centres and leads to unsustainable patterns of travel.

10. Material Assets

Changes to certain material assets located within and adjoining the region may have environmental impacts. Such assets include items and features of cultural and heritage value, water quality, residential and commercial developments, a wide range of community services and facilities and infrastructural services and facilities.

Increased development including residential, commercial and infrastructural works have put pressure on existing water sources with regards to quantity as well as on the treatment facilities used to treat both drinking water and wastewater. In addition, existing water quality issues are resulting in pressures on commercial shellfish and aquaculture activities along with fisheries used for recreational purposes, particularly in Donegal. Some of the physical modifications identified as material assets, such as dams and weirs, may also be resulting in pressures on fisheries used for recreational and commercial purposes.

There is a high level of vacancy within the Region in respect to new residential and commercial development arising from the unprecedented level of building activity during the last number of years. Referring to the 2011 Census data, residential vacancy rates are the highest in the Country at 30%. These residential and commercial properties represent a significant underutilised resource. In addition, if they are left idle they can over time deteriorate and in this regard can detract from the character of urban areas.

11. Particular Environmental Issues to be address

The following is a list of particular Environmental Issues to be addressed in the making of the Plan. This section provides, in part, an indication of how the SEA process has informed the making of the Plan

Issues 1 Creating of Sustainable Jobs

Considering the current economic circumstances and associated issues, it is anticipated that the retention and creation of sustainable jobs within the County will be a primary objective of the new Plan. Accordingly it is important to ensure that the Economic Strategy is founded on environmentally sound principles.

A significant review of the Economic Strategy has been undertaken with a view to enabling economic development and thereby a better quality of life for the people living and working in the County.

Issues 2 Local Authority Resources

An overriding concern is the pressure on the resources available to the Local Authority to drive the development of the County while maintaining a proper level of certain services and facilities, including the management of the environment. A shortfall in resources in terms of the Councils role in the management of the environment is likely to impact on the state of the environment.

In general terms access to and the deployment of, Local Authority resources is largely outside the remit of the Development Plan process. The Planning Authority will continue to seek to improve the delivery of services and facilities within its remit and as resources allow. The Council will priorities the allocation of scarce resources and is not anticipated, at this juncture that any shortfall in resources will compromise the integrity of the environmental sensitive areas or features within the County or beyond.

Issues 3 Flood Risk Management

A Strategic Flood Risk Assessment Report has been carried out as part of this report and appears as *Appendix A* to this report. The flood risk assessment has informed the making of the Draft Plan.

The recommendations arising from the Strategic Flood Risk Assessment Report should be suitably incorporated into the Draft Plan.

Issues 4 Protection of Ecologically Sensitive Areas including Natura 2000 Sites

Having regard to the network of designated areas located in North Leitrim it is considered that the balance of the uplands above the 160 m contour and in the vicinity of these areas should receive particular attention in term of their protection.

A Natura Impact Report has been carried out as part of the Plan making process. The Assessment has made a number of recommendations which should be suitably incorporated into the Draft Plan.

The recommendations arising from the Natura Impact Report should be suitably incorporated into the Draft Plan.

It is recommended that the following policy be suitably incorporated into the Draft Development Plan.

The uplands of North Leitrim located above the 160m contour, not already designated, shall be considered in planning terms, as ecologically-sensitive entity.

Issues 5 Population Growth

Whereas the population increases during the last census period (2006 – 2011) indicated significant growth, is reasonable to assume, (given the downturn in the economy in more recent times, and generally more cautious predictions for the future), that these trends in increasing population may slow, However the growth indicated in the 2011 census occurred despite three years of economic adjustment. Any significant increase in population is likely to be accompanied by environmental impacts.

The aims, policies and objectives of the Draft Plan have considered, and provided for, population growth and the Draft Plan has been aligned with the requirements of the Border Regional Guidelines 2010 – 2022 in this regard.

Issues 6 Public Health

Human health encompasses an enormous area of study and includes, *inter alia*, everything from physical and mental disabilities, long-term illness, acute and chronic disease, mental health and aging populations.

Sources of health problems arising from environmental conditions may arise from areas such as; Air, Water, Noise, Light, Geology and Biodiversity.

In order to strengthen the protection of human health, it is recommended that the following Statement and Policy should be included in the Draft Plan.

‘Activities/Uses’ that have potential to cause harm to humans will need to undertake an appropriate level of environmental assessment considering the likely impact of this ‘activity’ or use directly and indirectly on humans.

It is the policy of the Council to protect public health by promoting and facilitating a proper level of health related services and facilities and avoiding the risk to human health arising from pollution (including light and noise pollution) associated with development.

Issues 7 Ensuring consistency with relevant Plans and Programmes

The relevant plans and programmes (some of which have been mentioned in Section XIX) should be considered, as appropriate, in the making of the Draft Plan. In particular the Draft Plan should be formulated in order to ensure consistency with National and Regional policy and Guidance.

It should be emphasised that Variation No 1 to the County Development Plan 2009 – 2015 (July 2011), included a comprehensive review of the existing Plan in order to ensure consistency with the current Regional Planning Guidelines and National policy and guidance. In this regard the review went beyond the consideration of housing land requirements and included updated policies and objectives in accordance with Regional and National policy and guidance.

The review included a major reduction in the area of lands zoned for residential development; from a total of 382 Ha to 49 Ha. The strategy is founded on the population targets as set out in the Regional Planning Guidance 2010 – 2022 and took into consideration the existing housing stock of vacant residential units and units under construction.

The Plan has been revised so as to ensure consistency with relevant National Plans and Programmes. In particular a comprehensive review has been undertaken in respect to the economic development of the County, the outcome of which has been the incorporation of a new Economic Strategy into the Plan. The County Profile and Core Strategy has been revised. The settlement structure has been revised in order to reflect the introduction of Municipal Areas. In this regard Carrick on Shannon, Ballinamore and Manorbhamilton have been identified as key settlements with their respective Electoral Areas. Capacity Mapping in respect to; Rural Housing, Windfarms and Forestry, has been revised. Policies and objectives

in relation to all sectors including the protection of the Environment/Natural and Cultural Heritage have been reviewed and updated as appropriate.

Issues 8 High Residential Vacancy Rates and Unfinished Housing Schemes

It is acknowledged that there are in general terms an oversupply of housing within the County in both urban and rural areas. This vacancy rate is spread throughout the County; however some urban areas have a significant oversupply of residential units. There are a significant number of unfinished estates within the County. Good progress has been made by the dedicated team, notwithstanding the difficulties involved. The Council is committed to resolving this issue. It is acknowledged that a significant portion of the vacant housing stock does not meet the market demand in terms of location and house design.

Reducing the vacancy rate and addressing the issue of unfinished Housing Schemes, presents a significant challenge to the Planning Authority.

Considering the economic, social and environmental issues associated with such a high vacancy rate, it is recommended that the commitment to reducing this rate is continued.

Issues 9 Rural Communities under Pressure

Traditional local outlets such as small shops, post offices and local banks are under threat of closure and these local centres play an important part in sustaining rural communities and are of particular importance in the case of those that are disadvantaged and those without ready access to transportation.

Certain rural areas are experiencing significant population decline with consequent impacts on the vitality of the community concerned.

It is recommended that the following statement should be suitably included in the Strategic Framework;

Support community related initiatives aimed at the economic, social and cultural development of the County and wider area.

Issues 10 Changes in the delivery of certain key services by the Local Authority

During the lifetime of the new Plan, in accordance with Government policy, there will be a transition in relation to the provision of water and wastewater services from Local Authorities to Irish Water.

This change may have implications for the delivery and management and development of such essential services.

Issues 11 Management of Wastewater Treatment Systems Serving Single Houses

Considering the poor ground conditions within the County and the likely condition of older wastewater treatment systems; careful management of the environment is required in order to avoid the risk of pollution and risk to public health. This is of particular importance where such older systems are located within environmentally sensitive areas.

Having regard to the current economic circumstances, the high level of residential vacancy and coupled with the requirements of the EPA Code of Practice and related issues, it is reasonable to assume that the demand for additional one-off housing in the Countryside will

remain low for the period of the Plan. Accordingly any adverse impact on the environment arising from additional one-off housing is likely to be low.

Issues 12 Accommodation of Single Houses in the Countryside

Whereas the reasonable expectations of persons to live in the countryside and the need to ensure that the social and cultural capital of the countryside must be protected and whereas the countryside has a capacity to suitably absorb development; there is a need to ensure that those items of acknowledged importance, such as; sustaining rural communities, road safety, preserving the rural character, ecology, and visual amenities, are properly dealt with by aims policies and objectives of the County Development Plan.

In terms of the accommodation of one-off housing in the Countryside, it is recommended that Areas of High, Medium and Low capacity be included in the new Plan in order to properly manage residential development and protect the environment.

It is recommended that the 'Justification' requirement in terms of proposals for new residential schemes within the Centres identified in the settlement strategy should remain as set out in the current Plan.

Issues 13 Compliance with the requirement of the Water Framework Directive and Climate Change Strategy.

Compliance with the requirement of the Water Framework Directive is considered to be of particular importance in the making of the Plan. In particular there is a need to ensure the protection of areas under pressure from development and conserve and protect environmentally sensitive areas, including designated sites.

Likewise the issue of Climate change is a significant planning issue to be addressed.

It is recommended that the following Key Strategic Goal be suitably incorporated into the Draft Plan;

To coordinate and encourage energy conservation and preservation of finite natural resources in accordance with the National Climate Strategy and Water Framework Directive.

The following policy should be suitably incorporated into the Development Plan. It is the policy of the Council to establish source protection zones for all drinking water sources serving more than 50 people. In these zones development shall be strictly controlled.

The planning authority should identify public Pumping station sites to maximise the area serviced. This should be carried out well in advance of need and not constructed until areas that can be served by gravity have been developed. (This will facilitate; a reduction in the number of overflows, enable better maintenance programme, more sophisticated alarm systems and pollution control).

Where appropriate development works should require a contoured site drainage plan - identifying cut-off drains, the dimensions and locations of silt traps and discharge arrangements, at the Planning Application stage.

Consideration should be given to amending the development contribution scheme in order to encouraging low density serviced residential development on the periphery of towns/villages so as to discourage dispersed settlement patterns. This will bring many other



environmental and social benefits also – less travel, improved local businesses and clubs, more efficient service delivery.

Issues 14 Commercial Vacancy

The issue of commercial vacancy presents a significant challenge in terms of the development of the County. A Draft Retail Strategy is being prepared in parallel with the making of the Draft Plan.

The Retail Strategy has highlighted the key planning issues arising and has informed the making of the Draft Plan.

Issues 15 Hydrocarbon exploration and extraction

The issue of hydrocarbon exploration and extraction by unconventional means has been raised as a significant concern during the public consultation process and by the Elected Members. Considering the likely scale and the nature of the development involved, it has the potential for significant environmental impacts.

In the absence of the outcome of the EPA led research mentioned above it is recommended that such development should be considered as premature and therefore not permitted. Should uncertainty in respect to the potential significant environmental impacts remain following this research and the making of an application for permission, consideration should be given to evoking the 'precautionary principle'.

In order to develop a coherent policy in respect to Energy Supply a Strategic Energy Policy should be developed and the outcome incorporated into the Plan. This policy should include the consideration of a range of energy supplies with particular emphasis on the development of non-renewable sources of energy. In the event that such a strategy is not undertaken/completed prior to the adoption of the Plan, an objective should be included in the Draft Plan to undertake such a Strategic Policy.

Considerable effort has been undertaken in order to formulate policy in respect to UGEE projects and programs. It should be noted that the approach formulated following a number of meetings between the Executive and the Members (and the consideration of legal advice by the Executive) was not accepted by the Members. The Members adopted an alternative policy which was put forward by one of the Members at a Council meeting prior to the issue of the Draft Plan.

Whereas the adopted approach places a prohibition on UGEE projects and programs, the Executive raised concerns in respect to the legal standing of the approach taken. It is of significant importance that the policies of the Plan are robust, particularly in respect to their legal standing; otherwise such policies may be subject to legal challenge.

The concerns raised by the Department of Environment, Community and Local Government in their submissions in respect to the Draft Plan and the proposed Material Amendments relation to policy approach towards UGEE. The responses as set out in the Chief Executive's Reports (June and Nov) have also been noted.

Having regard to the foregoing it is recommended that the issue in respect to UGEE projects and programs be revisited with a view to ensuring that a robust approach is incorporated into the Plan when adopted.

Issues 16 Protection of Geological Sites

It is recommended that an audit of County Geological Sites should be undertaken in partnership with the Geological Survey of Ireland and the Heritage Council, as per the National Heritage Plan; subject to the necessary resources becoming available.

It is considered that Appendix C 'County Geological Sites' to the Draft County Development Plan is of interest and should be updated by the record of 28 sites identified by the GSI.

Issue 14 Biodiversity

It is recommended that the following statement/policy should be suitably incorporated into the Draft Plan

The Council will co-operate with National, Regional and Local agencies and interested parties in the control of invasive species.

Direction should be provided in the Draft Plan in relation to roadside hedgerow planting by reference to a range of suitable species.



XXXIV. Likely evolution of the environment in the absence of the plan

The absence of the County Development Plan would have the following implications in respect to the environment;

1. In general terms there would be no framework for the proper planning and sustainable development of the county. Development would fail to proceed in an orderly and integrated way.
2. There would be no framework for the provision of infrastructural services with a consequent adverse impact on the economic, social, cultural and environmental status of the county.
3. In general terms socio-economic development of the county would fail to realise its potential, with particular reference to the sustainable development of; community services and facilities, housing, agriculture, forestry, industry and commerce, retailing, tourism, quarrying and mining.
4. Development would occur on an ad-hoc basis
5. In general terms the natural and built environment of the county would receive less protection and would most likely suffer as a consequence.
6. In particular the Architectural, Archaeological and Cultural Heritage of the County would receive less protection and would suffer as a consequence. Items of acknowledged importance such as; the character of towns and villages, the rural character of the countryside, valued landscapes, important views, the coastline would receive inadequate protection.
7. Water quality would be put under significantly more pressure and would most likely suffer as a consequence. The council would be under significantly greater pressure to meet its commitments under the Water Framework Directive.
8. There would most likely be an increase in “greenfield” development as opposed to the use of brownfield sites or infill which is generally more desirable.
9. There would be an increase in the use of the car with consequent adverse environmental impacts on air quality and “greenhouse” gases, an increased pressure on non-renewable resources, and generally a reduction in the quality of life.
10. Development in an unplanned and *ad-hoc* manner would have an indirect negative effect on human health as a result of negative effects on other environmental elements such as air, water quality and biodiversity, as described previously.
11. In general the result of the cumulative impacts referred to above would have a negative impact on the natural and manmade environment and the overall quality of life. In particular the county would fail to progress in an environmentally sustainable way and would therefore fail to realise its potential into the long-term.

XXXV. Interrelationships

The environment is an intricate network of interrelationships, with obvious examples being the receptor and pathway nature of surface water; affected by landscape, climatic factors and population, and itself affecting drinking water quality and human health. The interrelationships between environmental elements, then, influence the location and type of development with certain developments guided away from sensitive landscapes and areas with water and wastewater infrastructure pressures. In addition, inappropriate developments may significantly impact on air quality, thereby impacting on human health while soils and geology are closely bound to landscape.

Use of GIS (Geographical Information Systems) to identify and locate certain specific problem areas, and in turn areas which would benefit from development and are equipped, from a holistic environmental viewpoint, to 'accept' proposed development, proved invaluable to the SEA process.

The use of GIS was most helpful in displaying the profile of the County, the status of the environment, the formulation and assessment of policies. There is a significant data base of GIS based information in respect to the environment which is becoming more relevant, accessible and usable. GIS was central to the determination of Capacity Mapping in relation to the accommodation of; One-off Housing in the Countryside, Windfarms and Afforestation, where the interrelationship between various characteristics of the environment could be considered.

The interrelationship between the various elements of the environment have been taken into consideration formulation of policy and the assessment of the impact of the aims policies and objectives.

Table 13 Interrelationships between elements of the environment

Biodiversity, Flora, Fauna									
Population/ Human Health	S								
Soil	S	S							
Water	S	S	S						
Air	S	S	S	S					
Climate	S	S	S	S	S				
Material Assets	S	S	S	S	T	S			
Cultural Heritage	S	S	T	S	T	T	S		
Landscape	S	T	S	S	T	S	S	S	
	Biodiversit Flora, Fauna	Population/ Human Health	Soil	Water	Air	Climate	Material Assets	Cultural Heritage	Landscape



‘S’ = Strong Interrelationship Anticipated, **‘T’** = Tentative interrelationship anticipated

While it is acknowledged that there is a relationship between all elements of the environment, this relationship can vary widely in nature and extent and is largely dependent on the type of development under consideration. For example it can vary from strong to weak, from local to global, from direct to indirect, from long term to short term, also the relationships can be with the social, economic or cultural sphere. In this regard Table 13 is indicative only of the interrelationships between the various elements of the environment.

XXXVI. Monitoring, Environmental Objectives and Indicators

It should be noted that there is a statutory requirement under Section 15 (2) of the Planning and Development Acts 2000 – 20014 to prepare a Manager’s Progress Report two years after the adoption of the County Development Plan. The Progress Report ‘shall include information in relation to progress on, and the results of monitoring the significant environmental effects of implementation of the development plan.’ In this regard the environmental indicators and targets presented below may be used to monitor the predicted environmental impacts of implementing the Plan.

Existing environmental monitoring is currently undertaken throughout the County by other agencies in respect to a number of environmental elements. Use can be made of these programmes and collated data in terms of environmental monitoring by the Council and in particular the implementation of the Draft Plan.

Monitoring will be based around the objectives, indicators and targets outlined below. Monitoring at an early stage will help identify unforeseen adverse effects and the undertaking of appropriate remedial action. Monitoring measures over the Development Plan period can be geared towards addressing any gaps (where practicable) which are identified in the Environmental Report. It will also enable an assessment of whether the Development Plan is achieving its environmental objectives and targets and identify issues that be need to be revisited.

The list of environmental objectives is indicated in Table 14. The table is based on Table 4B of the DOEHLG Guidelines (2004). The list includes: biodiversity, population, human health, geology/soil, water, air/ climatic factors, material assets, cultural heritage/ landscape and the interrelationship between these factors.



Table 14 Indicative list of Environmental Objectives, Indicators and targets

Population and Human Health				
Strategic Environmental Objectives	Indicators	Targets	Information Source	Result Format
P1. Facilitate a high standard of living for Leitrim's population by ensuring high quality residential, recreational and working environments.	<p>CSO data on population trends</p> <p>Access to major towns and cities within and outside of the county</p> <p>Number of and area of public parks and walkways maintained by the council and available and accessible for public use</p> <p>Drinking water quality monitoring</p>	<p>1. Promote the county as an attractive location to choose to come to, to live, work and invest.</p> <p>2. Promotion of public transport facilities, cycling and walking</p> <p>3. Increased public amenity throughout the county</p> <p>4. Ensure water supply for the county conforms with EU Directives</p>	<p>Leitrim County Council Planning Section / Housing Section, Central Statistics Office (CSO)</p> <p>Health Service Executive (HSE), CSO, Health & Safety Authority</p>	Qualitative and quantitative data – Regional Trends, GIS / MapInfo format

Water Quality				
Strategic Environmental Objectives	Indicators	Targets	Information Source	Result Format
W1. Protect the quality of surface and ground	Changes in water quality identified through water	100% water bodies designated at good status	Leitrim County Council Environment and Water Services Sections.	Qualitative and quantitative data, GIS –

<p>waters as sources of drinking water and as valuable assets for amenity and recreation.</p> <p>W2. Achieve and maintain required water quality standards and reduce discharges of pollutants or contaminants to waters</p>	<p>quality monitoring as a result of implementation of the Water Framework Directive, Nitrates Directive, and the Groundwater Directive</p> <p>Changes in water quality identified as a result of water sampling.</p> <p>Changes in water quality due to storm overflow of sewage to watercourses.</p> <p>Changes in water quality identified as a result of monitoring under IPPC licensing or Waste Licensing</p> <p>Percentage of farms (expressed as a % of total farmland) participating in the Rural Environmental Protection Scheme (REPS)</p>	<p>by 2027 as shown by monitoring within the Western River Basin District</p> <p>Compliance with EPA Waste Water Treatment Guidelines</p> <p>Complete and comply to the Shannon International River, Western River and North West International River Basin District Plans</p> <p>Minimise the number and frequency of storm overflows of sewage to watercourses</p> <p>Increase in the number of farms managed under REPS</p>	<p>River Basin District website and reports, Water Framework Directive websites</p> <p>EPA Irish Water</p>	<p>water body data, water quality results – qualitative data</p>
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Biodiversity, Flora and Fauna				
Strategic Environmental Objectives	Indicators	Targets	Information Source	Result Format
B1. Conserve and promote the diversity of habitats and protected species	<p>1. Hedgerow removal</p> <p>2. Level of injurious</p>	<p>1. To achieve and maintain favourable conservation status for habitats and</p>	<p>National Parks and Wildlife Service (NPWS), Marine Institute,</p>	<p>Qualitative and quantitative data, GIS / MapInfo format</p>



<p>B2. Protect, conserve and enhance habitats, species and areas of national or international importance and promote the sustainable management of habitat networks.</p>	<p>developments permitted in areas of national or international importance or affecting habitats or species of importance.</p> <p>3. Development of tourism including accommodation and access to sensitive areas</p> <p>4. Development of the extractive industry.</p> <p>5. Adverse impacts on habitats and species located in or adjacent to waterways</p> <p>6. Level of compliance with consent/permits/planning permissions</p>	<p>species of acknowledged importance.</p> <p>2. Protect important wildlife habitats within Special Areas of Conservation (SAC) and Natural Heritage Areas (NHA)</p> <p>3. Protection of wildlife, flora and fauna and fish stocks and manage access to these areas appropriately.</p> <p>5. Protection of the rivers, lakes & canals from ecological damage</p> <p>6. Enhance the county hedgerows by increasing coverage using locally native species, taking opportunities provided by the consideration of new development proposals</p>	<p>BirdWatch Ireland, research / peerreviewed journals, Leitrim County Council Environment and Planning Sections, EPA</p>	
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Cultural Heritage including Archaeology				
Strategic Environmental Objectives	Indicators	Targets	Information Sources	Result Format
<p>C1. Conserve and enhance the archaeological, natural, built and cultural heritage of the county for present and future generations</p> <p>C2. Conserve and enhance valued natural and historic landscape features</p>	<p>Number of Structures included in the RPS or areas designated as ACAs</p> <p>Number of structures on the RPS or within ACAs damaged or demolished as a result of development.</p> <p>Number of monuments or cases in areas of archaeological potential in the Record of Monuments and Places that have been recorded or subjected to physical/geophysical exploration/excavation as a result of an application for planning permission.</p> <p>Number of monuments in the RMP or other monuments that have been damaged, including their fabric or setting, by development granted planning permission</p> <p>Number of archaeological</p>	<p>No damage occurring to structures or monuments, or their character or setting, due to development.</p> <p>Increase in exploration and excavation for objects of archaeological interest</p> <p>Promote public awareness of the rich archaeological heritage that exists in the County</p> <p>Identify and protect areas of geological interest</p> <p>Protect and promote all structures within the county that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.</p>	<p>Leitrim County Council Planning Section</p> <p>Office of Public Works (OPW), Heritage Service, National Museum of Ireland</p> <p>GSI, Failte Ireland, Department of Arts, Heritage and the Gaeltacht</p>	<p>GIS/ mapping data, CORINE data,</p>



	objects found and catalogued from within the county			
	The number of archaeological objects retained under local authority safekeeping.			

Air and Climatic Factors

Strategic Environmental Objectives	Indicators	Targets		
A1. Encourage walking and cycling as an alternative to car use.	Commuting trends from CSO data.	Increase use of and provision of public transport.		
A2. Minimise emission of greenhouse gases to contribute to a reduction and avoidance of human induced global climate change.	Level of use and availability of public transport.	Increase in number of walking and cycling routes.		
	Level of provision of cycle and walking routes	Promote alternatives to single person car usage e.g. car-pooling.		
A3. Encourage energy efficiency in building design and maximise the use of renewable energy forms	Number of planning applications for developments that include the provision of renewable energy forms e.g. solar panels, geothermal heating etc.	Promotion of renewable energy forms.		
	Demand for, and existing, windfarms throughout the county			

Material Assets				
Strategic Environmental Objectives	Indicators	Targets	Information Source	
<p>S1. Maximise the use of brownfield lands and the existing built environment to reduce the need to develop Greenfield lands</p> <p>S2. Promote the principles of waste prevention, minimisation, reuse, recycling, energy recovery and the environmentally responsible disposal of residual waste</p>	<p>Percentage of new applications granted on brownfield or infill sites.</p> <p>Identify amount of waste produced and method of disposal of industrial and commercial developments by means of Waste Management Plans</p> <p>Amount of bring centres located throughout the county</p> <p>Percentage of household waste that is sent to landfill</p> <p>Percentage of household waste that is recycled.</p>	<p>Encourage development within the village/town envelope</p> <p>Implementation and compliance with the Connaught Regional Waste Management Plan.</p> <p>Increase the number of bring centres throughout the county</p>	Leitrim County Council Planning and Environment Sections.	



XXXVII. Assessment of Strategic Aims, Policies and Objectives.

This section examines the potential effects of implementing the Draft Plan on the environment. This is achieved through the examination of Strategic Aims, Policy, and Objective, proposed by the pre-Draft Plan under headings that indicate whether the implementation of the Draft Plan is likely to improve, conflict or have a neutral effect on the environment (see table below). The overall assessment is based on the implementation of the Plan as a whole and on the wide range of other factors expressed in Planning related legislation, international, national and regional documentation. Based on an understanding of the existing and emerging environmental conditions in the County, a series of Strategic Environmental Objectives (SEO's) were developed to assess the potential effects of the implementation of the Draft Plan on the environment.

The SEOs are used as standards against which strategies, policies and objectives of the Draft Plan, can be assessed in order to help identify areas where significant adverse impacts might occur, unless appropriate measures are applied.

The SEO's were applied to strategic goals, framework and policies and objectives of the Draft Plan and a matrix was formed giving a clear indication of the potential environmental effects of the Draft Plan.

The Vision, Mission Statement, Strategic Goals and Strategic Development Framework set the overall strategy for the Draft Plan, upon which specific policies and objectives are founded. The overall strategy and specific policies and objectives in the Draft are aligned the Draft Plan with the relevant legislative requirements and national, regional and local plans and programmes. The strategy consists of overarching aims and objectives and sets the framework for the more specific policies and objective set out in the Draft Plan. The specific aims, policies and objectives the Draft Plan have been sensitively formulated in the context of realising the Strategic Policies. In such circumstances where the overall strategy would not compromise the integrity of the Natura 2000 network, it is reasonable to conclude that neither would the specific policies.

The aims, policies and objectives contained within the Draft Plan are predicated upon the principle of sustainable development and in particular the protection of the environment and the improvement of the quality of life of those who live in, work in and visit the County. In general terms it considered that the implementation of the Draft Plan will have a positive impact on the environment. Where a proposed plan or programme may have the potential for a significant impact on the environment, a plan or programme it will not be permitted, unless the Planning Authority is satisfied that such an impact can be avoided or mitigated to an acceptable level⁴.

The specific Policies and Objectives within the Draft are founded on, and are in effect the realisation of, the Strategic Policies/Objectives. The Planning Authority is confident that the specific aims Policies and Objectives the Draft Plan have been sensitively formulated in the

⁴ *An acceptable level means where the conflict with the status of the SEO would be rendered benign or reduce through mitigation measures and thereby become acceptable in terms of well established principles of proper planning and sustainable development.*

context the Strategic Policies/Objectives. Each of the Strategic Policies and specific Policies and Objectives have been drafted and considered in close consultation with the SEA team, in this regard their environmental integrity has been secured.

Table 15 Criteria for appraising the effect of Plan provisions on Strategic Environmental Objectives

Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
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Table 16 Strategic Environmental Objectives (SEOs)

SEO Code	SEO
B1:	Conserve and promote the diversity of habitats and protected species
B2:	Protect, conserve and enhance habitats, species and areas of national or international importance and promote the sustainable management of habitat networks.
P1:	Facilitate a high standard of living for Leitrim's population by ensuring high quality residential, recreational and working environments.
W1:	Protect the quality of surface and ground waters as sources of drinking water and as valuable assets for amenity and recreation.
W2:	Achieve and maintain required water quality standards and reduce discharges of pollutants or contaminants to waters
S1:	Maximise the use of brownfield lands and the existing built environment to reduce the need to develop Greenfield lands
S2:	Promote the principles of waste prevention, minimisation, reuse, recycling, energy recovery and the environmentally responsible disposal of residual waste
C1:	Conserve and enhance the archaeological, natural, built and cultural heritage of the county for present and future generations
C2:	Conserve and enhance valued natural and historic landscape features
A1:	Encourage walking and cycling as an alternative to car use.
A2:	Minimise emission of greenhouse gases to contribute to a reduction and avoidance of human induced global climate change.
A3:	Encourage energy efficiency in building design and maximise the use of renewable energy forms

Whereas it is acknowledged that certain policies/objectives referred to below may fall within more than one of the Criteria set out in *Table 17*, the environmental impact of the policy/objective has been determined in terms of the overall extent of the impact and with cognisance of what might constitute a significant impact.

Table 17 Assessment Matrix

Vision and Mission Statement	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
Our Vision "County Leitrim to be a vibrant, socially inclusive, progressive and distinctive county, providing a good quality of life for all who work, live and visits the county and offering						B1 B2 P1 W1 W2 S1 S2 C1 C2 A1 A2 A3 (All)



<p><i>equal opportunities for employment to its people; while protecting, conserving and enhancing the best of the natural and built environment.</i></p> <p>Our Mission Statement <i>“To guide and secure the sustainable development of the County, provide efficient and effective local government services and facilities and place people first, so that Leitrim becomes a vibrant, socially inclusive, progressive and distinctive county</i></p>						
It is considered that the Vision and Mission Statement will have an overall positive impact on the status of the environment.						

Strategic Goals - Resources	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. To promote the efficient use and re-use of scarce resources.						All
2. To minimise energy consumption by promoting conservation, recycling and waste reduction;						All
3. To guide new development so that the most efficient use is made of existing infrastructure, facilities and services where practicable and appropriate;						All
4. To support energy generation from renewable resources where practicable and appropriate;			B1 B2 W1 W2 C1 C2		S1 A1	P1 S2 A2 A3
5. To make the best use of existing infrastructure;						All
6. To embrace the principles of sustainable development in its widest sense;						All
7. To ensure an adequate supply of energy, including renewable energy, is available to meet the social, commercial and economic needs of the entire County;			B1 B2 W1 W2 S2 C1 C2		S1 A1	P1 A2 A3
8. To develop a Climate Change Adoptative Framework Strategy incorporating an Energy Strategy for County Leitrim over the lifetime of the County Development Plan.						All

Strategic Goals – Environment & Heritage	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. To adopt the precautionary principle in respect of development proposals where significant environmental implications cannot be adequately established;						All
2. To protect, maintain and enhance the quality of the built and natural environment;						All
3. To protect the character and identity of individual settlements and avoid over development by protecting and requiring appropriate green spaces in built-up areas;					W1 W2 S2 A2 A3	B1 B2 P1 S1 C1 C2 A1
4. To promote regeneration and the reuse of derelict and obsolete sites and buildings;					B1 B2 W2 A1	P1 W1 S1 S2 C1 C2 A2 A3
5. To minimise environmental pollution to air, water or land and to strictly control hazardous development;						All
6. To comply with the aims and objectives of the Water Framework Directive;						All
7. To adopt a regional approach in the protection of the environment, co-operating with neighbouring counties in the protection of habitats, watercourses and landscapes and the disposal of waste, for example, Replacement Waste Management Plan for the Connacht Region 2006 – 2011, the River Basin Management Plans, and the Lough Melvin Catchment Management Plan;						AI
8. To recognise that Leitrim's archaeological, natural and built heritage are important elements in the long term economic development of the County and to promote their conservation and enhancement, public access and enjoyment;						All
9. To protect the unique character of Leitrim's landscapes.					A3	B1 B2 P1 W1 W2 S1 S2 C1 C2 A1A2



Strategic Goals – Economic Development	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. To maintain and improve the viability, vitality and diversity of the local economy by being positively disposed towards employment generating development;			B1 B2 W1 W2 C1 C2 A2			P1 S1 S2 A1 A3
2. To ensure that sufficient well located and serviced land is available for employment purposes;			B1 B2			P1 W1 W2 S1 S2 C1 C2 A1 A2 A3
3. To ensure that the natural resources of the County are developed where the County enjoys a natural advantage, including the development of downstream development activities, such as, within the Forestry Industry;			B1 B2 W1 W2 S2 C1 C2 A1 A2 A3		S1	P1
4. To safeguard existing businesses and provide for their development and expansion;			W1 W2 A2		B1 B2 C2 A1	P1 S1 S2 C1 A3
5. To provide for additional and improved retail and commercial development, whilst maintaining and enhancing the viability and vitality of town centres, in accordance with the County Retail Strategy;			B1 B2 W1 W2 S2 C1 A2		C2 A3	P1 S1 A1
6. To develop tourism by encouraging the sustainable use of natural attractions, and facilitating the provision of appropriate infrastructure, accommodation and facilities which will extend, consolidate and diversify the tourism industry;			B1 B2 W1 W2 S2 C1 A2		A3	P1 S1 C2 A1
7. To co-operate with neighbouring County Councils and other existing and future Regional Authorities (both North and South) in developing the economy of the Region;			B1 B2 W1 W2 C1 C2 A2			P1 S1 S2 A1 A3
8. To co-operate with the Border Midlands Western Regional Assembly, the Border Regional Authority and the incumbent Connacht-Ulster Region Assembly;						All
9. To co-operate with the relevant agencies operating in the region with a remit for economic development [such as the I.D.A., Enterprise Ireland, County Enterprise Board, Leitrim Integrated Development Company Ltd. and similar bodies].			B1 B2 W1 W2 C1 C2 A2			P1 S1 S2 A1 A3

Strategic Goals – Transport & Infrastructure	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. To encourage alternative means of travel (other than the car) where practicable;					S1 A3	B1 B2 P1 W1 W2 S2 C1C2 A1 A2
2. To promote the development of a viable public transport network to serve the needs of all the county's residents;					S1 A3	B1 B2 P1 W1 W2 S2 C1 C2 A1 A2
3. To promote the improvement of the existing road network to aid economic development, enhance safety and minimise negative environmental impacts;					S1 S2 A1 A2 A3	B1 B2 P1 W1 W2 C1 C2
4. To relieve traffic congestion, minimise pollution and enhance safety, particularly in town centres, by means of traffic management and traffic calming schemes;					S1 C1 C2 A3	B1 B2 P1 W1 W2 S2 A1 A2
5. To ensure that the county is well serviced by modern telecommunications to support its sustainable economic, educational, cultural and social development;			B1 B2 W1 W2 C1 C2		S1 S2 A1 A2 A3	P1
6. To enhance physical linkages with County Fermanagh and the other Northern counties;			B1 B2 W2 C1 C2 A2		S1 S2 A3	P1 W1 A1
7. To promote the use of broadband communication technology;			B1 B2 W1 W2 C1 C2 A2		S1 S2 A1 A3	P1
8. To promote continued use and upgrading of the rail network and rolling stock;			B1 B2 W1 W2 C1 C2		A3	P1 S1 S2 A1 A2
9. To enhance linkage with airports and ports serving the County;			B1 B2 W1 W2 S2 C1 C2 A1 A2		S1 A3	P1
10. To provide adequate car-parking facilities in towns and villages throughout the County to meet current and future needs;			B1 B2 W1 W2 C1 C2 A1 A2		S2 A3	P1 S1
11. To co-operate with the relevant agencies operating in the region with a remit for infrastructure development [such as Irish Water, Eircom, the National Roads Authority and similar bodies].			B1 B2 W1 W2 C1 C2		A1 A3	P1 S1 S2 A2
12. To safeguard the strategic functions of the national Road network, in accordance with			B1 B2 W1 W2 C1 C2		S1 A1 A2 A3	P1 S2



the provisions of the DoEC&LG <i>Spatial Planning and National Roads Guidelines (2012)</i>						
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Strategic Goals – Social Development	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. To provide for housing, through the implementation of Universal Design Standards and Principles, which meets the needs of local communities (including special needs), whilst also promoting the support of rural communities through accommodating a controlled and managed expansion of population;			B1 B2 W1 W2 C1 C2 A2		S2 A3	P1 S1 A1
2. To promote equity and equality of access to education, health, community and recreational facilities and employment opportunities for all residents of the County, including persons with disability;			B1 B2 C1 C2		S1 S2 A2 A3	P1 W1 W2 A1
3. To ensure high standards of residential amenity in all new development and to provide a physically safe and clean environment for all;						All
4. To provide and promote access to buildings, spaces and services for all;					B1 B2 W1 W2 S1 S2 C1 C2 A2 A3	P1 A1
5. Co-operate with neighbouring Counties, including County Fermanagh, in the provision of social services;					B1 B2 W1 W2 S1 S2 C1 C2 A1 A2 A3	P1
6. To promote the provision of recreational facilities throughout the County;			B1 B2 W1 W2 C1 C2 A2		S2 A3	P1 S1 A1
7. To support the providers of childcare facilities to ensure that adequate facilities are made available for the County's residents, in accordance with Leitrim County Childcare Strategy;			B1 B2 W1 W2 C1 C2 A2		S2 A1A3	P1 S1
8. To provide and facilitate the provision of services of a nature and extent appropriate to the needs of each community;			B1 B2 W1 W2 C1 C2 A2		A3	P1 S1 S2 A1
9. To adopt and implement a recreational Policy for the County.			B1 B2 W1 W2 C1 C2 A2		A3	P1 S1 S2 A1

Strategic Development Framework	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
1. Encourage the further development of Carrick-on-Shannon, Manorhamilton and Ballinamore. These towns are identified as the principal engines for future economic development of the County. However, the Council recognises the need to provide sufficient incentives for private sector investment in all parts of the County. The Council will seek to ensure that all towns and villages will receive equal opportunity to develop their potential to the fullest, and to prosper. The Council will also seek to ensure that the full range of physical, social and commercial services will be available in them on a self sustaining basis into the future. The Council will also actively promote and support all efforts to have further Government Offices decentralised to County Leitrim;			B1 B2 W1 W2 S2 C1 C2 A2		A3	P1 S1 A1
2. Reinforce the commercial viability and attractiveness of all the other towns and villages in the County. The Council is aware of the need to make use of existing infrastructure and facilities and will seek to ensure a balanced range of accommodation and ancillary development where services (physical, commercial and institutional infrastructure) are already in place;			B1 B2 W1 W2			P1 S1 S2 C1 C2 A1 A2 A3
3. Provide for rural accommodation, where it will help to meet primarily local needs and help to support and maintain communities and services;			B1 B2 W1 W2 S1 S2 C1 C2 A1 A2 A3			P1
4. Protect important wildlife habitats within Special Areas of Conservation (SAC), Natural Heritage Areas (NHA), Proposed Natural Heritage Areas (pNHA) and Special Protection Areas (SPA's);					S1 A3	B1 B2 P1 W1 W2 S2 S2C1 C2 A1 A2
5. Designated sites receive full protection under the EU Habitats Directive 43/92/EU and the European Communities (Natural Habitats) Regulations 1997, transposed into Irish law in the Wildlife (amendment) Act 2000. This law gives full protection to Natural Heritage Areas once designated. The Council is required to ensure that an appropriate assessment of the implications of development proposals is undertaken when planning permission is required. This applies to all development					S1 A3	B1 B2 P1 W1 W2 S2 C1 C2 A1 A2



Strategic Development Framework	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
proposals likely to have a significant impact on the Special Areas of Conservation / Natural Heritage Areas [SAC/NHA] irrespective of whether they are located within the area or not;						
6. Enhance the distinctive character of the landscapes of Co. Leitrim in accordance with the European Landscape Convention and the Landscape Assessment Guidelines published by the DoEHLG;					S2 A3	B1 B2 W1 W2 S1 C1 C2 A1 A2
7. Protect the archaeological heritage, as required by the European Convention for the Protection of Archaeological Heritage, Valletta 1992, ratified by Ireland in 1997. Archaeological Heritage includes those sites and monuments identified on the statutory Record of Monuments and Places, archaeological sites that may not have been recorded yet, sub-soil archaeology and the context and setting of archaeological sites;					B2 W1 W2 S1 S2 A1 A2 A3	P1 C1 C2
8. Protect the architectural heritage through the establishment and continual review of the Record of Protected Structures, as required by Section 51 of the <i>Planning Act</i> 2000. The Record of Protected Structures shall include structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the county;					B1 B2 W1 W2 S1 S2 A1 A2 A3	P1 C1 C2
9. Recognise the importance of the improvement of the 'National' and 'Regionally and Locally Important' roads identified in the Development Plan as major factors in attracting investment, securing job opportunities & promoting growth throughout the county;			B1 B2 W1 W2 C1 C2 A1 A2		S1 S2 A3	P1
10. Secure community benefits through the provision of infrastructure, recreational, wildlife, social and other facilities through the use of planning agreements and development charges from new development, where appropriate and relevant;						All
11. Promote the implementation of Public Private Partnership (PPPs) between the Local Authority and the private sector for the purpose of providing public infrastructure, community facilities and related services;			B1 B2 W1 W2 C1 C2 A2			P1 S1 S2 A1 A3
12. Promote community-based initiatives based on the economic, social and cultural development of the County and wider area;			B1 B2 W1 W2 C1 C2			P1 S1 S2 A1 A2 A3
13. Support Cross-Border Regional			B1 B2		S1 S2 A3	P1 A1

Strategic Development Framework	Probable Conflict with status of SEOs – unlikely to be mitigated	Uncertain interaction with status of SEOs	Potential Conflict with status of SEOs	Neutral interaction with status of SEOs	No Likely interaction with status of SEOs	Likely to Improve status of SEOs
projects supported and funded through the Special European Union Programme Body (SEUPB), for example, the Border Upland Project linking the Geo Tourism of the Marble Arch Caves for Counties Leitrim, Sligo, Cavan and Fermanagh.			W1 W2 C1 C2 A2			

1. Potential Conflicts with status of SEO's

'Potential Conflicts' are those that may arise in the event of the measures set out in the Plan not being applied. Prior to the issue of a consent for, or decision to proceed with, any proposed project, the appropriateness of the project will be fully assessed in terms of the requirements of the County Development Plan and in particular the requirement in respect to environmental impacts. The identification of a Potential conflict above does not necessarily mean a significant conflict. The potential conflicts are dependent on the location, nature and extent of the development concerned.

Whereas, development associated with the aims policies and objectives of the Plan, may have the potential to conflict with the status of the Strategic Environmental Objectives, as referred to above, the Planning Authority is confident that any potential for a significant adverse environmental impact can be removed or mitigated to an acceptable level through the implementation of the Draft Plan, otherwise, the necessary consent for the proposed project will not issue. In this regard the potential for any adverse impacts are not considered so significant as to in any way compromise the integrity of those items of acknowledged importance within the environment.

Having regard to the nature and extent of the proposed material amendments, it is considered that they would, in the main, have an overall positive impact in terms of protecting the status of the environment, they would be subject to compliance with; the measures set out in the Draft Plan subject to other planning related legislative requirements, international, national and regional documents. In general terms the proposed material amendments will update, strengthen and clarify the related policies and objectives and thereby improve the implementation of the Draft Plan. It is considered that the implementation of the proposed material amendments will not give rise to probable environmental conflicts.

2. Assessment of Amendments to Draft Plan

Following the public display of the Draft Plan, a Manager's Report was prepared in accordance with Section 12(4) of the Planning & Development Acts 2000-2014. The Report contained a summary of each submission together with a Manager's opinion, response and recommendation. This involved the direct involvement of the SEA team in the formulation of the Report and in particular in the assessment of the submission and a determination as to

whether the recommendation made would constitute a 'Material Alteration'. [Where a proposed amendment, if made, would be a material alteration of the Draft, the Planning Authority is required under Section 12 (7) of the Act to place the proposed amendments on public display and invite submissions on same].

It is noted that the following Environmental Authorities were amongst the submissions received arising from the display of the Draft Plan;

- The Department of Environment Community and Local Government;
- The Department of Energy and Natural Resources;
- The Environmental Protection Agency,

It is noted that a significant number of amendments arose from the Chief Executive's Report on the Draft Plan (June 2014). These amendments have been considered and it can be concluded that they resulted in a strengthening and a clarification of the aims, policies and objectives of the Plan. In general terms statements, policies and objectives that were amended and added, (taken either individually or in combination), are positive in nature in terms of the management of the environment. As such most are not considered Material Alterations in terms of Section 12 (7) of the Planning and Development Acts, 2000 - 2014. However, because of their nature and extent there were 6 proposed Amendments that were considered as Material Amendments under the aforementioned Acts. These Amendments are dealt with in the Managers's Report. Following the consideration by the Members of the Manager's Report on the Draft Plan the following items were considered to constitute a proposed Material Alteration to the Draft Plan;

1. Telecommunication Masts Section
2. Zoning of Lands at Ballinamore
3. Windfarms
4. Retailing Section
5. Regionally and Locally Important Roads
6. Water Services

A Determination of the need to carry out a Strategic Environmental Report (SEA) and or an Appropriate Assessment (AA) on the proposed Material Alteration to the Draft Plan concluded that neither an SEA or AA were required. This process is a requirement under (under Section 12 (7) (aa) of the Planning and Development Acts 2000 – 2014). Following the consideration of submissions on the proposed Material Alteration to the Draft Plan, it should be noted that the SEA/AA Determination dated September 2014 was revised by the SEA/AA Determination dated December 2014 and the Elected Members informed accordingly, prior to the making of the Plan. The SEA/AA Determination should be read in conjunction with the parent documents; this Environmental Report and the Natura Impact Report.

3. Conclusion

The preparation of this Report has sought to highlight and deal with all planning related issues that may impact on the environment in accordance with legislative requirements and best practice. The SEA process has been instrumental in informing the Draft Plan throughout its making.

The Vision, Mission Statement, the Strategic Goals and Strategic Framework and each of the specific Policies and specific Objectives, including those arising from the amendments to the Plan, have been drafted and considered in close consultation with the SEA team, in this regard their environmental integrity has been secured.

The assessment of aims policies and objectives outlined in *Table 17* above taken in conjunction with the Strategic Flood Risk Assessment, the Habitats Impact Report and SEA/AA Determination in respect to the proposed Material Alterations, would indicate;

- That the implementation of the Draft Plan will, in general terms, have an overall positive impact on the environmental status of the County and wider area.
- Whereas a significant number of aims, policies and objectives will have an overall positive impact, many of these will be accompanied by the potential for environmental conflict; however such conflicts are likely to be mitigated to an *acceptable level through the implementation of the Plan Accordingly the potential conflicts highlighted above are not considered so significant as to compromise the integrity of items and features of acknowledged importance such as; water quality, biodiversity, flora and fauna, the character of the landscape, cultural/architectural/archaeological heritage, soil and in particular, human wellbeing.
- That the implementation of the Draft Plan will not give rise to probable environmental conflicts that are unlikely to be mitigated to an *acceptable level.

The Border Regional Authority, Environmental Protection Agency, Department of Environment Community and Local Government, Department of Arts Heritage and the Gaeltacht, the Office of Public Works, Inland Fisheries Ireland, Irish Water, the ESB, Eirgrid and an Taisce, were amongst the 'notified bodies' who made submissions in respect to environmental issues. Reference made to environmental issues in these and other submissions have been evaluated and responded to appropriately in the Chief Executive's Reports in respect to the Draft Plan and the proposed Material Alterations.

Due regard has been given to the significant number of submissions that were received in respect to Hydraulic Fracturing (UGEE) and also Windfarms. The issues arising have been dealt with comprehensively as separate sections within the Chief Executive's Reports.

It may therefore be concluded, that the implementation of the Draft Plan will have an overall positive impact on the environmental status of the County and its area of influence and will not, either on its own or taken in combination with other relevant plans or programmes, give rise to any significant adverse environmental impacts that cannot be removed or mitigated to an acceptable level.

XXXVIII. Mitigation Measures

Schedule 2B of the Planning and Development (SEA) Regulations 2004 requires that consideration be given to; “the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan”. Mitigation involves ameliorating significant negative effects and enhancing positive ones. The EPA Guidelines on SEA (2003) state that mitigation; “may involve preventing impacts altogether, reducing their magnitude as much as possible and/or probability of occurrence, or putting in place measures to remedy effects after they have occurred, or to compensate for them by providing environmental benefits elsewhere”. It is important to note that Strategic Environmental Assessment is an integral part of the making of the Plan and that this is an ongoing process with particular reference to monitoring and the application of mitigation measures.

This report recommends a number of measures to be suitably incorporated into the Draft Plan, refer to Section XXXIII, page 116. The Draft Plan incorporates aims, objectives and policies that are founded on the principle of sustainable development. In particular the Plan has been formulated with a view to protecting the environment and avoiding potentially adverse impacts. Remaining potentially adverse impacts may be characterised as ‘residual impacts’. These are unavoidable impacts that remain after all mitigation measures have been considered. The majority of these residual impacts, which are likely to be capable of further mitigation through careful, detailed implementation of best practices in terms of development management process and the implementation of Local Area Plans, Framework Plans, other Plans and Guidelines.

The draft plan is founded on the principle of sustainable development. In this regard it should be noted that the selected ‘alternative’ to the making of the plan was based on the ‘Sustainable Development Led Planning Approach’, refer to Section XX of this report.

The Development Plan contains a host of aims, policies, objectives and statements that have been formulated to conserve and protect the environment, the application of which will provide a robust framework for the sustainable development of the County, refer to Sections 3.8 and 3.9 in particular. These instruments provide the basis for ensuring that any adverse environmental impacts associated with proposals for development are avoided or mitigated to an acceptable level.

In general terms, proposals for development will, where appropriate, be required to indicate the environmental impacts arising from the development and will have to satisfy the Planning Authority that proposed developments would not have a significant adverse impact on the environment. In certain instances where an Environmental Impact Assessment is not required, an environmental report may be required. Where an environmental impact is unavoidable, mitigation measures will normally be required. Similar standards will apply to proposals under Part XI of the Planning and Development Acts 2000 2014.

Buffer zones will be required where there is a risk that the development may have an adverse impact on an environmentally sensitive site, such as a site of archaeological or ecological importance, the coastline or a watercourse.

Details in respect to landscaping and screening will normally be required in order to ensure the integration of the development into the landscape.

Proposals for development will be required to satisfy the Planning Authority that the operation of wastewater treatment systems associated with a development will not give rise to a risk of pollution or a risk to public health.

Developments that have the potential to impact on a site of cultural or heritage importance will be required to submit a detailed Site Assessment Report, prepared in accordance with best practice and by a suitably qualified person.

Similarly assessments will be required where there is the potential risk of significant environmental impacts due to items such as; flooding, traffic movement, soil instability, noise or air pollution, and interference with the rural character, visual amenities or residential amenities of an area.

Appendix A Strategic Flood Risk Assessment

(See separate document)

Appendix B The Content of an Environmental Report

Content of environmental report.	<p>of 13E. (1) Subject to sub-article (2), an environmental report under article 13C shall identify, describe and evaluate the likely significant effects on the environment of implementing the plan, and reasonable alternatives taking account of the objectives and the geographical scope of the plan, and, for this purpose, the report shall—</p> <p>(a) contain the information specified in Schedule 2B.</p> <p>(b) take account of any submission or observation received in response to a notice under article 13D(1), and</p> <p>(c) be of sufficient quality to meet the requirements of these Regulations.</p> <p>(2) An environmental report shall include the information that may reasonably be required taking into account—</p> <p>(a) current knowledge and methods of assessment,</p> <p>(b) the contents and level of detail in the plan,</p> <p>(c) the stage of the plan in the decision-making process, and</p> <p>(d) the extent to which certain matters are more appropriately assessed at different levels in the decision-making process in order to avoid duplication of environmental assessment.</p>
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SCHEDULE 2B**INFORMATION TO BE CONTAINED IN AN ENVIRONMENTAL REPORT**

Articles 13E, 13N, 14D, 15D and 179C

The following information shall be included 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 effects¹ on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;

¹ These effects should include secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects.



(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."

Decision-making	13H. The planning authority shall take account of (a) the environmental report, (b) any submission or observation made to the planning authority in response to a notice under section 12(1) or (7) of the Act, and (c) any consultations under article 13F, during the preparation of the plan, and before its adoption.
Information on decision.	13I. (1) In addition to the requirement of section 12(12)(b) of the Act, a notice under section 12(12)(a) of the Act shall state that a statement is also available, summarising— (a) how environmental considerations have been integrated into the plan, (b) how (i) the environmental report prepared pursuant to article 13C, (ii) submissions and observations made to the planning authority in response to a notice under section 12(1) or (7) of the Act, and (iii) any consultations under article 13F. have been taken into account during the preparation of the plan. (c) the reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives dealt with, and (d) the measures decided upon to monitor, in accordance with article 13J, the significant environmental effects of implementation of the plan. (2) A planning authority shall, in addition to the requirements of paragraph (c) of section 12(12) of the Act— (a) send a copy of the statement referred to in sub-article (1) to the bodies referred to in that paragraph, and (b) send a copy of the statement and development plan to any Member State consulted under article 13F.
Monitoring	13J. (1) The planning authority shall monitor the significant environmental effects of implementation of the development plan in order, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action and, for this purpose, existing monitoring arrangements may be used, if appropriate, with a view to avoiding duplication of monitoring. (2) The report required of the manager under section 15(2) of the Act shall include information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the development plan.

Source: Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. No 436 of 2004.

The above Regulations were Amended under the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011. Refer to the Environmental Protection Agency web site for further details in respect to SEA and legislative requirements; <http://www.epa.ie/monitoringassessment/assessment/sea/>

Appendix C Mapping of Key Spatial Elements within the Border Region

The following maps are extracted from the Border Regional Planning Guidelines 2010 – 2022 and indicate key Spatial Elements within the Region.

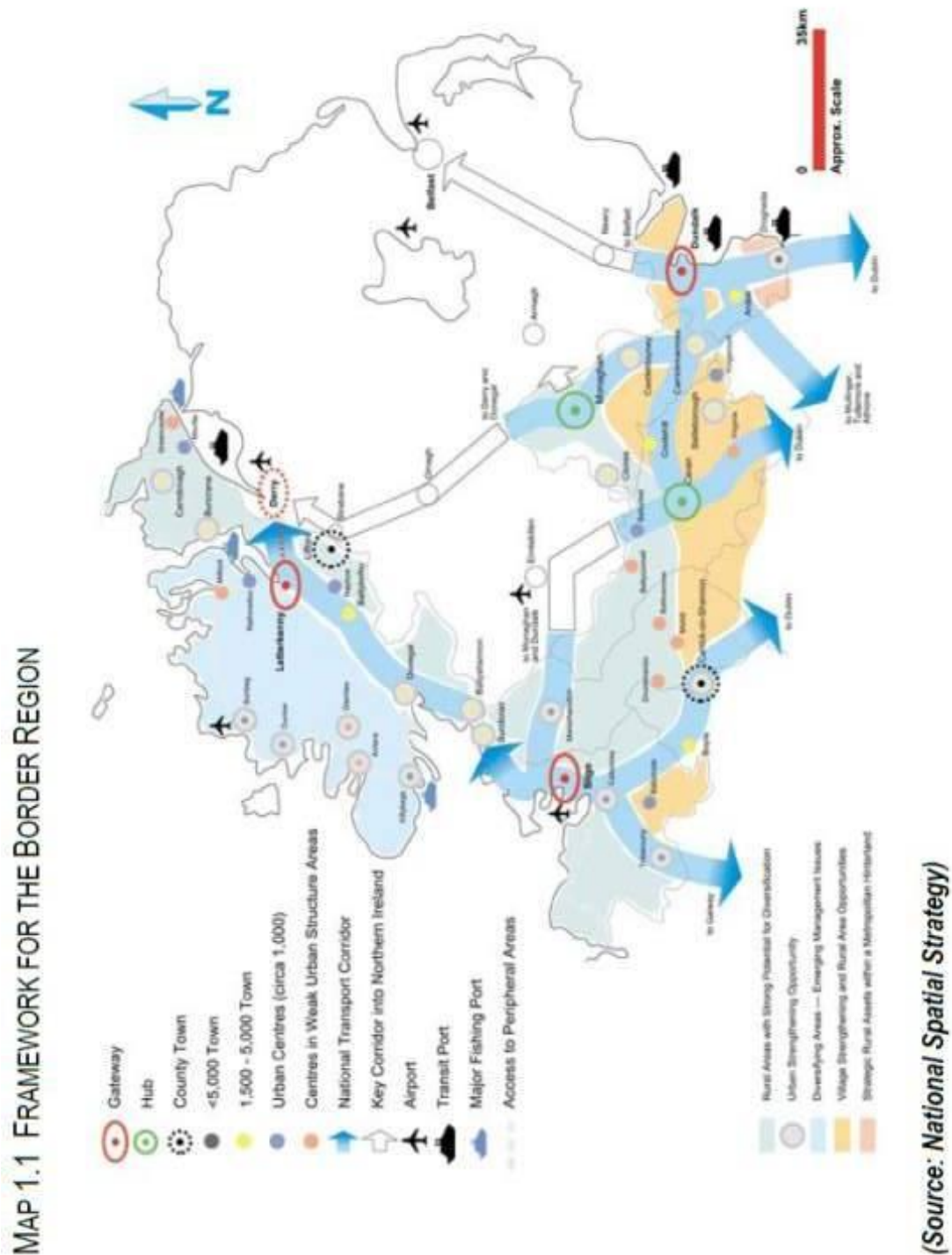


Figure 33 Spatial Framework for the Region based on the NSS.

MAP 3.1 SPATIAL SETTLEMENT STRATEGY

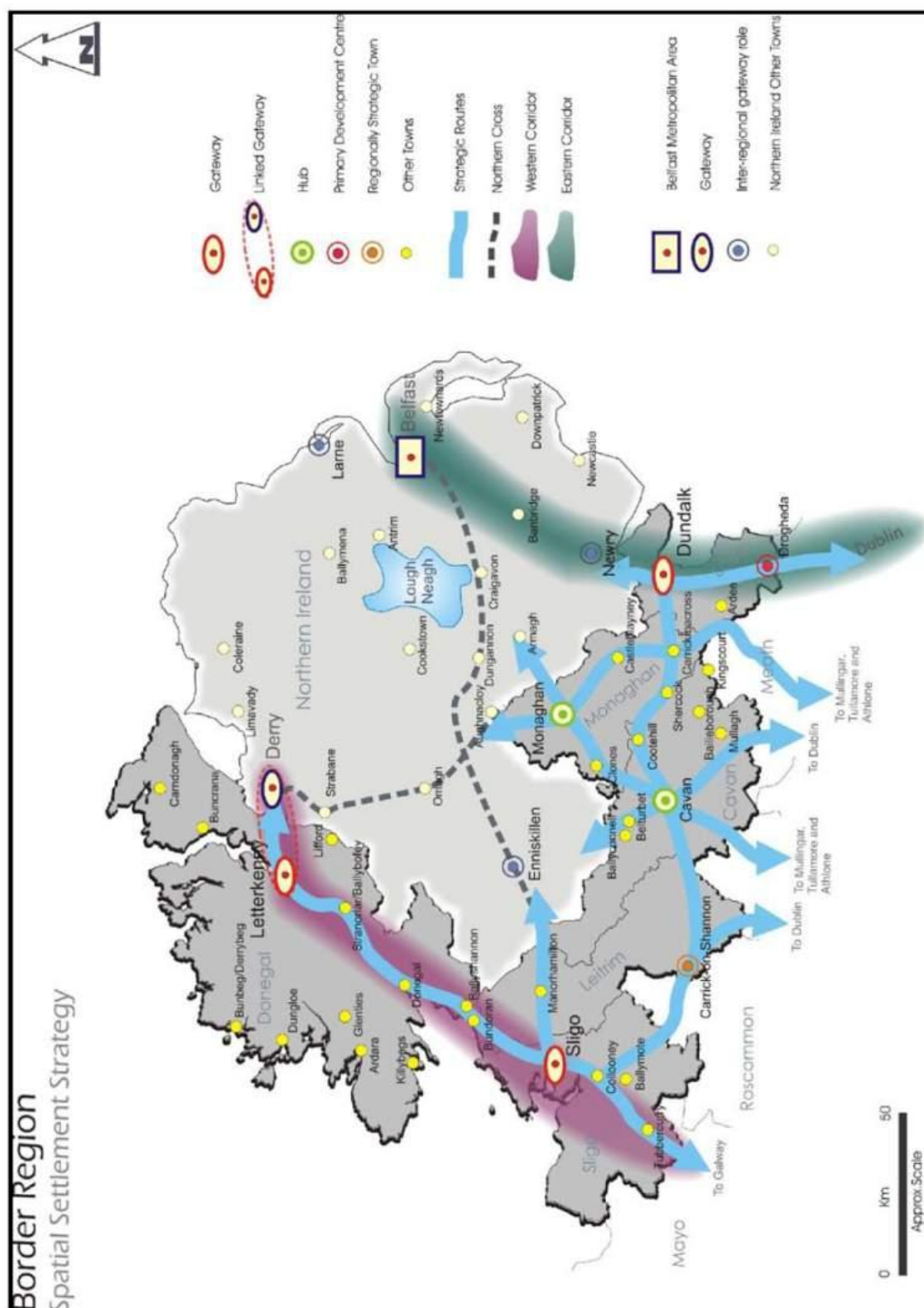


Figure 34 Spatial Settlement Strategy for the Border Region (Extract from RPG's)



MAP 6.1 ENVIRONMENTAL SPATIAL STRATEGY

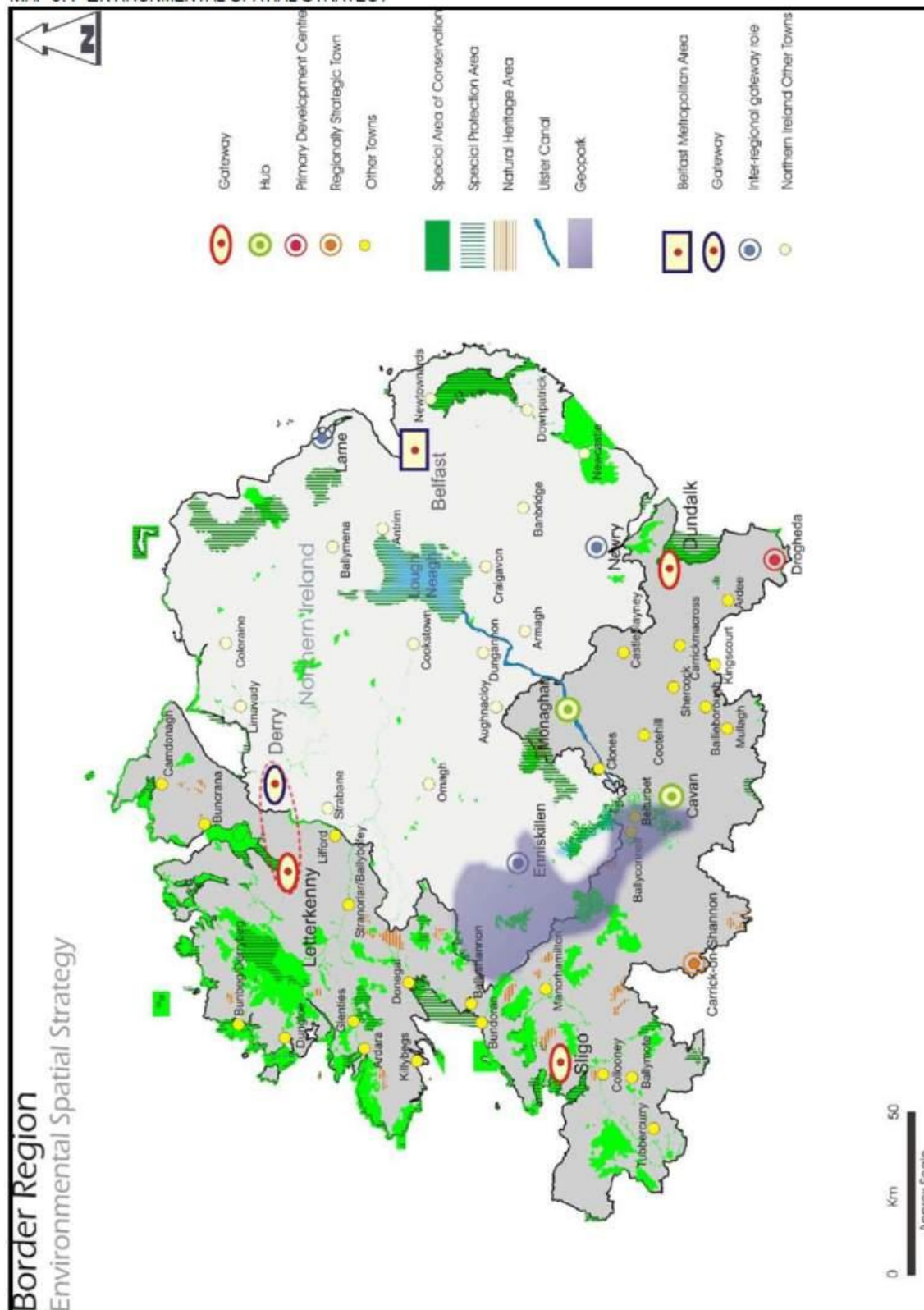


Figure 36 Key Environmental elements of the Region (Extract from RPG's)



Appendix D Special Areas of Conservation

Source:

<http://www.npws.ie/ConservationSites/SpecialAreasofConservationSACs/Leitrim/>

SITE SYNOPSIS

SITE NAME: LOUGH MELVIN

SITE CODE: 000428

Lough Melvin is situated in the extreme north-west of Leitrim, about 4 km south of Bundoran. The area is underlain by sedimentary calc-limestone, shale and sandstone. Lough Melvin is an oligo-mesotrophic lake, a habitat covered by the upland oligotrophic lake category listed on Annex I of the E.U. Habitats Directive. The lake is approximately 13 km long by 3 km wide. The mean depth of the lake is 8.5 m, the maximum depth being 45 m. A number of inflowing and outflowing streams and rivers are included in the site, for instance, the Drowes River links the lake to Donegal Bay. Several large islands occur on the lake.

The site is a candidate SAC selected for upland oligotrophic lakes, a habitat listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive - Atlantic Salmon and Otter.

The lake has a good diversity of aquatic plants, including Quillwort (*Isoetes lacustris*), Shoreweed (*Littorella uniflora*), Alternate Water-milfoil (*Myriophyllum alterniflorum*), Water Lobelia (*Lobelia dortmanna*), Canadian Waterweed (*Elodea canadensis*) and several species of Pondweed (*Potamogeton gramineus*, *P. lucens*, *P. x nitens*). Swamp vegetation is generally sparse, being best developed in the sheltered bay areas. Species include Reeds (*Phragmites australis*), Common Spike-rush (*Eleocharis palustris*) and Common Club-rush (*Scirpus lacustris*).

The most extensive terrestrial habitat in the site is lowland wet grassland. This is highly variable throughout the site in both its species composition and species richness. Common species include Jointed Rush (*Juncus articulatus*), Soft Rush (*J. effusus*), Marsh Pennywort (*Hydrocotyle vulgaris*), Yellow Iris (*Iris pseudacorus*), Water Mint (*Mentha aquatica*), Silverweed (*Potentilla anserina*), Creeping Soft-grass (*Holcus mollis*) and Devil's-bit Scabious (*Succisa pratensis*).

Wet deciduous woodland, dominated by Alder (*Alnus glutinosa*), Goat Willow (*Salix caprea*) and Downy Birch (*Betula pubescens*), is common in places. Ground flora species under these canopies include Lesser Burdock (*Arctium minus*), Wild Angelica (*Angelica sylvestris*) and Common Spike-rush (*Eleocharis palustris*).

Drier woodland exists in other areas, with Hazel (*Corylus avellana*), Ash (*Fraxinus excelsior*), Holly (*Ilex aquifolium*) and Hawthorn (*Crataegus monogyna*). Some stands have a rich ground flora that includes Primrose (*Primula vulgaris*), Woodsorrell (*Oxalis acetosella*), Bluebell (*Hyacinthoides non-scripta*), Honeysuckle (*Lonicera periclymenum*) and Sanicle (*Sanicula europaea*). The fern community is well developed in places with such species as Male-fern (*Dryopteris filix-mas*) and Hart's-tongue (*Phyllitis scolopendrium*) present.

Four plant species which are listed in the Irish Red Data Book, Globeflower (*Trollius europaeus*), Marsh Helleborine (*Epipactis palustris*), Blue-eyed-grass (*Sisyrinchium bermudiana*) and Tea-leaved Willow (*Salix phylicifolia*), are found in this site. The Globeflower is also protected under the Flora Protection Order (1999).

However, the main interest of the site is the unique fish community which the lake supports. Lough Melvin is an excellent example of a natural, post-glacial salmonid lake. A relict population of the Arctic Char (*Salvelinus alpinus*), which constitutes an arctic-alpine element of the Irish fauna, occur there, as does the Atlantic Salmon (*Salmo salar*). Both of these species are listed in the Irish Red Data Book, and Salmon is listed on Annex II of the E.U. Habitats Directive.

Lough Melvin has three races of Brown Trout (*Salmo trutta*) - Ferox, Sonaghen and Gillaroo - which have distinctive characteristics and separate spawning grounds. The lake's inflowing and outflowing streams which are used for spawning by these Brown Trout races are included in the site.

Otter have been recorded from the Drowes River and the main inflowing rivers and are likely to be widespread throughout the site. Recently, Pine Marten has been recorded from within the site. Both of these species are listed in the Irish Red Data Book, and Otter is listed on Annex II of the E.U. Habitats Directive.

Moderate numbers of waterfowl use the lake and Greenland White-fronted Geese, a species listed on Annex I of the E.U. Birds Directive, have occasionally been reported from the site.

The lake is used for boating, fishing and water abstraction, while much of the terrestrial part of the site is used for grazing. Consequently, the main threats to the site are from agricultural pollution and recreational pressure.

Lough Melvin is an example of a lake type that is of conservation significance and that is listed on Annex I of the E.U. Habitats Directive. The site is also important for Otter, for the presence of a unique fish community, including Atlantic Salmon, a species that is listed on Annex II of the E.U. Habitats Directive, and for a diverse flora which includes a number of rare plants, most notably, the protected Globeflower.

8.12.2005

SITE SYNOPSIS

SITE NAME: CUILCAGH - ANIERIN UPLANDS

SITE CODE: 000584

This site follows a series of shale uplands in the counties of Cavan and Leitrim, including to the north Cuilcagh Mountain on the border with Northern Ireland, Benbrack, Bencroy and to the south Slieve Anierin, rising above Lough Allen. It links the following pre-existing Areas of Scientific Interest: Bellavally Mountain, Cuilcagh Mountain and Lough Cratty Bog, Moneenteriff Cliffs and Levenakilla Bog. The site is of special interest because of its geology, physiography and upland flora and fauna.

Geological interest is comprised of the complete representation of the Carboniferous Leitrim Group, including richly fossiliferous sequences of sandstones, shales and mudstones, while physiographical interest relates to various active processes, notably slope weathering, as well as the presence of peat and pseudo-karst features. The total sequence on the Upper Cuilcagh area provides an excellent section through approximately 560 m of the Leitrim Group of Carboniferous rocks. On the lower ground, particularly on east Cuilcagh, a series of potholes or shakeholes (dry vertical shafts) and sinks (shafts and surface water plunges) have developed on limestone. Pollnagallun is one of these. Landforms due to past and present processes are also noticeable and include periglacial rock shattering throughout the area, associated blockfields at the edges (Moneenteriff), rock slides throughout and bog flows.

The biological interest of the site is associated with the presence of one of the largest



expanses of intact mountain blanket bog in Ireland (seen at Cratty's Lough at the north-east of the site), and also with upland grasslands on the steepest slopes of the peaks, fine examples of dry heath on the less steep slopes of these peaks and a gradation from these to wet heaths and wet rush (*Juncus* spp.) grasslands.

A well developed oceanic, montane bryophyte flora exists throughout. At the tops of ridges such as at Slieve Anierin, Bencroy, Benbrack and at The Playbank, on level terrain at the slope bases and often sandwiched between two succeeding slopes, blanket peat also occurs. The extensive blanket bog exhibits a wide range of characteristic vegetation and structural features, with well developed pool/hummock and lawn complexes, drier peat, acid flushes and bog bursts. The presence of a large number of streams (or river sources) adds to the biological interest.

Flat blanket peat areas on water-logged ground is characterised by the presence of such species as Deer Grass (*Trichophorum cespitosum*), Cross-leaved Heath (*Erica tetralix*), Bog Asphodel (*Narthecium ossifragum*), Common Cotton-grass (*Eriophorum angustifolium*) and small amounts of Ling Heather (*Calluna vulgaris*) over a Sphagnum moss mat of predominantly *S. capillifolium* and *S. papillosum*.

On more freely-draining gentle slopes, abundant and tall Ling Heather, Bilberry (*Vaccinium myrtillus*) and Hare's-tail Cottongrass (*Eriophorum vaginatum*) are more typical over a mixed bryophyte layer of *S. capillifolium*, *Hypnum jutlandicum* and *Rhytidialphus* spp. The presence of weak flushing of acidic water through the surface peat layer is indicated by the occurrence of sparsely scattered Purple Moor-grass (*Molinea caerulea*) or Sharp-flowered Rush (*Juncus acutiflorus*).

Where flushing is concentrated over a thinner peat or a peaty gley soil or is associated with iron-staining, the vegetation is characterised by a small sedge community with Lesser Spearwort (*Ranunculus flammula*), Butterwort (*Pinguicula* spp.), Water Forget-me-not (*Myosotis scorpioides*), Cuckoo Flower (*Cardamine pratensis*), Marsh Bedstraw (*Galium palustre*), Water Horsetail (*Equisetum fluviatile*) and a range of non-ombrotrophic bryophytes.

A small number of high level oligotrophic lakes occur within the site, with Lough Nambrack, Knockgorm Lake and Munter Eolas Lough being the main examples. Scattered throughout the site are dystrophic lakes, with peat bases and often peat stained water. These lakes typically have sparse vegetation, with Common Cottongrass, Bogbean (*Menyanthes trifoliata*) and Sphagnum mosses being the dominant plants.

Sloped ground and areas of shallow peat support heath communities. Wet heath is extensive and is dominated by Cross-leaved Heath, Ling Heather, Bilberry (*Vaccinium myrtillus*), Purple Moor-grass, Tormentil (*Potentilla erecta*), Heath Rush (*Juncus squarrosus*), and *Rhytidadelphus*, Sphagnum and Polytrichum mosses. Dry heath is also well-represented within the site and is typically found where shallow peats occur on sloped ground in association with exposed rock. The dominant species in the vegetation is invariably Ling Heather, which is generally accompanied by Bilberry, Bell Heather (*Erica cinerea*) and, in places, Gorse (*Ulex* spp.). Tormentil and Heath Bedstraw (*Galium saxatile*) are also common species. Crowberry (*Empetrum nigrum*) is a scarcer species of the dry heath vegetation. Upland grassland frequently merges with the heath community and is dominated by Mat-grass (*Nardus stricta*) and Bent Grasses (*Agrostis* spp.) and in places is considered to be species rich. In wetter areas, the grassland communities are dominated by rushes (*Juncus effusus*, *J. acutiflorus* and some *J. articulatus*).

In places extensive areas of cliff occur. Here the heathy vegetation is augmented by typical cliff and scree species, particularly ferns such as the Buckler Fern (*Dryopteris*

dilatata). On the low steep slopes at the north-east of the site, such as at Gorteennaglogh, some small areas of Hazel (*Corylus avellana*) woodland add to the habitat diversity of the site. A small number of unimproved enclosed fields are also included on the edges of the site.

The site provides good habitat for breeding wading birds, with Curlew, Golden Plover and Dunlin nesting in small numbers. Other typical upland species such as Peregrine, Merlin and Ring Ouzel are also present. Golden Plover, Peregrine and Merlin are listed on Annex I of the E.U. Birds Directive and, along with Dunlin and Ring Ouzel, are also Red Data Book Species. Red Grouse, also a Red-listed species, is present on the site.

A number of locally rare plant species, including the moss *Dicranodontium asperulum*, occur. Other species found on the site which are scarce in Ireland or in the Leitrim/Cavan area include White Sedge (*Carex curta*), Common Yellow-sedge (*C. demissa*) and Bog Sedge (*C. limosa*), Blue Moor-grass (*Sesleria albicans*), Cowberry (*Vaccinium vitis-idaea*), Beech Fern (*Phegopteris connectilis*), Lesser Twayblade (*Listera cordata*), Starry Saxifrage (*Saxifraga stellaris*), Stag's-horn Clubmoss (*Lycopodium clavatum*) and the lichens *Cladonia anomaea*, *C. bellidiflora*, *C. ciliata* var. *tenuis*, *C. crispata* var. *cetrariiformis*, *C. incrassata*, *C. coniocraea*, *C. pyxidata* and *C. strepsilis*.

The blanket bog areas of this site are extensive and relatively undisturbed. Natural transitions from blanket bog to heath and acidic grassland are evident, and cliffs, small ravines and small woodland blocks add diversity to the site.

30.6.2004

SITE SYNOPSIS

SITE NAME : BEN BULBEN, GLENIFF AND GLENADE COMPLEX

SITE CODE : 000623

This site is located in the uplands around Ben Bulbin, King's Mountain, Benwiskin, Truskmore and Tievebaun (or Eagle's Rock), straddling the Sligo/Leitrim County boundary. These uplands are formed of Carboniferous limestone, capped in places by shales. They stand up in a high plateau, 300-450 metres above the surrounding countryside, and the edges form lofty cliffs ranging from 15 to 300 metres in height. Below these cliffs, block scree usually occurs on slopes of 40-50 degrees.

The mesa type of landform which has arisen from the long exposure of the upland areas to erosion is of great interest geomorphologically, as are the upper Viséan reefs exposed on the cliffs and on some of the summits. In addition, this region is also the type locality for the Ben Bulbin shale, the Glencar limestone and the Dartry limestone.

Botanically, the chief importance of the area lies in the profusion of alpine plants which occur on the cliffs throughout the area. A wide variety of alpine species occur, including some species not found elsewhere in Ireland. Nowhere else in the country are so many species to be met with in such abundance, particularly on the cliffs of the Gleniff valley. The numerous waterfalls and Glencar Lake are also of great botanical interest.

Throughout the site, on scree slopes and cliffs, there are a large number of calcareous springs and seepage areas. Many of these have tufa deposits associated with them. Species occurring in these wet conditions include Bent Grass (*Agrostis stolonifera*), Golden Saxifrage (*Chrysosplenium oppositifolium*), Pale Butterwort (*Pinguicula lusitanica*), Bog Pimpernel (*Anagallis tenella*), Blue Moor-grass (*Sesleria albicans*), Sedges (including *Carex panicea*) and an abundance of bryophytes. The Red Data



Book species, Yellow Mountain Saxifrage (*Saxifraga aizoides*) and Mossy Saxifrage (*S. hypnoides*), are scattered throughout this community. In places on the limestone cliffs, tufa builds up on rocky ledges and provides very wet habitat for rare and interesting vegetation communities. Of particular interest here are the bryophyte communities, which include a number of very rare species (e.g. *Barbula maxima*).

Drier areas on the scree slopes and cliffs support a somewhat different vegetation. Common here are Meadow Rue (*Thalictrum minus*), Welsh Poppy (*Meconopsis cambrica*), Roseroot (*Rhodiola rosea*), Harebell (*Campanula rotundifolia*) and Viviparous Fescue (*Festuca vivipara*). Scattered throughout this vegetation are Alpine Meadow Rue (*Thalictrum alpinum*), Hoary Rock Cress (*Arabis hirsuta*), Mountain Sorrel (*Oxyria digyna*), Mountain Avens (*Dryas octopetala*) and the Red Data Book species, Purple Saxifrage (*Saxifraga oppositifolia*) and Alpine Meadowgrass (*Poa alpina*). Ferns are particularly abundant in the rocky crevices, including Bristle Bladder-fern (*Cystopteris fragilis*), Green Spleenwort (*Asplenium viride*), Wilson's Filmy Fern (*Hymenophyllum wilsonii*) and the Red Data Book species, Holly Fern (*Polystichum lonchitis*). Trees and shrubs are scattered along the cliff ledges, including Yew (*Taxus baccata*), Juniper (*Juniperus communis*) and the Red Data Book species, Tea-leaved Willow (*Salix phylicifolia*).

Where the cliffs are interrupted by more gently sloping ground, grassy vegetation usually predominates, but where the underlying rock outcrops, the Red data Book species, Mossy Campion (*Silene acaulis*) is found. The proximity of the site to the sea is evident in the occurrence of several maritime species, e.g. Bladder Campion (*Silene maritima*), Sea Plantain (*Plantago maritima*) and Scurvy Grass (*Cochlearia officinalis*).

The summit of the plateau is peat-covered and dominated by Ling Heather (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*), with Lesser Twayblade (*Listera cordata*) commonly occurring underneath Ling Heather bushes. On the highest parts of the site, the heath becomes more alpine in character, and includes species such as Crowberry (*Empetrum nigrum*), Cowberry (*Vaccinium vitis-idaea*), Fir Clubmoss (*Huperzia selago*), Alpine Sedge (*Carex bigelowii*) and the moss, *Racomitrium lanuginosum*.

Many fast-flowing upland streams rise on the summit of the plateau and flow down its sides. Some of these streams carry base-rich water and support a species-rich bryophyte flora, often associated with tufa deposits. A number of rare bryophytes have been recorded, including *Orthothecium rufescens*, *Daltonia splachnoides*, *Fissidens pusillus* and *Ulota calvescens*, among others. The streams on the site show a good range of riverine structures, with pools, riffles, cascades, waterfalls, tufa deposits, petrifying springs and swallow holes. There are also some streams which have intermittent flow and which are typical of high-level karst streams, very few of which occur in the country.

Six rare plant species which are legally protected under the Flora Protection Order (1987) have been recorded from this remarkable site: Fringed Sandwort (*Arenaria ciliata*), Mountain Rock Cress (*Cardaminopsis petraea*), Alpine Bistort (*Polygonum viviparum*), Small White Orchid (*Pseudorchis albida*), Chickweed Willowherb (*Epilobium alsinifolium*) and Alpine Saxifrage (*Saxifraga nivalis*). The latter two species have their only known Irish stations at this site.

The rare whorl snail, *Vertigo geyeri*, has recently been discovered at the site. Five populations occur at three locations, all in calcareous flushes on sloping ground. These are the first records for county Leitrim for this rare mollusc. *V. geyeri* is listed on Annex II of the EU Habitats Directive.

Otter, a species listed on Annex II of the EU Habitats Directive, is known to occur within this large site.

The extensive uplands in the site provide excellent habitat for Peregrine Falcon, a species listed on Annex I of the European Birds Directive. Four breeding pairs were recorded here in recent years.

The uplands are used primarily for grazing. On some parts of the plateau, peat deposits are eroding. Upland habitats are generally threatened by afforestation. Cliffs and steep scree slopes are not significantly threatened.

This plateau area is recognised as, botanically, one of the richest in Ireland. It provides the best example in the country of alpine and arctic-alpine vegetation and includes two vascular species which are not known to occur elsewhere in Ireland, as well as a host of rare mosses and liverworts. The site contains a diverse range of good quality upland habitats. The petrifying springs with tufa deposits are of particular interest, and are good examples of a habitat which is considered to be so threatened in Europe as to merit priority status on Annex I of the European Habitats Directive.

6.8.2003

SITE SYNOPSIS

SITE NAME: BUNDUFF LOUGH AND MACHAIR/TRAWALUA/ MULLAGHMORE

SITE CODE: 000625

This site is situated on the south side of Donegal Bay, 5 km south-west of Bundoran. The part of the site west of Mullaghmore Head is very exposed to the prevailing wind and swells from the Atlantic, whereas the Head itself affords moderate shelter to the eastern part of the site. The underlying geology is of sedimentary rocks including limestone, shale and sandstone. Windblown sand is common in places, covering much of the underlying rocks and shingle.

The site is a candidate SAC selected for fixed dune, machair and orchid-rich grassland, all priority habitats on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for other habitats listed on Annex I of the directive – alkaline fen, reefs, Marram dunes, large shallow inlets and bays and tidal mudflats. In addition, the site is also selected as a candidate SAC for the liverwort, Petalwort, a plant listed on Annex II of the E.U. Habitats Directive.

Machair, is common throughout the site. It occurs mostly in the flat areas between the dune ridges and the areas of alkaline fen/marsh vegetation. Although areas with typical dry machair grassland can be found close to dunes ridges, much of the habitat is wetter than is usually seen and there are large areas that are considered to be transitional to alkaline fen, another Annex I habitat. Typical 'dry' machair grassland species present include Red Fescue (*Festuca rubra*), Wild Thyme (*Thymus praecox*), Daisy (*Bellis perennis*), Ribwort Plantain (*Plantago lanceolata*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Lady's Bedstraw (*Galium verum*). The plant species indicative of fen conditions include Bog Pimpernel (*Anagallis tenella*), Flea Sedge (*Carex pulicaris*), Common Sedge (*Carex nigra*), Marsh Pennywort (*Hydrocotyle vulgaris*), Knotted Pearlwort (*Sagina nodosa*), Common Twayblade (*Listera ovata*), Ragged Robin (*Lychnis flos-cuculi*) and Lesser Spearwort (*Ranunculus flammula*). The fen vegetation is best developed to the south-west of the Bunduff Lough. In addition to the species already mentioned, notable fen species which occur include Grass-of-parnassia (*Parnassia palustris*), Common Spotted Orchid (*Dactylorhiza fuchsii*) and the spectacular Marsh Helleborine (*Epipactis palustris*). Moss cover is well developed, frequently attaining 90% cover. Typical species include *Campylium stellatum*, *Drepanocladus revolvens*, *Ctenidium*



molluscum, *Calliergon cuspidatum* and *Philonotis fontana*, most of which indicate the presence of wet, base-rich conditions. These areas of wet machair/alkaline fen are very species-rich, often containing 40-50 plant species in an area of 4m². The Annex II liverwort species *Petalophyllum ralfsii* has been recently recorded from areas of machair within the site.

Fixed dunes habitat is well represented at the site. Areas of fixed dunes with a high cover of herbs and mosses are found on the dune systems at both Bunduff strand and Trawalua. The habitat typically occurs as a prominent zone on gently sloping ground between the more exposed and species-poor white dune vegetation and the flat areas of dune grassland that comprise the machair plains. The vegetation is typically dominated by Marram (*Ammophila arenaria*) and Red Fescue (*Festuca rubra*) and these species are generally accompanied by species such as Lady's Bedstraw (*Galium verum*), Yorkshire Fog (*Holcus lanatus*), Ribwort Plantain (*Plantago lanceolata*), Eyebright (*Euphrasia officinalis* agg.), Wild Thyme (*Thymus praecox*), clovers (*Trifolium* spp.) and the mosses *Rhytidiadelphus squarrosus*, *Homalothecium lutescens*, *Brachythecium albicans* and *Calliergon cuspidatum*. In addition, the distinctive lichen, *Peltigera canina* agg., is quite frequent. Other noteworthy components of the vegetation are Pyramidal Orchid (*Anacamptis pyramidalis*) and, occasionally, Bee Orchid (*Ophrys apifera*). At Bunduff, well back from the high dune areas, there are also extensive areas of fixed dune grassland without Marram occurring on unusual, low sandy mounds. These distinctive areas are dominated by mosses and with a high cover of Wild Thyme, Glaucous Sedge (*Carex flacca*) and Hairy Rockcress (*Arabis hirsuta*). The rare, parasitic plant, Dodder (*Cuscuta epithymum*), grows in, and in close association with, this moss-rich habitat. Bunduff Lough is a shallow, sandy-bottomed lake situated at the back of the dunes and machair. The marginal vegetation of the lake is well-developed and dominated by Sea Club-rush (*Scirpus maritimus*), Common Reed (*Phragmites australis*), Bulrush (*Typha latifolia*) and Water Horsetail (*Equisetum fluviatile*). Where the substrate is stony and unable to support the reedswamp community, the margins of the lough are dominated by Amphibious Bistort (*Polygonum amphibium*). At the north-eastern end of the lough, where conditions are drier, a typical wet grassland occurs. Here, Rough Meadow-grass (*Poa trivialis*), Yorkshire Fog (*Holcus lanatus*), Soft Rush (*Juncus effusus*) and Marsh Cinquefoil (*Potentilla palustris*) are dominant.

Trawalua Strand, a fine sandy beach, is backed by high Marram (*Ammophila arenaria*) dunes and flat machair areas, similar to those drier areas of Bunduff. These two dune areas are separated by Mullaghmore Point and Classiebawn Woods. Classiebawn Wood is a plantation woodland of Maritime Pine (*Pinus pinaster*) with a very interesting ground flora, including plants such as Marsh Helleborine, Broadleaved Helleborine (*Epipactis helleborine*), Common Twayblade (*Listera ovata*) and Fragrant Orchid (*Gymnadenia conopsea*). This area is rich in invertebrates especially butterflies, moths and hoverflies; the Hairy Dragonfly (*Brachytron pratense*) has been recorded here.

The marine area included in the site displays a well developed zonation of benthic communities and high species richness in the littoral sediments. The low shore is dominated by the burrowing urchin *Echionocardium cordatum* with razor shell species (*Ensis siliqua* and *E. ensis*) abundant. The exposed rocky shore is of interest from both ecological and geological viewpoints. Marine invertebrates present include the Purple Sea-urchin (*Paracentrotus lividus*). Shag, Fulmar, Raven and Chough are all reported from the cliffs here. The Green Hairstreak butterfly (*Callophrys rubi*) has also been recorded from the cliff tops. Heath, dominated by Crowberry (*Empetrum nigrum*), occurs near Skerrydoo.

Bunduff Lough is locally important for waterfowl. In winter, Whooper Swan (57), Teal (64) and Mallard (61) are regular, along with Golden Plover (150) at certain

times (figures are average maxima for winters 1994/95 to 1995/96). Resident species include Coot, Water Rail, Mute Swan and Little Grebe. Both Whooper Swan and Golden Plover are listed on Annex I of the EU Birds Directive. The site also provides habitat for breeding waders, notably Lapwing (16 pairs in 1996) and Snipe (5 pairs in 1996).

The machair and dunes within this site are grazed by sheep and cattle. Amenity use close to Mullaghmore village is high, with fishing and shooting also occurring nearby. Bunduff Strand is a busy recreational beach and water sports are popular here. A sewage discharge at Thumb Rock may be having a deleterious effect on water quality and sediment communities.

This extensive coastal site contains a good range of habitats including several listed on Annex I of the E.U. Habitats Directive. The machair found on the site is of particular importance because it is intact and has not been sub-divided by fences.

16.1.2003

SITE SYNOPSIS

SITE NAME: ARROO MOUNTAIN

SITE CODE: 001403

Arroo Mountain is a large mountain complex which is comprised of blanket bog, heathland, upland grassland, calcareous flushes, wooded ravines, limestone gorges and steep limestone cliffs which have developed on top of an undulating limestone plateau. It is the most north-easterly part of the Ben Bulbin range of mountains, located 3 km south-west of Kinlough.

The steep cliffs on the north face of Arroo were one of the first areas on the mountain to be identified as of botanical interest. They are nearly vertical with a steep talus slope. Active erosion has created several interesting geomorphological features at their base, including sharp pinnacles and large rock slides. They have a distinctive flora, similar to the Ben Bulbin range, which contains several high-level arctic-alpine species that are common here but occur very rarely in the rest of the country.

The species of interest include Mossy Saxifrage (*Saxifraga hypnoides*) which is occasional in the north and west but very rare elsewhere; Rue-leaved Saxifrage (*Saxifraga tridactylites*), frequent in the south and west but local elsewhere; Mountain Avens (*Dryas octopetala*), locally abundant in the north and west but very rare in mountains of the north; and Mountain Sorrel (*Oxyria digyna*) which is restricted to mountain cliffs in the west and in the Galtees.

Several species which are listed in the Irish Red Data Book also occur here: Purple Saxifrage (*Saxifraga oppositifolia*), a rare species found only in mountains in the west and north, Hoary Whitlow Grass (*Draba incana*) which occurs mainly in the northwest, and Yellow Mountain Saxifrage (*S. aizoides*) both of which are virtually confined to mountains of the north-west. The scree below cliffs also contains an exceptional diversity of ferns.

The cliffs also contain a very rich assemblage of calcareous byrophytes, including some species of national importance which have their only station in Ireland on Arroo.

The main plateau area of the mountain supports blanket bog and heath communities and is of ecological interest. The hydrology of the plateau is interesting and a number of unusual geomorphological features that reflect the underlying limestone occur.



Many streams and flushes drain into sinkholes and several large flushes found at the base of limestone cliffs have an enriched calcicole element in the flora. Springs, some of which have tufa formations, are also a feature of the site. The heath flora is also well developed with mature stands of Heather in some areas. Because of their extent and integrity, the peatlands on Arroo Mountain are highly rated.

Peregrine Falcon and Golden Plover, both species listed on Annex I of the EU Birds Directive, breed within the site.

Sheep grazing poses the greatest threat to the site and overgrazing has degraded the blanket bog on the west and east sides. Turbary is also encroaching on the north and south-east sides. However, unlike most other uplands in this region, afforestation has not taken place.

The quality and range of habitats and the variety of rare species within this site makes it of high scientific and conservation importance. Together Ben Bulbin and Arroo Mountain comprise one of the floristically richest areas in the country, supporting, as they do, excellent examples of arctic-alpine vegetation communities. The interesting geomorphological and hydrological facets add greatly to the ecological and scientific value of the site.

26.3.1999

SITE SYNOPSIS

SITE NAME: GLENADE LOUGH

SITE CODE: 001919

Glenade Lough is situated approximately 9 km north-west of Manorhamilton in County Leitrim. It is a relatively small lake situated on the upper reaches of the Bonet River and in a valley between the Arroo and Benbulbin Mountain ranges. The lough is underlain by Carboniferous limestone and shales. This confers a calcareous nature to the lake and the marginal vegetation.

The site contains a naturally eutrophic lake, a habitat listed on Annex I of the E.U. Habitats Directive, and the surrounding wet grassland, marshes and fens. Although eutrophic, the system shows mesotrophic features - the water is clear, well aerated and relatively nutrient poor and the shoreline is stony or sandy. The lake has a maximum depth of 7.25m.

The aquatic flora is diverse and has species characteristic of both eutrophic and oligomesotrophic systems. Of particular note is the diversity of pondweeds, with at least four species known to occur (*Potamogeton praelongus*, *P. pusillus*, *P. lucens* and *P. natans*). Other species characteristic of eutrophic conditions include Ivy-leaved Duckweed (*Lemna trisulca*), Canadian Waterweed (*Elodea canadensis*), Unbranched Bur-reed (*Sparganium emersum*) and Spiked Water-milfoil (*Myriophyllum spicatum*). A large population of the White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the E.U. Habitats Directive and under the 1976 Wildlife Act and normally found in calcium-rich waters, has been reported from Glenade Lough. Notable plant species which occur at Glenade and are associated with oligotrophic systems are Quillwort (*Isoetes lacustris*) and Slender Naiad (*Najas flexilis*), a species listed on Annex II of the E.U. Habitats Directive and legally protected under the Flora Protection Order (1987).

A band of emergent vegetation occurs around much of the lake. This is dominated by Common Reed (*Phragmites australis*) and Common Club-rush (*Scirpus lacustris*). Bulrush (*Typha latifolia*) occurs in an area in the north-west of the site, while Water Horsetail (*Equisetum fluviatile*) and Common Spike-rich (*Eleocharis palustris*) are common throughout these stands of reeds.

Above the swamp zone there is a mix of calcareous fens and flushes, wet grassland and some freshwater marshes. Much of the vegetation in these areas is sedge-rich with Common Sedge (*Carex nigra*), Bog-sedge (*C. limosa*), Slender Sedge (*C. lasiocarpa*) and Bottle Sedge (*C. rostrata*) present. Herbaceous species such as Meadowsweet (*Filipendula ulmaria*), Marsh Marigold (*Caltha palustris*), Cuckooflower (*Cardamine pratensis*) and Devil's-bit Scabious (*Succisa pratensis*) also occur. Bryophytes are also common, especially Sphagnum moss species such as *Sphagnum palustre* and *S. recurvum*.

Some deciduous woodland, often wet in character, is present around the lake. The main native tree species here are Hazel (*Corylus avellana*), Ash (*Fraxinus excelsior*), Alder (*Alnus glutinosa*) and Oak (*Quercus petraea*). Introduced species also occur - Beech (*Fagus sylvatica*), Rhododendron (*Rhododendron ponticum*) and Sycamore (*Acer pseudoplatanus*).

Further habitat diversity is added by the presence of dry grassland within the site. Plant species present here include Creeping Bent (*Agrostis stolonifera*), Sweet Vernalgrass (*Anthoxanthum odoratum*), Primrose (*Primula vulgaris*), Tormentil (*Potentilla erecta*) and Common Spotted Orchid (*Dactylorhiza fuchsii*).

The main landuse around the site is low to moderate intensity agriculture, mostly grazing. Some boating and fishing occur on the lake. These practises may cause minor disturbances or damage to the site.

This site is of scientific importance because it contains an interesting example of a naturally eutrophic lake, an Annex I habitat on the E.U. Habitats Directive, which also displays some mesotrophic/oligotrophic elements. Furthermore the lake supports populations of two Annex II species, the White-clawed Crayfish and the Slender Naiad.

13.5.1999

SITE SYNOPSIS

SITE NAME: LOUGH GILL

SITE CODE: 001976

This site comprises Lough Gill with Doon Lough to the north-east, the Bonet River as far as but not including Glenade Lough, and a stretch of the Owenmore River near Manorhamilton in Co. Leitrim. Lough Gill itself, 2 km east of Sligo town, lies at a geological junction of ancient metamorphic rocks which produce acid groundwater, and limestone which dissolves in the groundwater. The large 8 km long lake has steep limestone shores and underwater cliffs and is over 20m deep in places. The lake appears to be naturally eutrophic, and thus represents a habitat listed on Annex I of the EU Habitats Directive.

The site is a candidate SAC selected for alluvial wet woodlands a priority habitat on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for old Oak woodlands and natural eutrophic lakes, both habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Whiteclawed Crayfish, Atlantic Salmon and Otter.

The aquatic macrophyte flora is very limited, probably due to the rapid increase in depth around most of the margin. Species such as pondweeds (*Potamogeton* spp.) are present, as well as Shoreweed (*Littorella uniflora*). Where the lake shore has a shallow gradient, some swamp vegetation occurs, mainly dominated by Common



Reed (*Phragmites australis*), with Common Club-rush (*Scirpus lacustris*) and sedges (*Carex* spp.).

The site contains Old Oak Woodlands, a habitat listed on Annex I of the EU Habitats Directive. These woods are dominated by Oak (*Quercus* spp.), Rowan (*Sorbus aucuparia*) and Willows (*Salix* spp.). Strawberry Tree (*Arbutus unedo*), in its most northerly site in the world, Yew (*Taxus baccata*), in abundance, Bird Cherry (*Prunus padus*), a Red Data Book species, and the nationally scarce Rock Whitebeam (*Sorbus rupicola*) can also be found here. Some areas of conifer plantation occur in association with these woodlands. The site is also notable for the presence of Alluvial Forest, a priority habitat listed on Annex I of the E.U. Habitats Directive, which is found along the banks of the Garvoge River and at the mouth of the Bonet River. These wet woodlands are dominated by Alder (*Alnus glutinosa*) and Willows.

Areas of unimproved wet and dry grassland occur within the site, the former particularly by the lake and the latter well developed in the north-east of the site and in the vicinity of O'Rourke's Table.

Heath-covered hillsides above the woods are dominated by Heather (*Calluna vulgaris*). Both the woods and the mountains are used by a large herd of Fallow Deer.

The site is of considerable importance for the presence of four Red Data Book fish species that are listed on Annex II of the E.U. Habitats Directive - Brook Lamprey (*Lampetra planeri*), River Lamprey (*Lampetra fluviatilis*), Sea Lamprey (*Petromyzon marinus*) and Atlantic Salmon (*Salmo salar*). The Lough Gill system gets a very early run of spring salmon while the Bonet holds stocks of salmon from spring right through to the end of the season.

White-clawed Crayfish (*Austropotamobius pallipes*), Otter and Pine Marten are well established on this site, the former, both being Annex II species. The woodlands have a fauna which includes several rare snail species.

The site supports several rare plant species, including Yellow Bird's-nest (*Monotropa hypopitys*), Lady's Mantle (*Alchemilla glaucescens*), Ivy Broomrape (*Orobanche hederarum*), Black Bryony (*Tamus communis*), Intermediate Wintergreen (*Pyrola media*) and Bird's-nest Orchid (*Neottia nidus-avis*). There is also an unconfirmed record for Melancholy Thistle (*Cirsium helenioides*) from the eastern side of the site.

Lough Gill supports only low numbers of wintering waterfowl, mostly Mallard (<150), Tufted Duck (20-30) and Goldeneye (<20). A small colony of Common Terns breed on the islands (20 pairs in 1993), while Kingfishers are found on the lake and rivers. Both of these species are listed on Annex I of the E.U. Birds Directive. A colony of Black-headed Gulls (63 pairs in 1992) occurs with the terns. The woods support a good diversity of bird species including Jay, Woodcock and Blackcap.

The site is of importance for three habitats listed on Annex I of the E.U. Habitats Directive, including one with priority status. It is also noted for the high number of rare or scarce animal and plant species. Detailed ecological studies have been carried out on the lake in recent years and a management plan for Lough Gill catchment was produced in 1998 for Sligo County Council.

13.12.2005

SITE SYNOPSIS

SITE NAME: BOLEYBRACK MOUNTAIN

SITE CODE: 002032

Boleybrack Mountain comprises an extensive upland plateau situated to the north of Lough Allen. It is dominated by active mountain blanket bog and wet heath, with small oligotrophic lakes scattered throughout. The site also contains low rocky cliffs, areas of dry heath and a variety of grassland types, including *Molinia*-dominated heath/grassland, *Agrostis*/*Festuca*-dominated upland acid grassland, orchid-rich meadows and rush (*Juncus* spp.)-dominated wet pastures.

The site is a candidate Special Area of Conservation selected for blanket bog, wet heath, dry heath, *Molinia* meadow and dystrophic lake, all habitats listed on Annex I of the E.U. Habitats Directive.

A wide diversity of plant communities is found, associated with the different habitats occurring on the site. The mountain blanket bog is dominated by Ling Heather (*Calluna vulgaris*), Common Cottongrass (*Eriophorum angustifolium*) and moss species such as *Sphagnum capillifolium*, *S. palustre* and *Racomitrium lanuginosum*. Intact areas of bog have a varied topography with hummocks of *R. lanuginosum*, *Cladonia portentosa* and Ling Heather interspersed with lawns of both and Common Cottongrass and Hare's-tail Cottongrass (*Eriophorum vaginatum*). The level areas of bog also feature pools that contain species such as the Bog Moss, *Sphagnum cuspidatum*, and Bogbean (*Menyanthes trifoliata*). Other prominent species present include Bog Asphodel (*Narthecium ossifragum*), Deergrass (*Scirpus cespitosus*) and Round-leaved Sundew (*Drosera rotundifolia*). Locally rare species recorded in this habitat include Cranberry (*Vaccinium oxycoccos*), Dioecious Sedge (*Carex dioica*) and the lichen *Cladonia portentosa*.

The areas of wet heath feature expanses of Ling Heather interspersed with Purple Moor-grass (*Molinia caerulea*), Soft Rush (*Juncus effusus*), Sharp-flowered Rush (*Juncus acutiflorus*) and tussocks of Hare's-tail Cottongrass. Other species present include Tormentil (*Potentilla erecta*), Wavy Hair-grass (*Deschampsia flexuosa*), Bell Heather (*Erica cinerea*) and Cross-leaved Heath (*Erica tetralix*). The locally rare species Cowberry (*Vaccinium vitis-idaea*) and Crowberry (*Empetrum nigrum*) occur in this habitat.

Acid grassland is dominated by a variety of grass species (mostly *Agrostis* and *Festuca* spp.). This species-rich habitat also supports a variety of herb species such as Selfheal (*Prunella vulgaris*), Devil's-bit Scabious (*Succisa pratensis*), clovers (*Trifolium* spp.) and Cat's-ear (*Hypochoeris radicata*), amongst others. *Molinia*-dominated/wet heath vegetation occurs on the lower slopes of the site. Orchid-Rich meadows with heathy elements and abundant Heath Spotted-orchid (*Dactylorhiza maculata*) and Common Spotted-orchid (*D. fuchsii*) occur in south-eastern sections of the site. Areas of rush pasture on the site are dominated by Soft Rush and Sharpflowered Rush interspersed with Marsh bedstraw (*Galium palustre*) and Yorkshirefog (*Holcus lanatus*).

The site provides excellent areas of feeding habitat for Red Grouse, Snipe, Curlew and Ravens. Golden Plover nests within the site (2-3 pairs), while Hen Harrier may use the site for foraging. Both these species are listed on Annex I of the E.U. Birds Directive.

The site is lightly grazed by sheep and locally affected by burning and turbary. Much of the site is bounded by mature coniferous forestry plantations; recent planting on areas of blanket bog has caused significant local damage.

The site is of considerable conservation importance for the various habitats listed on Annex I of the E.U. Habitats Directive that it supports, in particular the good



examples of mountain blanket bog and wet heath. The examples of these habitats on the site are among the best remaining in the northern half of the country. The presence of a number of rare plant species and of a variety of bird species adds to the conservation significance of the site.

19.06.2003

Appendix E National Heritage Areas (NHA's)

Source: <http://www.npws.ie/ConservationSites/NaturalHeritageAreasNHAs/Leitrim/>
SITE SYNOPSIS

SITE NAME: AGHNAMONA BOG NHA

SITE CODE: 000422

Aghnamona Bog NHA is located 2 km east of Roosky, in the townlands of Cornagillagh, Drumard, Meelragh, Aghnamona, Aghnahunshin in Co. Leitrim and Clooncolligan, Co. Longford. The River Shannon lies to the west of the site. The site comprises a relatively large raised bog that includes both areas of high bog and cutover, and it forms part of a bog complex within this area. The site is bounded by agricultural land on all margins.

The site comprises a large flat raised bog, separated into four lobes by a railway line and the main Longford/Carrick-on-Shannon road. The fragmented nature of the high bog has led to the overall desiccation of this habitat, particularly to the eastern lobes. Cutover bog occurs around much of the larger western lobe. Regeneration has occurred on some areas of cutover around the high bog margins. A large flush runs along the centre of the main western lobe. An area of coniferous plantation is present on the high bog to the north. A modified natural channel flows from the south end of the bog into the River Shannon to the west.

Much of the high bog has vegetation typical of the Midland Raised Bog type, consisting of Ling Heather (*Calluna vulgaris*) and cottongrasses (*Eriophorum* spp.). Other species present include Bog-rosemary (*Andromeda polifolia*) and Cranberry (*Vaccinium oxycoccos*). In places the high bog topography forms wet flats and hollows. An extensive flush runs the full length of the larger western lobe. A number of Downy Birch (*Betula pubescens*) trees occur in association with the flush. Bog moss (*Sphagnum* spp.) cover is generally good in this area and forms spongy carpets towards the south. Purple Moor-grass (*Molinia caerulea*) dominates towards the southern end of the bog. Bog Myrtle (*Myrica gale*) also occurs here.

Current landuse on the site consists of peat-cutting along some of the margins of the western lobe. An area of old cutaway to the east has been reclaimed for pasture. Damaging activities associated with these landuses include drainage and burning. Fire damage was recorded in the 1980s but since then there has been good bog moss regeneration on the high bog. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

Aghnamona Bog NHA is a site of considerable conservation significance, comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The site supports a good diversity of raised bog microhabitats including hummock/hollow complexes, and there are some pools present. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.
14.11.2002

SITE SYNOPSIS

SITE NAME: RINN RIVER NHA

SITE CODE: 000691

The Rinn River flows from Lough Rinn in Co. Leitrim, to Lough Forbes, Co. Longford. Several sections of undrained river meadows, known as callows, between



Annaveagh Bridge and Lough Forbes are liable to flood and form the basis of the NHA. Rinn River NHA is located 4 km east of Roosky, Co. Longford. The site extends for 9 km on both sides of the river and is situated in the townlands of Clooncarreen, Tooman, Bellageeher, Knockadrinan, Clooncumber and Cloonmorris in Co. Leitrim and the townlands of Cloonageeher, Cloonart North and Cloonart South in Co. Longford. Annaghcooleen Bog, which lies at the confluence of the Rinn River and Lough Forbes Complex candidate Special Area of Conservation (SAC), is included within this NHA. It is situated in the townlands of Annaghcooleen and Currygranny Co. Longford.

The main habitat in the site is wet grassland on the floodplains of the Rinn River. These wet meadows are subject to prolonged flooding in winter and early spring and freshwater marsh occurs at the river margins. At Bellageeher the site incorporates a small fairly dry lowland raised bog. This consists of a small dome of high bog with associated cutover and lies on the western bank of the Rinn River. It can be accessed from a road to the west. To the south-east of the site at Annaghcooleen, an extensive area of raised bog in the site has areas of high bog and cutover. The high bog is divided into two sections by the Dublin-Ballina railway line and there is cutover on all margins. This bog can be accessed from a bog track to the south-east.

Where the wet grassland has not been improved for agriculture the main species present are Creeping Bent (*Agrostis stolonifera*), Soft Rush (*Juncus effusus*) and Meadowsweet (*Filipendula ulmaria*) along with Marsh-marigold (*Caltha palustris*), Common Sedge (*Carex nigra*), Creeping Buttercup (*Ranunculus repens*) and other grass species such as Meadow Foxtail (*Alopecurus pratensis*) and Sweet Vernal-grass (*Anthoxanthum odoratum*). In places the ground is wet enough to support freshwater marsh and it is dominated by tall sedges such as Bottle Sedge (*Carex rostrata*) with Reed Canary-grass (*Phalaris arundinacea*). The species present depend not only upon the hydrological conditions, but also upon management. Areas improved for agriculture, by fertilisation, include species such as Yorkshire Fog (*Holcus lanatus*), Common Sorrel (*Rumex acetosa*) and Perennial Rye-grass (*Lolium perenne*).

At Bellageeher, there is a small dry raised bog dominated by Ling Heather (*Calluna vulgaris*) and Hare's-tail Cottongrass (*Eriophorum vaginatum*) with Common Cottongrass (*E. angustifolium*), Deergrass (*Scirpus cespitosus*), Cross-leaved Heath (*Erica tetralix*), Carnation Sedge (*Carex panicea*) and Bog Asphodel (*Narthecium ossifragum*). The characteristic species, Bog-rosemary (*Andromeda polifolia*) is also present. Bog moss hummocks are poorly-developed and there are few pools.

Annaghcooleen bog has vegetation typical of a Midland Raised Bog, with such species as Ling Heather, Cross-leaved Heath, Deergrass and Bog Asphodel. It has been damaged by fire with the marginal areas being dry and generally dominated by Ling Heather and lichens (*Cladonia* spp.). Some bog moss regeneration of *Sphagnum magellanicum* and *S. papillosum* has been recorded in parts, but there is bare ground and poor hummock/hollow development. An isolated area to the north-west is unburnt and wetter with, well-developed *Sphagnum* hummocks, including the relatively scarce *S. imbricatum* and *S. fuscum*. There are also small algal pools with some *S. cuspidatum* present. Elsewhere, hollows with algae and some *S. cuspidatum* occur, but pools are absent apart from long tear pools to the south-east. A small flush with Bog-myrtle (*Myrica gale*) occurs to the south of the bog.

At Bellageeher there is no active peat-cutting and old cutover, colonised by Gorse (*Ulex europaeus*), occurs to the west of the high bog. Ling Heather and Bracken (*Pteridium aquilinum*) are also present and there is scattered birch (*Betula* sp.). To the east and south, there appears to be a semi-natural margin beside the river with high bog grading into wet grassland on the bank of the Rinn River. The cutover to the north has been reclaimed for agriculture. At Annaghcooleen there is active cutover to

the east. To the north there is old cutover, which has Birch scrub encroachment.

The site is important for wildfowl and the E.U. Birds Directive Annex I species, Greenland White-fronted Goose, over-winters in the wetlands and occasionally uses the bog for refuge and foraging. The Republic of Ireland holds about 50% of the world population of this bird in the winter, and has international obligations to protect it, and habitats it uses. Other species using the site include Whooper Swan, Wigeon, Pochard, Lapwing and Curlew.

Current landuse on the site consists of grazing of the wet meadow, dredging of the river and peat-cutting at Annaghcooleen. Damaging activities associated with this landuse include drainage and burning. There has been no recent drainage on either of the high bogs, but there is extensive drainage at Annaghcooleen associated with the railway line and active peat-cutting. There is also evidence of recent burning. These are all activities that have resulted in loss of habitat and damage to the hydrological integrity of the high bog, and pose a continuing threat to its viability.

The close proximity to the River Shannon Callows and Lough Forbes Complex SACs increases the ecological interest and scientific value of the site. Flooding callows are a valuable national wildlife asset. The Rinn River is not only of interest in itself, but it provides a corridor for the movement of plants and animals between Lough Rinn (also an NHA) and Lough Forbes. Rinn River NHA is a site of considerable conservation significance, including as it does, a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. The bogs in the site support a diversity of raised bog microhabitats including some hummock/hollow complexes and tear pools. There is also a semi-natural margin between Rinn River and Ballageeher Bog, which is of ecological importance. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

14.11.2002

SITE SYNOPSIS

SITE NAME: CASHEL BOG (LEITRIM) NHA

SITE CODE: 001405

Cashel Bog is one of a cluster of bogs that is situated mainly in the townlands of Corracramph South, Cashel and Clooneagh, 5 km east of Dromod, Co. Leitrim. The site lies halfway between Lough Bofin and Lough Rinn, and the River Shannon is about 7 km due south. This is a small bog, situated between drumlins and surrounded by agricultural land Corracramph Bog NHA lies adjacent to the west of the site.

Most of the bog surface is wet and there is good pool development in places. A small area of wet scrub occurs to the south and west of the site. Old abandoned cutaway is found to the east.

Most of the bog has vegetation typical of Midland Raised Bog type with Ling Heather (*Calluna vulgaris*), and Cotton grass (*Eriophorum angustifolium*). Other species present include Bog-rosemary (*Andromeda polifolia*), White Beak-sedge (*Rhynchospora alba*) and Deergrass (*Scirpus cespitosus*). The central area is very wet and quaking in places and there is an interlocking pool system and (*Rhynchosporia*) hollows. The scarce Brown Beak-sedge (*Rhynchospora fusca*) occurs around pool edges. Overall, Bog Moss (*Sphagnum* spp.) cover is high, with abundant *S. capillifolium* forming lawns in places and many *Sphagnum* filled pools. The eastern edge is slightly drier with Ling Heather dominant. The western side has been cut and there are flushed areas with Hard Rush (*Juncus effusus*), the moss *Polytricum commune* and Bog Myrtle (*Myrica gale*). Elsewhere to the west, the high bog has



been damaged by burning with Bog Asphodel (*Narthecium ossifragum*) and Deergrass now dominating.

Old cutover to the east of the site is dominated in places by Purple Moor-grass (*Molinia caerulea*) and Ling Heather, Bog Asphodel (*Narthecium ossifragum*) and Hard Rush (*Juncus effusus*). Bracken (*Pteridium aquilinum*) and Common Bent (*Agrostis capillaris*) are also present. Elsewhere, Sphagnum pools occur. To the south a small area of wet scrub woodland with Willow (*Salix* spp.) and occasional Ash (*Fraxinus excelsior*) occurs. An area of Downy Birch (*Betula pubescens*) scrub with Blackberry (*Rubus fruticosus* agg.) and Purple Moor-grass is found along the western bog margin.

Red Grouse, a species that is becoming increasingly rare in Ireland has been recorded on the site. Greenland White-fronted Geese are known to use the site for refuge and foraging.

Current landuse on the site consists of mechanical peat-cutting along the northern and southern margins. Some reclamation has occurred around the bog margins. Domestic dumping occurs on the site. Damaging activities associated with these landuses include drainage and burning. Some areas to the west and east have been burnt in the recent past, but there is evidence of good recovery. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

Cashel Bog NHA is a site of considerable conservation significance comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This high bog supports a good diversity of raised bog microhabitats including some hummock/hollow complexes and interlocking pools. The use of the site by Greenland White-fronted Geese adds further interest.

Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

15.11.2002

SITE SYNOPSIS

SITE NAME: CORRACRAMPH BOG NHA

SITE CODE: 001420

Corracramph Bog NHA is located approximately 1.5 km east of Dromod, mainly in the townlands of Corracramph South, Rinnagowna, Meelragh and Clooneagh in Co. Leitrim. The site comprises a raised bog that includes both areas of high bog and cutover bog. The site is bounded in the north by a local road running from Dromod to Lough Rinn and in the south by a local road running from Roosky towards Lough Rinn.

This site is the remnant of a larger bog that is now cutover and reclaimed for agriculture, the original bog has also been split up by a network of roads. This bog is split by a mineral ridge, which is a general feature of the local landscape with long mineral ridges running between areas of raised bog. Another interesting feature of the locality is that the bedrock under the peat is sandstone and shale. There are areas of hummocks throughout the high bog and pools in the centre and north of the site. There is an in-filling lake in the north of the site and a flush just south of the lake. Cutover is found mostly in the north and south-east of this site.

Much of the high bog has vegetation typical of a Northern Midland Raised Bog, consisting of Ling Heather (*Calluna vulgaris*), Hare's-tail Cottongrass (*Eriophorum vaginatum*), Cranberry (*Vaccinium oxycoccos*), the moss *Racomitrium lanuginosum*

and the liverwort *Pleurozia purpurea*. The hummock forming bog moss *Sphagnum capillifolium* is common in the centre of the high bog and the liverwort *Pleurozia purpurea* was also recorded here. The hummock forming bog moss *S. imbricatum* has also been recorded on the bog. Bog mosses (*Sphagnum* sp.) form a spongy mat in places but due to past damage from drying out and burning they are rarely present as carpets or large hummocks. There are pools in the centre of the high bog containing the aquatic bog moss *S. cuspidatum*, Great Sundew (*Drosera anglica*) and Brown Beak-sedge (*Rhynchospora fusca*). Ling Heather, Cottongrass (*Eriophorum* sp.) and Deergrass (*Scirpus cespitosus*) are abundant between the pools. The presence of dead bog moss hummocks and dried pools provide evidence of recent burning in the centre and north-east of the bog; Bog Asphodel (*Narthecium ossifragum*) is abundant in some areas that have been burnt.

Gubagraffy Lough in the north of the site is infilling, with Common Club-rush (*Scirpus lacustris*), Bogbean (*Menyanthes trifoliata*) and Pondweed (*Potamogeton* sp.) found around the lake. Most of the lake is infilled with Bulrush (*Typha latifolia*), Lesser Water-parsnip (*Berula erecta*) and Yellow Iris (*Iris pseudacorus*). To the south of the lake is a Purple Moor-grass dominated flush with Bog-myrtle (*Myrica gale*) and Early-purple Orchid (*Orchis masculata*). There are tracks running through the high bog which are covered in Gorse (*Ulex* sp.) and Birch (*Betula* sp.) scrub. On the south-west tip of the high bog there is conifer encroachment on a dry burnt area. A small birch wood is present in the west of the site on an area of old cutover and on old cutover in the south of the site there is a dense area of Bracken (*Pteridium aquilinum*). Most of the cutover on the east of the site has been reclaimed for agriculture and is now improved grassland.

The internationally important species Greenland White-fronted Goose has been recorded on this site.

Current landuses on the site include peat-cutting and agriculture. Mechanised peatcutting is taking place in the south-east and north of the site. Cutover on the eastern side of the site has been reclaimed for agriculture with many fields of improved grassland. Damaging activities associated with these landuses include drainage throughout the site and burning of the high bog. Regular burning on the high bog has caused the most damage to this bog. All these activities have resulted in the loss of habitat, damage to the hydrological status of the site, and pose a continuing threat to its viability. Dumping is taking place along the tracks on this site.

Corracramph Bog NHA is a site of considerable conservation significance comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. This site supports a good diversity of raised bog microhabitats, including hummocks, pools and a flush. The bog is also at the northern extreme for a Midland Raised Bog. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

15.11.2002

SITE SYNOPSIS

SITE NAME: CLOONAGEEHER BOG NHA

SITE CODE: 001423

Cloonageeher Bog NHA is situated approximately 6 km north of Newtown Forbes, mainly in the townlands of Cloonageeher and Cloontubbrid, on the border between Counties Longford and Leitrim. The site comprises a raised bog that includes both areas of high bog and cutover bog, and is one of the most northern remaining raised bogs in Ireland.



Cloonageeher Bog consists of one main lobe of high bog, but this has been somewhat dissected by a number of old tracks. There are wet areas on the high bog which consist of flushes and a small area with pools and hummock/hollow systems at the south-west of the site. A mineral ridge protrudes into the site at the north. Active peat-cutting is carried out around much of the site, but mainly at the south and north.

The high bog at Cloonageeher possesses many of the species typical of raised bogs in Ireland, such as Cross-leaved Heath (*Erica tetralix*), Bog Asphodel (*Narthecium ossifragum*) and bog mosses (*Sphagnum* spp.). At the south-west of the site there is a small pool and hummock complex. Apart from this, pools are scarce and algal hollows become more common. There is a predominance of low bog moss hummocks (mainly *Sphagnum subnitens* and *S. tenellum*) and typical fire-damaged vegetation. There are also a number of flushed areas on the bog. At the centre of the bog there is a large flush which is dominated by Purple Moor-grass (*Molinia caerulea*) and has been seriously damaged by fire. To the north-west there is a wet and somewhat quaking flush, dominated by Bog-myrtle (*Myrica gale*). Bog Asphodel is common in this area, along with Cross-leaved Heath and Deergrass (*Scirpus cespitosus*) and there are hummocks of *S. subnitens*, *S. papillosum* and *S. imbricatum*.

Current landuse on the site consists of peat-cutting mainly along the northern and southern margins of the high bog, and the drainage associated with this. Large portions of the bog have been burned in the past and areas of cutover bog have been reclaimed for agricultural purposes. These activities have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

Cloonageeher Bog NHA is a site of considerable conservation significance comprising as it does a raised bog, a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total E.U. resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level.

15.11.2002

SITE SYNOPSIS

SITE NAME: CORRY MOUNTAIN BOG NHA

SITE CODE: 002321

Corry Mountain Bog NHA is an area of upland blanket bog, straddling the Roscommon/Leitrim county boundary, located about 4 km west of Lough Allen. The site drains into the Owengar River via surface streams on its northern side and into the Arigna River, which flows into Lough Allen, on its southern side. Mature forestry plantations form parts of the northern and southern boundaries and the site extends down the lower slopes of Corry Mountain as far as fields of heathy grassland and rush pasture. A number of wind power installations are sited on the summit of the mountain.

The site consists primarily of intact upland blanket bog. The vegetation is dominated by species such as Ling Heather (*Calluna vulgaris*), Deergrass (*Scirpus cespitosus*), Cross-leaved Heath (*Erica tetralix*) and cotton grasses (*Eriophorum angustifolium*, *E. vaginatum*), with Fir Clubmoss (*Huperzia selago*), Tormentil (*Potentilla erecta*), Crowberry (*Empetrum nigrum*) and Round-leaved Sundew (*Drosera rotundifolia*). The site is particularly notable for its large population of the rare northern montane orchid Lesser Twayblade (*Listera cordata*). Species more typical of lowland areas, including Cranberry (*Vaccinium oxycoccos*), also occur within the site.

The bog surface is wet and quaking in places, where bog moss cover is at its highest, notably in flushes and in bog moss lawns. Flushes are colonised by Soft Rush (*Juncus effusus*), Bulbous Rush (*Juncus bulbosus*) and the bog mosses *Sphagnum capillifolium*, *S. papillosum*, *S. palustre*, *S. cuspidatum*, *S. magellanicum* and *S. subnitens*. Large flushes dominated by *S. recurvum* also occur on the western part of the site. Other mosses on the site include *Aulacomnium palustre*, *Polytrichum commune*, *Hypnum jutlandicum*, *Rhytidiadelphus loreus*, and *Racomitrium lanuginosum*, the latter occasionally forming large hummocks. Liverworts include *Mylia taylorii*, *Diplophyllum albicans* and *Pleurozia purpurea*. Lichens on the bog include *Cladonia portentosa* and *C. uncialis*.

Small areas of re-vegetated cutover and more recently disturbed peat occur locally, the latter now colonising with cotton grasses, Bog Asphodel (*Narthecium ossifragum*) and bog moss (*Sphagnum tenellum*). Small swallow-holes at the base of rock outcrops are quite common and these are colonised by Bilberry (*Vaccinium myrtillus*), Rowan (*Sorbus aucuparia*) seedlings, Heath Bedstraw (*Galium saxatile*) and Broad Bucklerfern (*Dryopteris dilatata*).

Wet heath, dry heath and acid grassland habitats occur on thinner peat soils forming transition zones to blanket bog.

Red Data Book species recorded on this site include Irish Hare, Hen Harrier, Golden Plover and Red Grouse.

Considerable fragmentation of the blanket bog in this upland area has resulted from afforestation on the lower northern and southern slopes of Corry Mountain. A wind power installation, centred largely on old mine workings on the summit of the mountain, but extending a short distance onto deep blanket bog, have been excluded from the site. Current land uses on the site include peat cutting and sheep grazing, while on lower slopes new plantation forestry has encroached on heath and bog habitat. Damaging activities associated with these land uses include drainage and accidental fires. Recent fire has damaged vegetation on the blanket bog immediately west of the wind power facility. These activities have resulted in habitat loss and caused localised damage to the hydrological status of the site. Generally, however, there has been little burning of this extensive blanket bog site, while grazing pressure by sheep is notably minimal.

Corry Mountain Bog NHA is a site of considerable conservation significance comprising a relatively intact area of upland blanket bog. The site supports a good diversity of blanket bog microhabitats, including bog moss lawns and flushes. Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cool, wet, oceanic climates. North-west Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland and Britain. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management. The presence of wet heath, dry heath and acid grassland on the site, and the occurrence of Cranberry, a large population of Lesser Twayblade and several Red Data Book species, adds significantly to its conservation value.

10.12.2003



SITE SYNOPSIS

SITE NAME: DOUGH/THUR MOUNTAINS NHA

SITE CODE: 002384

Dough/Thur Mountains NHA is an area of upland blanket bog, heath and grassland located 4 km south of Kiltyclogher, in north-west Co. Leitrim. The site includes two mountains, about 2 km apart, separated by the Cornavannoge River valley. The boundaries of the site are largely defined by transitions from blanket bog to rough pasture, areas of peat cutting or conifer plantation. The site ranges in elevation from 170 m to 465 m and is underlain by shale, fine-grained sandstone and small amounts of limestone.

The habitats found within this site include extensive areas of upland blanket bog, in association with dry and wet heath, exposed rock, streams, cutover bog and upland grassland. Upland blanket bog habitat occurs mainly at middle to higher elevations, and is the dominant habitat type on the flat to gently sloping areas on the northern and central areas of both mountains. The southern sides of both mountains are steeper and more exposed and support more heath vegetation with exposed rock. A large oligotrophic lake also occurs on the southern side of Thur Mountain.

The intact blanket bog supports a good heather and moss cover, with peat depths of up to 2 m. The vegetation comprises a tall canopy of Ling Heather (*Calluna vulgaris*), Deergrass (*Scirpus cespitosus*) and cottongrasses (*Eriophorum* spp.) with a deep spongy understorey of bog mosses (*Sphagnum subnitens*, *S. capillifolium*, *S. papillosum*) and hummocks of the moss *Racomitrium lanuginosum* up to 1 m wide. Associated species include Cross-leaved Heath (*Erica tetralix*), Bog Asphodel (*Narthecium ossifragum*), Tormentil (*Potentilla erecta*), lichens (*Cladonia portentosa*, *C. ciliata*), mosses (*Hypnum jutlandicum*, *Rhytidiadelphus loreus*), the liverwort *Diplophyllum albicans* and occasional Purple Moor-grass (*Molinia caerulea*). Flushes and small pools within blanket bog are colonized by Common Cottongrass (*Eriophorum angustifolium*), Sundews (*Drosera rotundifolia*, *D. intermedia*) and bog mosses (*S. recurvum*, *S. auriculatum* and *S. cuspidatum*).

Shallower peat soils support heath vegetation. These areas also have a good cover of Ling Heather, but in association with species such as Bell Heather (*Erica cinerea*), Heath Bedstraw (*Galium saxatile*), Deergrass, Bilberry (*Vaccinium myrtillus*), Heath Rush (*Juncus squarrosus*), Wavy Hair-grass (*Deschampsia flexuosa*), mosses (*Hylocomium splendens*, *Polytrichum commune*), Crowberry (*Empetrum nigrum*) and lawns of bog moss (*S. capillifolium*). Swards of upland grassland occur on the lower slopes and also as patches within the heath and blanket bog mosaic. These areas feature many narrow streams and flushed channels, characterised by rushes (*Juncus effusus*, *J. acutiflorus*), grasses (*Anthoxanthum odoratum*, *Deschampsia flexuosa*, *Nardus stricta*, *Holcus lanatus*) and frequent Heath spotted Orchid (*Dactylorhiza maculata*). On the margins of the site, there are also areas of old cutover which are very wet and regenerating well, with a good cover of Ling Heather, Purple Moorgrass, cottongrasses and carpets of bog mosses.

Red Data Book species that are found within the site include Irish Hare, Common Frog and Red Grouse.

Current landuse on the site consists of sheep grazing, with some active machine cutting of peat on Thur Mountain. Land uses adjacent to the site include extensive conifer afforestation, peat cutting and grazing. These activities have resulted in habitat loss and damage to the hydrological condition of the site. A wind anemometer has recently been erected adjacent to Dough Mountain and the site may be under consideration for wind energy development. The emplacement of access road networks and turbine foundations associated with such developments causes habitat

loss and disturbance and can de-stabilise peat and lead to erosion.

Dough/Thur Mountains NHA is a site of considerable conservation significance. It contains an extensive area of upland blanket bog, with associated upland heath and grassland. Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cool, wet, oceanic climates. North-west Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland and Britain. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management.

10.12.2003

SITE SYNOPSIS

SITE NAME: AGHAVOGIL BOG NHA

SITE CODE: 002430

Aghavogil Bog NHA is a large upland blanket bog site, located 5 km east of the village of Kinlough and 1 km north-west of Rossinver, Co. Leitrim. The site occurs on a broad mountain that forms the north-eastern edge of the Dartry Mountain range and encompasses elevations from 166 m to 408 m. Bedrock geology consists of sandstone.

Blanket bog habitat occurs mainly at middle to higher elevations on the mountain top, within flat, flushed basins and saddle areas between undulating ridges. Much of the blanket bog habitat is transitional to wet and dry heath due to changes in slope and peat depth. The vegetation contains many typical features of upland blanket bog, including hummock-hollow development, small pools, flushes and locally quaking areas. Blanket bog vegetation is typified by nearly equal amounts of Ling Heather (*Calluna vulgaris*) and Deergrass (*Scirpus cespitosus*) forming a tall canopy up to 0.5 m tall, with cottongrasses (*Eriophorum* spp.) and Cross-leaved Heath (*Erica tetralix*). The understorey is comprised of a deep, almost continuous cover of bog moss (*Sphagnum subnitens* and *S. capillifolium*) with *Racomitrium lanuginosum* forming hummocks of up to 0.5 m.

Wet to locally quaking, flushed areas occur throughout the site. These are colonized by Deergrass and cottongrasses with abundant Bog Asphodel (*Narthecium ossifragum*) and occasional quaking lawns of bog moss. In wet hollows and bare peat flats, cottongrasses and Bog Asphodel are also dominant. Small to medium-sized pools are occasionally present, particularly in saddle areas on the western side of the site. Marginal pool vegetation is characterized by bog moss (*Sphagnum cuspidatum*, *S. recurvum*), Bogbean (*Menyanthes trifoliata*) and rushes (*Juncus bulbosus*, *J. effusus*). Sinkholes are also a notable feature of the higher elevations and flushes developed on flatter areas often drain into them.

There is evidence of light to moderate sheep grazing throughout the site. Peat erosion features, such as haggings, bare peat and erosion to bedrock, are common in exposed summit areas. On rocky knolls, on drier exposed ridges and on lower slopes where peat depths are shallower, blanket bog grades into dry heath. The notable species, Lesser Twayblade (*Listera cordata*) has been recorded from one of these transitional areas.



The site is underlain by a sequence of Carboniferous sediments and, as elevation increases, the bedrock changes from iron-rich shales and sandstones to calcareous muds and limestone. This variation gives rise to a diverse range of both acidic and calcicole vegetation types within the site. At middle elevations, steep to vertical limestone cliffs and scree support several notable arctic-alpine and calcicole plant species. At higher elevations there are areas of upland grassland on peaty and mineral soils, supporting small examples of species-rich Mat-grass (*Nardus stricta*) grassland. At lower elevations some peat cutting has occurred in the distant past which has given rise to well regenerated cutover bog. Iron-rich flushes occur within areas of cutover bog and within wet grassland habitat. These flushes are characterized by a diverse range of mosses (e.g. *Drepanocladus revolvens*) and sedges (*Carex panicea*, *C. flacca*), with Common Butterwort (*Pinguicula vulgaris*), Bog Pondweed (*Potamogeton polygonifolius*), Grass-of-parnassus (*Parnassia palustris*) and Lesser Spearwort (*Ranunculus flammula*).

The site also includes a number of streams and tributaries that flow into Lough Melvin, less than 1 km north. Lough Melvin is an important Atlantic Salmon and Brown Trout nursery. Aghavogil Stream, which occurs on the north-west side of Aghavogil Mountain, is of ecological importance for its woodland flora and habitat diversity. Running through a steep, narrow gorge, this stream cuts through the edge of limestone bedrock creating a series of waterfalls, dripping rock faces and wet clay banks. Hazel (*Corylus avellana*) forms much of the canopy in the ravine, but is mixed with Hawthorn (*Crataegus monogyna*), Birches (*Betula pubescens*, *B. pendula*), Goat Willow (*Salix caprea*), Holly (*Ilex aquifolium*), Ash (*Fraxinus excelsior*), Rowan (*Sorbus aucuparia*), Alder (*Alnus glutinosa*) and very occasional Oak (*Quercus* sp.). The ground flora is diverse, containing a typical calcicole flora as well as two uncommon bryophytes species, *Rhodobryum roseum* and *Trichocolea tomentella*.

In addition, the site hosts a rich butterfly fauna, as well as Irish Hare, an Irish Red Data book species, and several bird species of interest, such as Sand Martins, that nest in dry peat banks.

Grazing by sheep is the predominant land use over most of site. Cattle grazing also occurs on lower slopes. Active machine cutting of peat has occurred on the eastern side of the site within the last 5 years. Threats to the site are from overgrazing, burning, further peat extraction, wind farm development and afforestation. However, as steep slopes throughout the site make it rather remote and inaccessible, the nature conservation potential of the site is high.

Aghavogil Bog NHA is a large upland blanket bog of considerable conservation value. Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cool, wet, oceanic climates. North-west Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland, Britain and Iceland. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management.

27.2.2004

SITE SYNOPSIS

SITE NAME: CROCKAUNS/KEEOLOGYBOY BOGS NHA

SITE CODE: 002435

Crockauns/Keelogyboy Bogs NHA is an extensive, primarily upland site incorporating large areas of blanket bog, heath, upland grassland and associated habitats. It is located 7 km north-east of Sligo town. The site extends over 6 km east to west and encompasses Cope's, Crockauns and Keelogyboy Mountains and also parts of Hangman's Hill. The range in elevation within the site is between 65 m and 463 m. Bedrock geology is primarily limestone including fossiliferous reef and siliceous limestone.

The site consists of a series of relatively flat-topped mountains supporting upland blanket bog, heath, exposed rock and upland grassland. The site margins feature steep to vertical exposed cliffs and limestone scree. A variety of habitats occur on more gentle slopes including lowland blanket bog, wet heath, wet grassland, woodland and scrub.

Upland blanket bog largely occurs within a mosaic of heath and upland grassland habitats and is the dominant habitat on broad plateaux, on saddle areas and in small basins located between steep slopes. The most extensive areas occur between Cope's Mountain and Crockauns Mountain with smaller areas in the interior of Keelogyboy. Many areas of blanket bog occur at stream rises. Lowland blanket bog occurs in a large watershed between Crockauns and Keelogyboy and generally supports wetter and slightly deeper, peat than the upland areas.

In upland areas the blanket bog vegetation is dominated by Ling Heather (*Calluna vulgaris*), cottongrasses (*Eriophorum* spp.), Deergrass (*Scirpus caespitosus*), Purple Moor-grass (*Molinia caerulea*) and Bog Asphodel (*Narthecium ossifragum*), with frequent hummocks of moss *Racomitrium lanuginosum* and abundant lichens (*Cladonia* spp.). Small to medium-sized pools and associated flushes occur locally in mountain saddle areas. Bog-pools contain bog mosses (*Sphagnum auriculatum*, *S. cuspidatum*, *S. recurvum*) and Common Cottongrass (*Eriophorum angustifolium*). Quaking lawns of bog moss and Round-leaved Sundew (*Drosera rotundifolia*) occur locally. Surrounding areas also feature damp, but drying out, interconnecting pools and wet flats. Swallowholes are frequent. Erosion features of deep peat such as peat hags and bare peat gullies are common in summit areas.

Areas of heath habitat are characterized by tall Ling Heather, Bilberry (*Vaccinium myrtillus*), Common Cottongrass, some Purple Moor-grass, Green-ribbed sedge (*Carex binervis*) and Wavy Hair-grass (*Deschampsia flexuosa*). Heath Rush (*Juncus squarrosus*) and occasional Crowberry (*Empetrum nigrum*) also occur.

The site also contains a wide range of other habitats, including good examples of limestone pavement, calcareous scree, upland grassland on mineral and peaty soils, rivers and streams and small areas of semi-natural woodland. The steep cliffs and limestone scree support pockets of alpine vegetation with species of interest including the rare Yellow Saxifrage (*Saxifraga aizoides*) and the scarce Mossy Saxifrage (*S. hyponides*) as well as a diverse moss and liverwort flora. On the north-west side of the site, at the base of cliffs and scree slopes, small areas of broadleaved woodland occur supporting Hazel (*Corylus avellana*), Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*), Rowan (*Sorbus aucuparia*) as well as the scarce species Irish Whitebeam (*Sorbus hibernica*). This area also supports a diverse community of mosses. Scarce species such as Blue Moor-grass (*Sesleria albicans*) and Grass-of-Parnassus (*Parnassia palustris*) can be found in the patches of species-rich, upland dry grassland and wet grassland within the site. There are also areas of well-revegetated, cutover bog, on peat of up to 2 m deep, on the lower slopes of Keelogyboy.



The site supports several Irish Red Data book species including Chough, Hen Harrier, Peregrine Falcon and Red Grouse.

Landuse within the site is predominantly sheep grazing. Most areas have been somewhat modified by grazing, with localised areas degraded by overgrazing, particularly on Keelogyboy and the western side of Cope's Mountain. However, recent destocking is reported to have taken place on some parts of the site and habitat recovery is possible if de-stocking continues. Development of wind farms, drainage and further afforestation are also potential threats to the site. Large areas of forestry have been developed on the northern side of Crockauns and on the western and southern sides of Keelogyboy, adjacent to the site. Recent drainage has occurred within one of the most intact areas of blanket bog habitat within the site. Quarrying is also a potential threat, particularly in relation to potential expansion of the existing quarries on north side of Cope's and Crockauns Mountains.

Crockauns/Keelogyboy Bogs NHA is a site of considerable conservation significance. It contains extensive areas of blanket bog, heath, upland grassland and associated habitats. Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cool, wet, oceanic climates. North-west Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland and Britain. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management.

20.1.2004

Appendix F Special Protection Areas (SPAs)

Source: <http://www.npws.ie/ConservationSites/SpecialProtectionAreasSPAs>

SITE SYNOPSIS

SITE NAME: SLIGO/LEITRIM UPLANDS SPA

SITE CODE: 004187

The Sligo/Leitrim Uplands SPA is located north-east of the town of Sligo in the mountain ranges of Ben Bulbin, Arroo and Cope's Mountain/Crockauns. The site straddles the Co. Sligo/Co. Leitrim border. The site includes six separate lengths of cliffs in these ranges, including those of King's Mountain, Benbulbin, Benwiskin, Gleniff, Truskmore, Tievebaun, Glenade, Glencar, Arroo Mountain and Cope's Mountain/Crockauns. These uplands are formed of Carboniferous limestone, capped in places by shales. They stand on a high plateau, 300-450 m above the surrounding countryside, and the edges form lofty cliffs from 15 to 300 m in height. Areas of scree occur below the cliffs on slopes of 40-50°.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough and Peregrine.

Inland cliffs and scree slopes are the predominant habitats of the site. These are of high botanical interest in that they support the richest assemblage of alpine and arctic-alpine vascular plants and bryophytes to be found in the country, including several species in their only Irish station. The cliffs of the Gleniff, Glenade and Glencar valleys and those on the north side of Arroo Mountain are of particular significance. Other habitats present on the site include heath, blanket bog, grassland, scrub, woodland and streams.

The cliffs hold nesting Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 14 breeding pairs were recorded from the site in the 1992 survey and 15 in the 2002/03 survey. Choughs forage mostly in unimproved, closely grazed grassland and flocks of up to 29 have been seen. The land on the plateau is, for the most part, vegetated by heath and blanket bog which is largely unsuitable habitat for Chough. The suitable grassland occurs mainly on the steep slopes below the cliffs. The upper boundary of the site is taken to be 50 m from the cliff top in order to act as a buffer against any disturbance of the nesting Chough. An exception to this is in the King's Mountain area, above Glencar Lough, where an expanse of suitable foraging habitat above the cliff tops to c. 200 m from the cliff top is included.

The extensive uplands on the plateau provide excellent habitat for Peregrine; the cliffs are ideal nesting sites and five pairs were recorded here in 2002.

The Sligo/Leitrim Uplands SPA is of considerable ornithological significance, being a site of national importance for Chough and Peregrine; both species are listed on Annex I of the E.U. Birds Directive.

13.11.200



Appendix G Top 25 trees in County Leitrim

Tree Register of Ireland (TROI)

Clár Crann na hÉireann

Source: (<http://www.treecouncil.ie/treeregister.html>)

Quercus robur (English/Common Oak) Lough Rynn, Mohill:

7.60 @ 0.85 m × 22.30m.

Populus nigra (Black Poplar) Organic Galloway Farm, Lecarrow, Drumkeeran:

6.07 @ 1.15 m × 22.30 m.

Tilia x europaea (Common Lime) Killegar House:

6 @ 1 m × 20.50 m.

** *Sequoiadendron giganteum* (Wellingtonia, Giant Sequoia) Lough Rynn, Mohill:

5.69 @ 1.5 m × 36.50 m.

Tilia x europaea (Common Lime) Killegar House:

5.50 @ 1.2 m × 21 m.

Fagus sylvatica (Beech) Killegar House:

5.40 @ 0.8 m × 24 m.

Quercus robur (English/Common Oak) Garadice House, Garadice, Ballinmore:

5.35 @ 1.2 m × 23 m.

Fraxinus excelsior (Ash) Organic Galloway Farm, Lecarrow, Drumkeeran:

5.23 @ 1.5 m × 23.50 m.

Liriodendron tulipifera (Tulip Tree) Lough Rynn, Mohill:

5.23 @ 1 m × 22.50 m.

Abies alba (Silver Fir) Garadice House, Garadice, Ballinmore:

5.05 @ 1.5 m × 33.80m.

Thuja plicata (Western Red Cedar) Lough Rynn, Mohill:

4.99 @ 1.5 m × 24.50 m.

Aesculus hippocastanum (Horse Chestnut) Killegar House:

4.97 @ 1.5 m × 27 m.

Chamaecyparis lawsoniana (Lawson Cypress) Lough Rynn, Mohill:

4.93 @ 1.5 m × 27 m.

Aesculus hippocastanum (Horse Chestnut) Garadice House, Garadice, Ballinmore:

4.86 @ 1.5 m × 23.80 m.

Fraxinus excelsior (Ash) Killegar House:

4.72 @ 1.5 m × 25 m.

Chamaecyparis lawsoniana 'Erecta' (Lawson Cypress) Lough Rynn, Mohill:

4.46 @ 1.25 m × 25.50 m.

Chamaecyparis lawsoniana 'Erecta' (Lawson Cypress) Lough Rynn, Mohill:

4.44 @ 1.5 m × 26 m.

Pseudotsuga menziesii (Douglas Fir) Lough Rynn, Mohill:

4.13 @ 1.5 m × 35 m.

Abies alba (Silver Fir) Lough Rynn, Mohill:

4 @ 1.5 m × 35.50 m.

Fagus sylvatica (Beech) Killegar House:

4 @ 1.5 m × 25 m.

Abies procera Glauca Group (Noble Fir) Lough Rynn, Mohill:

3.91 @ 1.5 m × 31.50m.

Pinus nigra var. *nigra* (Austrian Pine) Lough Rynn, Mohill:

3.84 @ 1.5 m × 29.50 m.

Quercus robur (English/Common Oak) Killegar House:

3.65 @ 1.5 m × 32 m.

Tsuga heterophylla (Western Hemlock) Lough Rynn, Mohill:

3.57 @ 1.5 m × 32.50m.

Taxus baccata (Yew) Lough Rynn, Mohill:

3.56 @ 1 m × 20.30 m.

TROI was set up in 1999 to compile a comprehensive database of remarkable trees in Ireland.

The database now contains details of over 5,000 trees, many of which are national or county champions. Trees can be remarkable for many reasons: their height, diameter, age and for their historical and folklore associations.

The ** signifies that the tree is the tallest measured tree in the county. Dimensions are read as follows: 3.52 @ 1 m × 11.50 m. = circumference (girth) of the tree 3.52 metres at a height of 1 m above ground level, height of the tree 11.5 m.

Source: Tree Register of Ireland, c/o Tree Council of Ireland, The Park, Cabinteely, Dublin 18.



Appendix H Registration of Quarries

(under the Planning & Development Acts, 2000 – 2014 Section 261)

In accordance with the provisions of Section 261 of the Planning & Development Act, 2000 as amended, notice has been given that the following quarries have been registered with the Planning Authority:

Reference Number: QR1

Owner/Occupier: Jim McPadden

Beagh,
Dromahair,
Co Leitrim.

Company Name: Sandlewood Ltd.

Townland/Location: The Old Quarry,

Upper Liscuilew,
Drumkeerin,
Co Leitrim.
Registered Address: Beagh,
Dromahair,
Co Leitrim.

Reference Number: QR2

Owner/Occupier: Seamus Kerrigan Ltd.

Towneymoyle,
Manorhamilton,
Co Leitrim.

Company Name: Seamus Kerrigan Ltd.
Townland/Location: Cornamarve,
Killargue,
Dromahair,
Co Leitrim.
Registered Address: Towneymoyle,
Manorhamilton,
Co Leitrim.

Reference Number: QR3

Owner/Occupier: John Foley
Main Street,
Kinlough,
Co Leitrim.

Company Name: N/A.
 Registered Address: N/A.
 Townland/Location: Aghavoghil,
 Kinlough,
 Co Leitrim.

Planning Status: Planning permission has not been granted in respect of this quarry.
 Intention of the Planning Authority : The Planning Authority considers that the use of the quarry has been abandoned.

In accordance with section 5.3 of the Guidelines for Planning Authorities – Quarries and Ancillary Activities, April 2004, issued by the Minister pursuant to section 261(12) of the Planning & Development Act, 2000, as amended, it is not possible to register an abandoned quarry in order to recommence its use. Activities cannot be recommenced at this quarry without the making of a planning application.

Reference Number: QR4

Owner/Occupier: John F Golden.
 Moneenshinagh,
 Manorhamilton,
 Co Leitrim.

Company Name: Tates Quarries Ltd.
 Registered Address: Ferguson Street,
 Manorhamilton,
 Co Leitrim.
 Townland/Location: Moneenshinagh,
 Glenboy,
 Manorhamilton,
 Co Leitrim.

Reference Number: QR5

Owner/Occupier: Vincent Kilkenny.
 Gortnacreive,
 Rossinver,
 Co Leitrim.
 Company Name: N/A.
 Registered Address: N/A.
 Townland/Location: Gortnacreive,
 Rossinver,
 Co Leitrim.

Reference Number: QR6

Owner/Occupier: Patrick McCaffery & Sons.
 Ballymagrorty Irish,
 Ballintra,
 Co Donegal.
 Company Name: Patrick McCaffery & Sons Ltd.



Registered Address: Ballymagrorty Irish,
Ballintra,
Co Donegal.
Townland/Location: Largy,
Manorhamilton,
Co Leitrim.

Planning Status: Planning permission has not been granted in respect of this quarry.
Intention of the Planning Authority :The Planning Authority considers that the use of the quarry has been abandoned.

In accordance with section 5.3 of the Guidelines for Planning Authorities – Quarries and Ancillary Activities, April 2004, issued by the Minister pursuant to section 261(12) of the Planning & Development Act, 2000,as amended, it is not possible to register an abandoned quarry in order to recommence its use. Activities cannot be recommenced at this quarry without the making of a planning application.

Reference Number: QR7

Owner/Occupier: Francis McManus.
McManus Brothers Natural Stone Products Ltd,
East Barrs,
Glenfarne,
Co Leitrim.
Company Name: McManus Brothers Natural Stone Products Ltd.
Registered Address: East Barrs,
Glenfarne,
Co Leitrim.
Townland/Location: Barrs East,
Glenfarne,
Manorhamilton,
Co Leitrim.

Reference Number: QR8

Owner/Occupier: Francis McManus.
McManus Brothers Natural Stone Products Ltd,
East Barrs,
Glenfarne,
Co Leitrim.
Company Name: McManus Brothers Natural Stone Products Ltd.
Registered Address: East Barrs,
Glenfarne,
Co Leitrim.
Townland/Location: Barr of Farrow,
Glenfarne,
Manorhamilton,
Co Leitrim.
Planning Status: Planning permission has not been granted in respect of this quarry.
Intention of the Planning Authority: The Planning Authority considers that the use of the quarry has been abandoned.

In accordance with section 5.3 of the Guidelines for Planning Authorities – Quarries and Ancillary Activities, April 2004, issued by the Minister pursuant to section 261(12) of the Planning & Development Act, 2000 as amended, it is not possible to register an abandoned quarry in order to recommence its use. Activities cannot be recommenced at this quarry without the making of a planning application.

Reference Number: QR9

Owner/Occupier: David K Trotter & Sons Ltd.

Lurganboy,
Manorhamilton,
Co Leitrim.

Company Name: David K Trotter & Sons Ltd.

Registered Address: Lurganboy,
Manorhamilton,
Co Leitrim.

Townland/Location: Nure,
Lurganboy,
Manorhamilton,
Co Leitrim.

Reference Number: QR10

Owner/Occupier: Thomas Ward.

Ballyfeeney,
Kilglass,
Strokestown,
Co Roscommon.

Company Name: Ballyfeeney Rock Ltd.

Registered Address: Ballyfeeney,
Kilglass,
Strokestown,
Co Roscommon.

Townland/Location: Finnalaghta,
Aughamore,
Carrick on Shannon,
Co Leitrim.

Reference Number: QR11

Owner/Occupier: McManus Brothers.

Main Street,
Carrigallen,
Co Leitrim.

Company Name: N/A.

Registered Address: N/A.

Townland/Location: Tully South,
Carrigallen,
Co Leitrim.



Reference Number: QR12

Owner/Occupier: Coillte Teoranta.

Lough Key Forest Park,

Boyle,

Co Roscommon.

Company Name: Coillte Teoranta.

Registered Address: Dublin Road,

Newtownmountkennedy,

Co Wicklow.

Townland/Location: Faghary,

Manorhamilton,

Co Leitrim.

Planning Status: Planning permission has not been granted in respect of this quarry.

Intention of the Planning Authority : The Planning Authority considers that the use of the quarry has been abandoned.

In accordance with section 5.3 of the Guidelines for Planning Authorities – Quarries and Ancillary Activities, April 2004, issued by the Minister pursuant to section 261(12) of the Planning & Development Act, 2000, it is not possible to register an abandoned quarry in order to recommence its use. Activities cannot be recommenced at this quarry without the making of a planning application.

Reference Number: QR13

Owner/Occupier: Seamus O'Hara.

Brackary More,

Manorhamilton,

Co Leitrim.

Company Name: N/A.

Registered Address: N/A.

Townland/Location: Brackary More,

Manorhamilton,

Co Leitrim.

Planning Status: Planning permission has not been granted in respect of this quarry.

Intention of the Planning Authority : The Planning Authority considers that the use of the quarry has been abandoned.

In accordance with section 5.3 of the Guidelines for Planning Authorities – Quarries and Ancillary Activities, April 2004, issued by the Minister pursuant to section 261(12) of the Planning & Development Act, 2000, it is not possible to register an abandoned quarry in order to recommence its use. Activities cannot be recommenced at this quarry without the making of a planning application

Appendix I List of Protected Structures

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30902402	30924006	1991	3	1	Aghacashel		Aghacashel House	
30903501	30935002	1979	3	2	Annaduff		Roman Catholic Church	
30903202	30815012	1979	3	3	Annaduff		Church of Ireland	
30903306		1979	6	5	Aughavas		Church of Ireland	
30900505		1997	5	6	Ballaghameehan		Roman Catholic Church	
30903004	30930001	1979	6	7	Carrigallen		Glebe House	
30903011	30812010	1979	6	8	Carrigallen		Roman Catholic Church	
30903009	30812003	1979	6	9	Carrigallen		Church of Ireland	
30903208	30932001	1991	6	10	Clooncahir		Lough Rynn Estate 'Swiss Cottage'	
30903209	30932002	1979	6	11	Clooncahir		Lough Rynn Lodge	
30800702		1991	6	12	Clooncahir		Lough Rynn Post Office	
30903603	30936017	1979	6	13	Clooncahir		Lough Rynn House	
	30936004	1991	6	14	Clooncahir		Lough Rynn Estate Boys School	
30903801		1979	6	15	Cloonloughil		Church of Ireland	
30901601		1991	4	16	Creevelea		Iron Works Smelter	
30901808		1979	4	17	Derrinvoney		Church Of Ireland	
30800206	30806008	1979	4	18	Dromahaire		Abbey Hotel	
30800207	30806013	1979	4	19	Dromahaire		Church of Ireland	
30800210		1979	4	20	Dromahaire		Old Hall	



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
		1979		21	Drumbrick		Church of Ireland	
30902414	30924003	1997	3	22	Drumcong		Roman Catholic Church	
30902519	30925002	1979	3	23	Drumreilly		Church of Ireland	
30800405	30808022	1979	3	24	Drumshanbo		Weslyan Church	
30800511	30815001	1979	3	25	Drumsna		Roman Catholic Church	
30903615		1991	6	26	Farnaght		Farnaght Hall	
30902901	30811007	1997	3	27	Fenagh		Church Of Ireland	
30800613	30816031	1979	6	28	Mohill		Church of Ireland	
30900401	30904001	1991	5	29	Glenade		Glenade House	
		1979	5	30	Glenfarne		Church of Ireland	
	30912004	1979	5	31	Glenfarne		Cornacloy Arch	
30800510	30814010	1979	3	32	Jamestown		Roman Catholic Church	
30901509		1979	4	33	Killarga		Church Of Ireland	
30903002	30930003	1979	6	34	Killegar		Church of Ireland	
30903003	30930005	1979	6	35	Killegar		Killegar House	
30900802	30804015	1979	5	36	Kiltyclogher		Market House	
30900703		1979	5	37	Lurganboy		Star Fort	
30800104	30805026	1979	5	38	Manorhamilton		Church of Ireland	
30800116	30805013	1979	5	39	Manorhamilton		Market House	
30800105		1979	5	40	Manorhamilton		Star Fort	
30900707		1991	5	41	Manorhamilton		Hamilton's Castle	
30501158	30813002	1985	3	42	Bridge Quay	Carrick-on-Shannon	Old Barrel Store (also referred to as Former Fire Station)	

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30501159		1985	3	43	Bypass/Bridge St	Carrick-on-Shannon	Remains of Tower	
30501005	30813015	1985	3	44	St. George's Tce.	Carrick-on-Shannon	Hatley Manor	
30501025	30813018	1985	3	45	Bridge St./Main St.	Carrick-on-Shannon	Mc Cann Memorial Clock	
30501204		1985	3	46	Bridge St./St. George's Tce,	Carrick-on-Shannon	Market Yard & Buildings	
30501242	30813020	1985	3	47	Bridge St.	Carrick-on-Shannon	Costello Memorial Chapel	
30501211	30813005	1985	3	48	Bridge St.	Carrick-on-Shannon	Town Hall	
30501034	30813025	1985	3	49	Main Street	Carrick-on-Shannon	St. Mary's Catholic Church	
30501062	30813030	1985	3	50	Church Lane	Carrick-on-Shannon	St. Georges Church of Ireland	
30500062		1985	3	51	Leitrim Road	Carrick-on-Shannon	Former Dispensary	
30500100	30813039	1985	3	52	Summerhill	Carrick-on-Shannon	Former District Hospital	
	30813042	1991	3	53	Summerhill	Carrick-on-Shannon	Lodge, St. Patrick Hospital	
30501191	30813007	1991	3	54	St. Georges Tce.	Carrick-on-Shannon	National Irish Bank	
3050101to 14	30813016	1985	3	55	St. Georges Tce.	Carrick-on-Shannon	Terrace	
30501004	30813014	1997	3	56	Townspark	Carrick-on-Shannon	Courthouse	
		1997	3	57	Townspark	Carrick-on-Shannon	The Lodge	
30501001	30813013	1997	3	58	Townspark	Carrick-on-Shannon	Governor House	
30501003	30813012	1997	3	59	Townspark	Carrick-on-Shannon	Gaol	
	30813043	1997	3	60	Townspark	Carrick-on-Shannon	Infirmary	
30800101	30805033	2005	5	61	Donagh More		Old Station	Old Station, Station Rd, Manorhamilton
30800102		2005	5	62	Donagh More		Manorhamilton Mart	Manorhamilton Mart, Station



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
								Rd.,Manorhamilton
30800106	30805020	2005	5	63	Manorhamilton		Terraced two bay three storey house - Gilbert & Co. Ltd.	Gilbert & Co. Ltd., Main St. Manorhamilton
30800107		2005	5	64	Manorhamilton		Ulster bank	Ulster Bank, Main St., Manorhamilton.
30800108	30805022	2005	5	65	Manorhamilton		End of terrace three bay 3 storey house - T.A. Golden	T.A. Golden, Main St, Manorhamilton
30800109	30805024	2005	5	66	Manorhamilton		North Leitrim Glens Centre	North Leitrim Glens Centre, Manorhamilton
30800110	30805007	2005	5	67	Manorhamilton		Milestone	Milestone, Main St, Manorhamilton
30800112	30805005	2005	5	68	Manorhamilton		Courthouse	Courthouse, Castle St, Manorhamilton
30800113	30805010	2005	5	69	Manorhamilton		Three bay three storey house on corner site	Manor Chemists, Main St, Manorhamilton
30800114		2005	5	70			Old Protestant Church	Old Protestant Church, Common Lane Manorhamilton
30800115	30805014	2005	5	71	Manorhamilton		Old Schoolhouse	Old Schoolhouse, Manorhamilton
30800201	30806001	2005	4	72	Drumahaire		Former Mill - Dromahair National Monuments	Dromahaire National Monuments Depot

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
							Depot	Dromahaire
30800202		2005	4	73	Drumahaire		Turbine - Dromahair National Monuments Depot	Turbine, National Monuments Depot Dromahaire
30800203	30806005	2005	4	74	Drumahaire		Roman Catholic Church	Roman Catholic Church of St. Patrick, Dromahaire
30800204	30806006	2005	4	75	Drumahaire		Milestone	Milestone, Manorhamilton Rd., Dromahaire
30800208	30806014	2005	4	76	Drumahaire		Milestone	Milestone, Drumlease C of I, Dromahaire
30800209	30806017	2005	4	77	Drumahaire		Dromahair Castle	Dromahair Castle, Dromahaire
30800212	30914003	2005	4	79	Killananima		Dromahair Former Railway Station	Dromahaire Station, Dromahaire
30800213	30806019	2005	4	80	Killananima		Goods Shed, Dromahaire Station	Goods Shed, Dromahaire Station, Dromahaire
30800214	30806020	2005	4	81	Killananima		Goods Shed, Dromahaire Station	Goods Shed, Dromahaire Station, Dromahaire
30800215	30806021	2005	4	82	Killananima		Mill, Dromahaire Station	Mill, Dromahaire Station, Dromahaire
30800216	30914002	2005	4	83	Killananima		Millers House, Dromahair Station	Mill, Dromahaire Station, Dromahaire
30800217		2005	4	84			Roman Catholic Church of Immaculate Conception	Roman Catholic Church of Immaculate Conception,



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
								Bellanagare/Carrowcrin
30800303	30808001	2005	3	85	Carricknabrack		Goods Store, Cavan & Leitrim Railway	Goods Store, Cavan & Leitrim Railway Drumshanbo
30800304	30808002	2005	3	86	Carricknabrack		Water Tower, Cavan & Leitrim Railway	Water Tower, Cavan & Leitrim Railway Drumshanbo
30800305	30808003	2005	3	87	Carricknabrack		Station House, Cavan & Leitrim Railway	Station House, Cavan & Leitrim Railway Drumshanbo
30800307	30808004	2005	3	89	Carricknabrack		St. John's Church of Ireland Church	St. John's Church of Ireland Church, Church St., Drumshanbo
30800308	30808028	2005	3	90	Drumshanbo		Roman Catholic Church of St. Patrick	Roman Catholic Church of St. Patrick, Convent Avenue, Drumshanbo
30800312	30808014	2005	3	91	Drumshanbo		National Irish Bank	National Irish Bank, High Street, Drumshanbo
30800314	30808015	2005	3	92	Drumshanbo		Five bay two storey mid 19th Century House	Berry's Tavern, High Street, Drumshanbo
30800403		2005	3	93	Drumshanbo		Elevated road/pedestrian area with cut stone retaining wall & steps	High Street, Drumshanbo
30800501	30814002	2005	3	94	Jamestown		Weir - 4 bay sluice bridge	Weir, Jamestown

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30800502	30814006	2005	3	95	Jamestown		Jamestown Arch	North Gate, Jamestown
30800503	30814003	2005	3	96	Jamestown		Former Workhouse	Former Workhouse, Jamestown
30800504	30814011	2005	3	97	Jamestown		2 Storey L Shaped Plan House	2 Storey L Shaped Plan House, Jamestown
30800505		2005	3	98	Jamestown		West Wall, Jamestown	West Wall, Jamestown
30800507	30814015	2005	3	100	Jamestown		Lodge, Jamestown House	Lodge, Jamestown House, Jamestown
30800508	30814012	2005	3	101	Jamestown		Stable Block, The Coach House, Jamestown	Stable Block, The Coach House, Jamestown
30800509	30814009	2005	3	102	Jamestown		Inkwell, The Coach House, Jamestown	Inkwell, The Coach House, Jamestown
30800512	30815004	2005	3	103	Drumsna		Cut Stone Gateway	Cut Stone gateway, Drumsna
30800516		2005	3	105	Drumsna		Drumsna Quay	Drumsna Quay, Drumsna
30800518	30815009	2005	3	106	Drumsna		3 Bay Two storey House, Quay Street.	3 Bay Two storey House, Quay Street, Drumsna
30800602		2005	6	107			Tower, Mohill Castle	Tower, Mohill Castle, Mohill
30800603	30816020	2005	6	108	Mohill		Hunt Memorial Parochial Hall, Mohill	Hunt Memorial Parochial Hall, Mohill
30800606	30816017	2005	6	109	Mohill		End of Terrace four bay three storey house	Reflections & House, Main St. Lower, Mohill



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30800607	30816009	2005	6	110	Mohill		National Irish Bank	National Irish Bank, Main St. Upper, Mohill
30800610	30816047	2005	6	111	Mohill		Roman Catholic Church of St. Patrick	Roman Catholic Church of St. Patrick, Mohill
30800612	30816036	2005	6	112	Boeeshil		Former Fever Hospital, Ashbrook	Ashbrook, Hyde Street, Mohill
30800701		2005	6	114			Clooncahir House, Lough Rynn	Clooncahir House, Lough Rynn, Mohill
30800703	30935010	2005	6	115	Rinn		Steward's House, Lough Rynn Estate	Steward's House, Lough Rynn Estate, Mohill
30800704	30935011	2005	6	116	Rinn		Forge, Lough Rynn Estate	Forge, Lough Rynn Estate, Mohill
30800705		2005	6	117			Weighbridge, Lough Rynn Estate	Weighbridge, Lough Rynn Estate, Mohill
30800706		2005	6	118			Saw Mill, Lough Rynn Estate	Saw Mill, Lough Rynn Estate, Mohill
30800707	30935007	2005	6	119	Rinn		Farmyard, Lough Rynn Estate	Farmyard, Lough Rynn Estate, Mohill
30800708	30935008	2005	6	120	Rinn		Estate Office, Lough Rynn Estate	Estate Office, Lough Rynn Estate, Mohill
30800709	30935006	2005	6	121	Rinn		Walled Garden, Lough Rynn, Estate	Walled Garden, Lough Rynn Estate, Mohill
30800710		2005	6	122			The Tower, Walled Garden, Lough Rynn	The Tower, Walled Garden, Lough Rynn

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
							Estate	Estate, Mohill
30700711		2005	6	123			Lough Rynn Castle, Lough Rynn	Lough Rynn Castle, Lough Rynn, Mohill
30900101		2005	5	124			Mass Rock	Mass Rock, Culleen Wood
30900104	30801004	2005	5	125	Duncarbry		Tullaghan House	Tullaghan House, Tullaghan
30900105	30801001	2005	5	126	Barrackpark		Tynte Lodge	Tynte Lodge, Tullaghan
30900106	30801001	2005	5	127	Barrackpark		Folly Tower, Tynte Lodge	Folly Tower, Tynte Lodge, Tullaghan
30900107	30801001	2005	5	128	Barrackpark		Folly Tower, Tynte Lodge	Folly Tower, Tynte Lodge, Tullaghan
30900108		2005	5	129			Stone Cross	The Cross, Tullaghan/Duncarbry
30900110		2005	5	131			Duncarbry Castle, Kinlough Rd	Duncarbry Castle, Kinlough Road
30900203	30902004	2005	5	135	Mullanaleck		Mullanaleck Mill	Mullanaleck Mill, Four Masters Bridge
30900204	30902003	2005	5	136	Mullanaleck		Mullanaleck Mill	Mullanaleck Mill, Four Masters Bridge
30900206		2005	5	137			Old Church	Old Church, Kinlough
30900207	30802002	2005	5	138	Kinlough		Kinlough House	Kinlough House, Kinlough
30900208		2005	5	139	Kinlough		Kinlough House - Stable Block	Kinlough House, Kinlough
30900209	30803005	2005	5	140	Gubnageer		St Aidan's Roman	St Aidan's Roman Catholic



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
							Catholic Church	Church, Kinlough
30900210	30802004	2005	5	141	Kinlough		Church of Ireland Church	Church of Ireland Church, Kinlough
30900502		2005	5	142			Graveyard Church of St Mogue	Church of St. Mogue, Gobalaun, Rossinver
30900503	30803001	2005	5	143	Gubalaun		Rossinver Post Office	Rossinver Post Office, Rossinver
30900507		2005	5	145			Church of Ireland Church, Tullyskenemy	Church of Ireland Church, Tullyskenemy
30900601		2005	5	146			Glencar Church of Ireland Church	Glencar Church of Ireland Church, Glencar
30900701		2005	5	147			Roman Catholic Church of the Annunciation	Roman Catholic Church of the Annunciation, Killasnet/Mullies
30900702		2005	5	148			Roman Catholic Church of St. Osnat	Roman Catholic Church of St. Osnat, Gurteen/Glencar
30900704	30907002	2005	5	149	Barrackpark		Church of Ireland Church	Church of Ireland Church, Lurganboy
30900705		2005	5	150			Old Schoolhouse	Old Schoolhouse, Lurganboy
30900710		2005	5	151	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900711		2005	5	152	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30900712	30805002	2005	5	153	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900713	30805002	2005	5	154	Clooneen		Artisan Dwelling	Artisan Dwelling, 17 Castle St. Manorhamilton
30900714	30805002	2005	5	155	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900715	30805002	2005	5	156	Clooneen		Artisan Dwelling	Artisan Dwelling, 15 Castle St. Manorhamilton
30900716	30805002	2005	5	157	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900717	30805002	2005	5	158	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900718	30805003	2005	5	159	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900719	30805003	2005	5	160	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900720	30805003	2005	5	161	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900721	30805003	2005	5	162	Clooneen		Artisan Dwelling	Artisan Dwelling, 9 Castle St. Manorhamilton
30900722	30805003	2005	5	163	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900723	30805003	2005	5	164	Clooneen		Artisan Dwelling	Artisan Dwelling, 7 Castle St. Manorhamilton



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30900724	30805003	2005	5	165	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900725	30805003	2005	5	166	Clooneen		Artisan Dwelling	Artisan Dwelling, Castle St. Manorhamilton
30900726	30805029	2005	5	167	Manorhamilton		Roman Catholic Church of St. Clare	Roman Catholic Church of St. Clare Enniskillen/Station Rds Manorhamilton
30900801	30804003	2005	5	168	Kiltyclogher		Church of Ireland Church	Church of Ireland Church, Kiltyclogher
30900803	30804014	2005	5	170	Kiltyclogher		Roman Catholic Church of St. Patrick	Roman Catholic Church of St. Patrick, Kiltyclogher
30900804	30804008	2005	5	171	Kiltyclogher		Stone Statue	Sean Mc Dermott Statue, Kiltyclogher
30901001		2005	5	172			Parke's Castle	Parkes Castle, Lough Gill
30901002		2005	5	173			Dovecote	Dovecote, Newtown Manor, Fivemilebourne
30901003		2005	5	174			Old Church of Ireland	Old Church of Ireland, Fivemilebourne
30901102		2005	5	175			Roman Catholic Church of Mary Mother of God	Roman Catholic Church of Mary Mother of God Newtownmanor
30901205	30912005	2005	5	176	Barrs West		Roman Catholic Church of	Roman Catholic Church of

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
							St. Michael's	St. Micheal, Cornaloy
30901207		2005	5	178			2 Storey Farmhouse, Barrs West	2 Storey Farmhouse, Barrs West
30901301		2005	5	179			Roman Catholic Church of St. Mary	Roman Catholic Church of St. Mary, Glenfarne
30901302	30913002	2005	5	180	Laghty		Gatelodge, Glenfarne lake & Forest Park	Gatelodge, Glenfarne lake & Forest Park, Glenfarne
30901303		2005	5	181			Former Train Viaduct	Former Train Viaduct, Glenfarne
30901304	30913004	2005	5	182	Brockagh Lower		T Shaped plan dwelling - Old Station	Old Station, Glenfarne
30901305	30913005	2005	5	183	Brockagh Lower		Former Signal Box - Old Station	Old Station, Glenfarne
30901306	30913003	2005	5	184	Brockagh Lower		Former Station Masters House-Old Station	Old Station, Glenfarne
30901307	30913006	2005	5	185	Brockagh Lower		Former Warehouse - Old Station	Old Station, Glenfarne
30901501		2005	5	186			Milestone	Milestone, Bellanagare/Manorhamilton
30901504		2005	4	187			Former Railway Station - Bellanamore Level Crossing	Bellanamore level Crossing (Cleen No.18)
30901510	30915002	2005	4	188	Drumkeel		Two Storey Farmhouse	Drumkeel House, Dromahair



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30901511	30915001	2005	4	189	Drumduffy		Presbyterian Church, Creevelea	Presbyterian Church, Creevelea
30901803	30807007	2005	4	190	Lugmeen		Roman Catholic Church of St. Bridgid	Roman Catholic Church of St. Brigid, Drumkeeran
30901805	30807004	2005	4	191	Lugmeen		Courthouse/Hall	Courthouse/Hall, Drumkeeran
30901806	30807006	2005	4	192	Sheena		Church of Ireland Church	Church of Ireland Church, Drumkeeran
30901807		2005	4	193			Church of Ireland Church Graveyard	Church of Ireland Church Graveyard, Drumkeeran
30901813	30918001	2005	4	195	Drumnafinnila		St Hugh's Roman Catholic Church	St Hugh's Roman Catholic Church, Ballinagleragh
30902002		2005	3	196			Former Sweat House	Former Sweat House, Cleighran
30902408		2005	3	199			Old Rectory	Old Rectory, Druminagh, Drumcong, Carrick-on-Shannon
30902409	30924005	2005	3	200	Kiltubbrid		Country House - Annadale House	Annadale House, Annadale
30902410	30924004	2005	3	201	Corglass		St Brigid's Church of Ireland Church	St Brigid's Church of Ireland Church, Kiltubrid
30902411		2005	3	202			Former narrow guage train Station	CLR Railway Station, Kiltubrid

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30902412		2005	3	203			Former narrow guage level crossing	Former CLR Level crossing, Kiltubrid
30902415		2005	3	204			Belfry on stone piers	Belfry, St. Brigid's Roman Catholic Church, Kiltubrid
30902417		2005	3	205			Shell of three storey house - Reynolds Castle John	Reynolds Castle John, Lough Scur
30902418		2005	3	206			Garda Barracks	Garda Barracks, Keshcarrigan
30902502	30809012	2005	6	208	Stradermot		Oughteragh Church of Ireland Parish Church	Oughteragh Church of Ireland Parish Church Church St., Ballinamore
30902503	30809023	2005	6	209	Tully		Courthouse	Courthouse, Main St. Ballinamore
30902504	30809034	2005	6	210	Cannaboe		Former Railway Station - St. Felims College	St Felims College, Swanlinbar Rd., Ballinamore
30902511	30925001	2005	6	213	Mough		Two Storey L Shaped Plan Country House	Lauderdale Furniture, Lauderdale House, Ballinamore
30902512		2005	3	214			Memorial in walls of Fenagh Abbey	Reynolds/Peyton Memorial, Fenagh Abbey
30902513		2005	3	215			Crucifixion Plaque, Fenagh Abbey	Crucifixion Plaque, Fenagh Abbey



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30902515	30925003	2005	6	216	Corduff		Two storey country house - Corduff House	Corduff House, Corduff
30902516		2005	6	217			Farmyard	Farmyard, Garadice House, Lough Garadice
30902603	30926002	2005	6	219	Kilnacreevy		Walled Garden, Woodford	Walled Garden, Woodford, Newtowngore
30902604		2005	6	220			Woodford Castle	Woodford Castle, Woodford, Newtowngore
30902605	30926004	2005	6	221	Newtowngore		Church of Ireland Church of St. Patrick	Church of Ireland Church of St. Patrick's Newtowngore
30902702		2005	3	223			Battlebridge Lock	Battlebridge
30902703		2005	3	224			Drumhiemy Lodge	Drumhiemy Lodge, Leitrim Village
30902705	30810001	2005	3	225	Leitrim		Mile Stone	Mile Stone, Leitrim Village
30902709		2005	3	227			Canal Lock No. 16	Lock No. 16, Killarcan
30902710		2005	3	228			Keonbrook Country Hse.	Keonbrook, 2 Storey Country House
30902711		2005	3	229			Roman Catholic Church of St. Patrick	Roman Catholic Church of St. Patrick, Gowel
30902712		2005	3	230			Roman Catholic Graveyard	Kiltoghert Roman Catholic Graveyard
30902801		2005	3	231			Cannings Cornmill	Cannings Cornmill &

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
							& Kiln	Kiln, Mill Brae, Gorravagh
30902802		2005	3	232			Roman Catholic Church of St. Joseph	Roman Catholic Church of St. Joseph, Gorravagh
30902803		2005	3	233			Selton Hill Memorial	Selton Hill Memorial, Selton Hill
30902902	30811010	2005	3	234	Glebe		Former Rectory	Old Rectory, Fenagh
30902903	30929002	2005	6	235	Corrawaleen		St Columba's Church of Ireland Church	St Columba's Church of Ireland Church, Corrawaleen
30903008	30812014	2005	6	236	Clooncorick		Former Manse	Manse, Carrigallen
30903010	30812001	2005	6	237	Bredagh		Church of Ireland Old Schoolhouse	Church of Ireland Old Schoolhouse, Carrigallen
30903203		2005	3	238			Nesbitt Mausoleum	Nesbitt Mausoleum, Annaduff Old Parish Hall
30903204		2005	3	239			Shannon Bridge - Arched Train Viaduct over River	Shannon Bridge, Derrylaur
30903207		2005	6	240			Old Glebe House	Old Glebe House, Drumkilla, Mohill
30903302	30817005	2005	6	241	Cloone		Church of Ireland Churchyard	Church of Ireland Churchyard, Cloone
30903305		2005	6	243			St Joseph's Roman Catholic Church	St Joseph's Roman Catholic Church, Aughavas
30903502		2005	6	244			Two storey house	Faulties, Dromod
30903503		2005	6	245			Roman Catholic Church	Roman Catholic Church,



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
								Cloonturk, Dromod
30903504	30818014 & 30818015	2005	6	246	Drumod Beg		Garda Station	Garda Station, Dromod
30903505	30818020	2005	6	247	Drumod More		Gothic revival former school - Warren Lodge Dromod	Warren Lodge B&B, Dromod
30903506	30818010	2005	6	248	Clooncolry		Dromod Railway Station	Dromod Railway Station, Dromod
30903507	30818008	2005	6	249	Clooncolry		Footbridge, Dromod Railway Station	Footbridge, Dromod Railway Station, Dromod
30903508	30818006	2005	6	250	Clooncolry		Red Brick Railway Station, Dromod Railway Station	CLR Station, Dromod
30903511	30818004	2005	6	253	Clooncolry		Locomotive shed, Dromod Railway Station	CLR Locomotive Shed, Dromod Station, Dromod
30903512		2005	6	254			Mohill Road	Mohill Road, Gortnalamp
30903601	30935005	2005	6	255	Rinn		Boat House, Lough Rynn Estate	Boat House, Lough Rynn Estate, Mohill
30903602	30936019	2005	6	256	Rinn		Stables, Lough Rynn Estate	Stables, Lough Rynn Estate, Mohill
30903604		2005	6	257			Shell of Country House - Lakefield House	Lakefield House
30903605	30936001	2005	6	258	Gortletteragh		Gatelodge, Lough Rynn Estate	Gatelodge, Gortleteragh, Lough Rynn Estate, Mohill
30903606		2005	6	259			Roman Catholic Church of St. Mary's	Roman Catholic Church of St. Mary's, Gortleteragh

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30903607	30936011	2005	6	260	Clooncoe		Cloncoe House, Lough Rynn	Cloncoe House, Lough Rynn, Mohill
30903608	30936010	2005	6	261	Clooncoe		The Pheasantry, Lough Rynn	The Pheasantry, Lough Rynn, Mohill
30903609	30936009	2005	6	262	Farnaght		Gatelodge, Farnaght, Lough Rynn Estate	Gatelodge, Farnaght, Lough Rynn Estate, Mohill
30903610		2005	6	263			Boundary wall and Lych gate, Church of Ireland Graveyard	Boundary wall and Lych gate, Church of Ireland Graveyard, Farnaght
30903611	30936008	2005	6	264	Farnaght		Church of Ireland Church, Farnaght	Church of Ireland Church, Farnaght
30903612	30936006	2005	6	265	Farnaght		Limekiln	Limekiln, Farnaght
30903613	30936003	2005	6	266	Farnaght		Old dispensary	Old Dispensary, Farnaght
30903614		2005	6	267			Former RIC barracks - Farnaght Post Office	Farnaght Post Office, Farnaght
30903618		2005	6	268			Old Mill	Old Mill, Killyvehy
30903702		2005	6	270			Roosky	Roosky Lock
30903703		2005	6	271			Roosky	Roosky Lock/Sluice Gates
30903705	30937002	2005	6	272	Knockadrianan		Two storey Dwelling - J Reynolds	J Reynolds, Johnston's Bridge
30500098		2005	3	274			Water Tower	Water Tower, Summerhill
30500128		2005	3	276			Post Box	Postbox, Lisnagot
30501109	30813040	2005	3	277	Townspark		Post Box	Post Box, Summerhill



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30501273		2005	3	278			Presentation House - detached 8 bay 3 storey former barracks	Presentation House, Main St.
30501277		2005	3	279			Presentation House - freestanding 2 bay single storey outbuilding	Presentation House, Main St.
30501060		2005	3	280			Carved Stone Plaque, St. George's Church Grounds	Carved Stone Plaque, St. George's Church Grounds, Church Lane
30501061		2005	3	281			Peyton Tomb, St. George's Church Grounds	Peyton Tomb, St. George's Church Grounds Church Lane
30501063		2005	3	282			Wills Tomb, St. George's Church Grounds	Wills Tomb, St. George's Church Grounds, Church Lane
30501007	30813029	2005	3	283	Townspark		St Georges Mausoleum	St Georges Mausoleum, St. Mary's Close
30501255	30813027	2005	3	284	Townspark		End of terrace 3 bay 2 storey house	Raval Clothes Shop & House, Main St.
30501036	30813026	2005	3	285	Townspark		End of terrace 3 bay 2 storey former presbytery	Grafters & House, Main St.
30501033		2005	3	286			Railings to St Mary's Church	Railings to St Mary's Church, Main St.

Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30501250	30813024	2005	3	287	Townspark		End of terrace 4 bay, 2 storey house	Reynolds Butcher, Moonstone & House, Main St.
30501243	30813021	2005	3	288	Townpark		End of terrace 6 bay 3 storey public house	P. Flynn & Co. Bar, Main St.
30501226		2005	3	289			Teagasc, Bridge Street	Teagasc, Bridge Street
30501019	30813017	2005	3	291	Townspark		Post Office Extension, St. Georg's Terrace	Post Office Extension, St. George's Terrace
30501018	30813017	2005	3	292	Townspark		Post Office, St. George's Terrace	Post Office, St. George's Terrace
30501170		2005	3	293			Hoist, Quayside	Hoist, Quayside
30501006		2005	3	294			Stable Folly, Hatley Manor	Stable Folly, Hatley Manor, St. George's Terrace
30501293	30813044	2005	3	295	Caddagh Glebe		Courthouse	Shannon Lodge
30501008		2005	3	297			Glasshouse, Hatley Manor	Glasshouse, Hatley Manor, St. George's Terrace
30501155		2005	3	298			Old Quay Walls, Quayside	Old Quay Walls, Quayside
30901702	30917001	2005	4	299	Glasdrumman More		Detached 5 bay, 2 storey farmhouse	Glasdrumman House, Drumkeeran
30901703		2005	4	300	Glasdrumman More		Ruins of 7 bay, 2 storey former stables	Glasdrumman House, Drumkeeran
30816005		2006	6	301		Mohill	Detached 5 bay 3 storey, Sisters Of Mercy	St. Anne's Convent, Convent Lane, Mohill



Registration No.2000	Registration No. 2004	Year of Adoption	Area	No.	Townland	Town	Description	Address
30816006		2006	6	302		Mohill	Detached Gabled, Roman Catholic Church	St. Anne's Convent, Convent Lane, Mohill

ⁱ The precautionary principle enables rapid response in the face of a possible danger to human, animal or plant health, or to protect the environment. In particular, where scientific data do not permit a complete evaluation of the risk, recourse to this principle may, for example, be used to stop distribution or order withdrawal from the market of products likely to be hazardous. For further details see;

http://europa.eu/legislation_summaries/consumers/consumer_safety/l32042_en.htm

