

Chapter 4 Environment and Heritage

4.1 Introduction

The management and maintenance of the natural and built environment is a critical aspect of the planning authority. It is with this in mind that objectives/policies have been created to guide development and protect the environment. These objectives/policies have been developed in line with both European and National legislation and guidelines. The objectives/policies contained within this section are based on the following principles:

- The natural and built environment, particularly those elements that are non renewable, need to be properly protected, managed and where possible enhanced.
- The 'polluter pays' principle and the 'precautionary approach' principle are central to any planning policies that deal with the environment and heritage.
- The long term economic, social and environmental well-being of County Monaghan require its environment and heritage resources to be maintained and managed to the highest standard.
- The conservation and enhancement of biodiversity, natural heritage, landscape, the built environment and archaeology should be promoted as important elements of the long term economic growth and development of the County.

Heritage Plan

4.2 Draft County Monaghan Heritage Plan 2012-2017

Heritage includes landscape, wildlife and nature sites, historic buildings, canals, industrial archaeology like railways, bridges and mills, geology, archaeology and monuments such as ringforts, dolmens, graveyards. By conserving heritage and creating new heritage assets, through creative and quality architectural design, retaining and enhancing our wildlife habitats and conserving our cultural heritage, County Monaghan will continue to be a place where people will want to live and work. It will be a place that we can be proud of, because we can see and appreciate its character and uniqueness. The County Monaghan Heritage Plan 2012-2017 will set out objectives and actions to help us understand, promote and conserve the heritage of County Monaghan over the next number of years.

Objective for Draft Heritage Plan

- HPO 1.** Implement the objectives and actions detailed within the Draft County Monaghan Heritage Plan 2012-2017 and any subsequent versions.

Geological Heritage

4.3 Geological Heritage

The Irish Geological Heritage (IGH) Programme, coordinated by the Geological Survey of Ireland (GSI), is identifying and selecting the very best national sites for Natural Heritage Area (NHA) designation, to represent the country's geology. It is also identifying many sites of national or local geological heritage importance, which will be classed as County Geological Sites (CGS).

Sites of national or local geological importance have yet to be identified in County Monaghan. County Geological Sites are the optimal way of addressing the responsibility of Monaghan local authorities under the Planning and Development Act 2000 to protect sites of geological interest.

It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites and in some cases development may facilitate enhanced geological understanding of a site by exposing more rock sections - for example, in a quarry extension or road developments. Consultation at the earliest stages can identify any issues relevant to an individual site or proposed development.

GSI is required to be consulted where the application relates to minerals extraction, quarry developments/extensions and developments involving excavations greater than 50,000 m³ in volume or 1 hectare in area.

Objective for Geological Heritage

- GHO 1.** To undertake an audit of geological heritage sites within County Monaghan during the lifetime of this plan.

Policies for Geological Heritage

- GHP 1.** To protect geological heritage sites within the county from inappropriate development.
- GHP 2.** To protect geological NHAs / pNHAs as they become designated and notified to the Council, during the lifetime of this plan.
- GHP 3.** Notify the Geological Survey of Ireland in advance of any significant ground excavations.

Landscape

4.4 Landscape Background

The unique character of the Monaghan landscape is its intimate quality with drumlins, interspersed with lakes, trees and woodlands. This landscape of small enclosed fields with foreshortened horizons is different and indeed unique from that of the more open landscape found in many other parts of Ireland. It is a landscape that has evolved over the centuries and has traditionally been moulded and protected by agricultural practices.

Today the demands being placed on our environment to satisfy the needs of farming, forestry, industry, housing, transport, leisure and urban growth are ever-changing and increasing. The unregulated spread of urban-generated housing with inappropriate siting, design and landscaping in rural areas represent a significant threat to our landscape.

In recognition of the increasing appreciation of the value of landscape, Ireland ratified the European Landscape Convention in 2002. The rationale behind the Convention recognises that “the landscape is a key element of individual and social well-being and that its protection, management and planning, entail rights and responsibilities for everyone”. The purpose of the convention is to encourage public authorities to adopt policies and measures at all levels for protecting, managing and planning landscapes so as to maintain and improve landscape quality and enable recognition of the value and importance of landscape.

The Convention required that each Member State “*integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape*”.

It is important to note that the European Landscape Convention applies to ordinary landscapes no less than to outstanding ones.

Whilst there is significant potential to accommodate sensitively designed development which respects the existing landform, one of the principal roles of the Planning Authority is to protect the most sensitive landscapes from intrusive and unsympathetic development which would irreversibly damage County Monaghan’s environment and heritage. In order to conserve and preserve the county’s landscape the Planning Authority shall co-operate with the appropriate bodies and individuals.

4.4.1 Landscape Character Assessment

The County Monaghan Landscape Character Assessment (LCA), August 2008 outlines the physical and historical influences that have shaped the various types of landscapes that we see today. The present day landscape form and pattern has developed over time and is a function of a range of physical characteristics and physical processes. These include solid geology, glacial processes, soil formation, hydrology, ecology and finally human activity. Human habitation has been the most recent force effecting change to the landscape, with impacts from patterns of land ownership, settlement development and agriculture.

The LCA assesses and categorises the county’s landscapes by their character and capacity to accommodate development types. The LCA defines thirteen Landscape

Character Types (Physical Units) and divides the county into nine Landscape Character Areas (Image Units). The LCA will inform decision making in relation to the protection of the environment, natural resources and heritage and will be used to guide development.

Objectives for Landscape Protection

- LPO 1.** Sustain, conserve, manage and enhance the landscape diversity, character and quality of the County for the benefits of current and future generations
- LPO 2.** Zone important landscape features and elevated lands within settlements as Landscape Protection/Conservation Areas, to ensure that developments do not detrimentally impact on the amenity of the landscape or on the natural setting of settlements.

Policies for Landscape Protection

- LPP 1.** Ensure the preservation and uniqueness of the county's landscape by having regard to the character, value and sensitivity of landscape as identified in the County Monaghan Landscape Character Assessment, August 2008 (or any subsequent versions) when determining a planning application.
- LPP 2.** Protect the landscapes and natural environments of the county by ensuring that any new developments in designated sensitive rural landscapes do not detrimentally impact on the character, integrity, distinctiveness or scenic value of the area.
- LPP 3.** Development which fails to appropriately integrate into the landscape with due regard to visual impact, landscape amenity, the protection of skylines, amenities such as lakes, designated walkways, heritage sites and recreational and tourist facilities shall be resisted.

Amenity

4.5 Amenity

The highest levels of protection must be afforded to the most important areas of the county's landscape resources. The Planning and Development Act 2000 provides for the designation of Areas of Special Amenity for reasons of outstanding natural beauty or special recreational value. The Planning Authority proposes designating Areas of Primary Amenity Value because of their outstanding landscape quality. It also proposes designating Areas of Secondary Amenity Value because of their landscape quality and potential for recreation. These areas are important not only for their intrinsic value as places of natural beauty but because they provide a real asset for residents and visitors alike in terms of recreation, contemplation and tourism. All scenic views, primary and secondary amenity areas can be viewed on Map 4.7.

Planning authorities are also empowered by the Planning and Development Act 2000 to designate landscape conservation areas. Development can be prescribed as non-exempted for these areas by the planning authority. While currently there are no such areas designated in County Monaghan it is proposed to review this on an ongoing basis during the life of this plan.

For the purpose of this Plan, County Monaghan contains Areas of Primary and Secondary Amenity Value as well as Views from Scenic Routes.

4.5.1 Areas of Primary Amenity Value

County Monaghan has two principle areas of outstanding landscape quality which require protection from insensitive and inappropriate development. They are designated as Areas of Primary Amenity Value.

1. Lough Muckno and its Environs

2. Sliabh Beagh and Bragan Mountain Areas

Development will only be permitted in these areas in exceptional circumstances where the integrity of the landscape is not threatened. Any intrusive development, where such development would normally be exempt, is removed from the category of exempted development.

Whilst there is limited potential to accommodate sensitively designed development in these areas, any proposal which would threaten the existing landscape, landform, flora, fauna, scenic or environmental characteristics that distinguish these areas will be resisted. An Environmental Impact Assessment must accompany all planning applications, where the Planning Authority considers that new development may have a detrimental environmental impact on the area.

Tree planting and felling will be strictly controlled to ensure minimal disturbance of the landscape and environment.

Policies for Areas of Primary Amenity Value

- PAP 1.** Limit development in Areas of Primary Amenity Value to those where the applicant has proven to the satisfaction of the Planning Authority that the proposed development would not threaten the integrity of these areas.
- PAP 2.** Development within primary amenity areas that would normally be considered 'exempt development', and which would in the opinion of the planning authority detrimentally impact on the visual amenity of the area, will be removed from that category of exempted development.

4.5.2 Areas of Secondary Amenity Value

In addition to the areas designated above, County Monaghan has a number of other sensitive landforms and amenity areas that require protection from inappropriate development. These areas are designated as Areas of Secondary Amenity Value, by reason of their landscape quality and recreational potential. These areas have significant potential to develop as centres for sustainable community, recreational or tourism centres. Whilst these areas are to be kept free from intrusive development, sensitively designed proposals on unobtrusive sites and compatible amenity may be accommodated. The areas identified in Appendix 1 are designated as Secondary Amenity Areas.

Objectives for Areas of Secondary Amenity Value

- SAO 1.** Maintain and improve public access to amenity areas while protecting the flora, fauna, heritage and character of the amenity area.
- SAO 2.** Promote and encourage community initiatives in the provision of amenity facilities to improve access to amenity areas, where appropriate.

Policies for Areas of Secondary Amenity Value

- SAP 1.** Limit development within Areas of Secondary Amenity Value to compatible amenity developments on unobtrusive sites.
- SAP 2.** Tree planting and felling will be strictly controlled to ensure minimal disturbance of landscape and the environment.

4.5.3 Areas of Visual Amenity

The Planning and Development Act 2000 recognises the importance of landscape and visual amenity and requires the inclusion of a development plan objective for:

“The preservation of the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation of views and prospects and the amenities of places and features of natural beauty or interest.”

Policies for Areas of Visual Amenity

AVP 1. Protect the views from scenic routes listed in Appendix 2, Scenic Routes. Development will be strictly controlled along these routes and no development will be permitted that will detrimentally impact on the visual character or amenity of these views. Particular emphasis will be placed on the preservation of views of lakes, rivers, unspoilt landscape or views of historical, heritage and/or cultural interest.

AVP 2. Protect the scenic quality of lakes by prohibiting development which is located between a public road and a lake, where the development would interrupt a view of the lake, or detrimentally impact on the setting of that lake. Development may be permitted between a road and a lakeshore where the development is screened from the lake by existing topography or vegetation.

An exception to this policy may include short term let holiday accommodation or recreational development where a specific need has been established. The design, scale and setting of development granted under this exception should reflect the site’s sensitive location.

Such prohibition will also apply to high open landscape overlooking lakes and waterways, where such development would detrimentally impact on the setting of that lake or waterway

For the purpose of this policy a lake is considered to be a permanent (i.e. non seasonal) water feature in excess of 1 hectare.

4.6 Biodiversity and Natural Heritage

4.6.1 Convention of Biological Diversity

The Government produced a new National Biodiversity Plan 2010, as part of their commitment under the Convention of Biological Diversity (CBD). The Plan sets out a range of actions for the promotion and delivery of biodiversity conservation at both national and local levels and emphasises the important role of local authorities in promoting and delivering biodiversity conservation through local plans and programmes.

4.6.2 Sites of County Biodiversity Importance

Sites of County Biodiversity Importance have been identified through the Monaghan County Heritage Plan projects and from other surveys. Survey work undertaken on these sites indicates that many are of international or national ecological importance. However, the sites were previously unknown by state agencies and were not assessed for inclusion on SPA, SAC or NHA lists during national surveys. The Council is obliged to consider these sites in accordance with Article 10 of the Habitats Directive and as part of Ireland's obligations under the Convention on Biological Diversity.

4.6.3 Ramsar Convention

At an international level, the Ramsar convention seeks member states to adopt a wise use of wetlands approach. Incorporating wetlands as a consideration into decision making will help to ensure a wetland resource into the future in the county. In addition to contributing to sustainable development, the conservation of wetlands is important for our national commitments under the Biodiversity Convention and the Climate Change Convention.

4.6.4 The Monaghan Biodiversity Action Plan 2009 - 2014

The Biodiversity Action Plan aims to provide a targeted and coordinated approach to biodiversity conservation in the county, coordinated by the Monaghan County Council Heritage Office. It turns the aims and agreements of the 1992 Earth Summit to action at a local level. The Monaghan Biodiversity Action Plan is a continuing process that sets out biodiversity priorities for the county, works to achieve them, monitors success and reassesses the need for action.

4.6.5 Natural Heritage

Monaghan has a rich network of natural heritage sites including rivers, wetlands, woodlands, lakes, and bogs which support a diversity of habitat types. It is important to consider natural heritage as all around us and not confined to a few protected sites. In order to remain healthy, nature needs to be treated sensitively and considered in land use decisions both within and outside identified "nature sites". This is because nature operates within a connected system. Lakes can be connected to each other or to wetlands via groundwater or surface streams. Woodland sites may depend on connections and corridors linked through hedgerows.

4.6.6 Rivers and Lakes

The Erne catchment, comprising the Dromore River, the Finn River and the Bunroe River systems dominate the west of the county. The Blackwater River system is in the north of the county and to the south are the Fane and Glyde river catchments. The Ulster Blackwater and its tributaries, the Monaghan Blackwater and Mountain Water Rivers, contain good stocks of Brown Trout. These rivers also contain native White-clawed Crayfish, an internationally protected species. The Rivers Fane and Glyde contain Brown Trout and Salmon in County Monaghan. The Bragan Mountain lakes, Lough More and Lough Emy contain good numbers of Brown Trout. Salmon is an internationally important and protected species.

The lamprey, a species dating back to our glacial past is also present in many lakes and rivers. This is also an internationally important and protected species. Most lakes and rivers have good stocks of bream, roach, rudd, perch and pike. Eels are present in all waters in the county.

During the course of the 2011 survey of wetlands in County Monaghan, a total of 10 new turloughs were located in the county, most of these in the south around Carrickmacross. These habitats are of international importance. These ephemeral lakes have a close relationship with groundwater and the levels of the lakes fluctuate throughout the year and can disappear entirely during the Summer. As a result, they have very unusual plant communities and are very vulnerable to pollution.

4.6.7 Invasive Species

Invasive species are species that have been introduced, generally by human intervention, outside their natural range and whose establishment and spread can threaten native ecosystem structure, function and delivery of services. Once introduced, control, management and eradication where possible of invasive species can be very difficult and costly; therefore early detection and reactive measures are desirable.

Globally, invasive alien species are considered to be one of the most important direct drivers of biodiversity loss and ecosystem service changes. "Invasive" means that they are vigorous and good at spreading. "Alien" means that they are non-native. At present in Ireland, several of our priority habitats are in 'unfavourable conservation status' due to the presence of a non-native species. Examples of species threatened by invasive alien species include the Red Squirrel and the White Clawed Crayfish (for which Ireland holds Europe's stronghold population).

A black list of unwanted species is set out in the Natural Habitat Regulations, 2011. It is an offence to release or allow to escape, to breed, propagate, import, transport, sell or advertise such species. Transitional provisions will allow a reasonable period for people holding such animals or plants to dispose of them appropriately.

A report on the "Dirty Dozen" Invasive Species in County Monaghan was compiled by the National Biodiversity Data Centre in 2010, based on available information. The report provides information on recorded sightings on the following species: Japanese Knotweed, Himalyan Balsam, Giant Hogweed, Rhododendron, Least Duckweed, Grey Squirrel, *Gammarus pulex*, Zebra mussel, New Zealand Flatworm, Nuttal's Waterweed. Some of these species can have severe impacts on human health such as Giant Hogweed or have devastating impacts on built structures such as Japanese Knotweed. All of these species are included on the black list – the third schedule of the Natural Habitat Regulations, 2011 that lists the non-native species which are subject to restrictions.

Objectives for Biodiversity and Natural Heritage

- BDO 1.** To protect, enhance and promote for current and future generations the rich biodiversity of County Monaghan.
- BDO 2.** To designate County Biodiversity Sites within the lifetime of the Plan and to protect the ecological integrity of these sites.
- BDO 3.** Protect and enhance, plant and animal species and their habitats, which have been identified under the EU Habitats Directive, EU Birds Directive, the Wildlife Act and the Flora Protection Order.
- BDO 4.** Promote the retention, management and development of wildlife features such as hedgerows, riparian corridors, wetlands and other semi natural features that are essential for the migration, dispersal and genetic exchange of wild species. In exceptional circumstances, where it has been demonstrated to the satisfaction of the Planning Authority that the removal of habitats of local biodiversity value cannot be avoided, equal quantities of habitat must be reinstated. Details of which must be agreed with the planning authority.
- BDO 5.** Ensure that development proposals do not lead to the spread of invasive species. Ensure that landscaping proposals do not include invasive species.
- BDO 6.** Implement the actions of the Monaghan Biodiversity Action Plan 2009-2014 and any subsequent version.
- BDO 7.** Ensure that the Council, in the performance of its functions, takes account of the Ramsar Conventions' principle of conservation and wise use of wetlands as a contribution towards achieving sustainable development.

Trees and Hedgerows

4.7 Trees and Hedgerows

Trees and hedgerows contribute significantly to biodiversity and landscape character in County Monaghan. They can add to a development's setting and in helping the development to blend in with its surroundings. The National Native Woodland Survey (2003 - 2008), surveyed 43 woodlands in the county and determined that only 1.72 % of County Monaghan has native woodland cover.

Hedgerows are a valuable multi-functional resource in our countryside, benefiting agriculture, wildlife, the environment, tourism and the general community. The total length of hedgerow in County Monaghan is estimated at 12,845 km.

The identification of trees to be protected by Tree Preservation Orders will be based on the criteria set out in *Tree Preservation, Guidelines for Planning Authorities* (DEHLG 1994).

Objective for the Protection of Trees and Hedgerows

- THO 1.** Seek to increase existing coverage, in conjunction with new development and encourage the establishment of native species.
- THO 2.** Employ where appropriate, Tree Preservation Orders to protect important trees, groups of trees or woodlands of special amenity value.

Policies for Protection of Trees and Hedgerows

- THP 1.** Protect trees and hedgerows from development that would impact adversely upon them. Development proposals which necessitate the removal of extensive amounts of trees and hedgerows should be avoided and transplanting of existing trees and hedgerows should be employed where appropriate.
- THP 2.** Preserve trees and/or groups of trees that form significant features in the landscape or have particular importance in setting the landscape character of an area or which contribute to the biodiversity of the area (Appendix 3, Trees of Special Amenity Value)
- THP 3.** Ensure that existing mature trees, woodlands and hedgerows are, as far as practicable, preserved and incorporated into any new developments or where removal is unavoidable compensatory planting of at least equal amounts of native trees and shrubs should be undertaken
- THP 4.** Where trees and/or hedgerows along a public road are set back/removed in order to provide sightlines for a new access, a new hedge containing native species will be planted behind sight lines.

Habitat Designation and Protection

4.8 Habitat Designation and Protection

The most important and valuable habitats are afforded protection under European and National legislation by way of designation as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs) / proposed Natural Heritage Areas (NHAs).

The designation of these sites at national level is the responsibility of the Department of Arts, Heritage and the Gaeltacht. The Planning Authority also has a clear responsibility to secure their protection for the future. The process of site designation is ongoing, with new sites being added and/or upgraded, in terms of their conservation status, and the boundaries of existing sites being adjusted, as better information becomes available.

4.8.1 Special Areas of Conservation (SAC)

SACs are areas of European Importance for habitats, plants and animals, other than birds. These are designated under the EU Habitats Directive 1992. These sites are selected according to a specific set of criteria relating to habitats and species that are particularly important, rare or vulnerable in Europe. Kilroosky Lough Cluster, located north of Clones, is the only designated SAC in County Monaghan. This water body system extends into Northern Ireland where it is known as Magheraveely Marl Loughs.

Legislation requires that appropriate steps are taken to avoid the deterioration of natural habitats and species as well as the disturbance of species for which the areas have been designated. All development in these areas, including development which is considered exempted development, requires planning permission.

4.8.2 Special Protection Areas (SPA)

SPAs are sites of European importance for the protection of bird populations. They are designated under the 1979 European Birds Directive. Sliabh Beagh, in the north of the county, is the only designated SPA in County Monaghan. This habitat extends into Northern Ireland where it is known as Sliabh Beagh SAC. The same protections afforded to SACs apply to SPAs.

4.8.3 Sliabh Beagh Conservation Management Plan

Eshbrack Bog on Sliabh Beagh (Bragan) is designated a NHA because of its blanket bog. Sliabh Beagh also has SPA status, recognising its importance for birds particularly for its population of hen harriers. Greenland white-fronted geese use Sliabh Beagh as a wintering ground, and red grouse, a native game, is found on the bog. Other species associated with the area include curlew, snipe and golden plover. The area is used extensively by walkers, ramblers and wildlife enthusiasts.

The Conservation Management Plan for Sliabh Beagh, 2011, was commissioned by Truagh Development Association and Sliabh Beagh Environmental Management Committee. The Plan aims to provide information to support the sustainable environmental management and promotion of the Sliabh Beagh Uplands and maintain and enhance the biodiversity and nature conservation values of the area for the benefit

of present and future generations. The report contains detailed information on the habitats present, management issues and recommendations on how to enhance nature conservation values of the site. The plan puts forward three main objectives:

1. To promote and undertake conservation management that benefits the nationally and internationally important habitats and species of Sliabh Beagh.
2. To encourage community and economic development that is compatible with safeguarding those features that make the area important.
3. To promote greater awareness, understanding and enjoyment of the wildlife, landscape and historical and cultural values of the Sliabh Beagh area.

Policy for Sliabh Beagh Conservation Management

SBP 1. To implement the objectives of the Sliabh Beagh Conservation Management Plan.

4.8.4 Natural Heritage Areas / Proposed Natural Heritage Areas (NHAs / pNHAs)

In 1996, the Department of Arts, Culture and Heritage designated forty one sites in County Monaghan for inclusion in the Register of Natural Heritage Sites. In order to protect these areas, the DECLG has designated the areas contained in Appendix 4 as Proposed Natural Heritage Areas with the object of conserving natural and semi-natural habitats and species of flora and fauna. In 2005 Eshbrack Bog in the north of the county was designated as a NHA. It is important that the conservation of these assets is maintained.

Development will only be permitted in these areas where the integrity of these sensitive areas is not threatened. All development in these areas, including development that is considered exempted development, requires planning permission.

A full list of SACs, SPAs and NHAs / proposed NHAs is contained in Appendix 4 and can be viewed on Map 4.7.

Policies for the Protection of Designated Sites

- DSP 1.** Strictly protect areas designated or proposed to be designated as Natura 2000 sites (listed in Appendix 4). Development within or adjacent to these areas will only be permitted where it has been clearly demonstrated to the satisfaction of the planning authority that such development will have no significant adverse effects on the conservation objectives of these sites in accordance with the Habitats Directive.
- DSP 2.** Protect the NHA and pNHAs, listed in Appendix 4 by resisting development which would detrimentally impact on the conservation status of those sites. Development in these areas will only be permitted where it has been clearly demonstrated to the satisfaction of the Planning Authority that any such development will have no significant adverse effects.

4.8.5 Wetlands

County Monaghan contains a wide range of wetlands and their associated species, of high international and national importance. Due to the varying topography, hydrology, climate and soils present Monaghan has wetland habitats ranging from degraded cutover raised bogs, blanket bogs, fens, marshes, large riverine systems, an abundance of and variety of lakes, springs, wet woodlands and many more. Monaghan contains some of the finest examples of transition mire fens and mesotrophic inter drumlin lakes that occur in Ireland.

The total area of wetland habitat that has been mapped in county Monaghan is currently 7,319 ha, which represents 5.8 % of the entire county (this should be interpreted as a minimum area as wetland habitats within many sites were not mapped due to lack of baseline data).

Wetland functions include water filtration, flood buffering and habitat for wildlife. Wetlands therefore provide significant economic benefits, for example: water supplies; fisheries; agriculture, through the maintenance of water tables and nutrient retention in floodplains; timber and agricultural production; energy resources, such as peat and plant matter; wildlife resources; transport; and recreation and tourism opportunities. Peatlands are known to store 20-30% of the worlds' soil carbon, exceeding by three times the amounts stored in tropical rainforests.

In a recent report by the Biodiversity Unit of the Department of the Environment, Heritage and Local Government (DEHLG 2008) the biodiversity value of wetlands in Ireland was estimated to be worth €385 million per year to the Irish economy. The recent report "*Wetland Ecosystem Economics: evaluating the benefits derived from Monaghan's wetlands*" undertaken for Monaghan County Council estimated the economic value of just six case study wetlands in the county, covering a variety of wetland types. The report estimated that over a 50 year period, the value of the wetlands ranged from €10,000 for the smallest site to €2.9 million for the largest of the six sites.

Unfortunately, to date, society has generally only realised the benefit of wetland services after they have disappeared or been seriously degraded. Problems with flooding, lost recreational opportunities, reduced fish populations and more costly water treatment are examples of costs understood only after a wetland ecosystem has been degraded or destroyed. Putting an economic value on some of these wetland benefits, before ecosystem-altering decisions are made serves to highlight their economic importance. Details of wetlands within County Monaghan along with areas of natural vegetation and wet soils are detailed on Draft Development Plan Map 4.5.

Objective for Wetlands

WLO 1. To protect existing wetlands from destruction, infilling, fragmentation and degradation.

Policy for Wetlands

WLP 1. Development that would destroy, fragment and degrade wetlands will be resisted.

4.8.6 Natura 2000 sites

Together, SPAs and SACs make up a European network of sites known as the Natura 2000 network. They are protected in Irish legislation through the European Communities (Natural Habitats) Regulations 1997 and 2011. These regulations lay out rigorous tests that are designed to ensure that SACs and SPAs are not negatively impacted on by any proposals. The Council is obliged to exercise its functions, including consent functions in compliance with the requirements of the Birds and Habitats Directives and with the 2011 Regulations.

4.8.7 Appropriate Assessment or Article 6 Assessment

Part 5 of the 2011 Regulations provides for “appropriate assessment” of a plan or project for which an application of consent is received, and is not directly connected to or necessary for the management of the Natura 2000 site. Applicants for planning permission may therefore be required to prepare and provide a Natura Impact Statement within a specified time period to the local authority. Planning applications for sites outside a designated site may still require the submission of a Natura Impact Statement.

In accordance with Article 6(3) of the Directive, the planning authority will only grant planning permission in cases where it is clearly demonstrated that a proposed development, either individually or in combination with other plans or projects, will not adversely affect the ecological integrity of a Natura 2000 site or sites. Following a finding of adverse affects, planning permission may only be granted in exceptional cases, in the absence of any alternatives, for imperative reasons of over-riding public interest (IROPI) subject to the requirements of the Habitats Directive.

4.8.8 Requirement for Appropriate Assessment (AA)

Appropriate Assessment is a requirement of the EU Habitats Directive (92/43/EEC) – the Conservation of Natural Habitats and Wild Flora and Fauna - as transposed into Irish law through the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997). Appropriate Assessment follows the standard series of stages as laid out in the EU Guidance. These are:

- Stage 1: Screening;
- Stage 2: Appropriate Assessment;
- Stage 3: Assessment of alternative solutions;
- Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain.

An Appropriate Assessment is required under the Habitats Directive 92/43/EEC if a plan or project is not directly connected with or necessary to the management of a Natura 2000 site, but is likely to have a significant effect either individually or in combination with other plans or projects on a site.

The Monaghan County Development Plan is strategic in nature and fundamental to the proper development of the county. In order for Natura 2000 sites to be fully protected it is critical that the delivery of the settlement and economic strategies takes place in tandem with the provision of appropriate services such as water treatment. The lack of appropriate service may impact negatively on Natura 2000 sites, especially those that are ground water or surface water dependant either within the county or within the zone of influence of the County Development Plan area.

In addition to plans and projects that have been considered within the Appropriate Assessment process for the County Development Plan to date, new plans and projects are likely to come to light over the lifetime of the County Development Plan. It will be necessary for these to be fully considered in light of Article 6 of the Habitats Directive 92/43/EEC.

The proponents of the plan or project will be required to make available the required information for an Appropriate Assessment Screening to be carried out or to have a Natura Impact Statement/Report prepared for submission to the relevant competent authority as directed by the competent authority. Those preparing Natura Impact Statements/Reports must have sufficient expertise and experience in relation to the ecological or other (e.g. hydrological) issues concerned and disclose an appropriate regard for the latest and most appropriate scientific methodology and assessment procedures. Those compiling information for Appropriate Assessment Screening and those preparing Natura Impact Statements/Reports should consult the Guidance issued by the Department of the Environment Heritage and Local Government (Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, 2009) and relevant EPA and EU Guidance documents.

The Habitats Directive promotes a hierarchy of avoidance/protection, mitigation and compensatory measures and this method should be adopted in the development of all individual plans and projects and at each stage in the development process. The principal objective should be to firstly avoid any potential impacts on a Natura 2000 site by identifying possible impacts early in the plan/project making, and designing the plan/project in order to avoid such impacts. Where this is not possible appropriate mitigation measures should be applied, during the appropriate assessment process to ensure that there are no adverse impacts on the sites. If the proposal is still likely to result in adverse effects, and no further practicable mitigation is possible, it is then rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect. It should be noted that imperative reasons of overriding public interest will be determined by the European Commission and is subject to stringent criteria.

Objective for Appropriate Assessment

AAO 1. Ensure that the Council in the performance of its functions takes account of the Habitats and Birds Directives.

Policies for Appropriate Assessment

- AAP 1.** Ensure that all plans and projects in the County, not directly connect with or necessary to the management of a Natura 2000 site, but likely to have a significant effect, either directly or indirectly, on a Natura 2000 site, either alone or in combination with other plans or projects, are subject to Appropriate Assessment Screening in accordance with Article 6 of the Habitats Directive.
- AAP 2.** The Planning Authority shall have regard to the DEHLG guidance Appropriate Assessment of Plans and Projects in Ireland (2009) and any subsequent versions, when assessing plans and projects likely to have significant effects on a Natura 2000 site.
- AAP 3.** All planning applications for development within, adjacent to, or with the potential to affect a Natura 2000 site must be accompanied with a Natura Impact Statement in accordance with the Habitats Directive. Natura Impact Statements submitted in support of proposals for development must be carried out by appropriately qualified professionals with any necessary survey work taking place in appropriate seasons.
- AAP 4.** Consult the National Parks and Wildlife Service (NPWS), the Department of the Arts, Heritage and the Gaeltacht (DAHG), the Heritage Council and An Taisce when considering plans or projects which are likely to affect Natura 2000 sites.
- AAP 5.** All plans within, adjacent to, or with the potential to affect a Natura 2000 site must be accompanied with a Natura Impact Report in accordance with the Habitats Directive.

Water Resources and Quality

4.9 Water Resources and Quality

The increase in population, development pressures and intensification of agriculture over recent decades has led to increased risk of environmental pollution, particularly of our natural water systems. We depend on our water resources for drinking water, as a raw material for agriculture and industry and as an important element for amenity and recreation. The quality of water is also important for fisheries, tourism, wildlife conservation and habitat protection.

Apart from its practical uses, water is an integral part of our natural and cultural heritage. There is a wealth of aquatic habitats such as bogs, wetlands, lakes, rivers and streams in County Monaghan. An often undervalued aspect of our water resources are wetlands which provide buffering against flood waters and natural purification by entrapment of sediments and nutrients. Restoration of degraded waters can be a complex and slow process. As the demand on water increases, so too does the need to protect the quality and quantity of our water resources for public health, economic development and ecological protection.

4.9.1 Recent Developments in Water Management

The implementation of the EU Water Framework Directive required a major review of water status and the development of River Basin Management Plans. In 2010 Monaghan County Council adopted the Neagh Bann and the North Western International River Basin Management Plans (2009 – 2015). These plans identify the status of waters, the pressures on water and the measures required to protect and restore waters. In order to achieve the objectives and ambitious targets set out in the River Basin Management Plans, incorporation of the plans into the spatial planning process is needed to ensure sustainable development.

4.9.2 Surface Water Quality

Degradation of water quality largely occurred between the mid 70's and the late 90's and today a significant number of water bodies' in County Monaghan are now assigned a status of "less than good". Pressures on water quality include urban waste waters, agriculture, unsewered properties (commercial and domestic), landfills and extractive industry, hard surface runoff, siltation and morphological changes (drainage etc). While Monaghan's surface water quality is poor by national standards, factors such as the drumlin topography, soil types and hydrology, contribute to water quality problems. Eutrophication of waters (i.e. excess enrichment by phosphorus) is widespread and while some promising improvements in river phosphate levels are evident, lake recovery from eutrophication will take a considerable time. Excess soil phosphorus may also contribute to eutrophication and nutrient balancing. Nutrient management planning is a key tool in addressing this issue. Despite the improvements in some of the general conditions of river water quality the biology of river and stream habitats remains impacted. Restoration of degraded river catchments is a complex process. Refer to Water Maps on www.wfdireland.ie for water body status information and Draft Development Plan Map 4.1.

4.9.3 Groundwater Protection

An unseen element of water is groundwater, moving beneath us, feeding surface waters and wells. Currently about 30% of the county's public water supply comes from groundwater with new supply sources located at Monaghan, Carrickmacross and Clones towns. Groundwater quality in County Monaghan is generally good, but there are some local contamination problems. The risk of contamination is higher where shallow, free draining soils exist and in areas of karstified limestone as found in the Carrickmacross area. Groundwater requires protection under the River Basin Management Plans. The Geological Survey of Ireland in collaboration with the Council has drawn up the *Groundwater Protection Scheme for County Monaghan. Guidance on the Authorisation of Discharges to Groundwater* was developed by the EPA in 2011 and any development proposing to discharge wastewaters to soil or directly or indirectly to groundwater will need to take account of this guidance. (available on at www.epa.ie and Draft Development Plan Maps 4.2, 4.3 and 4.4. Other useful references include www.gsi/mapping.htm)

4.9.4 Achieving Water Quality Targets

Implementation of the River Basin Management Plans will require setting priorities, with a higher priority being given to drinking water sources, protected areas under the Birds and Habitats Directive, existing high and good water quality sites and those water bodies with a protect or improve target by 2015. In addition the "no deterioration" objective of the management plans-applies to all water bodies.

All planning applications shall be accompanied by a completed Water Protection Plan Checklist (Refer to Appendix 13) and site drainage plan, to help identify aspects of the development which are likely to pose a risk to water. While guidance on water protection is available from a number of sources, developers will also need to seek professional advice and assistance in the preparation of plans and in assessing measures to deal with waste waters.

4.9.5 Development Management and Water Quality

Development management can play a significant role in the prevention of further deterioration of water status and in the protection of existing high and good quality waters. Water protection measures are best incorporated into site selection and site design plans. Therefore developers should adequately assess environmental risks, take account of site limitations and prepare a water protection plan. Site selection should take account of sensitive areas and sensitive water bodies. Water protection plans should aim to prevent contamination of storm water, minimise soiled and waste waters, install proper containment for material storage, install appropriate treatment and disposal arrangement for soiled and waste waters and take account of legal requirements for discharges to ground and surface waters. Soft engineering solutions such as SUDS (sustainable urban drainage systems) should be integrated into drainage system designs to enhance water quality protection. Developments in the vicinity of waterbodies should include appropriate river riparian corridors and in-stream works should be avoided. Where necessary, in stream works should be carried out under the guidance of Inland Fisheries Ireland.

Developments generating trade effluents (waste waters) or discharging domestic type waste water in unsewered areas may be subject to the discharge licensing system under the Local Government (Water Pollution) Acts 1977 and 1990. Such developments need to address requirements of the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009) and the European Communities Environmental Objectives (Groundwater Regulations, 2010 (S.I. No 9 of 2010) for the entire site. Incorporation of water conservation measures into developments would contribute to minimisation of waste water generation.

4.9.6 Developments in un-sewered areas

Water quality monitoring has indicated some decline in the quality of waters in the vicinity of un-sewered settlements where clusters of developments occur. Cumulative effects of septic tanks or other waste water treatment systems in, for example, areas of extreme groundwater vulnerability need careful consideration. In such cases the “no deterioration” objective of the Water Framework Directive should apply.

4.9.7 Intensive agriculture and land spreading of manures and sludge

County Monaghan is noted for its intensive agricultural activities and it benefits significantly from its successful poultry and mushroom industries. However, the intensive nature of these sectors also presents challenges for disease minimisation and environmental protection. Substantial quantities of broiler litter, layer manure, spent mushroom compost and other intensive agricultural manures are dependent on off site disposal to compost manufacture, tillage and potato growing areas. Grasslands counties such as Monaghan have limited spreading opportunities; have many sensitive water bodies, substantial areas of wet soils and soils with high runoff risk. In addition, the demand for nitrogen and phosphorus in many grassland farming situations can largely be met by on-farm bovine manures.

The sustainable development of this industry depends on quality waste management systems that take account of nutrient balances, sensitive water bodies, topography and soil conditions. Engagement between the farming sector, Department of Agriculture, Food and the Marine, poultry and mushroom industry, the EPA, the local authority, environmental consultants and waste contractors is essential to ensure protection of the environment and optimum use of this organic fertiliser. Applicants for planning or IPPC Licensing should refer to sensitive area maps attached to this Chapter and should consult with the local authority in relation to disposal arrangements for pig and poultry manure as well as spent mushroom compost.

4.9.8 Amenity Lakes

A number of lakes in County Monaghan are currently used for paddling, bathing, water safety training and water sports. The key amenity lake areas are:

- Emy Lough, Emyvale
- Hollywood Lake, Scotstown
- Dromore River at Cootehill (also known as Haltons River)
- Lough Muckno, Castleblayney
- Creevy Lake, Carrickmacross
- Greaghlonge Lake, Shercock Area

Development management measures will take account of protection and improvement of bathing and amenity lakes and rivers. Such waters are sensitive to pollution in general and particularly to microbial pollution. Many waste water treatment technologies do not currently remove microbial contaminants and the impact of new or expanding developments need to take account of public health issues relating to bathing areas and drinking water sources. Land spreading of manures is another source of microbial contaminants and land spreading arrangements should take account of additional measures to protect known bathing areas.

4.9.9 Preparation of Water Protection Plans

Developers should prepare detailed site drainage plans, refer to the Water Protection Plan Checklist in Appendix 13, maps of sensitive areas and appropriate regulations prior to submission of a planning application. Where a development is located in a sensitive area, additional risks to waters should be comprehensively addressed. The cumulative effects of developments in sensitive areas should also be addressed.

Maps of sensitive areas and waters and a Water Protection Checklist will assist in the preparation of plans at application stage.

Objectives for Protection of Water

- WPO 1.** Protect and improve County Monaghan's water resources
- WPO 2.** All first order streams containing areas of stony/gravel bed and higher order streams are considered vulnerable and require protection in terms of water quality and physical structure. Such streams shall be identified and or the connectivity to such streams shall be identified in the water protection plan referred to in Policy WPP 5. All discharges to such streams should be assessed with a view to minimisation of risk to waters.
- WPO 3.** Provide information on environmental issues, promote engagement between developers and regulators, promote sustainable development and encourage a high standard of environmental protection. The precautionary principle will be applied where a significant risk to the environment exists.
- WPO 4.** Protect rivers, streams and other water courses and maintain them in a state capable of providing and sustaining suitable habitats for flora and fauna, and where necessary designate riparian zone protection areas.
- WPO 5.** Achieve 'good status' in waterbodies and prevent deterioration of existing water quality status in all waterbodies in accordance with the Water Framework Directive.

Policies for Protection of Water

- WPP 1.** In assessing applications for developments the Council will consider the impact on the quality of surface waters and will have regard to targets and measures set out in the Neagh Bann and North Western International River Basin Management Plans and where appropriate the Blackwater, Glyde, Fane, Woodland and Erne East Water Management Unit Action Plans.
- WPP 2.** In assessing applications for development, the planning authority shall ensure compliance with the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009) and the European Communities Environmental Objectives (Groundwater Regulations, 2010 (S.I. No. 9 of 2010)
- WPP 3.** Protect known and potential groundwater reserves in the county. In assessing applications for developments the Planning Authority will consider the impact on the quality of water reserves and will have regard to the recommended approach in the Groundwater Protection Scheme for County Monaghan. The employment of the methodology identified in the *Groundwater Protection Scheme for County Monaghan* available at (www.gsi.ie) and *Guidance on the Authorisation of Discharges to Groundwater* (available at www.epa.ie) will be required where appropriate.
- WPP 4.** Require best practice in the design, construction and operation of expanding and new developments to ensure minimum effects on the aquatic environment. Sustainable Urban Drainage Systems, designed to ensure both water quality protection and flood minimisation should be included in developments for commercial, industrial, intensive agricultural, public and institutional premises with significant roof or hard surface areas and multiple residential developments.
- WPP 5.** Require submission of a water protection plan (Appendix 13) and detailed site drainage plans with all planning applications. Maps of sensitive areas and waters and a Water Protection Plan Checklist will assist in the preparation of plans at application stage.
- WPP 6.** Prevent further degradation of habitat by the promotion of riparian corridors and the prevention of any in stream works, culverting of waterways unless in accordance with Inland Fisheries Ireland (IFI) guidelines. The IFI should be consulted prior to the submission of any plans involving works close to waterways.
- WPP 7.** No development shall be permitted within 200 metres of any lake that is the source of a water supply, where that development has the potential to pollute the lake.
- WPP 8.** Ensure that industrial or intensive agricultural developments generating manure, organic fertilisers or sludge, that are dependent on the off-site recovery or disposal take account of sensitive area mapping including lands with impaired drainage/percolation properties and lands where rock outcrop and extreme vulnerability of groundwater is present. In consideration of the use of imported manure or sludge in sensitive areas, restrictions will apply in relation to water supply source catchments.

Policies for Protection of Water

- WPP 9.** Details of land spreading arrangements of manures or sludge arising from industrial or intensive agricultural development shall be submitted to the planning authority with all planning applications.
- WPP 10.** Development within the vicinity of groundwater or surface water dependant Natura 2000 sites (Kilroosky Lough Cluster SAC) will not be permitted where there is potential for a likely significant impact upon the groundwater or surface water supply to the Natura 2000 site. Where appropriate, the applicant will be requested to demonstrate with hydrogeological evidence, that the proposed development will not adversely affect the quality or quantity of groundwater or surface water supply to the Natura 2000 sites.
- WPP 11.** Development which would have an unacceptable impact on the water environment, including surface water and groundwater quality and quantity, river corridors and associated wetlands will not be permitted.
- WPP 12.** Floodplains and riparian corridors will be maintained free from development to provide flood retention features within these areas.

Sensitive Surface Waters (Refer to Map 4.1)

Map ID No.	Name	Scheme/User
1	Lough More	Truagh GWS
2	Emy Lough	Glaslough/Tyholland GWS
3	Lough Antraicer	Tydavnet GWS
4	Kilcorran Lough	Aughnashelvy
5	Greagh Lough	Monaghan PWS
6	Corcaghan Lough	Monaghan PWS
7	Corconnelly Lough	Clones PWS
8	Skerrick Reservoir	Clones PWS
9	Carnroe Reservoir	Clones PWS
10	Feagh Lough	Newbliss PWS
11	Annaghmakerig Lough	Drumgole GWS
12	White Lough	Stranooden GWS
13	Crinkhill / Toome Lough	Doomhamlet GWS
14	Milltown Lough/Muckno	Churchill/Oram GWS
15	Lough Nagarnaman	Donaghmoyne GWS
16	Lough Namachree	Corduff GWS
17	Lough Bawn System	LERWS PWS
18	Baraghy Lough	Baraghy GWS
19	Killynenagh Lough	Bunroe GWS
20	Greaghlone Lough and	Magheraclone GWS
21	Spring Lough	Carrickmacross PWS
22	Monalty Lough	Killaney GWS
23	Fane River	Inniskeen WSS
24	Ross Lough	Newry PWS
25	Lakeland Dairies Lake	
26	Abbott Ireland River	
27	Hollywood Lake	Amenity and Bathing Area
28	Dromore (Haltons) River	Amenity and Bathing Area
29	Avaghon Lough	Amenity and Bathing Area
30	Lough Muckno	Amenity and Water Sports Area
31	Creeve Lake	Amenity and Bathing Area

Private Abstraction Points (Refer to Map 4.1)

Map ID Number	Name
25	Lakeland Dairies Lake Abstraction
26	Abbott Ireland River Abstraction

Sensitive Groundwaters (Refer to Map 4.2)

Map ID Number	Name/Townland	Scheme/User
1	Bragan	Bragan Water
2	Well at Packie McCaffrey's	Tydavnet GWS
3	Well at Eamon McKenna's	Tydavnet GWS
4	Forge	Tydavnet GWS
5	Well at Jimmy McElwaine's	Tydavnet GWS
6	Well at Eddie McKenna's	Tydavnet GWS
7	Well at Vinny McCaffery's	Tydavnet GWS
8	Well at Freddy Carban's	Tydavnet GWS
9	Well at Pat Woods	Tydavnet GWS
10	Cappog/ Terrytole	Monaghan PWS
11	Drumbenagh	Monaghan PWS
12	Crosses	Monaghan PWS
13	Lambes Lake/Telaydan	Monaghan PWS
14	Ballyalbaney/Telaydan	Monaghan PWS
15	Kilnadreen	Monaghan PWS
16	The Wood/Kilnadreen	Monaghan PWS
17	Silverstream/Cavanreagh	Monaghan PWS
18	Corhollan	Grove Turkeys
19	Templetate	Smithboro PWS
20	Largy	Feldhues
21	Teehill	A.I.B.P.
22	Coolnacarte	Clones/Scotshouse PWS
23	Cavanreagh	Clones/Scotshouse PWS
24	Killyvaghon	Eugene Hillis
25	Tullybuck	Clontibret PWS
26	Corcreagh	Celtic Pure Water
27	Monaney	Carrickmacross PWS
28	Nafferty	Carrickmacross PWS
29	Nafferty	Rye Valley Foods
30	Spring Lake	Carrickmacross PWS
31	Roosky	Monaghan PWS
32	Donaghmoynes	Carrickmacross PWS

Landfills (Refer to Map 4.2)

Map ID	Location	Operator
A	Killyneil	Monaghan Co.Council (Closed)
B	Killycronaghan	Monaghan Co.Council (Closed)
C	Derryarrilly	Monaghan Co.Council (Closed)
D	Letterbane	Monaghan Co.Council (Active)
E	Corkeeran	Monaghan Co.Council (Closed)
F	Killycard	Castleblayney Town (Closed)
G	Corrybrannan	Ballybay Tanners (Closed)
H	Annahia	McNallys (Closed)
I	Tiragarvan	Carrickmacross Town (Closed)
J	Castleshane	McNallys (Closed)

Note: Refer to Co Monaghan Groundwater Protection Scheme or Vulnerability Mapping and Groundwater Response Matrix

Green Infrastructure

4.10 Green Infrastructure

Planning for a sustainable landscape where economic, environmental and social considerations balance, requires a multifunctional system of planning to help accommodate different needs and maintain a high-quality environment which benefits all. The Green Infrastructure planning approach builds a network of interconnected areas of land and water.

This network includes natural and semi-natural features in the landscape including wetlands, woodlands, farmland, parklands, rivers, lakes and other open spaces. An interconnected network helps ensure that our natural systems function properly and provide us with many benefits including clean air, clean water, flood protection, health benefits, food, and the provision of tourism and recreation areas.

A healthy environment sustains a range of industries and services including agriculture, forestry, fishing, water management and tourism thereby creating economic and social opportunities and providing an attractive environment in which to live and work.

The Green Infrastructure planning approach provides an integrated mechanism to deliver international and national legislation, policy and plans at a range of scales from national to local. The National Spatial Strategy recognises the contribution of Ireland's environment to national identity and to the green image of the country. The NSS calls for a Green Structure to be put in place to prevent urban sprawl, to reduce the loss of agricultural and other land to urban uses, to protect rural identity, to create a green setting for cities and towns, to conserve and enhance biodiversity and to protect buildings, structures and other physical elements of the cultural heritage.

4.10.1 Developing a Green Infrastructure Strategy

The focus of the Green Infrastructure Strategy is to identify, connect and protect green infrastructure resources and their associated functions and values to humans. The process is initiated through the development of map-based strategies that identify existing resources and indicate where new green infrastructure can be provided in the future. Map-based strategies generally use Geographic Information Systems (GIS) to collate existing information on sites, map features and analyse information. This map-based approach can be readily understood and is easily communicated to a wide audience. Planning green infrastructure requires good partnership and stakeholder engagement. Active support and understanding of the Green Infrastructure Strategy with partners and stakeholders that are involved in social activities, biodiversity and heritage actions and other activities will be important in implementing the green infrastructure process.

Green Infrastructure is planned at all geographic scales. Local-scale projects may focus on urban areas and integrate smaller features such as small woodlands, estates, streams and hedgerows. They may emphasise particular themes including social inclusion, community initiatives such as tidy towns, educational and health benefits. In this way green infrastructure strategies can reflect local priorities and help link communities to the surrounding landscapes.

At the landscape-scale green infrastructure can incorporate rivers catchment management and upland protection. Strategies have the potential to facilitate trans-boundary and international linkages (between counties and jurisdictions). Many of the elements that make up County Monaghan's green infrastructure are cross-border, such as rivers, canals, peatlands and wetlands and require a co-ordinated management

approach. In this respect, green infrastructure planning also can facilitate the protection of Natura 2000 sites and help fulfil the requirements under Article 6 of the Habitats Directive by ensuring that plans and projects do not significantly impacts on the integrity of a Natura 2000 sites.

An integrated map of the Green Infrastructure resources, identifying important connections and core areas, from which a strategic plan can be formulated and achieved will include the following information:

Biodiversity

- Core Biodiversity Conservation Areas:
Natura 2000 sites (SAC and SPA), NHA and pNHAs, Ramsar sites, Wetlands sites (identified according to the Monaghan Wetland Survey), Annex I habitats outside designated sites, habitats of protected or rare flora.
- River corridors along major rivers
- Ulster Canal Corridor
- Disused railway corridors

Parks, Open Space and Recreation

- Land zoned open space and/or in use as public open space

Sustainable Water Management

- Watercourses including rivers and streams
- Ground water buffer zones
- Significant lakes (WFD amenity lakes and lake water supply sources)
- Nutrient sensitive areas
- Public water supply source
- River water supply source

Archaeological and Architectural Heritage

- Historic graveyards
- Parks and demesnes
- Sites and monuments on the Record of Monuments and Places
- Structure on the Record of Protected Structures
- Architectural Conservation Areas

Landscape

- Area of Primary Amenity Value
- Area of Secondary Amenity Value
- County Geological Sites

Objectives for Green Infrastructure

- GIO 1.** Develop a Green Infrastructure Strategy within County Monaghan during the life-time of the Development Plan, ensuring the protection of County Monaghan's Natura 2000 sites are central to this strategy. This Strategy shall be prepared in full compliance with the requirements of SEA and Habitats Directives.
- GIO 2.** Seek a net gain in green infrastructure through the protection and enhancement of existing assets, through the provision of new green infrastructure where appropriate, and in consultation with stakeholders, as an integral part of the planning process.
- GIO 3.** Provide attractive and safe routes linking key green space sites, parks and open spaces, cultural and heritage assets as an integral part of infrastructure provision where feasible and appropriate.

Policy for Green Infrastructure

- GIP 1.** Resist development that would damage, degrade, fragment or prejudice the County's strategic green infrastructure network.

Architectural and Built Heritage

4.11 Architectural and Built Heritage

Architectural and built heritage includes all structures, buildings and groups of buildings including streetscapes and urban vistas which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest together with their setting, attendant grounds, fixtures, fittings and contents.

In recent years it is acknowledged that there has been a general shift both at European, national and local level towards a more active approach towards ensuring the future of historic buildings. The Council of Europe Convention for the Protection of Architectural Heritage states “that for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member state will undertake to maintain inventories of that architectural heritage”.

The National Inventory of Architectural Heritage (NIAH) was established in 1990 and brought under the remit of the DEHLG in 1999 and came under the remit of the Department of Arts, Heritage and the Gaeltacht in 2011.

The following objectives will apply to the conservation and protection of all heritage features in County Monaghan:

Objectives for Architectural and Built Heritage

- ABO 1.** To secure the preservation of all sites and features of architectural and historical interest.
- ABO 2.** To retain the historic cores of towns and villages including existing street layout, historic building lines and traditional plot widths within towns and villages.
- ABO 3.** To promote the sympathetic reuse and adaption of structures having architectural heritage merit.
- ABO 4.** To protect historic demesnes and designed landscapes within the county from degradation and fragmentation.
- ABO 5.** Seek the retention and appropriate use of vernacular heritage in Monaghan by resisting the replacement of good quality vernacular buildings with modern structures, and protecting vernacular buildings where they contribute to the character of an area or town, or where they are rare examples of a building type.

Policies for Architectural and Built Heritage

- ABP 1.** All projects involving architectural and built heritage shall be considered under policies AAP1-AAP4 contained within Chapter 4, Environment and Heritage, of the Monaghan County Development Plan 2013-2019.
- ABP 2.** In securing the conservation and preservation of built heritage, the Planning Authority will have regard to the advice and recommendations of the Department of the Arts, Heritage and the Gaeltacht, both in respect of whether or not to grant planning permission and in respect of the conditions to which permission, if granted, should be subject.

4.11.1 Record of Protected Structures (RPS)

The principle mechanism for the statutory protection of the architectural heritage is through inclusion of buildings on the Record of Protected Structures Appendix 5. This provides positive recognition of structures of importance, gives a very high level of protection and gives potential access to the *Conservation Grants Scheme* on foot of the provisions of Part IV of the Planning and Development Act 2000. The RPS may be amended by the addition or deletion of entries independently of the development plan review process. The identification of buildings and structures for inclusion on the Record will be based on the criteria set out in the *Architectural Heritage Protection Guidelines for Planning Authorities*.

The NIAH Monaghan County Survey shall be completed at the end of 2012. It is anticipated that new structures will be added to the RPS during the lifetime of this plan reflecting the new survey work undertaken by the NIAH.

For a protected structure or a proposed protected structure, normal planning exemptions do not apply. An owner or occupier of a protected structure may make a written request to the Planning Authority to issue a Declaration under Section 57 of the Planning and Development Act 2000 as to the types of works, which it considers would or would not materially affect the character of the structure or any element of the structure that contributes to its special interest.

Applications for planning permission to carry out works to a protected structure will require the submission of drawings, photographs and surveys of the existing building, together with details of the proposed changes and a method statement for the works including details of the materials to be used. The Planning Authority may request an Architectural Impact Assessment and Statement, or a Conservation Plan for the building to satisfy itself that the proposed works are acceptable.

There are currently 646 Protected Structures on the five Registers of Protected Structures in County Monaghan including the four Town Council areas of Monaghan, Carrickmacross, Castleblayney and Clones (Table 4.1). The continued conservation of these buildings and their settings is of considerable importance in retaining the quality of the built environment.

A full list of protected structures and monuments in the county are laid out in Appendices 5, 6, MN 1, CK1, CY1 and C1 of this plan.

Table 4.1. Record of Protected Structures – Monaghan Planning Authorities

Area	Privately Owned	Publicly Owned	Total
Monaghan County Council	291	34	324
Carrickmacross Town Council	74	1	75
Monaghan Town Council	132	19	151
Castleblayney Town Council	42	9	51
Clones Town Council	43	2	45
Total	582	65	646

Objectives for the Protection of Protected Structures

- PSO 1.** Protect and/or conserve, as appropriate, all structures included in the Record of Protected Structures set out in Appendix 5.
- PSO 2.** Review the Record of Protected Structures on an ongoing basis with a view to adding structures of special interest as appropriate, including the recommendations made by the National Inventory of Architectural Heritage County survey.
- PSO 3.** Promote and improve the understanding of the architectural heritage of County Monaghan by encouraging public access to the Record of Protected Structures, and providing signage / information for the most significant structures and Architectural Conservation Areas.
- PSO 4.** Encourage the sympathetic and appropriate reuse, rehabilitation and retention of Protected Structures ensuring that they are conserved to a high standard, and the special interest, character and setting of the structures are preserved.

Policies for the Protection of Protected Structures

- PSP 1.** Planning permission for the demolition of any protected structure shall not be granted except in exceptional circumstances, in accordance with Section 57(10)(b) of the Planning and Development Act 2000.
- PSP 2.** Ensure that any development, modification, alteration or extension affecting a Protected Structure, its setting and/or any complex of adjoining buildings is sensitively designed and sited, is compatible with its character, and is appropriate in terms of the proposed scale, mass, height, density, layout, materials, impact on architectural or historic features, and its junction with the existing Protected Structure.
- PSP 3.** Prevent loss of architectural heritage, by requiring an owner of a protected structure to carry out works if The Planning Authority considers that the structure is, or may become, endangered.
- PSP 4.** Resist development which is likely to adversely affect the setting of, designed landscape features of, or designed views or vistas to or from a protected structure, where the setting is considered of importance.

4.11.2 Protection of the Built Industrial Heritage

In order to protect the built Industrial Heritage of the county, the following objectives will be implemented:

Objectives for the Protection of Built Industrial Heritage

- IHO 1.** The Council aims to conserve the built fabric of the Ulster Canal, Great Northern Railway, historic mills and other industrial heritage structures throughout the county, and planning permission will be required for their removal or alteration.
- IHO 2.** The Council will ensure conservation of the built fabric of the Ulster Canal, Great Northern Railway, historic mills and other industrial heritage structures by use of appropriate techniques and materials when repair works are being undertaken.

4.11.3 Architectural Conservation Areas (ACA)

An Architecture Conservation Area is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a protected structure. An Architectural Conservation Area may or may not include Protected Structures.

The main consequence of an ACA designation is the control of inappropriate development for the purpose of preserving and enhancing the character of the area concerned. Planning Permission must be obtained before significant works can be carried out to the exterior of a structure in an ACA, which might alter the character of the structure, or the ACA.

There are a number of ACAs in the towns of Monaghan, Carrickmacross and Clones, and these can be viewed in Appendices MN 2, CK 2 and C2 respectively. It is also proposed to designate additional ACAs in the towns of Castleblayney and Ballybay and the villages of Glaslough, Inniskeen and Rockcorry during the life of this plan.

Objectives for the Protection of Architectural Conservation Areas

- CAO 1.** Preserve and where possible enhance the character and appearance of Architectural Conservation Areas.
- CAO 2.** Protect the built heritage fabric of the county within the main urban areas and the larger rural centres through designation of appropriate Architectural Conservation Areas. It is proposed to designate Architectural Conservation Areas in the villages of Glaslough, Inniskeen, Rockcorry and Mullan during the life of this Plan
- CAO 3.** To designate and prepare Architectural Conservation Areas in accordance with the requirements of the Department of the Environment, Heritage and Local Governments, Architectural Heritage Protection Guidelines for Planning Authorities and any subsequent version.
- CAO 4.** Establish, where appropriate, Special Planning Controls for Architectural Conservation Areas if it is considered that all or part of an Architectural Conservation Area is of significant importance to the character of the town in which it is situated.

Policies for the Protection of Architectural Conservation Areas

- CAP 1.** Resist development that would adversely affect the character and appearance of Architectural Conservation Areas.

Archaeological Heritage

4.12 Archaeological Heritage

Archaeology can be considered as the material remains left by past societies and the evidence of their environment. This resource consists of material remains in the form of sites and monuments, artefacts and environmental evidence. Archaeological remains are fragile and vulnerable to destruction. They are a finite resource and once lost, cannot be replaced. Great weight should consequently be attached to the protection, preservation and where appropriate, the enhancement of sites of archaeological interest and their settings

Monaghan County's rich archaeological heritage includes a collection of ring forts, cairns, crannogs, burial grounds, headstones, as well as industrial archaeology including mills, the dismantled Great Northern Railway and the Ulster Canal.

4.12.1 Record of Monuments and Places (RMP)

The RMP is a statutory inventory of known archaeological sites and areas with accompanying maps, on which sites and monuments are marked and numbered. The RMP also includes Areas of Archaeological Potential (AAPs), also known as Zones of Archaeological Potential (ZAPs), which indicate areas of extensive archaeological remains over a given area. The RMP and AAPs are identified by the DAHG.

Monaghan County is richly endowed with sites and monuments of archaeological importance with the strongest concentration in the south and west of the county. These sites are an important non-renewable component of Monaghan's heritage, culture and landscape and range from substantial monuments to fragile traces of human activity and settlement.

Sites of archaeological importance occur in two forms:

1. Visible structures such as earthworks, stone monuments etc. and
2. Subterranean features such as house foundations, burials and buried earthen or stone features.

Statutory protection is conferred on archaeological sites and is included in the RMP for County Monaghan Appendix 6. This Record includes sites that have previously been identified but many more remain to be recorded and may only be discovered by chance. Although only a percentage of the archaeological heritage will ever be discovered, the ultimate aim is to maximise the information that is available and to protect and conserve the heritage for future generations. This heritage is not only a valuable resource for the local population but can also form a valuable sustainable tourism resource.

In the past the main threat to archaeological sites was from land clearance and agricultural activity but in recent years large scale developments such as quarrying, road construction, industrial development and afforestation have posed a new threat to rural archaeology. It is therefore vitally important that the archaeological heritage be protected.

4.12.2 Historic Landscape Character

Archaeology also relates to the landscape and three historic landscape character plans have been undertaken by the Council for the towns of Clones, Ballybay and Castleblayney. These studies describe the development of these settlements over time, identify significant historic character areas and propose management strategies to make the most of the towns' historic assets.

Objective for the Protection of Archaeological Heritage

- AHO 1.** Protect the monuments and places listed in Appendix 6 (and any additions by the National Monuments Service) to ensure that the importance of the setting of the monument or site, and its interrelationship with other archaeological sites is not materially injured, and that no development will impinge directly on any monument or site or on any associated archaeological material.
- AHO 2.** Co-operate with the Department of Arts, Heritage and the Gaeltacht and all other relevant bodies in providing maximum protection to any monument or place of archaeological importance not listed in Appendix 6 and discovered within the lifetime of this plan.
- AHO 3.** Encourage the sensitive incorporation of significant archaeological finds into development schemes, where appropriate.

Policies for the Protection of Archaeological Heritage

- AHP 1.** Safeguard the value of archaeological sites listed in the Record of Monuments and Places in Appendix 6 by strictly controlling any development that may prove injurious to the historical, archaeological, scientific, setting and/or educational value of any monument or place.
- AHP 2.** To ensure that development in the vicinity of a site of archaeological interest shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk, detailing or visual impact.
- AHP 3.** When considering development in the vicinity of archaeological monuments, the planning authority will aim to achieve a satisfactory buffer area between the development and the monument in order to ensure the preservation and enhancement of the amenity associated with the monument. This should be achieved in consultation with the Department of the Arts, Heritage and Gaeltacht. Buffer areas should not be included within the required open space area of any development but should be in addition to such requirements.

Policies for the Protection of Archaeological Heritage

- AHP 4.** In securing the conservation and preservation of built heritage, the Planning Authority will have regard to the advice and recommendations of the Department of the Arts, Heritage and the Gaeltacht, both in respect of whether or not to grant planning permission and in respect of the conditions to which the development, if granted, should be subject.
- AHP 5.** When considering development in the vicinity of all archaeological monuments, the Planning Authority will require the preparation and submission on an of an archaeological assessment, detailing the potential impact of any development on both upstanding and buried structures and deposits. The report shall also include a visual assessment to ensure adequate consideration of any potential visual impact.
- AHP 6.** Require archaeological investigations at pre-approval stage where development is proposed on areas of archaeological potential.
- AHP 7.** Consider archaeological value when considering proposals for public service schemes, electricity, sewage, telecommunications, water supply and proposed road schemes where these impinge on or are in close proximity to Recorded Monuments and Places and/or Areas of Urban Archaeology.
- AHP 8.** Have regard to Historic Landscape Character Assessments in assessing planning applications.

Noise

4.13 Noise

In Irish law, noise is dealt with under the EPA Act, 1992 and the Noise Regulations 1994. Most large-scale activities that result in high noise levels are subject to an Integrated Pollution Prevention Control (IPPC) licence from the EPA.

Policy for Noise Control

NCP 1. The Planning Authority will seek to protect the amenity of individuals, dwellings, businesses, community facilities and other existing development, when assessing proposals for development that are likely to generate significant levels of noise.

4.14 Air

Monaghan County at present is fortunate in enjoying a high quality environment with limited air pollution. However, emissions caused by increased traffic, the burning of fossil fuels for heating and the operation of businesses is likely to have a detrimental impact on our environment.

Objectives for Air Quality

- AQO 1.** Encourage a more energy efficient approach to the design and servicing of buildings for residential, commercial, industrial and other uses, including public buildings.
- AQO 2.** Promote the retention of trees, hedgerows and other vegetation, and encourage forestation and tree planting as a means of air purification and filtering.
- AQO 3.** Support the expansion and development of public transport systems and non motorised modes of transport to improve air quality.
- AQO 4.** To facilitate measures which seek to reduce emissions of greenhouse gases for example through the integration of land use and transportation.

Policies for Air Quality

- AQP 1.** In conjunction with the EPA, ensure that all existing and proposed developments are operated in a manner that does not permit them to contribute to any deterioration in air quality.
- AQP 2.** The Planning Authority shall seek to protect the amenity of individuals, dwellings, businesses, community facilities and other existing development, together with the safety of road users, when assessing proposals that have the potential to create light pollution / nuisance.