

KELLS DEVELOPMENT PLAN 2013 - 2019

Volume 2
SEA Environmental Report &
Natura Impact Report

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comhairle chontae na mí
meath county council

Kells Development Plan 2013 - 2019

SEA Environmental Report



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Non-Technical Summary

NTS1: Introduction

This is a non-technical summary of the Environmental Report that has been prepared as part of the Strategic Environmental Assessment of the Kells Development Plan 2013 - 2019. The document has been prepared in accordance with national and EU legislation. It draws attention to the most important issues and provides information on other significant topics. Any topic which causes concern can be followed in greater detail in the main Environmental Report.

The relevant planning legislation comprises the Planning and Development Act 2000-2010 and the Planning and Development Regulations 2001-2007. The main planning documents reviewed as part of the assessment were:

- The National Spatial Strategy 2002-2020.
- The Regional Planning Guidelines for the Greater Dublin Area 2010-2022
- Meath County Development Plan 2013 – 2019.

Cognisance was also given to a wide range of legislation, plans and programmes at international, national, regional and local level for relevance to the plan.

NTS2: Kells Development Plan 2013-2019

The Kells Development Plan provides the main public statement of planning policies and objectives for Kells town and environs for the 2013 – 2019 period. The policies and objectives are critical in determining appropriate locations and forms of different types of development for the town and environs. The plan is also used by Kells Town Council and Meath County Council to guide priorities for investment during the lifetime of the plan.

NTS3: SEA Methodology

The objective of the Strategic Environmental Assessment (SEA) Directive is *‘to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development’*

(Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The SEA methodology is based on legislative requirements and DoEHLG/EPA guidance and will ensure compliance with the SEA Directive and associated legislation. The EPA’s SEA Pack (Version 11/10/2011) was also used as a source of information during the scoping process.

NTS4: Current State of the Environment

The assessment of the plan with respect to the current Environmental Baseline is the principal task of the SEA process. Consequently, this baseline description must be cognisant of the local level nature of the plan and the pressures and interrelationships between environmental topics.

The Environmental Baseline provides an overview of the existing conditions in the Kells Town and Environs area relevant to the plan and covers the following environmental topics:

- Biodiversity including Flora and Fauna.
- Population and Human Health.
- Soils and Geology.
- Water Resources.
- Air, Noise and Climate.
- Archaeological, Architectural and Cultural Heritage.
- Landscape and Visual.
- Material Assets.

Kells is located in the north-west corner of County Meath. It was established in the ninth century AD by Columbian Monks fleeing Viking raids on their island monastery of Iona. A number of buildings and monuments survive from this period and the influence of the monastic settlement is reflected in the town today.

Kells town lies off the M3 motorway, 16 km from Navan and 65 km from Dublin. From the mid-1990's to 2002, the town and environs experienced extensive growth with many Dublin commuters moving to the area.

In the EPA's 2020 Vision document it is noted that pressures on the Irish environment have increased significantly in recent years as a result of a decade of rapid and unprecedented economic growth. Unfortunately, these pressures have accelerated at a rate that far exceeds that observed in other EU countries.

NTS5: SEA Objectives, Targets and Indicators

The SEA is designed to assess the potential environmental impact of the Development Plan and its associated policies and objectives against the environmental baselines established.

The plan policies and objectives are assessed against a range of established environmental objectives and targets.

Indicators that are recommended in the SEA are utilised over the lifetime of the Development Plan to quantify the level of impact that the policies and objectives have on the environment. This enables us to measure whether they were successful in promoting the sustainable development of the County.

NTS6: Assessment of Likely Significant Effects

The environmental impacts of the Development Plan policies and objectives were assessed with respect to the existing environmental baseline and the environmental objectives.

As the policies included in the Development Plan have been designed to promote sustainability and to protect the environment, the majority of recommendations have positive impacts when assessed against the environmental objectives. A matrix was prepared to highlight these potential impacts.

NTS7: Consideration of Alternatives

Alternative development scenarios were considered in the development of the Development Plan. These options primarily related to rezoning of lands for residential development, employment opportunities and retail use. The zoning of lands identified as being at risk of flooding was also reviewed.

NTS8: Mitigation Measures

This Environmental Report has not highlighted any significant potential negative environmental impacts that will arise from the implementation of the Kells Development Plan. However, a number of mitigation measures have been identified to ensure no negative impacts occur.

NTS9: SEA Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the Development Plan.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration. No significant impacts have been identified as part of the SEA process. Consequently it has been determined that no additional monitoring is required.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Meath County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

1 Introduction

Meath County Council and Kells Town Council, as the competent authorities, prepared the Kells Development Plan for the period 2013 – 2019.

Arup was appointed by Meath County Council to carry out a Strategic Environmental Assessment (SEA) of the Kells Development Plan 2013 - 2019.

This Environmental Report presents the findings of the environmental assessment of the likely significant impacts on the environment as a result of the Development Plan. A Scoping Report was previously prepared which provided information to allow consultation with defined statutory bodies on the scope and level of detail to be considered in the environmental assessment. Any issues or concerns raised during the scoping process or during the consultation period for the Development Plan and the SEA Environmental Report (which run concurrently) was incorporated into this report. This report accompanies the SEA Statement.

1.1 Planning Context

The relevant planning legislation comprises the Planning and Development Act 2000-2012 and the Planning and Development Regulations 2001-2013.

The Kells Development Plan sits within a hierarchy of national, regional and local plans. These include the National Spatial Strategy 2002-2020, Regional Planning Guidelines for the Greater Dublin Area 2010-2022, the Meath County Development Plan 2013-2019 and other local area plans.

The National Spatial Strategy sets the national context for spatial planning from 2002-2020. The overall aim of this strategy is to achieve a better balance of social, economic and physical development. The National Spatial Strategy deals with development at regional and local level in broad terms. The Planning and Development Act 2000-2012 requires that this strategy is integrated with both regional planning guidelines and county and city development plans.

The Regional Planning Guidelines are the main means by which to implement the National Spatial Strategy, as detailed in Section 21 of the Planning and Development Act 2000-2012. The Regional Planning Guidelines give effect to the National Spatial Strategy at regional level and provide more detailed guidance and policy. They must be consistent with the overall context of the National Spatial Strategy. The overall objective of the guidelines is to provide a long-term strategic planning framework for the development of the region.

Development Plans must have regard to national and regional strategies and guidelines to both inform and structure land use policies. Development Plans provide the key policy context for individual planning decisions within the development plan area. In addition, the Guidelines for Planning Authorities outlines that good development plans will also inform policies at regional and national level.

The hierarchy of the planning process within Ireland is summarised in the flow chart depicted in **Figure 1**.

This flow chart (adapted from the Department of Environment, Heritage and Local Government (DoEHLG) Development Plan Guidelines for Planning Authorities) indicates where the Kells Development Plan falls within that hierarchy.

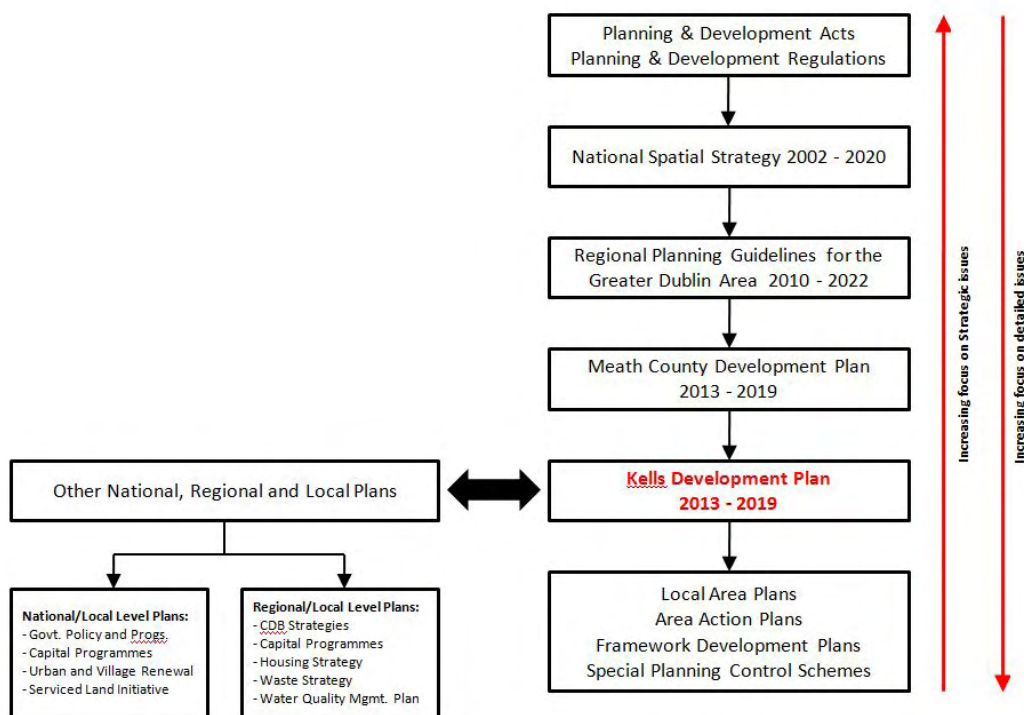


Figure 1: Hierarchy of the Planning Process within Ireland

1.2 Interaction with other relevant Plans and Programmes

As part of the SEA process the context of the Kells Development Plan must be established with regard to other plans and programmes that have been adopted at International, National, Regional and Local level. In particular the interaction of the Development Plan with the environmental protection objectives and standards included within these other plans and programmes must be considered.

A wide range of legislation, plans and programmes are of relevance to the Kells Development Plan and are outlined in **Table 1**.

Table 1: Hierarchy of Relevant Legislation, Plans and Programmes

Level	Legislation, Plans and Programmes
International/ EU Level	Water Framework Directive & associated Directives SEA Directive Floods Directive Groundwater Directive Habitats Directive Birds Directive Freshwater Fish Directive

Level	Legislation, Plans and Programmes
	<p>Shell fish Directive</p> <p>Drinking Water Directive</p> <p>Bathing Water Directive</p> <p>Environmental Impact Assessment Directive</p> <p>Seveso Directive</p> <p>Sewage Sludge Directive</p> <p>Urban Waste Water Treatment Directive</p> <p>Waste Framework Directive</p> <p>Nitrates Directive</p> <p>Soils Directive</p> <p>Air Quality Directives including Framework Directive</p> <p>National Emissions Ceiling Directive</p> <p>Environmental Noise Directive</p> <p>Climate Change Programme (ECCP II)</p> <p>IPPC Directive</p> <p>EU Reach Initiative</p> <p>European Landscape Convention</p> <p>UN Convention of Biological Diversity, 1992</p> <p>Stockholm Convention</p> <p>Valetta Convention</p> <p>Ramsar Convention</p> <p>OSPAR Convention</p> <p>Granada Convention</p> <p>Gothenburg Strategy</p>
National Level	<p>Our Sustainable Future, A Framework for Sustainable Development for Ireland, 2012</p> <p>Programme for Government 2011</p> <p>National Development Plan 2007-2013</p> <p>Infrastructure and Capital Investment 2012-16: Medium Term Exchequer Framework</p> <p>National Climate Change Strategy 2007-2012</p> <p>Delivering a Sustainable Energy Future for Ireland - The Energy Policy Framework 2007-2020</p> <p>National Spatial Strategy 2002-2020</p> <p>Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities (2007)</p> <p>Quality Housing for Sustainable Communities. Best Practice Guidelines for Delivering Homes Sustaining Communities (2007)</p> <p>The Planning System and Flood Risk Management. Guidelines for Planning Authorities (2009)</p> <p>Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009)</p> <p>Guidelines for Planning Authorities – Retail Planning (2012)</p> <p>Guidelines for Planning Authorities – Development Plans (2007)</p> <p>Guidelines for Planning Authorities – Spatial Planning and National Roads (2012)</p> <p>Sustainable Development – A Strategy for Ireland (1997)</p>

Level	Legislation, Plans and Programmes
	<p>Making Ireland's Development Sustainable (2002)</p> <p>Actions for Biodiversity 2011-2016 (2nd National Biodiversity Plan)</p> <p>Appropriate Assessment of Plans and Projects in Ireland. Guidelines for Planning Authorities (2009)</p> <p>Architectural Heritage Protection-Guidelines for Planning Authorities (2004)</p> <p>Government Policy on Architecture 2009-2015</p> <p>National Policy on Town Defences (2008)</p> <p>Implementation of Regional Planning Guidelines Best Practice Guidance (2010)</p>
Regional Level	<p>Regional Planning Guidelines for the Greater Dublin Area 2010-2022</p> <p>Regional Waste Management Plans</p> <p>Retail Strategy for the Greater Dublin Area 2008-2016</p> <p>Draft Transport Strategy for the Greater Dublin Area up to 2030</p> <p>Eastern River Basin District: River Basin Management Plan 2009 – 2015</p> <p>Flood Risk Management Plans</p> <p>Groundwater Protection Schemes</p>
Local Level	<p>Meath County Development Plan 2013-2019</p> <p>Meath Local Authorities Climate Change Strategy and Energy Management Action Plan 2011-2012</p> <p>Le Chéile – An Integrated Strategy for Meath to 2012</p> <p>County Meath Heritage Plan 2007-2011</p> <p>County Meath Biodiversity Action Plan 2008-2012</p> <p>Backlands Local Area Plan (2005)</p> <p>KS 2 and KS 6 Framework Plans</p>

2 Kells Development Plan 2013-2019

The Kells Development Plan provides the main public statement of planning policies and objectives for the town. The policies and objectives are critical in determining the appropriate location and form of different types of development as the development plan is the primary statutory land use policy framework against which planning applications are assessed.

The objectives of the development plan are also used by Kells Town Council and Meath County Council to guide their activities and to indicate priority areas for action and investment by the Councils such as focusing on attracting employment into the town or enhancing the town as a centre for tourism.

The Kells Development Plan is a key document for setting out a vision for how Kells should develop over the years 2013-2019.

2.1 Policies of the Development Plan

Current planning legislation outlines the mandatory objectives which a plan must address and which range from land use zoning and provision of services and infrastructure to integration of social, community and cultural requirements, sustainable development and protection of the environment amongst others.

In addition to these mandatory objectives, the Kells Development Plan for 2013 – 2019 includes a Core Strategy. The purpose of the Core Strategy is to set out a medium to longer term quantitatively based strategy for the development of the plan area and to demonstrate that the Development Plan and its objectives are consistent with the National Spatial Strategy and Regional Planning Guidelines for the Greater Dublin Area. The Core Strategy for Kells is guided by the Core Strategy contained in the Meath County Development Plan 2013-2019 which sets out the overall population projection for the county and the extent of population growth to be accommodated in the towns, villages and rural area of Meath.

3 SEA Methodology

3.1 Introduction

The objective of the Strategic Environmental Assessment (SEA) Directive is *‘to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development’* (Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The requirements for SEA in Ireland are set out in the national legislation as follows:

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

This section highlights how the SEA has been undertaken, for the Kells Development Plan 2013-2019. The SEA methodology is based on legislative requirements and DoEHLG¹/EPA² guidance and will ensure compliance with the SEA Directive and associated legislation. The EPA’s SEA Pack (Version 11/10/2011)³ was also used as a source of information during the scoping process. The key stages outlined in **Figure 2** were identified and are discussed in the following sections.

¹ Department of the Environment, Heritage and Local Government (2004). Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment. Guidelines for Regional Authorities and Planning Authorities.

² Scott, P & Marsden, P (2003). Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland (2001-DS-EEP-2/5) Synthesis Report Prepared for the Environmental Protection Agency by ERM Environmental Resources Management Ireland Limited

³ Environmental Protection Agency (2010). Strategic Environmental Assessment SEA Pack (version 11/10/2011).

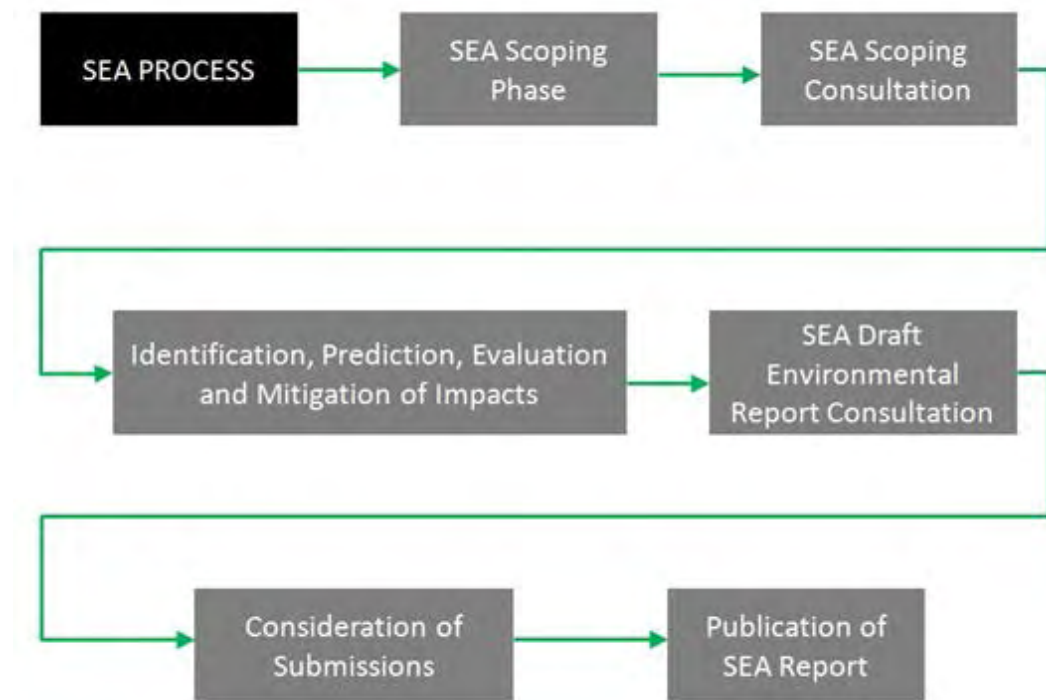


Figure 2: Key Stages of the SEA Process

3.2 Screening

Screening is the process for deciding whether a particular plan would warrant SEA. The SEA Regulations outlined above require the following:

- A mandatory SEA for Development Plans if the population or target population is 10,000 persons or more.
- Screening to establish the need for SEA for Development Plans where the population or target population is less than 10,000 persons, to determine whether the new plan would be likely to give rise to significant environmental effects.

An SEA screening assessment was undertaken as part of this SEA process to determine if the Kells Development Plan required an SEA. It determined that a mandatory SEA was not required given that the population is 5,888 persons and the target population was unlikely to exceed 10,000 persons in the lifetime of the Plan.

However, the screening process determined that a number of the proposed policies which were being considered for the new development plan had the potential to cause significant environmental effects including policies related to water supply, wastewater treatment capacity, provision of access to SAC/SPA lands and rezoning or de-zoning of land, amongst others. Consequently, it was recommended that a full SEA be carried out for the plan.

3.3 Scoping

The scoping phase of the SEA is a key part of the assessment process as it establishes the range of environmental issues to be covered and the level of detail the assessment will investigate. The Scoping Process allows input from the environmental authorities and relevant stakeholders to be incorporated. Essentially any issues/comments submitted as part of the scoping process will provide greater focus on the development of aspects of the Development Plan.

The issues addressed during the scoping process are as follows:

- The key elements of the Development Plan to be assessed.
- The key environmental issues to be assessed.
- Research of relevant international, national and local plans, objectives and environmental standards that may influence or impact on the Development Plan.
- Development of draft environmental objectives, indicators and targets to allow the evaluation of impacts.
- Identification of reasonable alternative means of achieving the strategic goals of the Development Plan.

A scoping report was prepared as part of this SEA which asked key questions of statutory consultees and key stakeholders. The responses received were addressed in the preparation of the Environmental Report. An outline of the responses received is included in the SEA Statement.

3.4 Baseline Data Gathering

Gathering relevant information relating to the state of the environment for a plan area is an integral part of the SEA process. The SEA Directive requires that certain information relating to the relevant environmental baseline is presented in order to help test the performance of the plans implementation, as well as helping establish how the environment would change if the plan were not to implemented.

Baseline information has been collected from readily available sources, and a Geographical Information System (GIS) was used to graphically present relevant information. The baseline information is reported in Section 4 of this report.

3.5 Environmental Assessment of the Development Plan

The Environmental Assessment process ran in parallel to the development of the Kells Development Plan. The following stages were included in the timeframe:

1. Preparation of the draft Kells Development Plan.
2. Preparation of the Draft SEA Environmental Report, Draft Strategic Flood Risk Assessment (SFRA) and Draft Appropriate Assessment.
3. Drafts of all documents finalised for Public Display.
4. Public Consultation on Draft Development Plan, SEA Environmental Report, Draft SFRA and Draft AA.

5. Processing of feedback from public consultation process.
6. Finalisation of the Kells Development Plan.
7. Finalisation of the SEA Environmental Report, SFRA and AA.
8. Publication of all documentation.

The environmental assessment process was undertaken in accordance with best practice SEA principles and guidance. This included desk reviews of all of the available GIS data, specialist investigation into the likely impacts associated with the Development Plan and recommendations for suitable mitigatory measures along with monitoring.

3.6 Consultations

This SEA Environmental Report was issued to the relevant statutory stakeholders for comment. The responses received were addressed in the finalisation of the Environmental Report. An outline of the responses received is included in the SEA Statement.

Discussion and meetings with representatives of Meath County Council also took place throughout the SEA process.

3.7 Consideration of Alternatives

The SEA Directive requires that reasonable alternatives be assessed in order to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the Environmental Report.

Section 7 of this Environmental Report discusses the consideration of alternatives.

3.8 Technical Difficulties Encountered

No major difficulties were encountered during the preparation of this Environmental Report.

Note all figures referenced from this point onwards are included in **Appendix A**.

Kells is located in the north-west corner of County Meath. It was established in the ninth century AD by Columban Monks fleeing Viking raids on their island monastery of Iona. A number of buildings and monuments survive from this period including the Round Tower built before 1076, the Cross of Patrick and Columba, the Market Cross and St Columba's House. The influence of the monastic settlement is reflected in the town today as the northern and eastern extent of the monastic enclosure was defined by the current street alignment of Fair Green, Carrick Street, Castle Street and Cross Street.

Until the opening of the new M3 motorway in June 2010, Kells was a renowned traffic bottleneck with both the N3 national primary route and the N52 national secondary route passing through the town centre. In addition to reducing the journey time to Dublin, the motorway has significantly reduced the numbers of vehicles passing through the town. This now provides an opportunity to develop the town as a vibrant and prosperous settlement.

According to the EPA's State of the Environment Report⁴, Ireland's environment remains in a good condition, although there are a number of key challenges in the coming years. The report identified four priority challenges for the environment, which comprise; valuing and protecting our natural environment; building a resource-efficient low-carbon economy; putting the environment at the centre of our decision making and implementing environmental legislation.

In the EPA's 2020 Vision document⁵ it is noted that pressures on the Irish environment increased significantly as a result of a decade of rapid and unprecedented economic growth. Unfortunately, these pressures have accelerated at a rate that far exceeds that observed in other EU countries.

In ‘2020 Vision’ the EPA promotes six environmental goals which consider the principal environmental challenges facing our nation. These goals, which are highly relevant to the sustainable development of Kells and environs, have a bearing on the assessment of the Development Plan:

- Limiting and adapting to climate change.
- Clean air.
- Protected waters.
- Protected soils and biodiversity.

⁵ Environmental Protection Agency, 2000. 2020 Vision – Protecting and Improving Ireland’s Environment. EPA, Wexford, Ireland.

- Sustainable use of natural resources.
- Integration and enforcement.

These goals are identified as a means of realising the vision of protecting and improving Ireland's environment.

4.2 Purpose of the Environmental Baseline

The assessment of the Development Plan with respect to the current environmental baseline is the principal task of this SEA process. Consequently, the baseline description must be cognisant of the local level nature of the plan and the pressures and interrelationships between environmental topics.

The environmental baseline provides an overview of the existing conditions in the Kells area relevant to the Development Plan and covers the following environmental topics:

- Biodiversity including Flora and Fauna.
- Population and Human Health.
- Soils and Geology.
- Water Resources.
- Air, Noise and Climate.
- Archaeological, Architectural and Cultural Heritage.
- Landscape and Visual.
- Material Assets.

In accordance with the SEA Directive, the inter-relationship between the SEA environmental topics must be taken into account. Of particular note is the interrelationship between water (quality and quantity) and biodiversity, flora and fauna, soils, human health and population. Flora and fauna is dependent on the hydrological environment (surface water and groundwater) as a habitat. Water quality is also of particular importance with regard to human health as it provides a source of drinking water and it influences agriculture and mariculture. Water is also used for leisure and recreational purposes, providing a material asset both for local populations and as an integral component of the tourism economy.

4.3 Biodiversity including Flora and Fauna

Biodiversity or biological diversity refers to the variety of all living things on earth - including people, plants, animals, fungi and micro-organisms. The term biodiversity, however, refers to more than individual species and includes the genes they contain, the habitats and ecosystems of which they form part, and also highlights the interdependence and interconnectedness of all living things.

A Biodiversity Action Plan was adopted by Meath County Council in 2010 for the 2008 – 2012 period. The purpose of this document was to provide a framework for the conservation of biodiversity and natural heritage at a local level by translating policies (national and international) and legislation into action on the ground.

4.3.1 Habitats

The natural heritage of Meath includes a variety of habitats. The Biodiversity Action Plan provides an overview of the habitats of County Meath. A summary of those relevant to Kells is provided in **Table 2**.

Table 2: Summary of Habitats in County Meath

Habitat	Description
Woodland	Woodland is considered to have a high nature conservation value with specialist species adapted to low light, relatively low humidity levels. Woodlands also contain a rich food supply for fauna living there. This habitat has a high amenity value.
Hedgerows	Hedgerows provide refuge for many woodland species of plants and animals. As linear features, hedges provide corridors for wildlife to move across the landscape. They also help to mitigate against flooding, and shelter stock and crops.
Rivers	The River Blackwater runs to the north and east of the town of Kells. Rivers are invaluable for wildlife and are also used as resources for tourism, recreation and education.
Grasslands and Cultivated land	Intensively managed improved grassland, semi natural grassland, arable crops, horticultural land and tilled land.
Urban	A wide range of plants and animals can be found in public green spaces, town parks, old stone walls, hedgerows, graveyards, bridges, rivers, canals, gardens and waste ground.

4.3.2 Species

Meath is home to several rare, protected and/or threatened plants and animals.

Protected species found in the vicinity of Kells include those that are legally protected under Irish wildlife legislation (e.g. badgers, bats, hares etc.). Other protected species are those listed on the Birds Directive (Kingfisher) and Annex II of the Habitats Directive (e.g. otters, Atlantic salmon etc.)

4.3.3 Designated Sites

There are three designated sites which are considered to be of relevance to the plan namely the River Blackwater Special Area of Conservation (SAC), River Blackwater Special Protection Area (SPA), Lough Bane SAC, respectively. Each of these sites are described in the following sections and depicted in **Figure 5**.

The SAC and SPA designations can be defined as follows:

- A Special Area of Conservation is a site designated under the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). The Directive obliges member states to designate SACs to protect and conserve habitats and species of importance in a European Union context. The Directive also lists priority habitats and species which must be conserved. Irish habitats include raised bogs, blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets.

Species which must be afforded protection include Salmon, Otter, Freshwater Pearl Mussel, Bottlenose Dolphin and Killarney Fern. The Habitats Directive has been transposed into Irish law by Ministerial Regulation. The European Communities (Natural Habitats) Regulations, 1997 set out how these sites are to be protected and managed. All SAC sites are afforded full legal protection.

- A Special Protection Area is an area of European importance, designated under the Birds Directive (79/409/EEC) by reason of the bird species and populations that they support. Under the Birds Directive, each EU Member State is required to designate SPAs for natural areas that support populations of particular bird species that are rare or threatened in Europe and that require particular measures, including the designation of protected areas to conserve them.

4.3.3.1 River Blackwater SAC & SPA

The River Blackwater which circles the north and east of the town of Kells flowing in a north-east direction is a salmonid river and is designated (along with the River Boyne) for nature conservation as both a Special Area of Conservation (cSAC) (Site Ref. 002299) and Special Protection Area (SPA) (Site Ref. 004232).

The River site was designated as a cSAC for its alkaline fen and alluvial woodlands, both habitats listed on Annex I of the E.U. Habitats Directive. The site is also designated because of the presence of species listed on Annex II of the same directive namely, Atlantic Salmon, Otter and River Lamprey. There is also a wide diversity of other plant and animal life present at the site including a number of species which are listed in the Irish Red Data Book namely, Pine Marten, Badger, Common Frog and Irish Hare. All of these animals with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act.

The Blackwater River site was designated as an SPA as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive. Other species which live within the site include Mute Swan, Teal, Mallard, Cormorant, Grey Heron, Moorhen, Snipe and Sand Martin.

4.3.3.2 Lough Bane SAC

Lough Bane which is located on the Meath/Westmeath border approximately 20 km southwest of Kells is part of the Lough Bane and Lough Glass cSAC (Site Ref. 002120). The existing water supply to Kells is supplied primarily by surface water abstraction from this lake.

The site was designated for its status as a good example of a hard water marl lake with well-developed stonewort (*Chara* spp.) communities which is an important habitat listed on Annex I of the E.U. Habitats Directive.

4.3.3.3 Other sites of interest

Although not a designated site, Headfort Demesne, which is located along the eastern Kells town boundary, is of local natural heritage interest. It contains sections of forest and woodland which are considered to have a high nature conservation value.

4.3.4 Trees, Woodlands and Hedgerows

4.3.4.1 Trees

The Tree Council of Ireland maintains a list of *champion trees* in Ireland i.e. the Tree Register of Ireland. These trees are among the largest of their species in terms of height, circumference or age. County Meath has many champion trees most of which are found in demesne gardens or parklands and were planted by the improving landlords of the 18th century. Some species found in Meath are rare in Ireland, thus adding to their interest. Champion trees can also have added historical or cultural significance that may or may not be associated with their striking size or shape.

According to the Tree Register, there is a large native sessile oak in Headfort, Kells which measures 27 m in height and over 5.0 m girth. Other notable natives include the pair of pedunculate oaks in Rockfield House, Kells which measure 28 and 31 m in height respectively with girths of approximately 2.0 m. A selection of some of the largest champion trees in the database in the vicinity of Kells are outlined in **Table 3**.

Table 3: Selection of Champion Trees in Kells, Co. Meath

Species	Location	Height (m)	Girth (m)
Pedunculate oak	Rockfield House	28	1.99
Pedunculate oak	Rockfield House	31	2.10
Sessile Oak	Headfort, Kells	27	5.0
Yew	Headfort, Kells	23	3.02
Yew	Headfort, Kells	19	3.93
Grand Fir	Headfort, Kells	38	4.74
Sweet chestnut	Garden Rath, Kells	21	7.96

4.3.4.2 Woodlands

There are four woodland types that occur in Ireland (as classified by the National Survey of Native Woodlands (NSNW)⁶) that are listed on Annex I of the Habitats Directive:

- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles (91A0).
- Bog woodland (91D0) (*priority habitat type).
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (91E0) (*priority habitat type).
- *Taxus baccata* woods (Yew Woodland) of the British Isles (91J0) (*priority habitat type).

Examples of the first three woodland types can be found in Meath and alluvial woodlands are found along the River Boyne and River Blackwater SAC. Yew woodland is the only Annex I woodland type found not to be present.

⁶ Perrin et al., 2008. National Survey of Native Woodlands 2003-2008 (Vol. I and II)

4.3.5 Relevant Environmental Issues

4.3.5.1 Urban Expansion

Urban expansion has been accelerating over recent years as increased development expands into the countryside. The constant encroachment of the built environment on natural habitats will undoubtedly have an impact on natural flora, fauna and biodiversity.

4.3.5.2 Water Dependant Habitats

In general, water treatment and wastewater discharges, agricultural runoff, leachate from contaminated sites, urban runoff and unlicensed industrial discharges all have significant negative impacts on water quality which results in subsequent impacts to biodiversity to both aquatic ecosystems as well as neighbouring terrestrial ecosystems. In the vicinity of Kells, the water dependant ecosystems of the River Blackwater and the Newrath Stream (a tributary of the River Blackwater) rely on good water quality. Any impacts to these surface waters could lead to a deterioration of water quality and a consequent impact to their ecosystems.

Kells and its environs are within the River Boyne catchment which is classified as a nutrient sensitive water body. According to the Eastern River Basin District Authority (ERBDA), the River Boyne is at high risk from diffuse pollution through groundwater and urban run-off and from point sources located within its catchment⁷.

Unrestrained development can have a direct impact on water dependent and rare habitats. Abstractions for potable water can result in a direct impact on rivers and lakes and their associated flora and fauna and on groundwater dependent habitats.

4.3.5.3 Invasive Species

Invasive non-native plant and animal species are one of the greatest threats to biodiversity. Invasive alien species negatively impact biodiversity through competition, herbivory, predation, habitat alteration and introduction of parasites or pathogens and poses a risk to the genetic integrity of our native species.

Terrestrial and aquatic habitats can be significantly negatively impacted, resulting in severe damage to conservation and economic interests, such as agriculture, fisheries, forestry and various recreational activities.

4.4 Population and Human Health

4.4.1 Population

According to Census 2011⁸ the population of Kells and Environs is 5,888 persons and comprised 2,879 males and 3,009 females. This represents an increase of 12.2% on 2006⁹ numbers.

⁷ ERBDA, 2005. ERBD Catchment Characterisation Report.

⁸ Central Statistics Office. Census 2011, www.cso.ie

The population increase is confined to Kells environs however, with the town itself experiencing a decrease in population of -2.2% compared with 2006 numbers.

Table 4 illustrates the change in population over a 25 year period using census data from the 1986 census to the most recent census in 2011 (preliminary results). The population of Kells has increased by over 100% over the 25 year period.

Table 4: Population Statistics between 1986 and 2011

District	1986	1991	1996	2002	2006	2011	% Change 2006-2011
Co. Meath	103,881	105,370	109,732	134,005	162,831	184,135	77.3%
Kells Town	2,413	2,183	2,152	2,522	2,257	2,208	8.5%
Kells Environs	1,291	1,356	1,390	1,899	2,991	3,680	185%

For the purpose of looking at the population structure in an area, three factors are of relevance: the dependent population (i.e. persons within the 0-14 and 65+ age groups); the working/independent population (i.e. persons within the 15-65 age group) and persons in the childbearing age group, aged 25-44. It is important to look at the age profile of any area when making provisions for schools, healthcare and employment etc. The age profile of Kells compared with the County of Meath is outlined in **Table 5**.

Table 5: Age Profile of County Meath from Census 2011

Area	0-14	15-24	25-44	45-64	65+	Total
Co. Meath	46,466	20,972	60,923	39,452	16,322	184,135
% Total	25.3	11.4	33	21.4	8.9	100
Kells	1,396	661	2,006	1,210	615	5,888
% Total	23.7	11.2	34.1	20.6	10.4	100

The Regional Planning Guidelines (RPG) for the Greater Dublin Area (GDA) 2010-2022¹⁰ outlines population and housing targets for Meath to 2022 which are outlined in **Table 6**.

Table 6: Population & Housing Targets for Meath

	2006 Census	2011 Census	2016	2022
Population	162,831	184,135	195,898	210,260
Housing	61,257	69,697	79,729	95,458

The Core Strategy for County Meath, as outlined in Chapter 2 of the Meath County Development Plan 2013 – 2019 sets out the housing allocations and land zoning requirements for each settlement in the County for the lifetime of the plan i.e. 2013 – 2019, in accordance with the Regional Planning Guidelines population and housing targets for the County, as outlined in **Table 6** above.

⁹ Central Statistics Office. Census 2006. www.cso.ie

¹⁰ Dublin Regional Authority & Mid-East Regional Authority, 2010. Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022.

Kells has been classified in the RPGs as a Moderate Sustainable Growth town. The housing allocation and land use zoning requirements identified by Meath County Council for Kells for the period 2013 – 2019 are outlined in **Table 7**.

Table7: Housing Allocations and Land Use Zoning requirements for Kells for 2013 – 2019 (as per Meath County Development Plan).

Area	Household Allocation 2013 - 2019	Average Density Applicable Unit/ha	Quantity of Residential Zoned Land Required	Available Land Zoned for Residential Use (Ha)	Available Land Zoned for Mixed Use incl. Residential (HA)	Total Available Zoned Land (Ha)	Deficit/ Excess (Ha)
Meath	12,942	-	329.4	1,682	60.48	1,497.8	1,153
Kells	518	35	14.8	75.7	7.1	82.7	67.9

Note: These figures take account of committed units and 50% headroom as per the DoEHLG Development Plan Guidelines¹¹.

4.4.2 Human Health

The concept of health has been defined by the World Health Organisation as “... *a state of complete physical, psychological and social well-being, and not simply the absence of disease or infirmity.*” Health is influenced by many factors in the social and built environment including housing, employment status, education, transport and access to fresh food and resources, as well as the impacts of air quality, water quality, flooding and access to green space.

A Health Impact Assessment for Active Travel Routes for Kells was prepared by the Health Service Executive and Meath County Council in 2011. The assessment focused on a proposal to invest in pedestrian and cycle provisions along the Kells relief road and made a number of recommendations to support the design and implementation aspects of the proposal. While this assessment, considered the relationship between health and the provision of public services like cycle paths and walkways it did not address the overall relationship between planning and health.

Good planning can play an important role in reducing health inequalities. The World Health Organisation’s Commission on the Social Determinants of Health (CSDH) states governments should ‘*Ensure urban planning promotes healthy and safe behaviours equitably, through investment in active transport, retail planning to manage access to unhealthy foods, and through good environmental design and regulatory controls, including control of the number of alcohol outlets*’.

Given the strong links between income and health, it is recognised that the sustainability of current and future economic activity is an important element in protecting and promoting population health. However emphasising economic growth without due regard for social and environmental consequences of such growth can have negative impacts on health both for the population as a whole and for groups within the population.

¹¹ DoEHLG, 2007. Guidelines for Planning Authorities – Development Plans.

Cognisance must also be paid to environmental issues and sustainability endeavours to protect human health as the local economy develops. While employment is generally good for health, there can be negative impacts, usually related to the quality of the working environment and type of work undertaken. The groups which face the highest risk of experiencing the adverse effects of unemployment appear to be middle-aged men, youths who have recently left school, the economically marginal such as women attempting re-entry to the labour force and children in families in which the primary earner is unemployed.

4.4.3 Relevant Environmental Issues

Population change is a complex topic. High growth has occurred in some areas of the GDA while falling occupancy rates has occurred elsewhere. Major changes have taken place to the housing market given our economic circumstances and trends such as a reduction in housing completions and rising vacancy rates are evident. Predicting accurate population forecasts impacts on future housing demand and issues such as age profiles, excess in housing stock and occupancy rates and migration must all be taken into account. Future housing demand and all of the services required to sustainably meet demand (e.g. health and sanitation services including waste collection, wastewater treatment and potable water supply, electricity, gas, telecommunications, transportation, education and amenity access) needs to be addressed in a planned manner.

There are a number of interlinking areas which are relevant to the Kells Development Plan, for example, the development of sustainable transport and sustainable communities. Policies relating to these areas will impact on human health and quality of life.

- Increase in demand for water supply, waste water treatment and other infrastructural and community services due to economic growth.

- Impact of population growth on sensitive habitats and landscape in terms of development and recreational pressures.
- Impacts from noise and air pollution as a result of development and transport.
- Effects on water quality due to new emissions.
- Promotion of walking and cycling via integrated land use and transport policy.
- Consideration of future SEVESO sites.
- Housing needs for all sectors of the community.
- Community infrastructure needs including community facilities.
- Educational needs for both primary and secondary level education.
- Provision of open spaces within residential areas and areas throughout the town.
- Health/medical facility requirements for the town for the future.
- Preservation of public rights of way to allow public access to amenity.
- Adequacy of public/civil space areas.
- Provision for retail and commercial services.
- Vitality and viability of the town centre.
- Ease of access to the town centre.

4.5 Soils and Geology

Overlying soils fall into the Kells Soil Series¹² which occupies 11.81% of the County. This soil is classified as Brown Earth and its parent material consists of till composed of Lower Palaeozoic shales (Ordovician and Silurian) with some sandstone and siltstone (Refer to **Figure 6**).

Geologically the area around Kells and its environs is dominated by Ordovician and Silurian rock formations, one of the three dominant rock types of County Meath. These rock formations consist of shale, siltstone and fine sandstone (refer to **Figure 7**).

4.5.1 Key Issues

The degradation of soil fertility and threats to conservation of high-quality soils through the loss of tree/vegetation cover and through urbanisation has consequences for the sustainable development of rural activities as well as the sequestration of carbon.

Global warming modelling for Ireland predicts a change to wetter winters and drier summers with a likely increase in the frequency of high intensity rainfall events. These rainfall events can have detrimental effects for slope stability and landslides and their resultant impacts on water management activities.

¹² An Foras Talúntais, 1983. Soils of County Meath.

Eroded soil washed into rivers has the potential to increase nutrient content leading to alteration of surface water nutrient balances which can further lead to the eutrophication of rivers and lakes. If contaminated soils are eroded and transported to watercourses, aquatic plants and animals can be severely damaged.

Geotechnical extraction activities, when not managed in an environmentally sustainable fashion results in further pressure on the hydrological environment.

4.6 Water Resources

This section provides a description of the existing hydrological and hydrogeological environment. This section also provides some information on the Strategic Flood Risk Assessment prepared for the Plan.

The hydrological environment relates to all surface water catchments whereas the hydrogeological environment refers to groundwater issues.

4.6.1 Hydrology

The plan area is located in the Boyne Catchment in Hydrometric Area 07. The Boyne's major tributary the Blackwater River flows west to east to the north and northeast of the Kells town boundary. The Blackwater River is also a designated ecological area as outlined in Section 4.3. The Newrath stream flows through the southern portion of Kells town in a west to east direction. This stream is a tributary of the Blackwater River. Surface water features are presented in **Figure 8**.

Hydrometric Area 07 falls within the Eastern River Basin District. The River Basin Districts were delineated through the progression of the Water Framework Directive (WFD) which aims to promote the sustainable use of water resources across Europe and achieve good status water quality in all water bodies ranging from rivers, lakes, groundwater, transitional and coastal marine waters.

Consequently, the Council must be cognisant of the principles and objectives of the river basin management plan and its associated strategic environmental assessment.

4.6.1.1 Water Quality

Water Framework Directive

As part of the implementation of the WFD a baseline risk assessment was completed of the water bodies within each River Basin District. These assessments were made using water pollution indicators, point and diffuse pollution sources, water abstractions and detail on commercial activities. The risk assessment assigned a water quality status to each waterbody and indicated a risk status namely, whether the water body would meet the criteria for "good status" or would be considered "at risk" of not meeting the standards by 2015. However, extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints.

The River Blackwater flows through Kells town and could potentially be impacted by any proposed development. Information on quality status and WFD risk are outlined in **Table 8**.

Information on other rivers which are tributaries of the Blackwater is also included with the exception of Newrath Stream for which no information is available. Surface water vulnerability is shown in **Figure 9**.

Table 8: WFD Waterbody Status, Risk and Objectives

Waterbody Code	Waterbody Name	Current Status	Current Risk	Overall Objective
IE_EA_07_754	Nugentstown Lower	Moderate	1b – probably at risk	Restore good status by 2021.
IE_EA_07_940	Moynalty Lower	Poor	1a – at risk	Restore good status by 2021.
IE_EA_07_1536_1	Blackwater Lower 1	Poor	1a – at risk	Restore good status by 2027
IE_EA_07_1536_2	Blackwater Lower 2	Moderate	1a – at risk	Restore good status by 2027
IE_EA_07_1536_3	Blackwater Lower 3	Moderate	1a – at risk	Restore good status by 2021
IE_EA_07_1556	Loughan	Good	1b – probably at risk	Protect

Water Quality

As part of the monitoring of water bodies for the implementation of the WFD, the biological, physical and chemical properties of water are routinely assessed. The assessments are predominately conducted by the EPA and local authorities, and complemented by other government bodies including the Central Fisheries Board and the Marine Institute.

In Meath, surface water quality monitoring is conducted at recorded sampling locations by local authority staff. The data is supplied to the EPA for compilation. The data gathered for the biological sampling is used to determine the EPA biotic index for the water body. The corresponding biotic index is used to describe the water quality as is shown in **Table 9**. EPA data for the Blackwater River from 1990 is summarised in **Table 10**.

Table 9: EPA Water Quality Indices

Water Quality	EPA Biotic Index
Unpolluted	4-5 or 5
Slightly polluted	3-4 or 4
Moderately polluted	2-3 or 3
Seriously polluted	1, 1-2 or 2

Table 10: Water Quality Status of the River Blackwater – Q Ratings

Station Nos.	1990	1994	1997	2000	2003	2006	2009
0100	-	4	4	4-5	4-5	4	4
0170	1	2	2-3	2	2-3	2-3	3
0200	1	2	-	-	-	-	-
0280	3	3	3	3	3*	3	-
0300	-	-	-	-	-	-	-
0400	-	-	-	-	-	-	-
0420	3-4	3-4	3-4	4	3-4	3-4	3-4
0450	3-4	-	-	-	-	-	-
0500	4	3-4	3-4	3-4	4	4	4
0600	3-4	3-4	3-4	3-4	3-4	4	4
0700	3-4	-	-	-	-	-	-
0800	4	3-4	4	4	4	4	4
0810	3-4	-	-	-	-	-	-
0900	3	3	3	3	3	3	-
1000	3-4	3	3	3-4	3	3	3
1100	4	4	4	4	3-4	3-4	3-4
1200	4	3-4	4	3-4	3-4	3-4	3-4
1300	4	3-4	3-4	3-4	3-4	3-4	n/s
1400	4	4	4	4	4	4	-
1500	4	3-4	4	3-4	4	4	4
1790	-	-	-	3-4	3-4	-	3-4
1800	4	3-4	3	-	-	-	-

The EPA assessment of the 2009 monitoring round outlined that the Blackwater (Kells) River was in a generally unsatisfactory ecological condition at the majority of stations surveyed with continued dominance of pollution tolerant taxa downstream of Lough Ramor (1000, 1100, 1200).

4.6.2 Hydrogeology

The plan area is underlain by a bedrock aquifer which is classified by the GSI as a 'Poor Aquifer' (PI) which is generally unproductive except for local zones (Refer to **Figure 10**). Groundwater vulnerability is predominantly high with pockets of extreme vulnerability (Refer to **Figure 11**).

Groundwater Directive

The existing Groundwater Directive (80/68/EEC)¹³ aims to protect groundwater from pollution by controlling discharges and disposals of certain dangerous substances to groundwater. The Directive was transposed into Irish Law by the Protection of Groundwater Regulations, 1999 (S.I. No. 41 of 1999).

The existing Groundwater Directive is to be repealed by the Water Framework Directive (WFD) in 2013 and the new Groundwater Directive (2006/118/EC)¹⁴ on the protection of Groundwater, commonly referred to as the Groundwater Daughter Directive.

New or amended regulations will be implemented to enact the groundwater components of the Water Framework Directive and the Groundwater Daughter Directive into Irish legislation.

Water Framework Directive

As mentioned previously the Water Framework Directive's primary mandate is for all waters to achieve "good" ecological status by 2015.

Groundwater quality in the aquifer is of 'good status' and it is classified as '2a – expected to achieve good status' by 2015 under the WFD risk score system. The ERBD has identified diffuse pollution sources as the main influence on groundwaters. The WFD groundwater vulnerability classification is illustrated in **Figure 12**.

Groundwater Protection Areas

Groundwater Protection Reports have been prepared by the Geological Survey of Ireland (GSI) for seven locations in County Meath. None of these are located in proximity to the plan area. The nearest are located in Nobber and Slane approximately 15 km and 20 km away, respectively. A summary of the aquifer classifications for these two locations is described in **Table 11**.

Table 11: Aquifer Classifications in the Vicinity of the Study Area

Aquifer	Classification
Nobber	The aquifer supplying the Dunshaughlin source is the Calp Limestone. In this area this aquifer is classed as a locally important aquifer which is generally moderately productive (Lm)
Slane	The aquifer supplying the Slane source is the Calp Limestone and the overlying alluvial sand and gravel deposits, which seem to be receiving additional recharge from the river. In this area the aquifer is classed as a locally important aquifer which is generally moderately productive (Lm).

4.6.3 Flooding

An area specific Strategic Flood Risk Assessment (SFRA) was carried out to guide the future development of Kells as part of the Development Plan Review and has also informed the SEA process.

¹³ Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances as amended by Council Directive 91/692/EEC (further amended by Council Regulation 1882/2003/EC)

¹⁴ Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration

The SFRA identified three main areas of flood risk in the town (Refer to **Figure 13**):

- **Zone A:** High probability of flooding. This zone defines areas with the highest risk of flooding from rivers (i.e. more than 1% probability or more than 1 in 100) and the coast (i.e. more than 0.5% probability or more than 1 in 200). Most areas of the town that are subject to flood risk fall into this category. Here, most types of development would be considered to be inappropriate. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in the town centre, or in the case of essential infrastructure that cannot be located elsewhere. A Justification Test set out in the Ministerial Guidelines applies to proposals in this zone. Only water compatible development, that require a waterside location, amenity open space, outdoor sports and recreation would be considered in this zone.
- **Zone B:** Moderate probability of flooding. This zone defines areas with a moderate risk of flooding from rivers (i.e. 0.1% to 1% probability or between 1 in 100 and 1 in 1000) and the coast (i.e. 0.1% to 0.5% probability or between 1 in 200 and 1 in 1000). In the town, this designation applies only to limited areas of land. In only a few locations do significant sites fall into this category. Here, highly vulnerable development, such as hospitals, residential care homes, Garda, Fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate. Less vulnerable development such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities, and water compatible development might be considered appropriate in this zone.
- **Zone C:** Low probability of flooding. This zone applies to all other areas of Kells and defines areas with a low risk of flooding from rivers and the coast (i.e. less than 0.1% probability or less than 1 in 1000). Development in this zone is appropriate from a flood risk perspective (subject to assessment of flood hazard from sources other than rivers and the coast) but would need to meet the normal range of other proper planning and sustainable development considerations.

In all areas the SFRA noted that localised flooding from sources other than rivers/streams could still occur and will need to be taken into account at the planning application stage under an appropriately detailed flood risk assessment. As a minimum this will include a "Stage 1 - Identification of Food Risk". Where a flood risk is identified a "Stage 2 - Initial FRA" will be required and depending on the scale and nature of the risk a "Stage 3 - Detailed FRA" may be required. The requirement for all applications to have an accompanying stage 1 assessment is important, as for example a large site located in flood zone C may be appropriate in terms of vulnerability, but might be at potential risk of surface water flooding or residual risk of culvert failure.

As a result of the SFRA, a number of areas which were zoned for development in the 2007 Kells Development Plan are no longer zoned in the revised Plan, namely:

- Areas of the Backlands to the east of Bective Street.
- An area to the rear of McKeons garage off Bective Street.
- Residential Lands to the northeast of the town close to the Blackwater River.

The SFRA recommends application of the Planning Guidelines which preferentially seek to avoid development in areas of flood risk. The Justification test was applied where there was a clear conflict with flood risk and zoning namely in the case of the distributor roads. For areas zoned for Community Infrastructure it is recommended that the sequential approach (avoidance) will be employed, for example sports pitches will be placed in Flood Zone A or B and more vulnerable development in Zone C. The justification test would have to be applied under a site specific FRA where proposals conflict with this recommendation.

4.6.4 Relevant Environmental Issues

There are a range of existing pressures on the water resources of the region. Many of these pressures apply to biodiversity, flora and fauna, soils and geology, land use and landscape as well as water. In general these pressures apply directly to quality, quantity and supply and demand of water resources with indirect pressure on the other environmental features.

4.6.4.1 Modification

Physical modifications have a direct impact on surface water systems through the alteration of habitats, and by indirectly affecting natural processes through the alteration of ecosystems, by reducing their diversity, distribution and population. Land use practices such as agriculture, forestry and urban expansion can have an indirect effect, manipulating the extent of water draining from the land, which can lead to an increased flood risk to properties and development.

4.6.4.2 Discharges

Inadequately treated effluents and spills or leakage from foul water sewer systems networks can lead to the pollution of the receiving waters. These pollutants can lead to a deterioration in water quality with subsequent downstream uses being impacted negatively e.g. water dependant ecosystems, potable water supplies, industrial or agricultural abstraction, fishing etc. Current estimates for the GDA indicate that the nutrient input into surface waters from direct industrial discharges produce approximately 60% of the yearly phosphorus load with the remainder arising from diffuse sources such as agriculture.

Houses and businesses not connected to public foul water collection and treatment systems rely mainly on on-site systems. If these systems fail it can lead to accidental discharges to surface water and / or groundwater systems. Provision of public sewerage systems, especially ahead of new development, can be logistically and financially challenging.

Waste disposal sites (including old or historical un-lined landfills), quarries, industrial lands etc. can produce direct discharges to both surface and groundwaters. According to an EPA 2005 report there was evidence of significant unauthorised landfilling of commercial and industrial waste and construction and demolition waste in the GDA (predominantly Wicklow but also Kildare and Meath) in the period between 1997 and 2002. However, there is no evidence of any such illegal landfill sites in the Kells area.

4.6.4.3 Extraction

The lowering of water tables through groundwater extraction whether for drinking water, industrial use or through construction practices can cause problems in the context of the hydrological regime of groundwater dependant sites. Construction activities in particular can lead to the mobilisation of contaminants and have the potential to significantly impact groundwater and subsequently surface water quality.

4.6.4.4 Climate Change

The effect of climate change on the hydrological regime of the planet is difficult to predict, even more so for a small region; however, there is the potential for heavier and prolonged rainstorms to cause more flash flooding, which can lead to an increase in diffuse pollution loads from soil runoff and increasing demand for flood alleviation, control and relief schemes. Conversely, summer droughts are also considered likely and recent research has indicated that the effects of climate change in Ireland will have serious consequences for water resources, resulting in a potential 40% reduction in drinking water supplies. Also, temperature fluctuations may give invasive alien water species a competitive advantage and alter aquatic ecosystems further.

4.7 Air, Noise and Climate

4.7.1.1 Air Quality

The Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) establish the limit values in Ireland for Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), and oxides of nitrogen (NO_x), Particulate Matter (PM₁₀ and PM_{2.5}), lead, benzene and Carbon Monoxide (CO) with alert threshold values specified for SO₂ and NO₂. These regulations are based on EU Directive 2008/50/EC¹⁵.

In order to comply with these regulations, the EPA measures the levels of a number of atmospheric pollutants throughout Ireland. For the purposes of monitoring in Ireland, four zones are defined in the Regulations, as follows:

- **Zone A - Dublin Conurbation:** The Restricted Area of Dublin, as specified in the First Schedule to the Air Pollution Act 1987 (Marketing, Sale and Distribution of Fuels) Regulations 1998 to 2003.
- **Zone B – Cork Conurbation:** The Restricted Area of Cork, as specified in the First Schedule to the Air Pollution Act 1987 (Marketing, Sale and Distribution of Fuels) Regulations 1998 to 2003.
- **Zone C – Other Cities and Large Towns:** For Meath, this includes Navan and environs.
- **Zone D – Rural Ireland:** Remainder of the State excluding Zones A, B and C.

¹⁵ Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe

An air quality index¹⁶ is used to express complex air quality information in simple terms. The index is based on a maximum of four parameters; the one-hour average of SO₂, NO₂ and O₃, combined with the rolling 24-hour average of PM₁₀ (particulate matter with diameter less than ten microns). All figures are rounded to the nearest whole number. The index for each of the four parameters is derived each hour and the overall index for the hour is equivalent to the lowest rating assigned to a parameter. Five bands are used in the Irish index which, together with their appropriate ranges, is described in **Table 12**.

Table 12: Index and Values in parts per billion (ppb). PM₁₀ in ug m⁻³.

Index	SO ₂ / ppb (1 hour avg.)	NO ₂ / ppb (1 hour avg.)	O ₃ / ppb (1 hour avg.)	PM ₁₀ / ug m ⁻³ (24 hour avg.)
Very Good	0 – 19	0 - 19	0 - 19	0 -19
Good	20 - 49	20 - 49	20 - 59	20 - 49
Fair	50 - 79	50 - 74	60 - 89	50 - 74
Poor	80 - 129	75 - 104	90 - 119	75 - 99
Very Poor	≥130	≥105	≥120	≥100

Current air quality in Zone D is described as “good” by the EPA report Air Quality in Ireland 2010¹⁷. Real time air quality data on the EPA website confirms that remains unchanged since the publication of the aforementioned report.

4.7.1.2 Noise

The Environmental Noise Directive (END) (2002/49/EC¹⁸) requires that action is taken by each member state, with a view to preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health and to preserving environmental acoustic quality where it is good. The relevant local authorities have been designated by the Environmental Noise Regulations, S.I. Regulations No. 140 of 2006, as the bodies charged with development and making of ‘Noise Action Plans’.

Meath County Council and Navan Town Council prepared a Noise Action Plan in 2008. Under the requirements of the legislation the Council is responsible for noise action planning relating only to the major roads passing through their functional area. There are no agglomerations subject to noise mapping or action planning within their jurisdiction. The noise action plan spans a 5 year time scale and will be due for review in 2013.

The current action plan addressed a number of sections of major roadway which qualified for noise mapping and, as such, were subject to consideration for action planning. None of these sections of road were in the vicinity of Kells town. However, since the publication of the 2008 Action Plan the M3 Motorway to Kells has been completed and opened. Sections of this roadway may be subject to consideration for action planning in the next Noise Action Plan.

There are areas of Kells where people could be exposed to environmental noise from major roads if development were to take place.

¹⁶ EPA Air Quality Index. <http://www.epa.ie/whatwedo/monitoring/air/index/>

¹⁷ EPA, 2011. Air Quality in Ireland 2010.

¹⁸ Directive 2002/49/EC of the European Parliament and of the Council relating to the assessment and management of environmental noise

There is likely to be minimal exposure to existing residences and sensitive receptors, due mainly to measures incorporated into the Environmental Impact Assessment and Route Selection stages of the motorway planning process.

Certain locations and building types are considered to be more sensitive to noise pollution than others. The main priority of the END is to reduce environmental noise exposure in residential areas. It is also recommended that competent authorities designate buildings such as educational and health care facilities as being noise sensitive.

The noise environment in Kells currently varies from town centre noise which would be influenced by local noise sources such as building services equipment, serving shops and restaurants and traffic to rural areas where the noise environment would be influenced by community noise sources such as local traffic, agricultural activity etc.

It is noteworthy that local authorities and the EPA have the power to maintain noise limits through the control of noise emissions from industry (IPPC licence limits) or through the inclusion of noise limits in planning permissions. Local Authorities can also control community noise nuisance under the power of the EPA Act (No. 7 of 1992).

4.7.1.3 Climate

The existing climate for Kells corresponds with the general climatic conditions for the whole country which is dominated by the Atlantic Ocean and its air and oceanic currents. Consequently, the region does not suffer from extremes of temperature. According to Met Éireann, average annual temperature is about 9°C. Mean annual wind speed varies between about 4 m/sec in the east midlands and 7 m/sec in the northwest. Average rainfall varies between about 800 and 2,800 mm. Rainfall accumulation tends to be highest in winter and lowest in early summer.

According to the United Nations Integrated Panel on Climate Change, in line with the global picture, Ireland's average temperature has increased by about 0.7°C over the last 100 years, and the rate of increase has been higher in the last couple of decades. The increase has not been uniform over time, with a warming period from 1910 to the 1940s, followed by a cooling period up to the 1960s. The current warming period commenced around 1980. 2006 was the warmest year on record at both Malin Head and Phoenix Park, which have observations dating back over 100 years, and also at Casement Aerodrome, Kilkenny and Rosslare. Ten of the fifteen warmest years in the last century have occurred since 1990. In the last 100 years, 2006 was the second warmest year, 1945 being slightly warmer, and the last 10 years have been the warmest decade. Whilst we can be less categorical about wind speeds, there is some evidence of a reduction in annual average wind speeds, with a corresponding decrease in the frequency of high wind speeds and gusts. Increases in total annual rainfall in parts of the West and North have been observed, with some increase in the number of days with heavier rain but there is no clear pattern of change in other areas.

While the national scale of potential change is evident, translating the potential effects of climate change to a region is a process of inference on what will happen to Ireland at large being reduced to a regional scale. Temperatures in Ireland are predicted to increase by 1.25-1.5°C by 2040 compared to 1961 to 2000.

Rainfall is expected to increase in winter by about 15% and summer projections range from no change to a 20% decrease, potentially along the east coast of the country.

Studies have shown that extreme rainfall events associated with climate change show more marked changes with more events occurring in autumn and a 20% increase in 2-day extreme rain amounts, especially in northern areas. Taking the projected precipitation changes into account, there will be the potential for a significant increase in the number of extreme discharge events and a slight increase in their intensity, leading to an increased probability of flooding in the future.

The potential rise in global temperature might affect the intensity and frequency of storms in the North Atlantic. As a consequence of stormy weather there exists the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

Climate Change Targets

The United Nations International Panel on Climate Change (IPCC) has stated categorically that greenhouse gases (GHG) in the atmosphere (including carbon dioxide, methane, nitrous oxides and a number of gases that arise from both agricultural and industrial processes) are rising, as a result of human activity and are directly linked to climate change.

In 2008, the EU Commission's 'Energy and Climate Package' required Ireland to deliver a 20% reduction in non-Emissions Trading Scheme (ETS) greenhouse gas emissions by 2020 (relative to 2005 levels) and keep emissions below annual limits over the period 2013-2020.

Projections indicate that Ireland will breach its annual limit by 2016, in the best case scenario, and exceed its EU 2020 target by between 4.1 and 8.8 million tonnes of CO₂ in 2020.

4.7.2 Relevant Environmental Issues

4.7.2.1 Air

Currently there are no significant concerns with regard to air quality. There are likely to be slightly elevated levels of vehicle emissions within the urban area of Kells however, this is the same for all urban areas. Dust and PM₁₀ can be an issue locally during construction and operation.

A recent EPA report¹⁹ stated that emissions from cars (particulate matter and nitrogen oxides) are a major health concern and a climate change concern. However, the prospects for compliance with targets under the EU National Emissions Ceilings Directive²⁰ are more positive. With the exception of NO_x emissions, emissions of acidifying gases are expected to achieve prescribed target emission levels within the next few years. NO_x emissions are too expected to decline but are likely to remain considerably above the target limit.

¹⁹ EPA, 2012. Ireland's Environment 2012.

²⁰ Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants

4.7.2.2 Noise

Potential future noise mapping must be taken into account during the development of the plan. Consideration will need to be given to the following scenarios:

- Bringing people to noise through the zoning of land for new housing, schools etc. developments near to existing road noise.
- Bringing noise to people through the provision of new or altered roads, industrial sites or commercial developments which would alter the noise environment in the vicinity of noise sensitive locations.

4.7.2.3 Climate

As previously mentioned in the Water Resources Section, climate change will have an impact on the region's water resources and must be taken into account in all aspects of sustainable planning.

Further, increased rainfall intensity and stormy weather increases the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

4.8 Archaeological, Architectural & Cultural Heritage

4.8.1 Baseline

The County of Meath has a wealth of built heritage which extends back through millennia from castles to cottages, including the great passage tombs of Brú na Bóinne and Loughcrew, planned towns and villages such as Slane and Moynalty, great country houses, farmsteads, monastic settlements, churches, mills, canals and railways. Within this great variety of building types and uses are structures of architectural heritage significance and distinctive character that are deemed worthy of protection.

Built Heritage for Kells is addressed in this report under the following headings:

- Archaeological Heritage.
- Architectural Heritage.
- Vernacular Heritage.

4.8.1.1 Archaeological Heritage

A number of towns in Ireland have been assigned zones of archaeological potential by the National Monuments Section of the Department of Arts, Heritage and the Gaeltacht (DAHG). These zones extend around a towns core to protect its significant archaeological heritage. The town of Kells has been assigned a designated zone of archaeological potential which includes most of the town historic core namely Bective Street, Farrell Street, Suffolk Street, Canon Street, Church Lane, Carrick Street, Maudlin Street, Castle Street, John Street, Kenlis Place, Headfort Place and the cemetery on the Navan Road (refer to **Figure 14** for the extent of the zone).

A record of archaeological heritage is maintained on the '*Record of Monuments and Places*' which was established under Section 12 of the National Monuments (Amendment) Act, 1994 (No. 17 of 1994). Structures, features, objects or sites listed in this Record are known as Recorded Monuments. The town of Kells itself is a Recorded Monument within which there are a number of archaeological sites and monuments.

According to the database there are approximately 49 Recorded Monuments within and immediately adjacent to the Kells Town and environs boundary. These are listed in **Table 13** and depicted in **Figure 15**.

Table 13: Recorded Monuments within and adjacent to Kells Development Plan boundary

SMR No	Class	Townland	ITM Reference (E,N)	Irish Grid Reference (E,N)
Within Development Plan Boundary				
ME016-056	Enclosure	Commons of Lloyd	672373, 777189	272438, 277172
ME016-057	Enclosure	Commons of Lloyd	672543, 777048	272608, 277031
ME017-007	Mound	Headfort Demesne	674925, 776417	274990, 276400
ME017-044	Historic town	Archdeaconry, Glebe, Town Parks	673995, 775877	274060, 275860
ME017-044001-	Cross - Market cross	Town Parks	674113, 775855	274178, 275838
ME017-044002-	Redundant record	Town Parks	674110, 775866	274175, 275849
ME017-044003-	Castle - unclassified	Town Parks	674118, 775876	274183, 275859
ME017-044004-	Town defences	Town Parks	673790, 775856	273855, 275839
ME017-044011-	Church	Town Parks	673854, 775984	273919, 275967
ME017-044012-	Ecclesiastical site	Town Parks	673928, 775906	273993, 275889
ME017-044013-	Round tower	Town Parks	673901, 775876	273966, 275859
ME017-044014-	Cross - High cross	Town Parks	673899, 775885	273964, 275868
ME017-044015-	Cross - High cross	Town Parks	673889, 775900	273954, 275883
ME017-044016-	Cross - High cross	Town Parks	673912, 775923	273977, 275906
ME017-044017-	Cross - High cross	Town Parks	673944, 775890	274009, 275873

SMR No	Class	Townland	ITM Reference (E,N)	Irish Grid Reference (E,N)
ME017-044018-	Cross-slab	Town Parks	673929, 775906	273994, 275889
ME017-044019-	Tomb - effigial	Town Parks	673929, 775906	273994, 275889
ME017-044020-	Stone head	Town Parks	673929, 775906	273994, 275889
ME017-044021-	Wall monument	Town Parks	673929, 775906	273994, 275889
ME017-044022-	Graveslab	Town Parks	673929, 775906	273994, 275889
ME017-044023-	Sundial	Town Parks	673929, 775906	273994, 275889
ME017-044024-	Font	Town Parks	673929, 775906	273994, 275889
ME017-044025-	Ecclesiastical enclosure	Town Parks	673936, 775906	274001, 275889
ME017-044026-	Religious house - Knights Hospitallers	Town Parks	674399, 775835	274464, 275818
ME017-045	Ritual site - holy well	Town Parks	673395, 775768	273460, 275750
ME017-044027-	Excavation - miscellaneous	Town Parks	674352, 775899	274417, 275882
ME017-044028-	Excavation - miscellaneous	Town Parks	673832, 775986	273897, 275969
ME017-044029-	Excavation - miscellaneous	Town Parks	673864, 776017	273929, 276000
ME017-044030-	Enclosure	Town Parks	673789, 775699	273854, 275681
ME017-044031-	Church	Town Parks	673928, 775906	273993, 275889
ME017-044032-	Cross-slab	Town Parks	673929, 775906	273994, 275889
ME017-044033-	Sheela-na-gig	Town Parks	673928, 775906	273993, 275889
Adjacent to Development Boundary				
ME016-015	Ringfort - rath	Commons of Lloyd	671562, 777021	271627, 277004
ME016-016	Enclosure	Commons of Lloyd	672245, 776797	272310, 276780
ME016-023001-	Ringfort - rath	Newrath Big	672215, 775668	272280, 275650

SMR No	Class	Townland	ITM Reference (E,N)	Irish Grid Reference (E,N)
ME016-023002-	Souterrain	Newrath Big	672215, 775668	272280, 275650
ME016-054	Hillfort	Commons of Lloyd	672245, 776506	272310, 276489
ME016-055	Souterrain	Newrath Big	672401, 775589	272466, 275571
ME017-001	Bridge	Archdeaconry, Glebe, Town Parks, Whitecommons	673565, 777317	273630, 277300
ME017-002	Ringfort - rath	Cakestown Glebe	674132, 777451	274197, 277434
ME017-003	Standing stone	Mullaghey	675125, 777737	275190, 277720
ME017-004	Ringfort - rath	Grange Glebe	677191, 778011	277257, 277994
ME017-005	Enclosure	Grange Glebe	677297, 777801	277363, 277784
ME017-020	Barrow - unclassified	Kilmainham	675673, 774971	275738, 274953
ME017-021	Moated site	Kilmainham	677238, 775153	277304, 275135
ME017-022	Ringfort - rath	Fyanstown	677696, 775065	277762, 275047
ME017-023	Castle - tower house	Kilmainham	676274, 775407	276340, 275389
ME017-024	Field system	Kilmainham	676354, 775428	276420, 275410
ME017-043	Mound	Dulane	674214, 777731	274279, 277714

In addition, the DAHG excavations database²¹ contains a number (>65) of Irish Excavation Reports for Kells. This database contains summary accounts of all the excavations carried out in Ireland (North and South) from 1987 to 2008. This further illustrates the extent of archaeological heritage in the area.

Any person intending to carry out works at or in relation to a Recorded Monument, or within the zone of Archaeological potential, must give the National Monuments Section of the DAHG two months' notice in writing.

4.8.1.2 Architectural Heritage

Kells also possesses a diverse and rich architectural heritage that forms an integral part of the town. In 1999 the Government launched a package of measures aimed at protecting our built heritage.

²¹ Database of Irish Excavation Reports. www.excavations.ie.

At the heart of the system is a statutory requirement that the protection of buildings of artistic, architectural, historical, cultural, archaeological, scientific, technical or social interest be a mandatory objective of each local authority's Development Plan. These buildings and structures are compiled on a register known as the '*Record of Protected Structures*' (RPS).

There are 82 protected structures listed on the RPS for the Kells Development Plan. These are depicted in **Figure 16**.

Owners and occupiers of protected buildings are required to ensure that buildings do not become endangered through harm, decay or damage.

Architectural Conservation Areas

The Planning & Development Act 2000-2012 (Part II, Section 10 and Part IV, Section 81) places an obligation on Local Authorities to include an objective for the preservation of the character of Architectural Conservation Areas (ACAs). Kells Historic Core (which includes Bective Street, Farrell Street, Suffolk Street, Canon Street, Church Lane, Carrick Street, Maudlin Street, Castle Street, John Street and Kenlis Place) and Headfort Place were both designated as ACA's in the previous development plan. Headfort Demesne to the west of the town is also designated as an ACA in the Meath County Development Plan. ACA's are depicted in **Figure 17**.

4.8.1.3 Vernacular Heritage

Vernacular Architecture describes the local regional traditional building forms and types using indigenous materials, and without grand architectural pretensions', i.e. the homes and workplaces of the ordinary people built by local people using local materials. This is in contrast to formal architecture, such as the grand estate houses of the gentry, churches and public buildings, which were often designed by architects or engineers.

The majority of vernacular buildings are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, limekilns, farmsteads, forges, gates and gate piers.

4.8.1.4 World Heritage Tentative List

The protection of the world's cultural and natural heritage is of high importance for present and future generations and to this end the State is committed to the identification, protection, conservation, presentation and transmission of its World Heritage Sites to future generations in accordance with Article 4 of the World Heritage Convention.

A Tentative List is an inventory of those properties which a country intends to consider for nomination to the World Heritage List. The new Tentative List was approved by the Minister for Arts, Heritage and the Gaeltacht and submitted to UNESCO in March 2010. The nomination of any property from the new Tentative List for inscription on the World Heritage List will only take place after consultation with relevant stakeholders, interested parties and local communities. Two sites in Meath have been included on the Tentative List as part of larger assemblies of sites:

- The Royal Sites of Ireland (Cashel, Dún Ailinne, Hill of Uisneach, Rathcroghan Complex and Tara Complex)
- Early Medieval Monastic Sites (Clonmacnoise, Durrow, Glendalough, Inis Cealtra, Kells and Monasterboice)

4.8.2 Relevant Environmental Issues

Continued development resulting from the unprecedented economic growth of the past decade and increasing population has increased pressure on sites or features of heritage interest. Individually these developments put direct pressure of architectural heritage, where it is in proximity, or increases the potential to interact with known or previously unknown archaeological sites and features. Cumulatively, this results in negative impact on the overall cultural heritage resource.

The following issues were considered during the plan preparation:

- Impacts on sites of archaeological, architectural and vernacular heritage through development.
- Impacts on historic / heritage landscapes through development.
- Loss of vernacular heritage as a result of evolution of society and building use.
- Impacts on considerable built heritage due to continued high levels of vacancy / abandonment and potential dereliction unless addressed.
- Protection of tentative World Heritage Sites in Kells from inappropriate development.

4.9 Landscape & Visual

4.9.1 Landscape

The County of Meath has a high quality landscape much of it of notable cultural and historical significance.

A Landscape Character Assessment was prepared as part of the County Development Plan 2013 – 2019. The purpose of this document was to develop landscape objectives for the County Development Plan.

The County is divided into four Landscape Character Types (LCT's) representing generic areas of distinctive character such as uplands or river corridors. These LCT's are sub-divided into twenty Landscape Character Areas (LCA's) which are geographically specific.

Those LCA's of interest to the Kells Development Plan 2013-2019 are LCA 17 South West Kells Lowlands and LCA 20 Blackwater Valley.

4.9.2 Visual

A total of 4 views and prospects have been identified in the Kells Development Plan as being worthy of protection:

- From Headfort Place looking to the Round Tower and Church Yard.

- From the top of Church Lane looking east over Kells.
- From the junction of Bective St, Farrell St and Suffolk St looking back toward the tower.
- View from proposed town centre expansion in the Frontlands towards the Mural Tower of the Kells Town Wall, the Round Tower and St. Columba's Church. The manner in which this view shall be framed and protected shall be indicated in the agreed Framework Plan.

The locations of the viewpoints are depicted in **Figure 18**.

4.9.3 Relevant Environmental Issues

Existing pressures on landscape and visual resources are primarily related to impacts to sensitive views and landscapes resulting from the positioning of new development, infrastructure including road, rail, electricity and water-service infrastructure, without sensitivity to these resources.

The following issues were considered during the plan preparation:

- Maintenance of existing landscape character.
- Impacts on designated protected landscapes, heritage landscapes and protected views as a result of development.
- Impacts due to development on the ecological components of the landscape.

4.10 Material Assets

The term 'Material Assets' refers to all infrastructure and local services including, transportation, water supply, waste-water treatment and discharge, waste management services, electricity supply, telecommunications etc. A summary of all material assets in Kells is provided in the Environmental Report.

The current usage of the land within the development plan area is predominantly urban fabric, industrial developments, undeveloped grassland and pasture land.

Of particular relevance to the plan review was the existing water supply and wastewater treatment infrastructure which is currently close to capacity. A review of available resources was considered as part of the revised Kells Development Plan.

4.10.1 Transport Infrastructure

Kells is located in the north west of County Meath approximately 65 km from Dublin and 16 km from Navan town. It is connected to the national road network by the M3 which links Dublin to the northwest of Meath. In addition to reducing the journey time to Dublin, the motorway has significantly reduced the numbers of vehicles passing through the town. This now provides an opportunity to develop the town as a vibrant and prosperous settlement.

The town is also bypassed by the new N52 which circles the west of the town and re-joins the old N52 approximately 1 km north east of Kells.

4.10.2 Water Supply

The water supply resources in Meath are provided both from surface water and ground water abstractions i.e. from rivers, lakes and boreholes. With limitations on abstraction levels from surface water sources within the County, greater dependence will be placed on groundwater to satisfy increasing demand, particularly in the east of the county.

The existing water supply to Kells is supplied from the Kells/Oldcastle Scheme which primarily gets its water through surface water abstraction from Lough Bane which is augmented by extraction at Clavin's Bridge fed by the River Blackwater. This scheme is under significant pressure to supply water to both of these areas (Kells & Oldcastle) and the general area between these settlements given the projected level of development in each centre. The abstraction potential of Lough Bane has now been reached.

The total combined capacity is 27,500 P.E. with;

- Existing and committed usage accounting for 25,000 P.E.
- Remaining: 2,500 P.E is for the entire catchment area.

Upgrade works for the Kells/Oldcastle scheme are included in the current Water Services Investment Programme. However, detailed design has yet to be carried out, which will be followed by the procurement process and construction works. Therefore it is considered that the provision of water supply will remain critical over the life of the Development Plan.

4.10.3 Waste-water Treatment

Outside the main towns and villages, the main method of sewage disposal is by means of individual septic tanks and proprietary systems. These have been identified as a potential source of pollution of both surface waters and groundwaters. The government has recently announced a new system of registration and regulation for septic tanks that is currently being implemented.

Watercourses to which treated effluent is discharged also needs to be protected to comply with the Water Framework Directive and facilitate future development within the county.

The existing Kells Wastewater Treatment Plant located to the east of the town has a design capacity of 8,000 person equivalent (P.E.). This facility outfalls to the River Blackwater and is currently nearing capacity. The Water Services Investment Programme 2010-2012 includes a provision for an upgrade to 12,000 PE of the Kells Sewerage Scheme to advance to planning stage. However, its construction will be subject to funding from the Department of the Environment, Community and Local Government. The current provision of wastewater capacity is constrained with approximately 1,300 P.E available, most of which is consumed by extant planning permissions in the town. It is expected that the wastewater constraint in Kells will remain for the vast majority of the next plan period, 2013-19. It is noted that Meath County Council have recently received notification from the DoECLG to appoint consultants to prepare the preliminary design of the upgrade of the wastewater treatment plant.

There is an additional wastewater treatment plant at Lloyd Business Park which caters for the needs of the park. There is some capacity remaining at this plant which will accommodate proposed future development at the park. This plant also discharges to the River Blackwater.

4.10.4 Waste Management Services

Waste and recycling bin collection services have been privatised in County Meath for the past 15 years. The following waste collectors currently provide these services:

- Allied Waste Disposal
- AES Ltd
- Oxigen
- Panda Waste
- Sean Mahon
- Thorntons Waste Disposal
- Green Energy Recycling Ltd.
- Mulleady's Ltd.
- Tag a Bin

There are no EPA waste licenced facilities in Kells or the immediate surrounding area. A civic amenity site including an education facility to serve the needs of Kells is located in the Lloyd Business Park

4.10.5 Energy Supply

The electricity infrastructure of Kells comprises of 10kV, 20kV and 38kV lines serving the town, with 38kV stations located along the Navan road and at the Lloyd Business Park. The nearest high voltage electricity transmission line is a 110kV line located approximately 3km south of the town.

Since 2011, Kells has also been connected to the Bord Gáis Network natural gas supply from the Virginia above ground installation at Burrencarragh.

4.10.6 Telecommunications

Kells is served by a number of telecommunications providers, each using various forms of technology including fibre optic and wireless technology.

4.10.7 Relevant Environmental Issues

Increased development including residential and industrial expansion exerts pressure on all existing material assets. Availability of water supplies into the future is essential to minimise pressure on existing sources. Water shortages will result in impacts to commercial and industrial developments.

Proposals for expansion or introduction of new residential and industrial facilities may result in impacts to water quality and ecosystems.

4.11 Interactions / Interrelationships

The interactions and interrelationships between the SEA environmental baseline topics is an important consideration for the environmental assessment. **Table 14** outlines the key identifiable interrelationships arising in this SEA. These potential interrelationships are taken into account throughout the assessment process. While all environmental topics interact with each other to some extent only the significant relationships on a regional level were considered. Direct relationships are highlighted in red while indirect relationships are highlighted in blue.

Table 14: Key Interrelationships between Environmental Topics

	Biodiversity	Population & Human Health	Soils & Geology	Water Resources	Flooding	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Biodiversity									
Population & Human Health									
Soils & Geology									
Water Resources									
Flooding									
Air, Noise & Climate									
Archaeological, Architectural & Cultural Heritage									
Landscape & Visual									
Material Assets									

Of particular note is the interrelationship between water (quality and quantity) and biodiversity, flora and fauna, soils and geology and human health and population. Flora and fauna rely directly on the aquatic environment as a habitat but the terrestrial environment can also be strongly influenced by the aquatic environment. A wide range of terrestrial habitats, such as callows and turloughs, rely on the aquatic environment, both surface and groundwaters for their formation and terrestrial fauna and birds can rely on it as a source of food. Water quality is also of particular importance with regard to human health as it provides a source of potable water and provides foodstuffs (e.g. fish and shellfish).

Water is also used for leisure and recreational purposes, providing a material asset both for local populations and as part of the tourism economy.

A further principle interrelationship of note is between water resources and climate. Greenhouse gas emissions associated with energy use during water management activities, such as treatment of drinking water and wastewater, have the potential to negatively impact on climate through increased contribution to climate change. As a consequence, more frequent and more intense flooding and drought conditions can affect material assets and human health as well as biodiversity.

5 SEA Objectives, Targets and Indicators

5.1 Objective of this Environmental Report

The SEA is designed to assess the potential environmental impact of the policies of the plan against the established environmental baseline.

The policies and associated recommendations are assessed against a range of established environmental objectives and targets. Indicators that are recommended in the SEA are utilised over the lifetime of the Plan to quantify the level of impact that the policies and recommendations have on the environment. This enables us to measure whether they were successful in promoting the sustainable development of the County.

5.2 Environmental Objectives

The formation of the environmental objectives required cognisance of the environmental protection objectives established at a range of levels through the legislation and guidelines outlined in Chapter 2. Global, EU and national level legislation, policy and associated environmental objectives were utilised to develop the environmental objectives for the plan.

The objectives outlined below are also placed in the context of and linked into the development of the draft policies and recommendations to ensure that the objectives are appropriate for the Kells area.

The environmental objectives are also linked to appropriate targets and indicators outlined in the following sections.

The environmental objectives are as follows:

Biodiversity including Flora and Fauna

- Conserve the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.

Population and Human Health

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

Soils & Geology

- Protect quality and quantity of existing soil and geology.

Water Resources

- Improve/maintain water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development.

Air, Noise & Climate

- Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).

Archaeological, Architectural and Cultural Heritage

- Promote the protection and conservation of the archaeological, architectural and cultural heritage.

Landscape & Visual

- Conserve and enhance valued natural and historic landscapes and features within them.

Material Assets

- Make best use of existing infrastructure and promote the sustainable development of new infrastructure.

5.3 Environmental Targets

Each of the Environmental Objectives has a range of Environmental Targets which the Plan Policies and Recommendations are aimed towards. These targets need to be quantifiable to ensure that monitoring can be carried out effectively. The following targets have been proposed to direct the sustainable implementation of the Policies and Recommendations and to ensure that the environment is maintained and/or improved where possible.

Biodiversity including Flora and Fauna

- Consider siting of new development on non-sensitive sites.
- Improve/maintain protection for protected sites and species.
- Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors.
- Improve access for the appreciation and promotion of wildlife.

Population and Human Health

- Minimise population exposure to high levels of noise, vibration and air pollution.
- Increase modal shift to public transport.
- Co-ordinate land use and transportation policies.
- Improve access to recreation opportunities.
- Minimise effect on human health due to flooding.

Soils & Geology

- Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site.
- Ensure polluting substances are appropriately stored and banded.
- Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation.
- Re-use of brownfield lands, rather than developing Greenfield lands, where possible.
- Minimise the consumption of non-renewable sand, gravel and rock deposits.

Water Resources

- Support the achievement agreed targets in accordance with the Water Framework Directive.
- Minimise flood risk through appropriate management of flood vulnerable zones and retention, where practicable, of flood plains.
- Promote sustainable drainage practices to improve water quality and flow.
- Maintain sustainable levels of abstraction from Lough Bane.
- Control/minimise point and diffuse sources of pollution within the Plan area.

Air, Noise & Climate

- Minimise air and noise emissions during construction and operation of new developments.
- Promote minimisation of greenhouse gas emissions to the atmosphere.

Archaeological, Architectural and Cultural Heritage

- Regeneration of derelict and underutilised heritage sites.
- Improve appearance of areas with particular townscape character.
- Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential.
- Enhance access to sites of heritage interest.

Landscape & Visual

- Improve protection for landscapes of recognised quality.
- Maintain clear urban/rural distinctions.
- Enhance provision of, and access to, green infrastructure in Kells.
- Ensure development is sensitive to its surroundings.

Material Assets

- Improve availability and accessibility of commercially provided facilities and public services.
- Increase local employment opportunities.
- Improve efficiencies of transport, energy and communication infrastructure.
- Promotion of sustainable transport infrastructure i.e. increased public transport.
- Reduce the generation of waste and adopt a sustainable approach to waste management.

5.4 Environmental Indicators

The assessment of Policies and Recommendations with respect to the Environmental Objectives and Targets is required to be measurable. The Environmental Indicators need to be capable of the following:

- Describing trends in the baseline environment.
- Demonstrating the likely significant impact of the implementation Plan.
- Being used in a monitoring programme.
- Providing an early warning of significant unforeseen adverse effects.
- Prioritising key environmental impacts.
- Ensuring the number and range of environmental indicators are manageable in terms of time and resources.

Consequently a range of Environmental Indicators required to assess the level of impact on the environment are proposed and outlined in **Table 15**.

Table 15: SEA Indicators

Item	Draft SEA Indicator
Biodiversity	<ul style="list-style-type: none"> • Number and extent of Protected Sites • Areas actively managed for conservation • Population and range of Protected Species • Achievement of the Objectives of Biodiversity Plans • No net loss in length of ecological corridors.
Population & Health	<ul style="list-style-type: none"> • Census population data • Rates of Unemployment per area • % increase in housing (number and type)
Soils & Geology	<ul style="list-style-type: none"> • Rates of re-use / recycling of construction waste • Rates of cement / concrete production • Rates of brownfield site and contaminated land reuse and development • Rates of greenfield development
Water Resources	<ul style="list-style-type: none"> • Compliance of potable water sources to water quality regulations • Compliance of surface waters with national and international standards • Potable/wastewater treatment capacity versus population • % of wastewater achieving tertiary treatment • Achievement of the Objectives of the River Basin Management Plans • Implementation of recommendations of SFRA
Air, Noise & Climate	<ul style="list-style-type: none"> • Traffic, Transport and Vehicular survey data • National and region specific emission data • Compliance with national standards • Reduction in greenhouse gas emissions • Number and extent of emission licensed facilities • Number of energy/renewable energy facilities • % of new residential units with C1 or better CER rating

Item	Draft SEA Indicator
Archaeological, Architectural & Cultural Heritage	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls – Architectural Conservation Areas
Landscape & Visual	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban • Areas of new Green Infrastructure established
Material Assets	<ul style="list-style-type: none"> • Enhancement/expansion of existing infrastructure. • Achievement of development plan objectives • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling

6 Assessment of Likely Significant Effects

6.1 Introduction

The approach used for assessing likely significant impacts was objectives led. The assessment was primarily qualitative in nature, with some assessment based on expert judgement. This qualitative assessment compares the likely impacts against the Strategic Environmental Objectives to see which Policies and Recommendations meet the Strategic Environmental Objectives and which, if any, contradict these.

Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes within the Meath/Greater Dublin Area.

Particular regard was also paid to the need for the sustainable development of ecological resources (including the conservation of fish and other species of fauna and flora, habitats and the biodiversity of water ecosystems and commercial and natural fisheries) as economic resources. In conjunction with the Habitats Directive Assessment due consideration was given to potential significant impacts of the policies and recommendations on ecological resources for the following areas:

- Surface and Ground Water quality.
- Surface water hydrology.
- Fish spawning and nursery areas.
- Passage of migratory fish.
- Areas of natural heritage importance.
- Designated marine protected areas.
- Biological Diversity.
- Ecosystem structure and functioning.
- Seabirds and marine mammals.
- Fish and shellfish cultivation.
- Sport and commercial fishing and angling.
- Amenity and recreational areas.
- Mineral and aggregate resources.
- Sediment transport and coastal erosion.
- Navigation.
- Other legitimate use of the sea.

The assessment process categorised environmental impacts using the ratings outlined in **Table 16** which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 16: Impact Ratings

Duration and Type of Impact	
S	Short-term - Impact lasting one to seven years
M	Medium-term - Impact lasting seven to fifteen years
L	Long-term - Impact lasting fifteen to sixty years
P	Permanent - Impact lasting over sixty years
T	Temporary - Impact lasting for one year or less
C	Cumulative – Impact that is ameliorated by other impacts
Significance of Impact	
	Major Positive
	Positive
	Neutral
	Negative
	Major Negative
	Uncertain

6.2 Principal Environmental Impacts

The environmental impacts of the Development Plan policies were assessed with respect to the existing environmental baseline in Chapter 4 and the environmental objectives listed in Chapter 5.

As the policies have been designed to promote sustainability and to protect the environment, the majority of recommendations have positive impacts when assessed against the environmental objectives. The matrix outlined in **Table 17** highlights these potential impacts. The principal findings are summarised in the following sections. It should be noted that the assessment considers the predicted residual (i.e. mitigated) impact on each environmental topic.

6.2.1 Biodiversity, Flora and Fauna

Most of the potential impacts for Biodiversity, Flora and Fauna are positive or neutral as it is not proposed to provide development solely on Greenfield sites. It is also intended that development will be consolidated within the footprint of the existing urban centre. Uncertainties exist where there are no specific proposals for sites designated for development of amenities.

6.2.2 Population & Human Health

The potential impacts for Population and Human Health are predominantly positive as it is proposed to consolidate settlements and integrate land use and transport. The reduction in household allocation will also have a positive effect on Population and Human Health.

6.2.3 Soil & Geology

The majority of potential impacts for Soils and Geology are currently neutral or positive as it is not proposed to zone new lands which haven't previously been zoned for development. Further, development will primarily be consolidated within the footprint of the existing urban centre.

6.2.4 Water Resources & Flooding

The potential impacts for Water Resources & Flooding are positive or neutral as it is proposed that a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk be implemented. The avoidance of development in areas where flood risk has been identified will be the primary response. Proposals for mitigation and management of flood risk will only be considered where avoidance is not possible and where development can be clearly justified with the justification test outlined in the "Planning System and Flood Risk Management – Guidelines for Planning Authorities".

Justification Tests were carried out at a number of sites as part of the SFRA process. As a result, zonings have been retained at one location identified as being at risk of flooding. This location comprises an access route, which is not considered to be a highly vulnerable use, to the Backlands area through lands within Flood Zones A & B for which the Justification Test was applied. In all other instances all undeveloped lands within Flood Zones A & B have been zoned for open space.

6.2.5 Air, Noise & Climate

The potential impacts on Air, Noise and Climate are positive or neutral as the Plan proposes to locate employment in close proximity to the town and along strategic corridors. The plan also promotes sustainable travel modes and reducing long distance commuting for employment while encouraging the development of Green Infrastructure. Such measures will have a positive effect on air, noise and climate.

6.2.6 Archaeological, Architectural and Cultural Heritage

There are no predicted negative impacts on Archaeological, Architectural and Cultural Heritage as it is not proposed to zone new lands which haven't previously been zoned for development. Further, as outlined previously, development will be consolidated within the footprint of the existing urban centre. This plan also places a significant emphasis on the retention, protection and enhancement of existing heritage features within the town.

6.2.7 Landscape and Visual

The majority of potential impacts for Landscape and Visual are positive or neutral.

The Flood Management Strategy for the town proposes mitigation and management of flood risk where avoidance is not possible and where development can be clearly justified with the justification test outlined in the "Planning System and Flood Risk Management – Guidelines for Planning Authorities".

This occurs at one location where an access road to the Backlands is proposed across Flood Zones A and B. This is not considered a highly vulnerable use and therefore the impact is considered to be neutral in this instance also.

6.2.8 Material Assets

The potential impacts on Material Assets are largely considered as positive or neutral. This is because development will occur in a manner that is balanced and self-sustaining occurring in tandem with physical and social infrastructure. Potential negatives relate to possible delays in provision of water supply infrastructure.

Table 17: Assessment of Potential Impacts associated with the Kells Development Plan.

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Chapter 2 - Strategic Context and Core Strategy								
Core Strategy OBJ1	P	P	P	P	P	P	P	P
Core Strategy POL 1	P	P	P	P	P	P	P	P
Core Strategy POL 2	P	P	P	P	P	P	P	P
Core Strategy POL 3	P	P	P	P	P	P	P	P
Core Strategy POL 4	P	P	P	P	P	P	P	P
Core Strategy POL 5	P	P	P	P	P	P	P	P
Core Strategy POL 6	P	P	P	P	P	P	P	P
Core Strategy POL 7	P	P	P	P	P	P	P	P
Core Strategy POL 8	P	P	P	P	P	P	P	P
Core Strategy POL 9	P	P	P	P	P	P	P	P
Core Strategy POL 10	P	P	P	P	P	P	P	P
Core Strategy POL 11	P	P	P	P	P	P	P	P
Core Strategy POL 12	P	P	P	P	P	P	P	P
Core Strategy POL 13	P	P	P	P	P	P	P	P
Core Strategy POL 14	P	P	P	P	P	P	P	P
Core Strategy POL 15	P	P	P	P	P	P	P	P
Core Strategy POL 16	P	P	P	P	P	P	P	P
Chapter 3 - Economy & Employment								
ECON POL 1	P	P	P	P	P	P	P	P
ECON POL 2	P	P	P	P	P	P	P	P
ECON POL 3	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
ECON POL 4	P	P	P	P	P	P	P	P
EMP POL 5	P	P	P	P	P	P	P	P
EMP POL 6	P	P	P	P	P	P	P	P
ECON POL 7	P	P	P	P	P	P	P	P
EMP POL 8	P	P	P	P	P	P	P	P
ECON POL 9	P	P	P	P	P	P	P	P
ECON POL 10	P	P	P	P	P	P	P	P
EMP POL 11	P	P	P	P	P	P	P	P
EMP POL 12	P	P	P	P	P	P	P	P
ECON OBJ 1	P	P	P	P	P	P	P	P
EMP OBJ 2	P	P	P	P	P	P	P	P
EMP OBJ 3	P	P	P	P	P	P	P	P
EMP OBJ 4	P	P	P	P	P	P	P	P
TOUR POL 1	P	P	P	P	P	P	P	P
TOUR POL 2	P	P	P	P	P	P	P	P
TOUR POL 3	P	P	P	P	P	P	P	P
TOUR POL 4	P	P	P	P	P	P	P	P
TOUR POL 5	P	P	P	P	P	P	P	P
TOUR POL 6	P	P	P	P	P	P	P	P
TOUR POL 7	P	P	P	P	P	P	P	P
TOUR POL 8	P	P	P	P	P	P	P	P
TOUR POL 9	P	P	P	P	P	P	P	P
TOUR POL 10	P	P	P	P	P	P	P	P
TOUR OBJ 1	P	P	P	P	P	P	P	P
TOUR OBJ 2	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
TOUR OBJ 3	P	P	P	P	P	P	P	P
TOUR OBJ 4	P	P	P	P	P	P	P	P
TOUR OBJ 5	P	P	P	P	P	P	P	P
TOUR OBJ 6	P	P	P	P	P	P	P	P
TOUR OBJ 7	P	P	P	P	P	P	P	P
TOUR OBJ 8	P	P	P	P	P	P	P	P
TOUR OBJ 9	P	P	P	P	P	P	P	P
PMA POL 1	P	P	P	P	P	P	P	P
PMA POL 2	P	P	P	P	P	P	P	P
PMA POL 3	P	P	P	P	P	P	P	P
PMA POL 4	P	P	P	P	P	P	P	P
Chapter 4 - Town Centre								
TOWN CENTRE POL 1	P	P	P	P	P	P	P	P
TOWN CENTRE POL 2	P	P	P	P	P	P	P	P
TOWN CENTRE POL 3	P	P	P	P	P	P	P	P
TOWN CENTRE POL 4	P	P	P	P	P	P	P	P
TOWN CENTRE POL 5	P	P	P	P	P	P	P	P
TOWN CENTRE POL 6	S	P	P	P	P	P	P	P
TOWN CENTRE POL 7	P	P	P	P	P	P	P	P
TOWN CENTRE POL 8	P	P	P	P	P	P	P	P
TOWN CENTRE POL 9	P	P	P	P	P	P	P	P
TOWN CENTRE POL 10	P	P	P	P	P	P	P	P
TOWN CENTRE POL 11	P	P	P	P	P	P	P	P
TOWN CENTRE POL 12	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
TOWN CENTRE POL 13	P	P	P	P	P	P	P	P
TOWN CENTRE POL 14	P	P	P	P	P	P	P	P
TOWN CENTRE POL 15	P	P	P	P	P	P	P	P
TOWN CENTRE POL 16	P	P	P	P	P	P	P	P
TOWN CENTRE POL 17	P	P	P	P	P	P	P	P
TOWN CENTRE POL 18	P	P	P	P	P	P	P	P
TOWN CENTRE POL 19	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 1	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 2	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 3	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 4	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 5	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 6	P	P	P	P	P	P	P	P
Chapter 5 – Housing								
HS POL 1	P	P	P	P	P	P	P	P
HS POL 2	P	P	P	P	P	P	P	P
HS POL 3	P	P	P	P	P	P	P	P
HS POL 4	P	P	P	P	P	P	P	P
HS POL 5	P	P	P	P	P	P	P	P
HS POL 6	P	P	P	P	P	P	P	P
HS POL 7	P	P	P	P	P	P	P	P
HS POL 8	P	P	P	P	P	P	P	P
HS POL 9	P	P	P	P	P	P	P	P
HS POL 10	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
HS POL 11	P	P	P	P	P	P	P	P
HS POL 12	P	P	P	P	P	P	P	P
HS POL 13	P	P	P	P	P	P	P	P
HS POL 14	P	P	P	P	P	P	P	P
HS OBJ 1	P	P	P	P	P	P	P	P
HS OBJ 2	P	P	P	P	P	P	P	P
Chapter 6 - Community Facilities, Recreation and Open Space								
SOC POL 1	P	P	P	P	P	P	P	P
SOC OBJ 1	P	P	P	P	P	P	P	P
SOC POL 2	P	P	P	P	P	P	P	P
SOC OBJ 2	P	P	P	P	P	P	P	P
SOC POL 3	P	P	P	P	P	P	P	P
SOC POL 4	P	P	P	P	P	P	P	P
SOC POL 5	P	P	P	P	P	P	P	P
SOC OBJ 3	P	P	P	P	P	P	P	P
SOC POL 6	P	P	P	P	P	P	P	P
SOC POL 7	P	P	P	P	P	P	P	P
SOC POL 8	P	P	P	P	P	P	P	P
SOC POL 9	P	P	P	P	P	P	P	P
SOC POL 10	P	P	P	P	P	P	P	P
SOC OBJ 4	P	P	P	P	P	P	P	P
SOC POL 10	P	P	P	P	P	P	P	P
SOC POL 11	P	P	P	P	P	P	P	P
SOC POL 12	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
SOC OBJ 5	P	P	P	P	P	P	P	P
SOC POL 13	P	P	P	P	P	P	P	P
SOC POL 14	P	P	P	P	P	P	P	P
SOC POL 15	P	P	P	P	P	P	P	P
SOC POL 16	P	P	P	P	P	P	P	P
SOC POL 17	P	P	P	P	P	P	P	P
SOC POL 18	P	P	P	P	P	P	P	P
SOC POL 19	P	P	P	P	P	P	P	P
SOC POL 20	P	P	P	P	P	P	P	P
SOC OBJ 6	P	P	P	P	P	P	P	P
SOC OBJ 7	P	P	P	P	P	P	P	P
SOC OBJ 8	P	P	P	P	P	P	P	P
SOC POL 21	P	P	P	P	P	P	P	P
SOC OBJ 9	P	P	P	P	P	P	P	P
SOC OBJ 10	P	P	P	P	P	P	P	P
SOC POL 22	P	P	P	P	P	P	P	P
SOC POL 23	P	P	P	P	P	P	P	P
SOC OBJ 11	P	P	P	P	P	P	P	P
GI POL 1	P	P	P	P	P	P	P	P
GI POL 2	P	P	P	P	P	P	P	P
GI POL 3	P	P	P	P	P	P	P	P
GI POL 4	P	P	P	P	P	P	P	P
GI POL 5	P	P	P	P	P	P	P	P
GI POL 6	P	P	P	P	P	P	P	P
GI POL 7	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
GI POL 8	P	P	P	P	P	P	P	P
GI POL 9	P	P	P	P	P	P	P	P
GI OBJ 1	P	P	P	P	P	P	P	P
GI OBJ 2	P	P	P	P	P	P	P	P
Chapter 7 – Infrastructure								
INF POL 1	P	P	P	P	P	P	P	P
INF POL 2	P	P	P	P	P	P	P	P
INF POL 3	P	P	P	P	P	P	P	P
INF POL 4	P	P	P	P	P	P	P	P
INF POL 5	P	P	P	P	P	P	P	P
INF POL 6	P	P	P	P	P	P	P	P
INF OBJ 1	P	P	P	P	P	P	P	P
INF OBJ 2	P	P	P	P	P	P	P	P
INF POL 7	P	P	P	P	P	P	P	P
INF POL 8	P	P	P	P	P	P	P	P
INF OBJ 3	P	P	P	P	P	P	P	P
INF POL 9	P	P	P	P	P	P	P	P
INF POL 10	P	P	P	P	P	P	P	P
INF POL 11	P	P	P	P	P	P	P	P
INF POL 12	P	P	P	P	P	P	P	P
INF POL 13	P	P	P	P	P	P	P	P
INF POL 14	P	P	P	P	P	P	P	P
INF POL 15	P	P	P	P	P	P	P	P
INF POL 16	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
INF POL 17	P	P	P	P	P	P	P	P
INF POL 18	P	P	P	P	P	P	P	P
INF OBJ 4	P	P	P	P	P	P	P	P
INF OBJ 5	P	P	P	P	P	P	P	P
INF POL 19	P	P	P	P	P	P	P	P
INF POL 20	P	P	P	P	P	P	P	P
Chapter 8 - Traffic & Transportation								
TRAN OBJ 1	P	P	P	P	P	P	P	P
TRAN POL 1	P	P	P	P	P	P	P	P
TRAN OBJ 2	P	P	P	P	P	P	P	P
TRAN OBJ 3	P	P	P	P	P	P	P	P
TRAN POL 2	P	P	P	P	P	P	P	P
TRAN POL 3	P	P	P	P	P	P	P	P
TRAN POL 4	P	P	P	P	P	P	P	P
TRAN POL 5	P	P	P	P	P	P	P	P
TRAN OBJ 4	P	P	P	P	P	P	P	P
TRAN OBJ 5	P	P	P	P	P	P	P	P
TRAN POL 6	P	P	P	P	P	P	P	P
TRAN OBJ 7	M	M	M	M	M	M	M	M
Chapter 9 - Telecommunications & Energy								
TE POL 1	P	P	P	P	P	P	P	P
TE POL 2	P	P	P	P	P	P	P	P
TE POL 3	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
TE POL 4	P	P	P	P	P	P	P	P
TE POL 5	P	P	P	P	P	P	P	P
TE POL 6	P	P	P	P	P	P	P	P
TE POL 7	P	P	P	P	P	P	P	P
TE POL 8	P	P	P	P	P	P	P	P
TE POL 9	P	P	P	P	P	P	P	P
TE POL 10	P	P	P	P	P	P	P	P
TE POL 11	P	P	P	P	P	P	P	P
TE POL 12	P	P	P	P	P	P	P	P
TE POL 13	P	P	P	P	P	P	P	P
TE OBJ 1	P	P	P	P	P	P	P	P
Chapter 10 - Heritage & Environment								
HER OBJ 1	P	P	P	P	P	P	P	P
HER POL 1	P	P	P	P	P	P	P	P
HER POL 2	P	P	P	P	P	P	P	P
HER POL 3	P	P	P	P	P	P	P	P
HER POL 4	P	P	P	P	P	P	P	P
HER OBJ 2	P	P	P	P	P	P	P	P
HER OBJ 3	P	P	P	P	P	P	P	P
HER OBJ 4	P	P	P	P	P	P	P	P
HER OBJ 5	P	P	P	P	P	P	P	P
HER OBJ 6	P	P	P	P	P	P	P	P
HER OBJ 7	P	P	P	P	P	P	P	P
HER OBJ 8	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
HER POL 5 (i)	P	P	P	P	P	P	P	P
HER POL 5 (ii)	P	P	P	P	P	P	P	P
HER POL 6	P	P	P	P	P	P	P	P
HER OBJ 9	P	P	P	P	P	P	P	P
HER OBJ 10	P	P	P	P	P	P	P	P
HER POL 7	P	P	P	P	P	P	P	P
HER POL 8	P	P	P	P	P	P	P	P
HER POL 9	P	P	P	P	P	P	P	P
HER POL 10	P	P	P	P	P	P	P	P
HER POL 11	P	P	P	P	P	P	P	P
HER POL 12	P	P	P	P	P	P	P	P
HER POL 13	P	P	P	P	P	P	P	P
HER POL 14	P	P	P	P	P	P	P	P
HER OBJ 11	P	P	P	P	P	P	P	P
HER POL 15	P	P	P	P	P	P	P	P
HER POL 16	P	P	P	P	P	P	P	P
H1 High Amenity	P	P	P	P	P	P	P	P

7 Consideration of Alternatives

7.1 Introduction

Alternative development scenarios were considered in the development of the Kells Development Plan 2013 – 2019. These options primarily related to rezoning of lands and Flood Risk Management each of which are addressed in the following sections.

7.2 Land Zoning

7.2.1 Lands Required for Residential Development

It became apparent during the plan review process that there existed a significant oversupply of residential zoned lands in the town once residential allocations assigned to Kells for 2013 – 2019 in the review of the Draft County Development Plan had been considered and incorporated. Therefore there was a requirement to reduce the quantity of residential zoned land in town as part of the Core Strategy of this new Kells Development Plan in line with the Draft County Core Strategy.

An evidence based approach was applied which informed the overall Core Strategy. This included an evaluation of the available zoned sites including lands with residential, mixed use and town centre / commercial land use zoning objectives. The evaluation excluded the following:

- Those areas within the identified flood risk mapping,
- Sites less than 0.5 hectares in extent as it was not considered necessary to include sites which could bring forward less than 10 no. units,
- Sites with existing uses which are unlikely to change over the course of the next Development Plan, and
- All sites with the benefit of an extant permission.

The following factors were used to determine the suitability of specific lands for residential development which constitute the proper planning and sustainable development of the town:

- Proximity to the Town Centre.
- Regeneration / Renewal of residential areas or other brownfield “Opportunity Sites”.
- Environmental Constraints.
- Physical Suitability.
- Availability of Public Transport.
- Availability of community and social infrastructure facilities.
- The need to provide new roads infrastructure to facilitate development.
- Consideration as to whether a site could be considered an infill opportunity as opposed to extending the urban footprint further from the town centre.

Following detailed discussions with the Water Services personnel it was considered that whilst the availability of piped water services capacity will remain critical over the life of the Kells Development Plan, there are no particular issues regarding the networks and therefore it was not considered necessary to include this as a decision making factor.

Sites were ranked under each category from 1 – 5, with 1 being most favourable. Following the evaluation exercise, ten sites were put forward as most suitable for residential zoning with a further site identified as a strategic reserve. All other sites were proposed for dezoning.

7.2.2 Lands required for Employment Opportunities

In the 2007 – 2013 Kells Development Plan, two areas were zoned to accommodate employment generating uses namely 40 hectares at the Kells Business Park at Lloyd and 28.64 hectares on the Navan Road opposite the Headfort Golf Club. The combined extent of these two land banks was 68.64 hectares.

It became evident during the plan review process that there was also an oversupply of land zoned for employment opportunities. At Lloyd Business Park alone, it was considered that the extent of lands zoned were significantly in excess of that required to accommodate the projected workforce of the town and environs over the life of the next Development Plan and beyond. It was also considered that there was no justification for any other lands to be identified for general enterprise and employment in the Kells Development Plan.

Therefore an assessment of land suitability was carried out to determine which lands should be dezoned.

It was determined that within the Lloyd Business Park landbank the topography of the lands adjacent to the bypass did not readily lend themselves for development. In addition, the area adjoining the R147 / N52 roundabout was not considered suitable for development due to its elevation above the bypass which is in a significant cut at this location. These two pockets of land were therefore selected for dezoning. It was also noted that the lands adjoining the Moynalty Road fall significantly towards the Blackwater River and therefore it was considered preferable to remove the land use zoning objective from these lands in the interest of visual amenity and to protect the qualifying interests of the Natura 2000 sites. As a result of these amendments the quantum of land which was previously zoned at Lloyd Business Park for future development was reduced to 24 hectares.

Given that it was considered that there was no justification for any other lands to be identified for general enterprise and employment in the Kells Development Plan it was determined that the land use zoning objective of the lands previously zoned for E2 land use (employment opportunities) on the Navan Road should be changed to F1 active amenity use.

7.2.3 Lands Required for Retail Use

Following completion of the Retail Evaluation Strategy for County Meath it was determined that there was an oversupply of lands devoted to retail warehouse use on the Cavan Road. Therefore, the Development Plan has included a reduction in the extent of lands zoned for this purpose at this location.

This has facilitated the rezoning of the land to provide options for the relocation of Eureka Secondary School in the future.

7.3 Flood Risk Management

A Strategic Flood Risk Assessment for Kells was prepared on behalf of Kells Town Council/Meath County Council. The Flood Zone Map produced provides information on two main areas of flood risk.

The Guidelines for Planning Authorities '*The Planning System and Flood Risk Management*' require Planning Authorities to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk that are consistent with the objectives of proper planning and sustainable development. Where such development has to take place, in the case of urban regeneration for example, the types of development has to be carefully considered and the risk should be mitigated and managed through location, layout and design of development to reduce flood risk to an acceptable level.

Having regard to the approach to flood risk set out in the Guidelines and the extent of the areas shown to be at risk in the SFRA mapping for Kells Town & Environs, a number of areas which were zoned for development in the 2007 Kells Development Plan are no longer zoned in this Plan. In most cases the zoning has been removed because the lands have been identified as being at risk of flooding. Lands which have been dezoned include:

- Areas of the Backlands to the east of Bective Street
- An area to the rear of McKeons garage off Bective Street
- Residential Lands to the northeast of the town close to the Blackwater River

As mentioned previously, the SFRA recommends application of the Planning Guidelines which seek to avoid development in areas of flood risk. The Justification test was applied where there was a clear conflict with flood risk and zoning namely in the case of the distributor roads. For areas zoned for Community Infrastructure it is recommended that the sequential approach (avoidance) will be employed, for example sports pitches will be placed in Flood Zone A or B and more vulnerable development in Zone C. The justification test would have to be applied under a site specific FRA where proposals conflict with this recommendation.

8 Mitigation Measures

Mitigation measures are measures envisaged and designed to prevent, reduce and as fully as possible offset any significant adverse impacts on the environment of implementing the Development Plan. All mitigation measures have been developed and agreed with Meath County Council as part of the SEA iterative process.

This Environmental Report has not highlighted any significant potential negative environmental impacts that will arise from the implementation of the Plan. However, the following mitigation measures have been identified to ensure no negative impacts occur (Refer to **Table 18**).

Mitigation measures required for the Habitats Directive Article 6 report are also noted as being relevant to the measures outlined for Biodiversity, Flora and Fauna, Water Resources, Soils and Geology and Landscape.

The primary mitigation measure is to ensure the sustainable and appropriate development of Kells without compromising the integrity of the natural and built environment. All new development requiring an Environmental Impact Statement will need to address the range of environmental objectives, indicators and targets and associated environmental mitigation measures and incorporate them into the project specific mitigation measures.

Table 18: Mitigation Measures

Environmental Receptor	Mitigation Measures
Biodiversity	<ul style="list-style-type: none"> • Ensure that appropriate measures for conservation and enhancement of the natural and built environment are incorporated into all relevant plans and programmes. • Ensure that all new development plans are cognisant of the Biodiversity Action Plan for the County. • Ensure the suitable protection of ecological resources that have economic benefits e.g. ecological zones that draw tourism. • Compliance with the zoning of the SACs, and SPAs which prohibits non-compatible developments. • Ensure that an AA is carried out for all development proposals with potential to impact on Natura 2000 sites.
Population and Human Health	<ul style="list-style-type: none"> • Ensure that access to adequate health and education facilities to meet the demand of the current and projected populace are included in development plans. • Encourage the further development of regional public transport infrastructure including rail and bus corridors.
Soils and Geology	<ul style="list-style-type: none"> • Perform a survey of obsolete urban renewal areas and facilitate and promote the reuse and regeneration of brownfield sites, derelict land and buildings in and around urban centres. • Promote the recycling of construction and demolition waste and the reuse of aggregate and other materials in order to reduce the quantities of virgin material being extracted.

Environmental Receptor	Mitigation Measures
	<ul style="list-style-type: none"> • Ensure that the ‘polluter pays principle’ is adhered to in full cooperation with the EPA.
Water Resources and Flooding	<ul style="list-style-type: none"> • Ensure that the objectives and the programme of measures outlined the River Basin Management Plans are fully implemented. • Provide adequate capacity at water and wastewater treatment and storage facilities for current and projected populace. • Prevent the alteration of natural drainage systems and in the case of development works require the provision of acceptable mitigation measures in order to minimise the risk of flooding and negative impacts on water quality. • Promote SUDS principles for all drainage including the integration of storm water attenuation facilities for new developments and existing catchment areas. • Ensure that any new development does not present an inappropriate risk of flooding or does not cause or exacerbate such a risk at other locations. • Preserve and protect the water quality of river systems and groundwater. • Comply with the DoEHLG/OPW guidance on development and flood risk through the control of development in any flood plain so that new and existing developments are not exposed to increased risk of flooding and that any loss of flood storage is compensated for elsewhere in the river catchment. • Incorporation of recommendations from the Strategic Flood Risk Assessment (SFRA).
Air, Noise and Climate	<ul style="list-style-type: none"> • Ensure that the objectives and policies of EU Air Quality legislation are incorporated into plans and programmes upon implementation into Irish law. • Promote the reduction of emissions of Greenhouse Gases to ensure Ireland’s compliance with our Kyoto Protocol Targets. • Facilitate sustainable transport modes and the use of walking, cycling and public transport. • Consideration of existing noise policy in County Meath for example noise mapping and noise action plans produced by the Local Authority. • Consideration of likely noise impacts/effects associated with new developments. This includes being cognisant of proximity to sensitive receptors when siting new developments and consideration of existing noise sources when zoning lands for residential development.

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9 SEA Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive, negative and cumulative impacts on the environment to be measured.

As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the Kells Development Plan.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Meath County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Environmental Category	Target	Indicators	Data Sources, Responsibility and Frequency
Biodiversity including Flora and Fauna	<ul style="list-style-type: none"> Consider siting of new development on non-sensitive sites. Improve/maintain protection for protected sites and species. Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors. Improve access for the appreciation and promotion of wildlife. 	<ul style="list-style-type: none"> Number and extent of Protected Sites. Areas actively managed for conservation. Population and range of Protected Species. Achievement of the Objectives of Biodiversity Plans. No net loss in length of ecological corridors. 	<p>Sources: Meath County Council, National Parks and Wildlife Services, Fisheries Board and EPA.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Population and Human Health	<ul style="list-style-type: none"> Minimise population exposure to high levels of noise, vibration and air pollution. Increase modal shift to public transport. Co-ordinate land use and transportation policies. Improve access to recreation opportunities. Minimise effect on human health due to flooding 	<ul style="list-style-type: none"> Census population data. Rates of Unemployment per area. % increase in housing (number and type). 	<p>Sources: Meath County Council and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Soils and Geology	<ul style="list-style-type: none"> Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. Ensure polluting substances are appropriately stored and banded. Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. Re-use of brownfield lands, rather than developing Greenfield lands, where possible. 	<ul style="list-style-type: none"> Rates of re-use / recycling of construction waste. Rates of cement / concrete production. Rates of brownfield site and contaminated land reuse and development. Rates of greenfield development 	<p>Sources: Meath County Council and Environmental Protection Agency.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

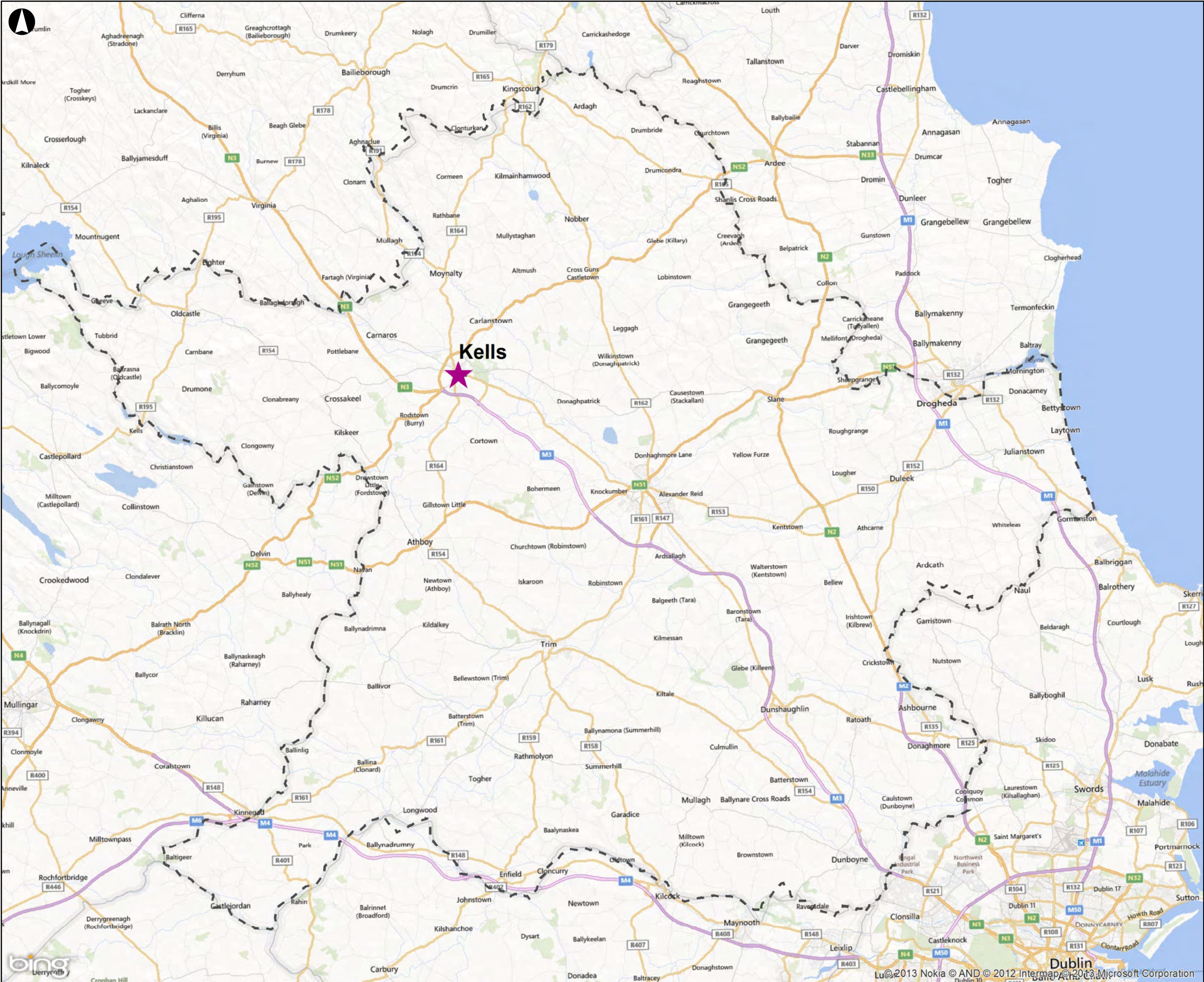
	<ul style="list-style-type: none"> Minimise the consumption of non-renewable sand, gravel and rock deposits 		
Water Resources	<ul style="list-style-type: none"> Support the achievement agreed targets in accordance with the Water Framework Directive. Minimise flood risk through appropriate management of flood vulnerable zones and retention, where practicable, of flood plains. Promote sustainable drainage practices to improve water quality and flow. Maintain sustainable levels of abstraction from Lough Bane. Control/minimise point and diffuse sources of pollution within the Plan area. 	<ul style="list-style-type: none"> Compliance of potable water sources to water quality regulations Compliance of surface waters with national and international standards Potable/wastewater treatment capacity versus population % of wastewater achieving tertiary treatment Achievement of the Objectives of the River Basin Management Plans Implementation of recommendations of SFRA 	<p>Sources: Meath County Council, Environmental Protection Agency and Fisheries Board.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Air, Noise & Climate	<ul style="list-style-type: none"> Minimise air and noise emissions during construction and operation of new developments. Promote minimisation of greenhouse gas emissions to the atmosphere 	<ul style="list-style-type: none"> Traffic, Transport and Vehicular survey data National and region specific emission data Compliance with national standards Reduction in greenhouse gas emissions Number and extent of emission licensed facilities Number of energy/renewable energy facilities % of new residential units with C1 or better BER rating 	<p>Sources: Meath County Council, Environmental protection Agency and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

Archaeological, Architectural and Cultural Heritage	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites. • Improve appearance of areas with particular townscape character. • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential. • Enhance access to sites of heritage interest 	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls – Architectural Conservation Areas 	<p>Sources: Meath County Council and Department of Environment Community and Local Government.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Landscape & Visual	<ul style="list-style-type: none"> • Improve protection for landscapes of recognised quality. • Maintain clear urban/rural distinctions. • Enhance provision of, and access to, green infrastructure in Kells. • Ensure development is sensitive to its surroundings 	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban • Areas of new Green Infrastructure established 	<p>Sources: Meath County Council and Department of Environment, Community and Local Government.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Material Assets	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services. • Increase local employment opportunities. • Improve efficiencies of transport, energy and communication infrastructure. 	<ul style="list-style-type: none"> • Enhancement/expansion of existing infrastructure. • Achievement of development plan objectives 	<p>Sources: Meath County Council, Central Statistics Office, National Roads Authority and Environmental Protection Agency.</p>

	<ul style="list-style-type: none"> • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste management. 	<ul style="list-style-type: none"> • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
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A1

Figures

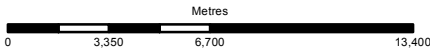


Legend

- ★ Kells
- ⌈⌋ County Meath

F1	2012-11-02	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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Client

Meath County Council

Job Title

Kells SEA

Location of Kells

Scale at A3

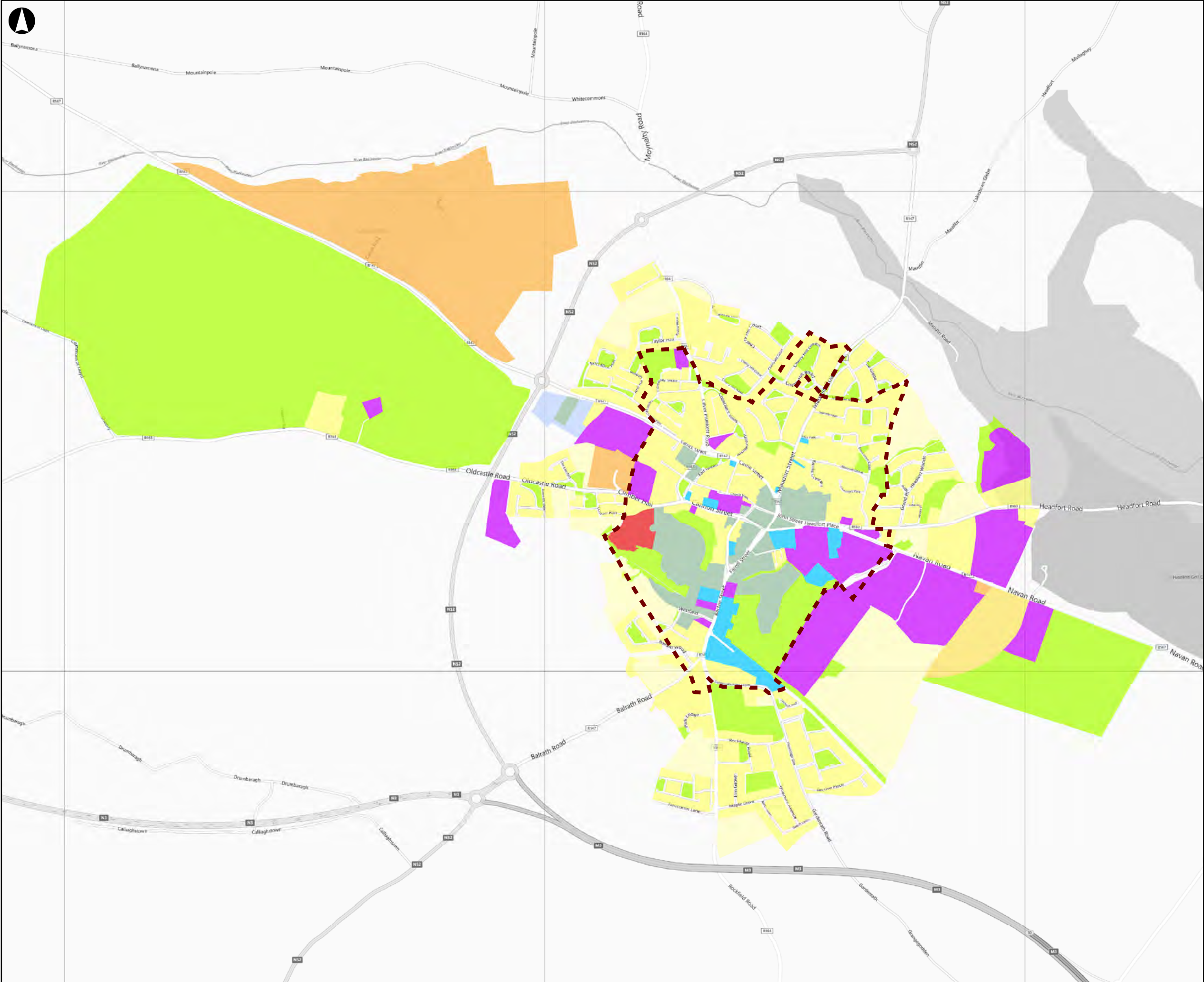
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Job No
225245-00

Drawing Status
For Issue

Drawing No
Fig_03

Issue
F1



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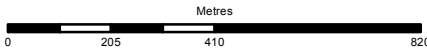
Zone Code

- A1
- A2
- B1
- B2
- C1
- D1
- E2
- F1
- G1
- WL

Kells Town Council Boundary

F1	2012-11-02	AK	CS	CS
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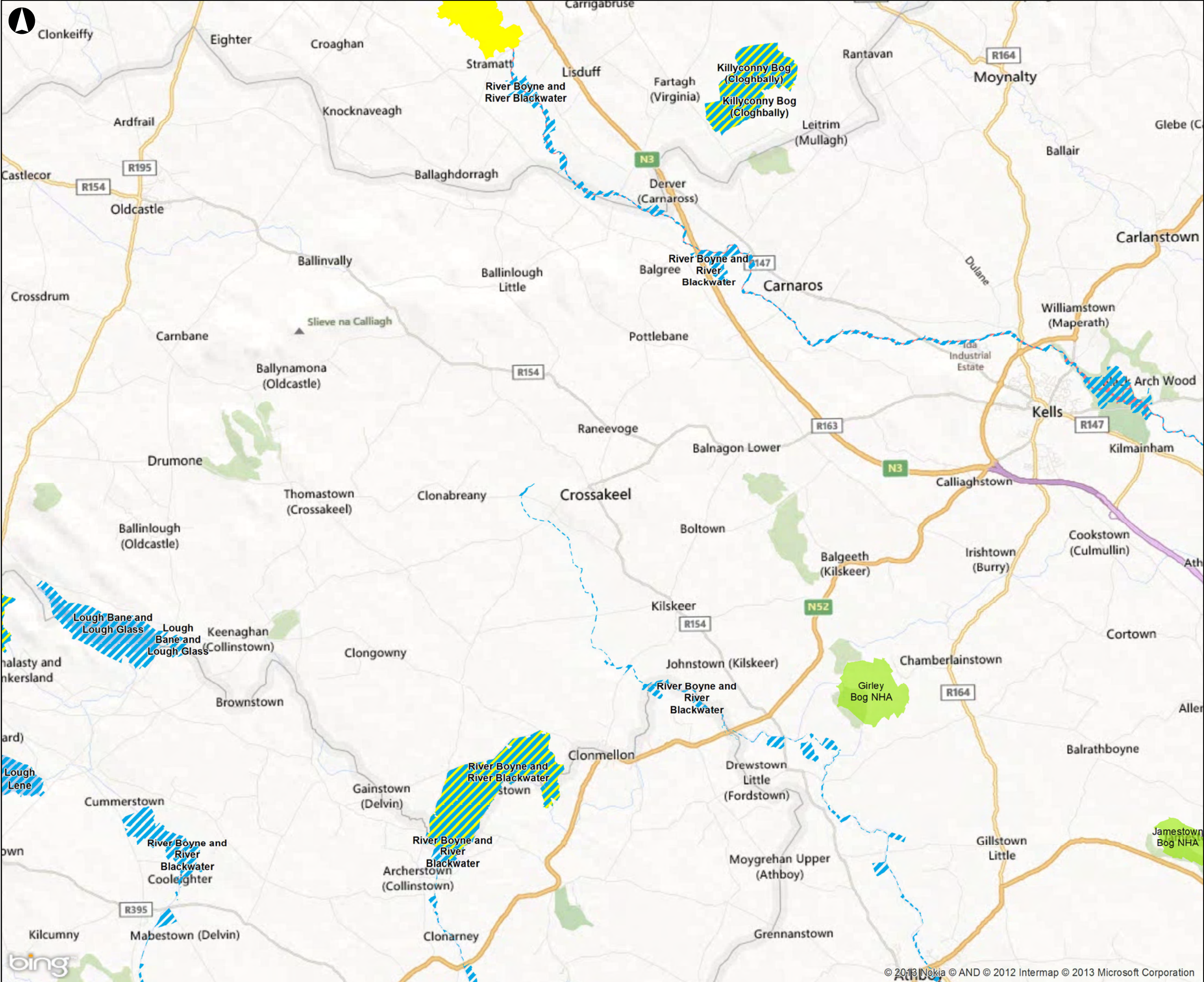
Job Title
Kells SEA

Kells and Environs
Development Plan

Scale at A3
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Job No 225245-00	Drawing Status For Issue
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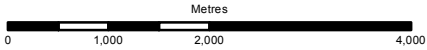


Legend

- Special Area of Conservation
- Natural Heritage Areas
- Proposed Natural Heritage Areas
- Special Protection Areas

F1	2012-11-01	AK	CS	CS
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Job Title

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Sites of Natural Heritage Intrest

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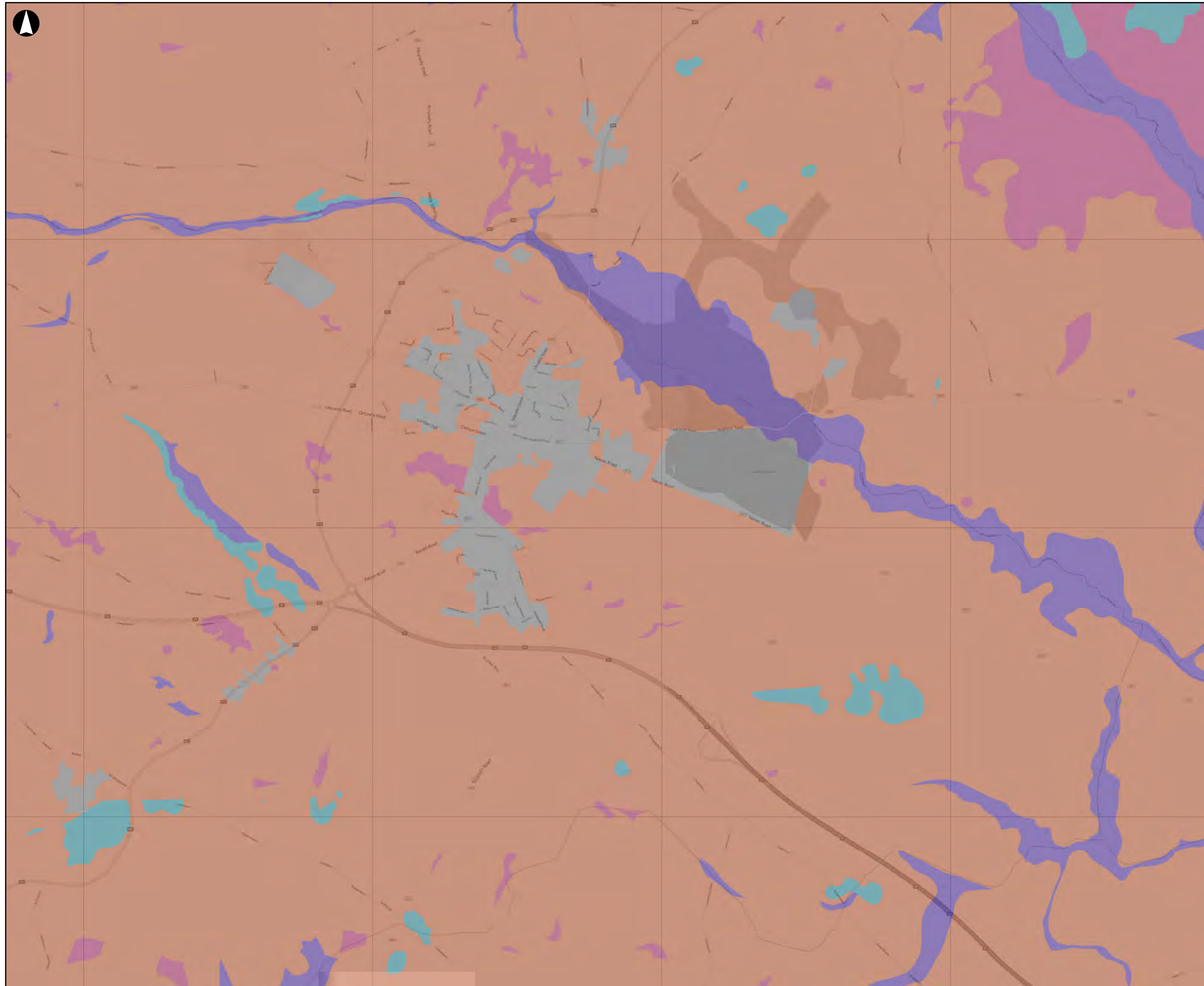
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Job No
225245-00

Drawing Status
For Issue

Drawing No
Fig_05

Issue
F1



Soil Classification

- Aeolian Undifferentiated
- Mineral Alluvium
- Acid Brown Earths
- Brown Podzolics
- Renzinas/Lithosols
- Lacustrine Type Soils
- Made Ground

F1	2012-11-01	AK	CS	CS
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A horizontal scale bar labeled "Metres" with markings at 0, 335, 670, and 1,340.

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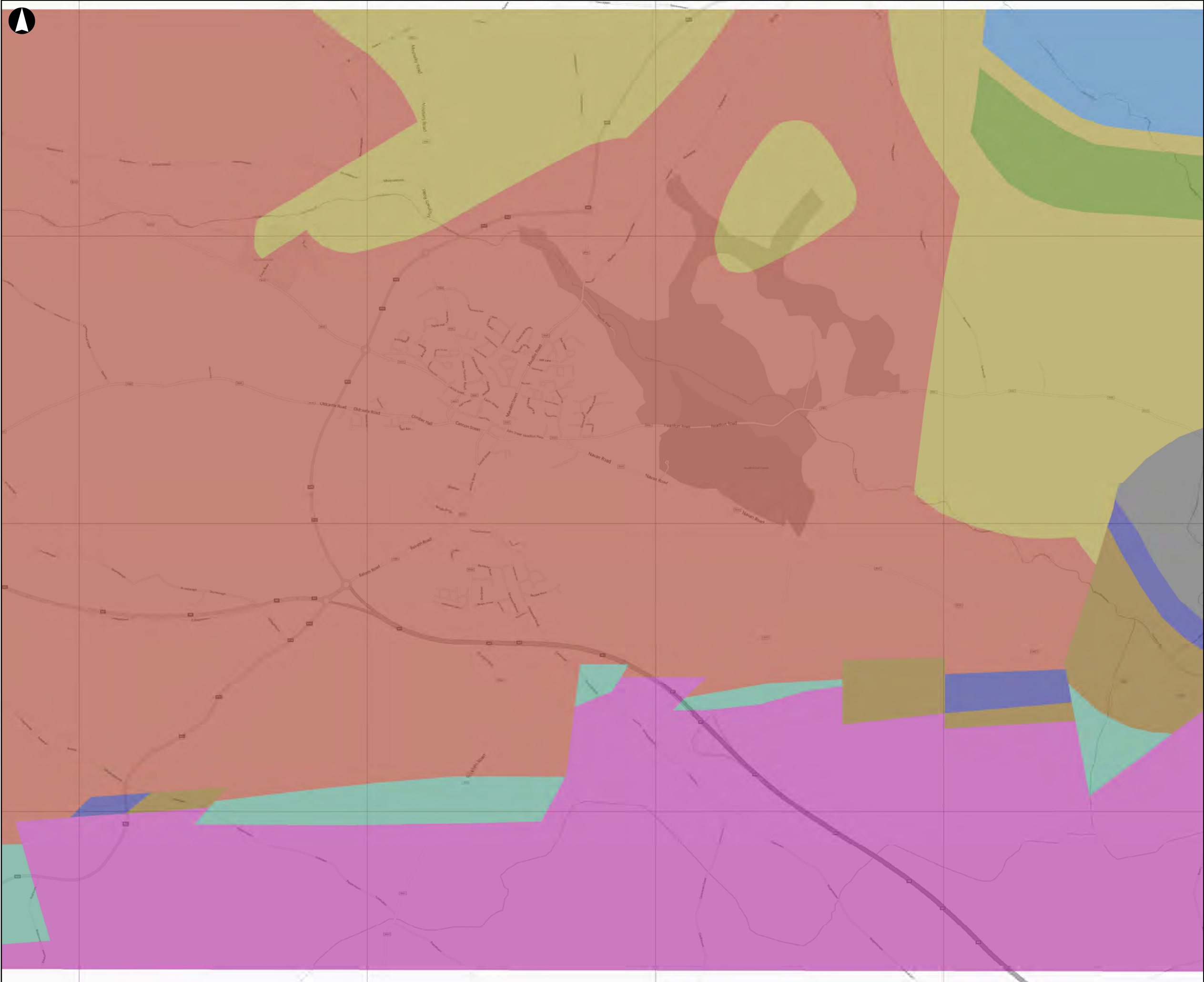
Soils of Kells

Scale at A3

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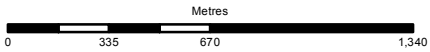
Drawing No	Issue
Fig_06	F1



Legend

- Argillaceous bioclastic limestone
- Calcareous greywacke & banded mudstone
- Calcareous red-mica greywacke
- Dark limestone & shale
- Dark limestone, mudstone, sandstone
- Dark muddy limestone, shale
- Laminated Beds & Muddy Limestones
- Limestone, calcareous sandstone
- Limestone, calcareous sandstone, shale
- Micrite & mudstone
- Sandstone
- undifferentiated

F1	2012-11-01	AK	CS	CS
Issue	Date	By	Chkd	Appd



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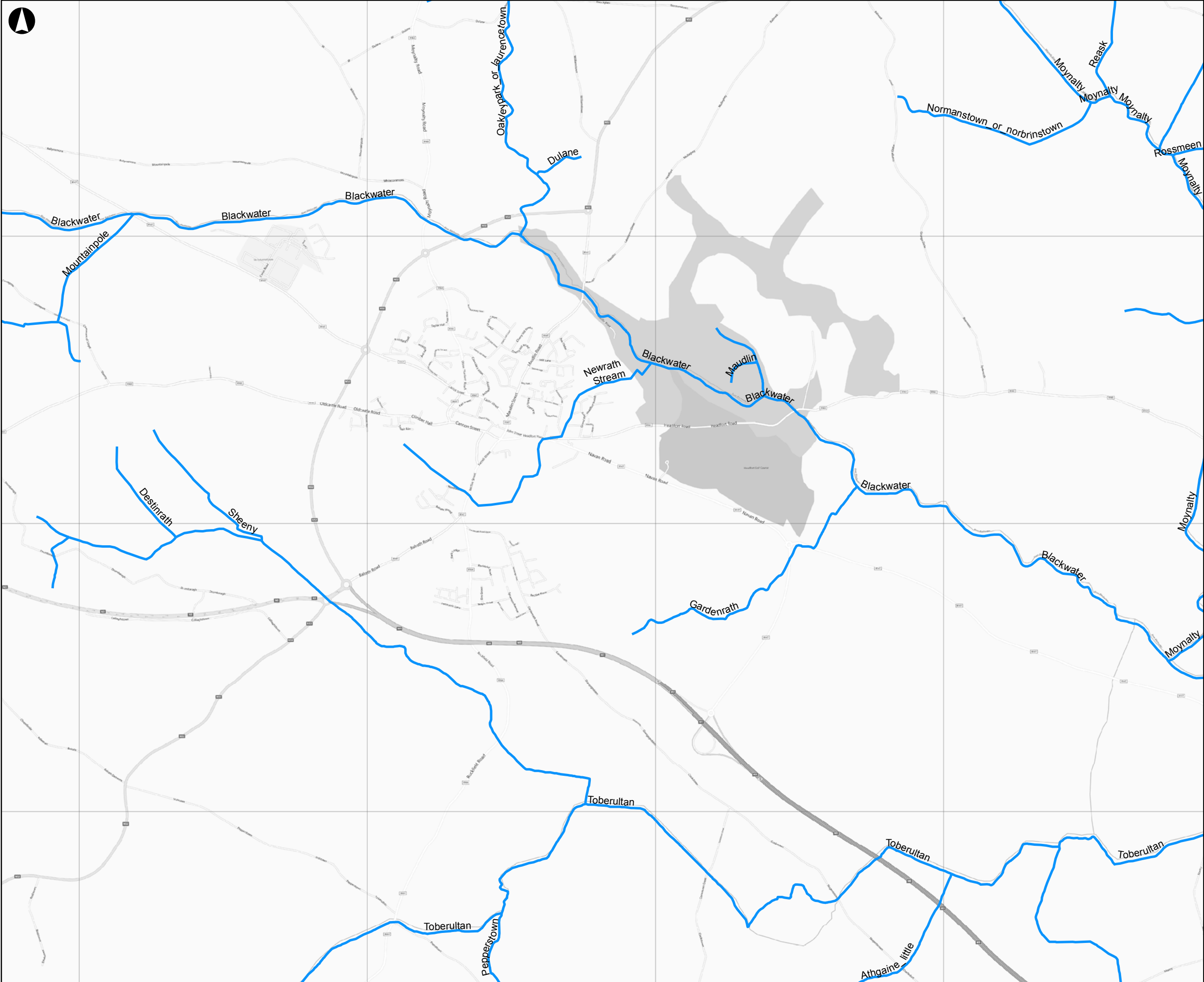
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Job Title
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Scale at A3
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Job No 225245-00	Drawing Status For Issue	Issue F1
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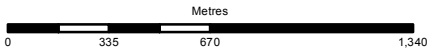


Legend

Rivers and streams

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Issue	Date	By	Chkd	Appd
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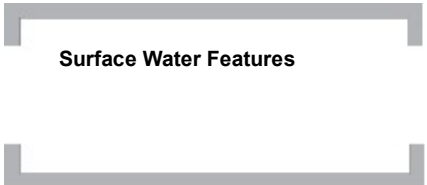


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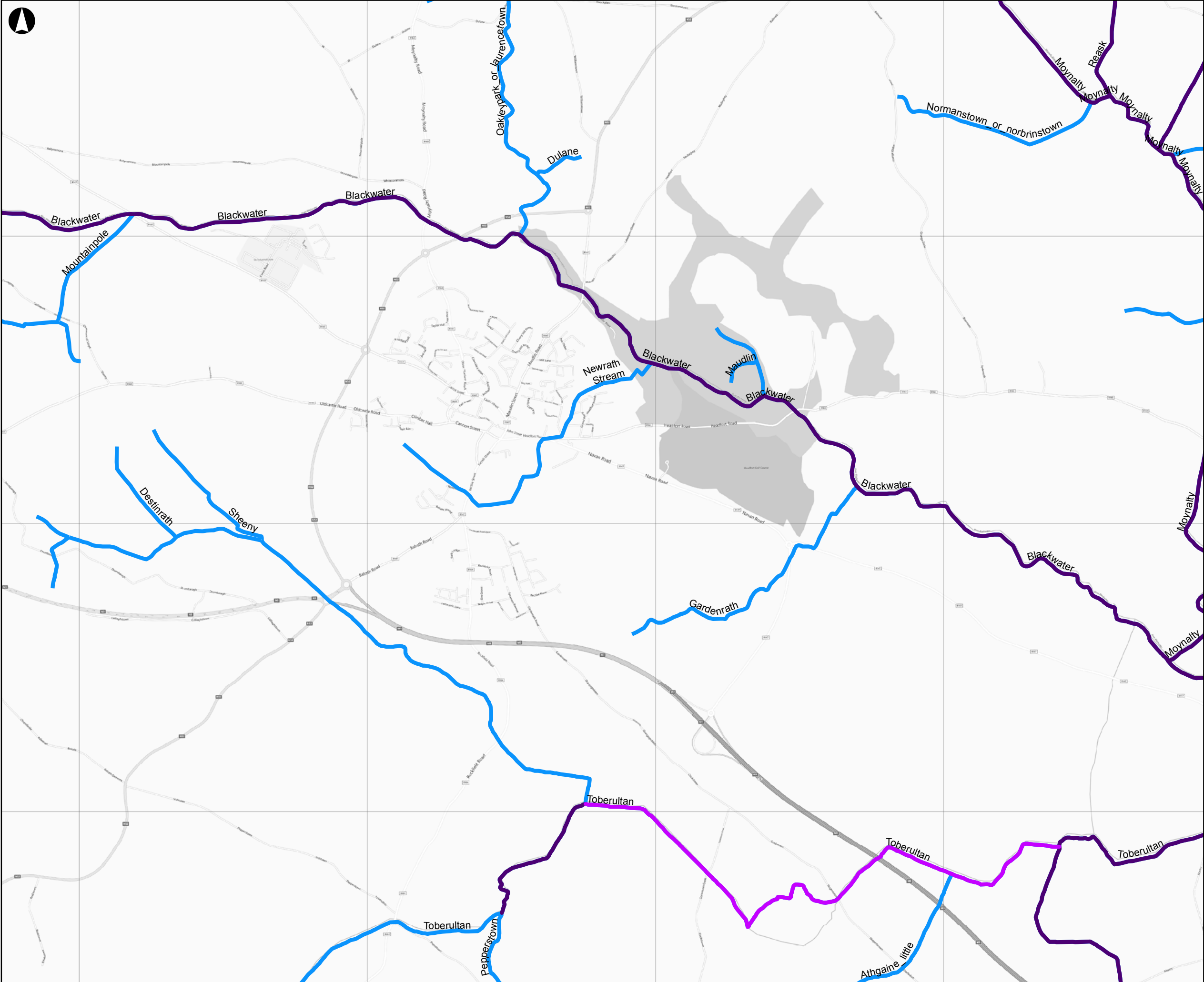
Job Title
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Drawing No Fig_08	Issue F1
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Legend

Surface Water Vulnerability

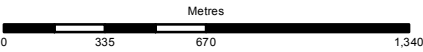
1a - At risk of not achieving Good Status

1b - Probably at risk of not achieving Good Status

No Information

F1	2012-11-01	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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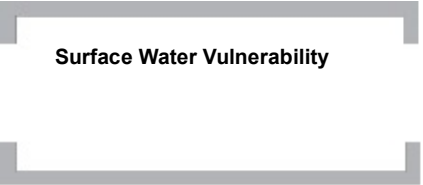


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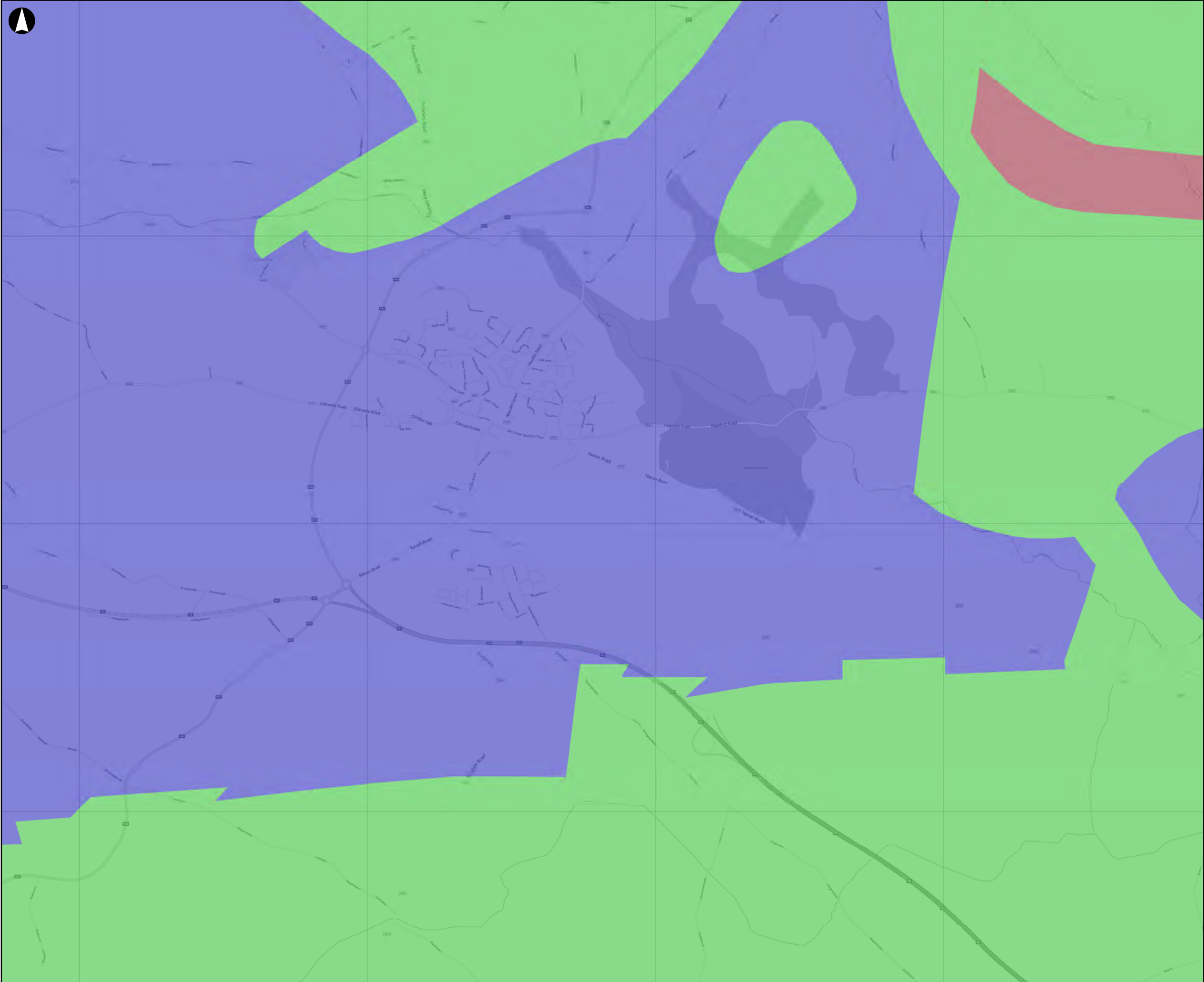
Job Title
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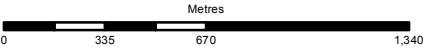
Drawing No Fig_09	Issue F1
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Legend

- Locally Important Aquifer - Bedrock which is Generally Moderately Productive
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones
- Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones

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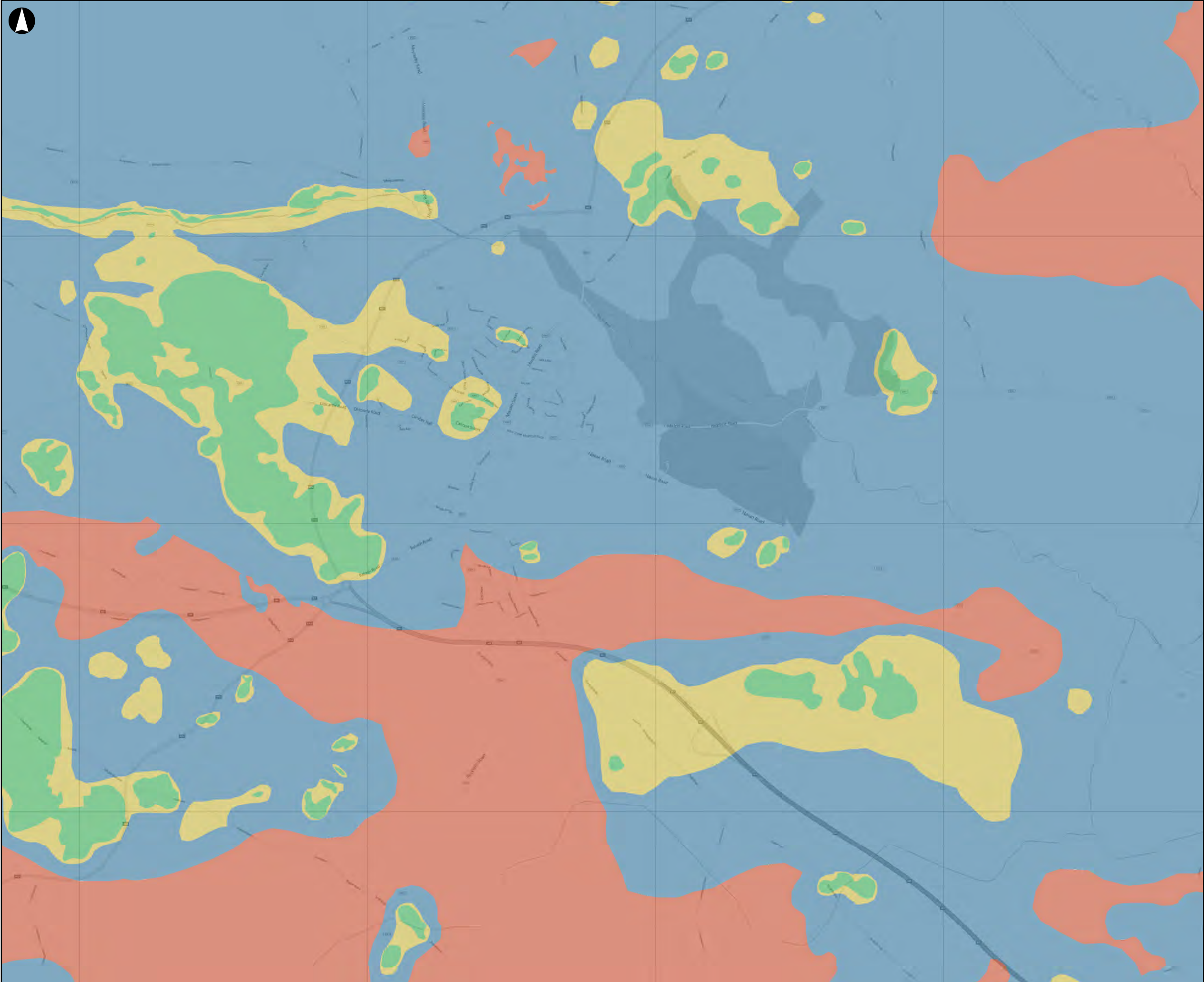
Client
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Scale at A3
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Job No 225245-00	Drawing Status For Issue
Drawing No Fig_10	Issue F1

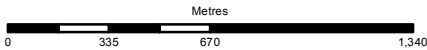


Legend

- Rock near Surface or Karst
- Low
- Moderate
- High
- Extreme
- Water

F1	2012-11-01	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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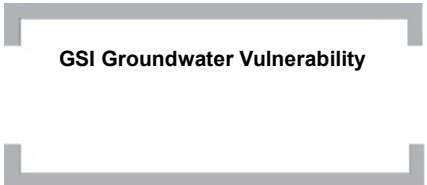


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Drawing No Fig_11	Issue F1
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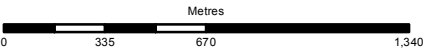


Legend

Poorly productive bedrock

F1	2012-11-01	AK	CS	CS
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Drawing No Fig_12	Issue F1
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Legend

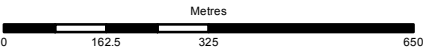
Flooding zones

Zone A

Zone B

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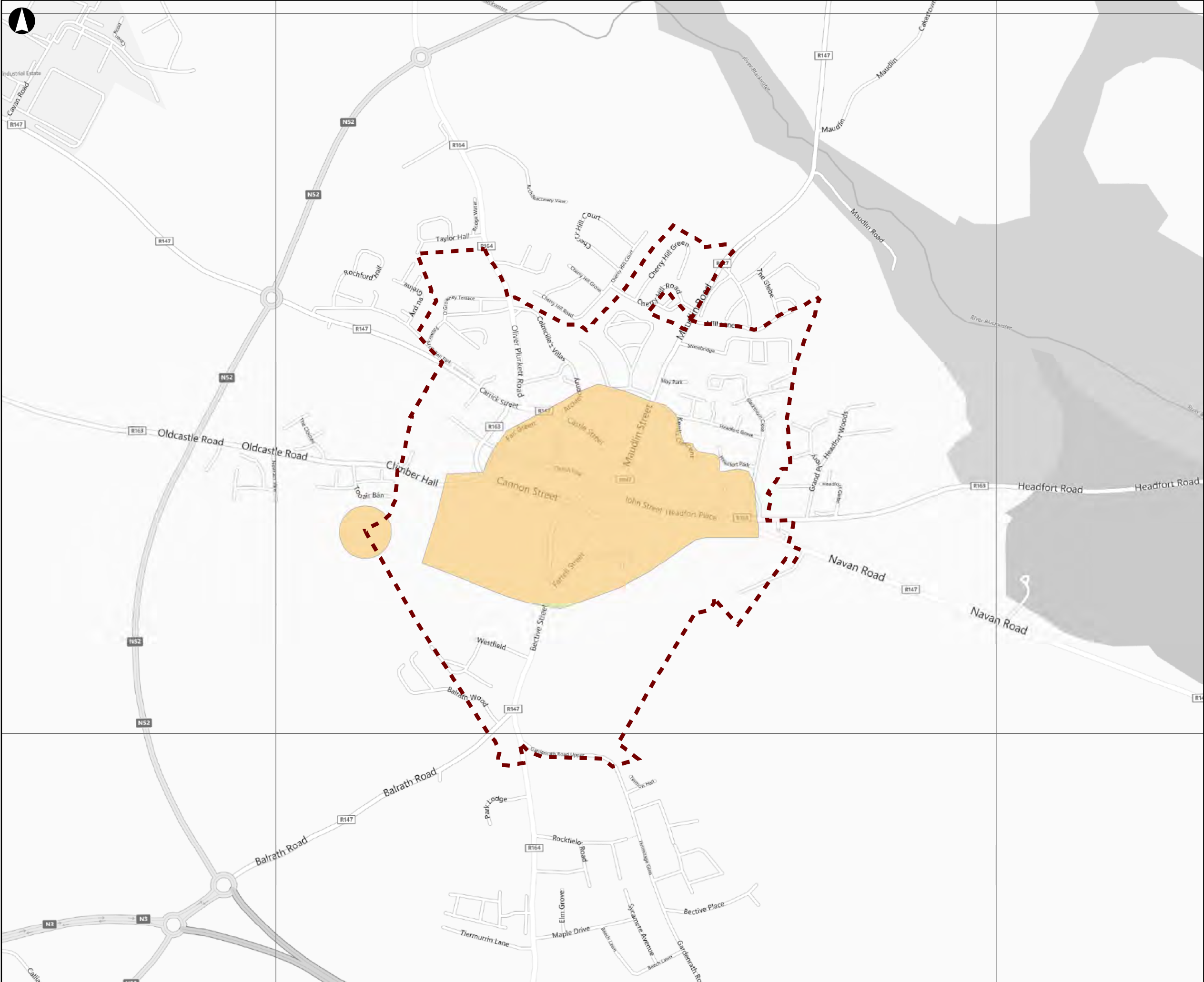
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Flooding Map

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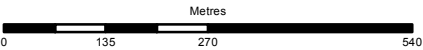
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Archeological Potential Area

Kells Town Council Boundary

F1	2012-11-02	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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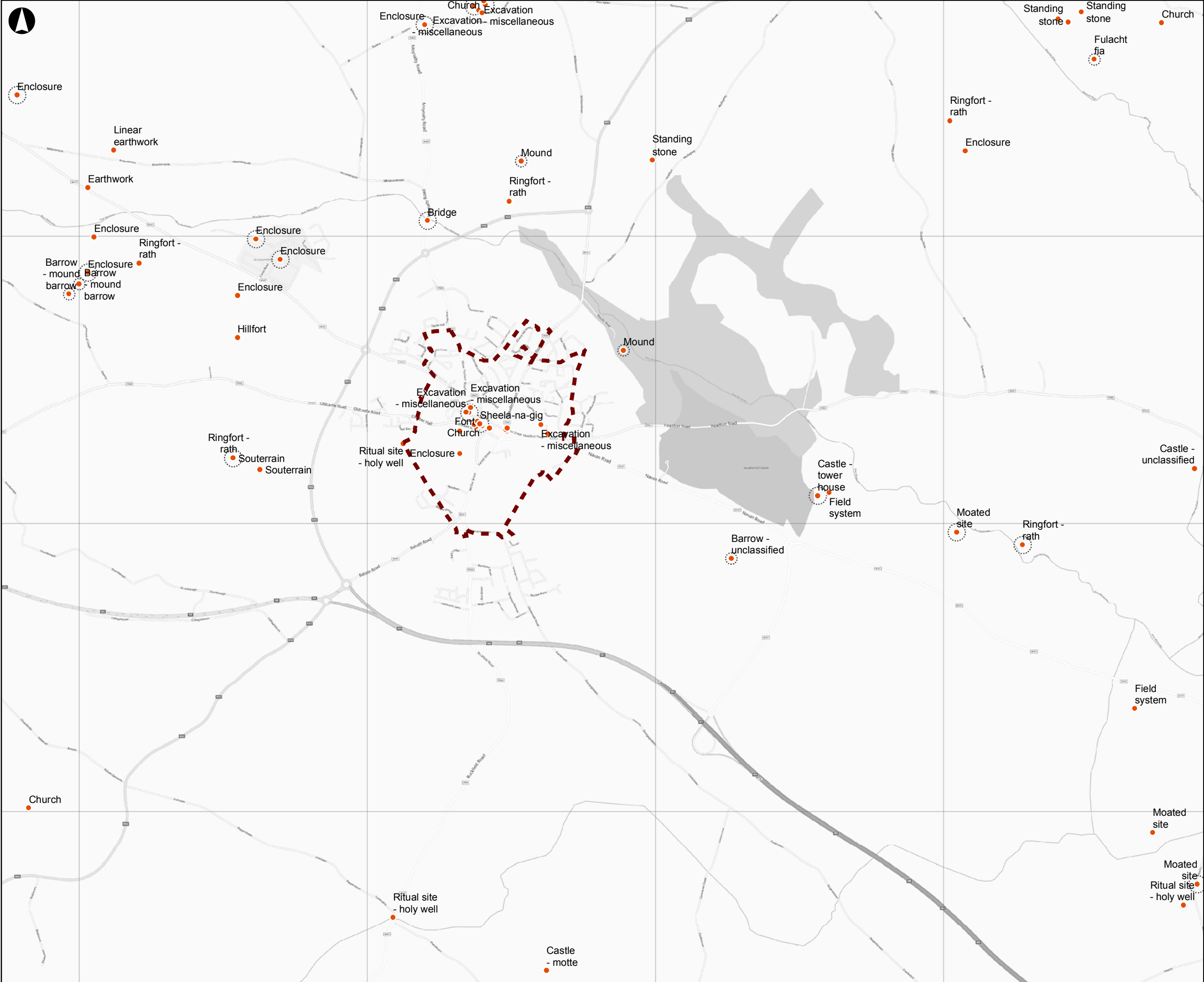
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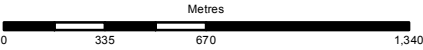
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National Monuments

SMR Zones

Kells Town Council Boundary

F1	2012-11-01	AK	CS	CS
Issue	Date	By	Chkd	Appd



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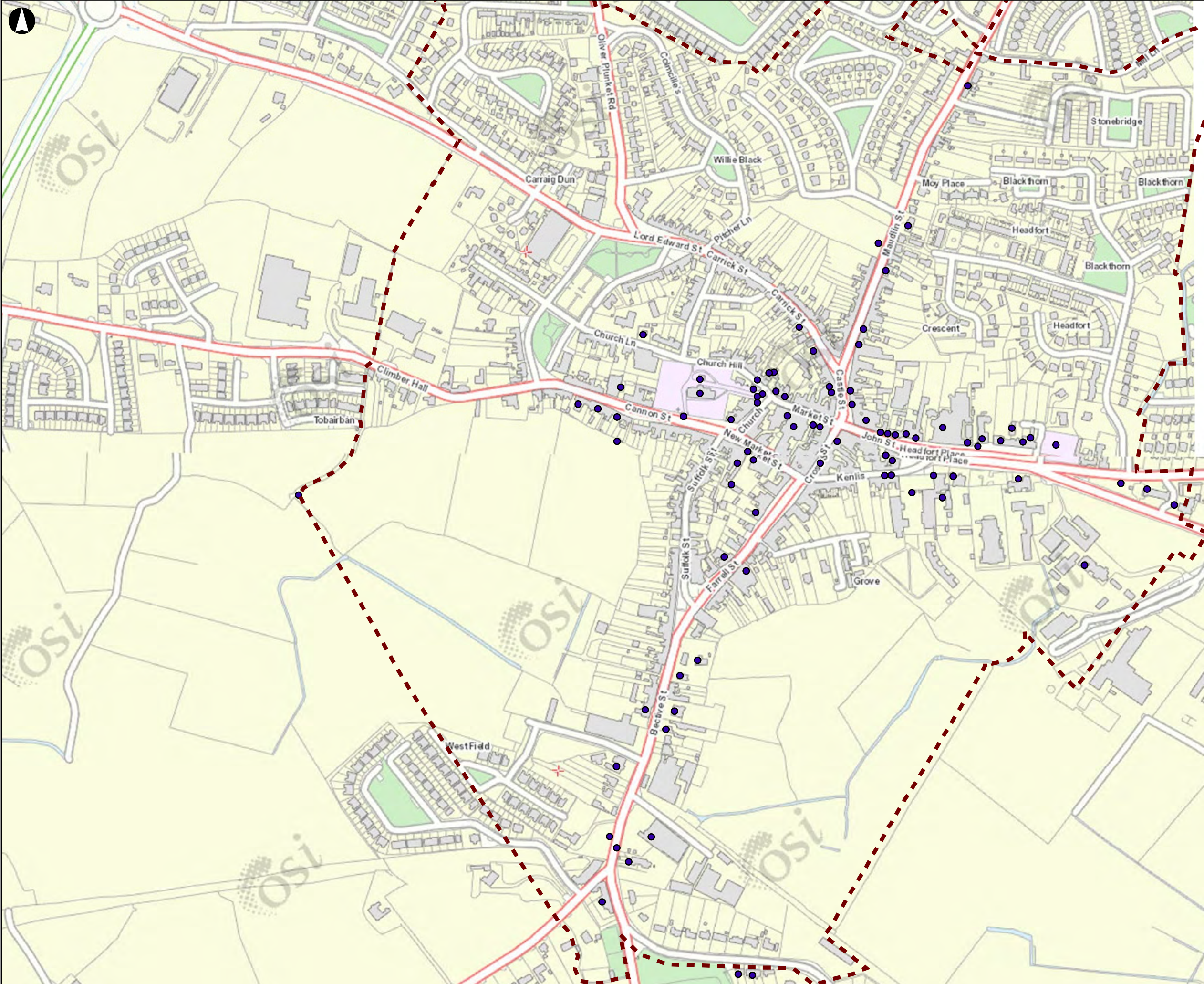
Client
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Job Title
Kells SEA



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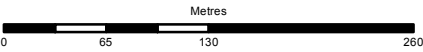


Legend

Record of Protected Structures

Kells Town Council Boundary

F1	2012-11-02	AK	CS	CS
Issue	Date	By	Chkd	Appd



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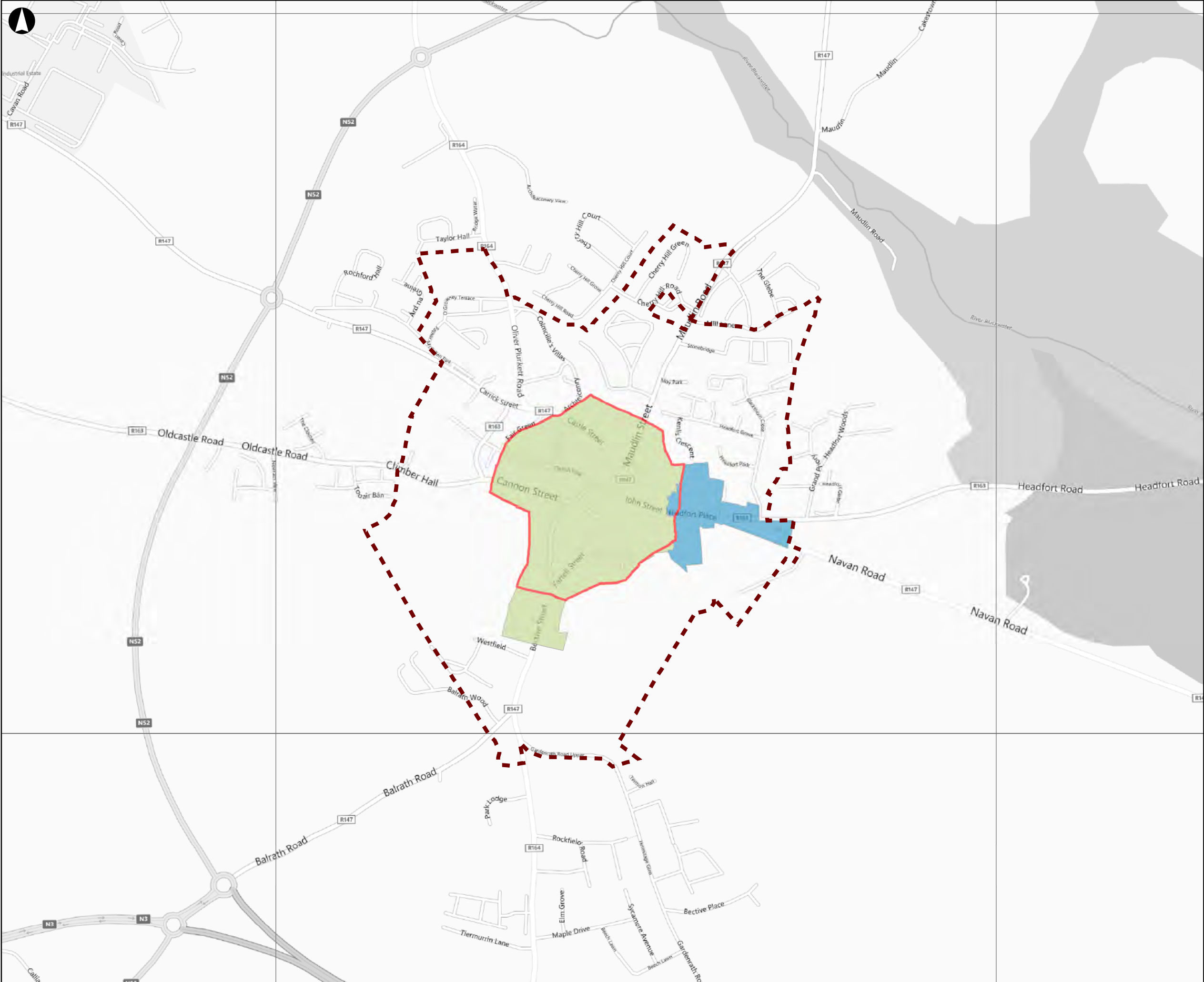
Client
Meath County Council

Job Title
Kells SEA

Record of protected structures

Scale at A3
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Job No 225245-00	Drawing Status For Issue	Issue F1
Drawing No Fig_16		



- Legend
- Headfort Place ACA

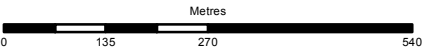
Historic Core

Line of Kells Town Wall

Kells Town Council Boundary

F1	2012-11-02	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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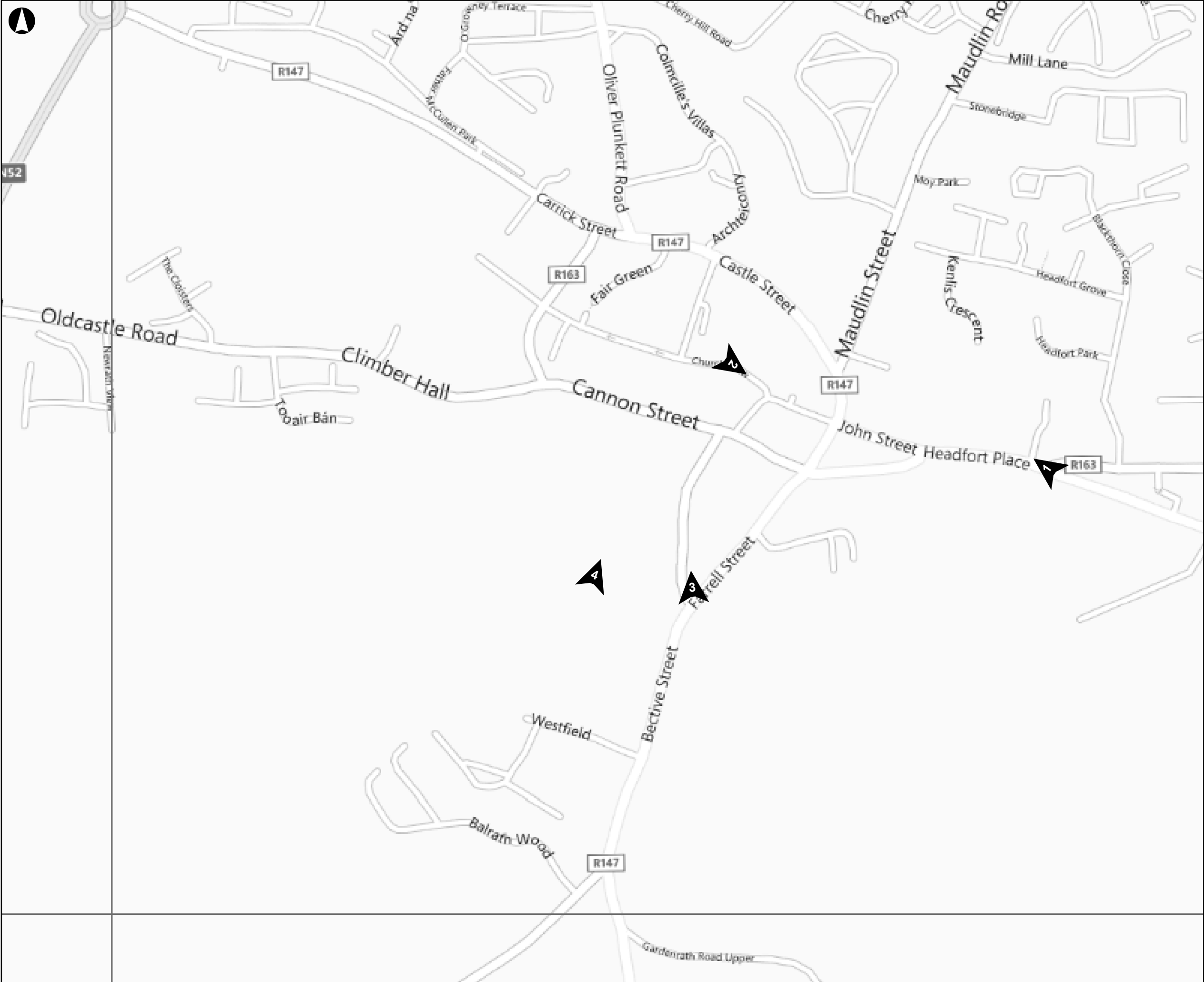
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Kells SEA



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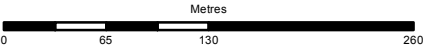


Legend

- ▶ Protected Views

F1	2012-11-06	AK	CS	CS
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Issue	Date	By	Chkd	Appd
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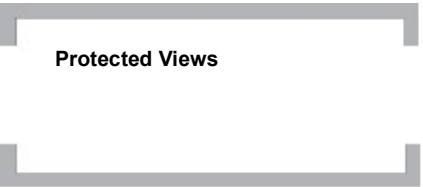


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Job No 225245-00	Drawing Status For Issue
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Drawing No Fig_18	Issue F1
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Kells Development Plan 2013 - 2019

SEA Statement



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Manager Report

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Assessment and Screening of Amended Kells Development Plan following
Resolution of Elected Members

Executive Summary

This SEA Statement forms part of the Strategic Environmental Assessment (SEA) of the Kells Development Plan 2013-2019. It is the final stage of the SEA process and is required under the European Communities Regulations 2004. This Statement has been written in accordance with the requirements of Directive 2001/42/EC of the European Parliament and of the Council of the 27th June 2001 on the assessment of the effects of certain plans and programmes on the environment.

The purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, the views of consultees and recommendations arising from the Environmental Report have been taken into account in preparing the Development Plan.

The SEA Statement is structured as follows:

- An introduction to the SEA process and a statement on the SEA process is provided in Section 1
- A review of the SEA methodology is provided in Section 2
- A review of the scoping carried out is provided in Section 3
- A summary of the environmental assessment undertaken is provided in Section 4
- A review of alternatives considered is provided in Section 5
- A summary of proposing monitoring is outlined in Section 6
- A final appraisal of the SEA Process is detailed in Section 7.

1 Introduction

1.1 The Purpose of an SEA Statement

The Strategic Environmental Assessment (SEA) Statement is the final stage of the SEA of Kells Development Plan 2013-2019. It is required under the European Communities Regulations 2004.

The purpose of the SEA Statement is to provide information on the decision-making process and to document how environmental considerations, the views of consultees and recommendations arising from the Environmental Report have been taken into account in the adopted review of the Regional Planning Guidelines. The four key requirements of this SEA statement are to highlight:

- The incorporation of environmental considerations,
- Stakeholder involvement,
- Alternatives considered, and
- Monitoring.

The SEA Statement is chronological in nature and includes the following information:

- An outline of the SEA methodology.
- The scoping process - including a summary of how the submissions received from stakeholders have been taken into account.
- Environmental Assessment - including a summary of how environmental considerations have been integrated into the plan or programme.
- The Appraisal Process - including the reasons for choosing the plan or programme adopted, in the light of the other reasonable alternatives considered.
- Measures adopted to monitor the programme going forward.
- Final Appraisal

The SEA statement will be made available to the public to accompany the adopted Plan.

1.2 Statement of the SEA Process for the Kells Development Plan

The Kells Development Plan is a statutory document, consistent with the objectives of the Town Council and the County Council, containing guidelines as to how the town and its environs should develop over the Plan period.

The Plan provides a framework for sustainability, by preserving the quality of cultural heritage and material assets of Kells, and by protecting the integrity of the built environment from damage caused by insensitive development proposals.

The Kells Development Plan provides the main public statement of planning policies and objectives for the town.

The policies and objectives are critical in determining the appropriate location and form of different types of development as the development plan is the primary statutory land use policy framework against which planning applications are assessed.

The objectives of the development plan are also used by Kells Town Council and Meath County Council to guide their activities and to indicate priority areas for action and investment by the Councils such as focusing on attracting employment into the town or enhancing the town as a centre for tourism.

The Kells Development Plan is a key document for setting out a vision for how Kells should develop over the years 2013-2019.

Current planning legislation outlines the mandatory objectives which a plan must address and which range from land use zoning and provision of services and infrastructure to integration of social, community and cultural requirements, sustainable development and protection of the environment amongst others.

In addition to these mandatory objectives, the Kells Development Plan for 2013 – 2019 also includes a Core Strategy. The purpose of the Core Strategy is to set out a medium to longer term quantitatively based strategy for the development of the plan area and to demonstrate that the Development Plan and its objectives are consistent with the National Spatial Strategy and Regional Planning Guidelines for the Greater Dublin Area. The Core Strategy for Kells has been guided by the Core Strategy contained in the Meath County Development Plan 2013-2019 which sets out the overall population projection for the county and the extent of population growth to be accommodated in the towns, villages and rural area of Meath.

A broad Strategic Environmental Assessment was carried out using an objectives led approach to assess likely significant impacts. The assessment was primarily qualitative in nature, with some assessment based on expert judgement. This qualitative assessment compared the likely impacts against the Strategic Environmental Objectives to see which Policies and Objectives meet the Strategic Environmental Objectives and which, if any, contradict these.

A matrix system was developed to facilitate the assessment process and to highlight potential impacts under a number of environmental headings namely Biodiversity, Population & Human Health, Soils & Geology, Water Resources, Air, Noise & Climate, Heritage, Landscape & Visual and Material Assets.

2 SEA Methodology

This section highlights how the SEA was undertaken in line with the SEA Directive and domestic legislation. The SEA has been undertaken in an iterative manner, with preliminary assessment results being discussed with Meath County Council so that policy mitigation could be incorporated, where necessary, at the earliest possible stage.

The SEA methodology was based on legislative requirements and DoEHLG¹/EPA² guidance and ensures compliance with the SEA Directive and associated legislation. A number of key stages (refer to **Figure 1**) were identified and are discussed in the following sections.

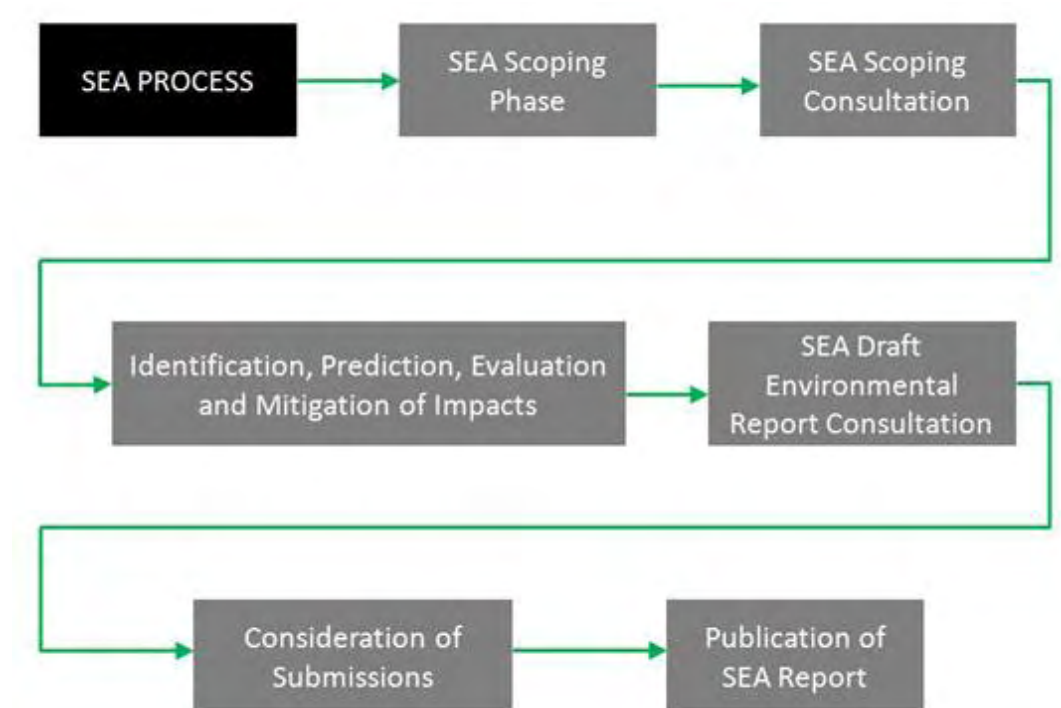


Figure 1: Key Stages of the SEA Process

2.1 Screening

Screening is the process for deciding whether a particular plan, other than those for which SEA is mandatory, would be likely to have significant environmental effects, and would thus warrant SEA.

A screening assessment was undertaken as part of this SEA process to determine if the proposed Development Plan could potentially have a significant impact on the environment. This assessment concluded that an SEA was required.

¹ Department of the Environment, Heritage and Local Government (2004). Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment. Guidelines for Regional Authorities and Planning Authorities.

² Scott, P & Marsden, P (2003). Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland (2001-DS-EPP-2/5) Synthesis Report Prepared for the Environmental Protection Agency by ERM Environmental Resources Management Ireland Limited

Subsequently a screening of the proposed amended objectives and policies as outlined in the amended Draft Kells Development Plan 2013-2019 was undertaken which determined that a Strategic Environmental Assessment (SEA) was not required as the proposed amendments were deemed not to have a potential significant negative environmental impact.

A further screening took place which assessed the proposed material alterations to the draft Kells Development Plan 2013-2019 following resolution of elected members. This screening too determined that as the proposed amendments were deemed not to have a potential significant negative environmental impact, a full Strategic Environmental Assessment was not required.

2.2 Scoping

The scoping phase of the SEA is a key part of the assessment process as it establishes the range of environmental issues to be covered and the level of detail the assessment will investigate. The Scoping Process allows input from the environmental authorities and relevant stakeholders to be incorporated. Essentially issues/comments submitted as part of the scoping process provide greater focus on the evolution of the Development Plan:

- Determine the key elements of the Plan to be assessed.
- Determine the environmental issues to be assessed.
- Collect and report on relevant international, national and local plans, objectives and environmental standards that may influence or impact on the Development Plan.
- Develop draft environmental objectives, indicators and targets to allow the evaluation of impacts.
- Identify reasonable alternative means of achieving the strategic goals of the Development Plan.

A scoping report for this SEA was prepared which asked key questions of statutory consultees and key stakeholders. A summary of the responses received is included in Section 3.

2.3 Baseline Data

Gathering relevant information relating to the state of the environment for a plan area is an integral part of the SEA process. The SEA Directive requires that certain information relating to the relevant environmental baseline is presented in order to help test the performance of the plans implementation, as well as helping establish how the environment would change if the plan were not to implemented.

Baseline information has been collected from readily available sources, and a Geographical Information System (GIS) was used to graphically present relevant information. The baseline information for the Kells Development Plan area is reported in Section 4 of the Environmental Report.

2.4 Environmental Assessment of the Development Plan

The Environmental Assessment was an iterative process and ran in parallel to the development of the Development Plan. The steps undertaken are discussed in detail in Section 4.

The environmental assessment process was undertaken in accordance with best practice SEA principles and guidance. This included desk reviews of all of the available GIS data, specialist investigation into the likely impacts associated with the Development Plan and recommendations for suitable mitigatory measures.

An environmental appraisal matrix was also developed which facilitated the assessment of the policies and objectives of the Development Plan. The matrix lead assessment basis of the SEA provided a holistic, integrated and iterative approach to the formation of the Plan policies and objectives.

The final assessment matrix is outlined in Appendix A. The assessment also considered the findings of the SFRA and AA.

2.5 Consideration of Alternatives

The SEA Directive requires that reasonable alternatives be assessed in order to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the Environmental Report. This is examined in more details in Section 5 of this report.

2.6 Flood Risk Management

A Strategic Flood Risk Assessment for Kells was prepared on behalf of Kells Town Council/Meath County Council. The Flood Zone Map produced provides information on two main areas of flood risk. This is discussed further in Section 5.

2.7 Consultations

The SEA Scoping Document was released during the first stage of public consultation discussed further in section 3. A second statutory consultation process took place looking for feedback on the draft Kells Development Plan 2013-2019 and the draft Environmental Report. A further consultation period took place regarding proposed material amendments to the draft plan. The consultation process is discussed in detail in Section 4.

2.8 Technical Difficulties Encountered

No major difficulties were encountered during any stages of the SEA process.

Two submissions were received from the EPA and the Department of Arts, Heritage and the Gaeltacht in response to the scoping report and all comments/observations contained therein were incorporated into the environmental assessment process. A copy of the correspondence received is included in Appendix B.

3.2 The SEA Path Forward

Once scoping was completed the proposed Development Plan and SEA processes were iterative processes with the SEA, Appropriate Assessment, Flood Risk Assessment and Meath County Council teams working together to identify and resolve potential impacts.

The matrix lead assessment basis of the SEA provided a holistic, integrated and iterative approach to the development of the plan policies. To this effect the two processes were seamless and facilitated the making of changes where necessary to accommodate mitigation of environmental impacts.

4 Environmental Assessment

The SEA Scoping Document was released during the first stage of public consultation. One submission was received, from the EPA and it was incorporated into the assessment process.

A second statutory consultation process took place looking for feedback on the draft Kells Development Plan 2013-2019 and the Draft Environmental Report. Consultation responses were incorporated into the Environmental Report where relevant.

Subsequent to the public consultation process the draft Development Plan was updated to reflect input from the public, statutory and non-statutory bodies and local representatives. The SEA team and the Meath County Council Planners worked together on this, continuing the iterative process. Each time a revision of wording was considered, the SEA team would adjust the assessment as required. Input would then be provided to Meath County Council regarding the mitigation that could be incorporated to ensure sustainability and reduce or remove potential environmental impacts.

The final assessment matrix is outlined in Appendix A.

4.1 Establishment of Environmental Baseline

The assessment of the Development Plan against the current Environmental Baseline is the principal task of the SEA process. The baseline description was cognisant of the local level nature of the Kells Development Plan and the pressures and interrelationships between environmental topics.

The Environmental Baseline provided an overview of the existing conditions in the Kells area and broader Meath area where applicable, relevant to the proposed plan and covered the following environmental topics:

- Biodiversity including Flora and Fauna;
- Population and Human Health;
- Soils and Geology;
- Water Resources;
- Air, Noise and Climate;
- Archaeological, Architectural and Cultural Heritage;
- Landscape and Visual; and
- Material Assets.

In accordance with the SEA Directive, the inter-relationship between the SEA environmental topics was taken into account. Of particular note is the interrelationship between water (quality and quantity) and biodiversity, flora and fauna, soils, human health and population. Flora and fauna is dependent on the hydrological environment (surface water and groundwater) as a habitat but the terrestrial environment also relies on these resources. Water quality is also of particular importance with regard to human health as it provides a source of drinking water and it influences agriculture.

Water is also used for leisure and recreational purposes, providing a material asset both for local populations and as an integral component of the tourism economy.

The use of GIS was central to the development of the environmental baseline. Spatial data was obtained from a number of different sources including the Environmental Protection Agency (EPA), National Parks and Wildlife Service (NPWS), Central Statistics Office (CSO), Geological Survey Ireland (GSI) and the Eastern River Basin District. On receipt of the data baseline maps were created which assisted in documenting the current environmental baseline.

4.2 Interactions & Interrelationships

The interactions and interrelationships between the SEA environmental baseline topics was an important consideration for the environmental assessment. **Table 1** below outlines the key identifiable interrelationships arising in this SEA. These potential interrelationships were taken into account throughout the assessment process.

While all environmental topics interact with each other to some extent only the significant relationships were considered. Direct relationships are highlighted in red while indirect relationships are highlighted in blue.

Table 1: Key Interrelationships between Environmental Topics

	Biodiversity	Population & Human Health	Soils & Geology	Water Resources	Flooding	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Biodiversity		Blue	Red	Red	Blue	Blue		Blue	
Population & Human Health	Blue		Red	Red	Red	Red	Red	Red	Red
Soils & Geology	Red	Red		Blue	Blue	Blue	Blue	Red	Red
Water Resources	Red	Red	Blue		Red	Red		Red	Red
Flooding	Blue	Red	Blue	Red			Blue	Red	Red
Air, Noise & Climate	Blue	Red	Blue	Red				Blue	Red
Archaeological, Architectural & Cultural Heritage		Red	Blue		Blue			Red	
Landscape & Visual	Blue	Red	Red	Red	Red	Blue	Red		Red
Material Assets		Red	Red	Red	Red	Red		Red	

4.3 Objectives, Indicators and Targets

The formation of the environmental objectives required cognisance of the environmental protection objectives established at a range of levels through the legislation and guidelines. Global, EU and national level legislation, policy and associated environmental objectives were utilised to develop the environmental objectives.

The objectives outlined below are also placed in the context of and linked into the development of the policies and objectives to ensure that they are appropriate for Kells town and environs.

The environmental objectives are also linked to appropriate targets and indicators outlined in the following sections.

The environmental objectives are as follows:

Biodiversity including Flora and Fauna

- Conserve the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.

Population and Human Health

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

Soils & Geology

- Protect quality and quantity of existing soil and geology.

Water Resources

- Improve/maintain water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development.

Air, Noise & Climate

- Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).

Archaeological, Architectural and Cultural Heritage

- Promote the protection and conservation of the archaeological, architectural and cultural heritage.

Landscape & Visual

- Conserve and enhance valued natural and historic landscapes and features within them.

Material Assets

- Make best use of existing infrastructure and promote the sustainable development of new infrastructure.

The environmental objectives are linked to appropriate targets and indicators outlined in section 4 of the Environmental Report.

The objectives were key in the assessment process. Each plan policy and objective was assessed against each SEA objective.

4.4 Assessment Stage 1 – Initial Draft Plan

The approach used for assessing the policies associated with the proposed Kells Development Plan 2013-2019 was an objective led assessment and was primarily qualitative. The first draft of the appraisal matrix was completed by the SEA team independently of MCC.

It compared the likely impacts against the Strategic Environmental Objectives to see which policies met the Strategic Environmental Objectives and which, if any, contradicted these. Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes.

The assessment process categorised environmental impacts using the ratings outlined in **Table 2** which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 2: Impact Ratings

Duration and Type of Impact	
S	Short-term - Impact lasting one to seven years
M	Medium-term - Impact lasting seven to fifteen years
L	Long-term - Impact lasting fifteen to sixty years
P	Permanent - Impact lasting over sixty years
T	Temporary - Impact lasting for one year or less
C	Cumulative – Impact that is ameliorated by other impacts

Significance of Impact	
	Major Positive
	Positive
	Neutral
	Negative
	Major Negative
	Uncertain

The assessment also considered the cumulative effects of policies on each other to determine if certain policies working in combination could have an environmental impact.

A number of recommendations were made which were then reviewed in detail by MCC.

4.5 Assessment Stage 2 – Final Draft Plan

The initial SEA assessment matrix was updated to take on board comments received from MCC as outlined in section 4.5 above.

As the policies and objectives included in the draft Development Plan were designed to promote sustainability and to protect the environment, the majority have positive impacts when assessed against the environmental objectives.

4.5.1 Consultation

The assessment matrix was then appended to the SEA Draft Environmental Report that accompanied the draft Kells Development Plan 2013-2019 on public display in compliance with legislative requirements for a statutory consultation period.

The draft report was also sent to statutory consultees.

A review of all submissions received was undertaken along with the manager's Report in order to take on board any comments that related to the SEA. A submission received from the EPA was of particular relevance to the SEA and comments raised along the SEA responses are summarised below. A copy of the full submission is contained in Appendix C.

Table 3: Summary of EPA Submission re Draft Environmental Report

EPA Submission	Response
Chapter 1-Non Technical Summary It is noted that in the NTS index, the chapter heading on the current Kells Development Plan should read as follows <i>"1.2 Existing Kells Development Plan 2007-2013"</i>	This section of the NTS refers to the proposed Kells Development Plan 2013 -2019. The heading and content page will be changed to read "Kells Development Plan 2013-2019".
Chapter 4-Current State of the Environment 4.3.5.3 Invasive Species Where relevant and appropriate there would be merits in the inclusion of a policy/objective with respect to the management and control of invasive species.	This is an issue for Meath County Council to include in the development plan if deemed necessary.
Chapter 9-SEA Monitoring The determination reached in <i>Chapter 9- SEA Monitoring</i> that <i>"No significant impacts have been identified as part of the SEA process, consequently it has been determined that no additional monitoring is required,"</i> is noted. It is also noted however, that <i>Table 17 Assessment of Potential Impacts Associated with the Proposed Kells Development Plan</i> highlights a number of <i>uncertain</i> outcomes. A commitment to the implementation of a monitoring programme should be included in the Plan. The monitoring programme should include the following: <ul style="list-style-type: none"> • The inclusion of monitoring frequencies. • Monitoring of both positive and negative effects, where they occur. 	The Environment Report will be updated to reflect the comments suggested.

<ul style="list-style-type: none"> Inclusion of the on-going review of environmental targets and indicators in the monitoring programme. Responsibility for this role should be clearly defined. <p>The Monitoring Programme should be flexible to take account of specific environmental issues as they arise. The programme must be able to deal with the possibility of cumulative effects.</p>	
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4.6 Assessment Stage 3 – Material Amendments

In accordance with Section 20 of the Planning and Development Acts 2000-2012, the Members of Meath County Council considered the Draft Kells Development Plan and the Manager's Report and resolved that the Draft Local Area Plan be amended. The proposed amendments constituted a material alteration of the Draft Kells Development Plan 2013-2019.

In accordance with Section 20 of the Planning and Development Act 2000, as amended and Article 14 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004-2011, a screening exercise of the proposed amendments was undertaken.

An assessment of the proposed amendments to the draft Kells Development Plan 2013-2019 was undertaken as outlined in Section 2.1 above. As the proposed amendments were deemed not to have a potential significant negative environmental impact, a full Strategic Environmental Assessment was not required, refer to Appendix E.

Copies of the proposed amendments, SEA Screening Report and AA Screening Reports and an updated Strategic Flood Risk Assessment (SFRA) on the proposed alterations were placed on public display in July 2013 for the required four week period.

No submissions were received that related to the SEA process.

4.7 Assessment Stage 4 – Elected Members

The proposed Plan was distributed to the elected members of Meath County Council and Kells Town Council on 11th September 2013 and a number of proposed amendments were made. The proposed amendments constituted a material alteration of the Draft Kells Development Plan 2013-2019.

An assessment of these additional proposed material alterations were undertaken as outlined in Section 2.1 above. As the proposed amendments were deemed not to have a potential significant negative environmental impact, a full Strategic Environmental Assessment was not required in this instance, refer to Appendix F. One submission relating to SEA/AA was received at this stage, refer to Appendix D.

The final matrix which includes the initial assessment and the material amendments is contained in Appendix A.

The Development Plan was adopted by Meath County Council and Kells Town Council on 7th October 2013.

4.8 Principal Environmental Impacts

4.8.1 Biodiversity, Flora and Fauna

Most of the potential impacts for Biodiversity, Flora and Fauna are positive or neutral as it is not proposed to provide development solely on Greenfield sites. It is also intended that development will be consolidated within the footprint of the existing urban centre. Uncertainties exist where there are no specific proposals for sites designated for development of amenities.

4.8.2 Population & Human Health

In general the potential impacts for Population and Human Health are predominantly positive as it is proposed to consolidate settlements and integrate land use and transport. The reduction in household allocation will also have a positive effect on Population and Human Health.

4.8.3 Soil & Geology

The majority of potential impacts for Soils and Geology are currently neutral or positive as it is not proposed to zone new lands which haven't previously been zoned for development. Further, development will primarily be consolidated within the footprint of the existing urban centre.

4.8.4 Water Resources & Flooding

In general, the potential impacts for Water Resources & Flooding are positive or neutral as it is proposed that a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk be implemented. The avoidance of development in areas where flood risk has been identified will be the primary response. Proposals for mitigation and management of flood risk will only be considered where avoidance is not possible and where development can be clearly justified with the justification test outlined in the "Planning System and Flood Risk Management – Guidelines for Planning Authorities".

Justification Tests were carried out at a number of sites as part of the SFRA process. As a result, zonings have been retained at one location identified as being at risk of flooding. This location comprises an access route, which is not considered to be a highly vulnerable use, to the Backlands area through lands within Flood Zones A & B for which the Justification Test was applied. In all other instances all undeveloped lands within Flood Zones A & B have been zoned for open space.

4.8.5 Air, Noise & Climate

The potential impacts on Air, Noise and Climate are positive or neutral as the Plan proposes to locate employment in close proximity to the town and along strategic corridors. The plan also promotes sustainable travel modes and reducing long distance commuting for employment while encouraging the development of Green Infrastructure. Such measures will have a positive effect on air, noise and climate.

4.8.6 Archaeological, Architectural and Cultural Heritage

There are no predicted negative impacts on Archaeological, Architectural and Cultural Heritage as it is not proposed to zone new lands which haven't previously been zoned for development. Further, as outlined previously, development will be consolidated within the footprint of the existing urban centre. This plan also places a significant emphasis on the retention, protection and enhancement of existing heritage features within the town.

4.8.7 Landscape and Visual

The majority of potential impacts for Landscape and Visual are positive or neutral. The Flood Management Strategy for the town proposes mitigation and management of flood risk where avoidance is not possible and where development can be clearly justified with the justification test outlined in the "Planning System and Flood Risk Management – Guidelines for Planning Authorities". This occurs at one location where an access road to the Backlands is proposed across Flood Zones A and B. This is not considered a highly vulnerable use and therefore the impact is considered to be neutral in this instance also.

4.8.8 Material Assets

The potential impacts on Material Assets are largely considered as positive or neutral. This is because development will occur in a manner that is balanced and self-sustaining occurring in tandem with physical and social infrastructure. Potential negatives relate to possible delays in provision of water supply infrastructure.

5 Alternatives

Section 7 of the Environmental Report provided information on the alternatives considered in the preparation of the Development Plan which primarily related to the rezoning of lands associated with residential, employment and retail use. Alternatives for the zoning of lands identified as being at risk of flooding were also considered.

5.1 Land Zoning

5.1.1 Lands Required for Residential Development

It became apparent during the plan review process that there existed a significant oversupply of residential zoned lands in the town once residential allocations assigned to Kells for 2013 – 2019 in the review of the Draft County Development Plan had been considered and incorporated. Therefore there was a requirement to reduce the quantity of residential zoned land in town as part of the Core Strategy of this new Kells Development Plan in line with the Draft County Core Strategy.

An evidence based approach was applied which informed the overall Core Strategy. This included an evaluation of the available zoned sites including lands with residential, mixed use and town centre / commercial land use zoning objectives. The evaluation excluded the following:

- Those areas within the identified flood risk mapping,
- Sites less than 0.5 hectares in extent as it was not considered necessary to include sites which could bring forward less than 10 no. units,
- Sites with existing uses which are unlikely to change over the course of the next Development Plan, and
- All sites with the benefit of an extant permission.

The following factors were used to determine the suitability of specific lands for residential development which constitute the proper planning and sustainable development of the town:

- Proximity to the Town Centre.
- Regeneration / Renewal of residential areas or other brownfield “Opportunity Sites”.
- Environmental Constraints.
- Physical Suitability.
- Availability of Public Transport.
- Availability of community and social infrastructure facilities.
- The need to provide new roads infrastructure to facilitate development.
- Consideration as to whether a site could be considered an infill opportunity as opposed to extending the urban footprint further from the town centre.

Following detailed discussions with the Water Services personnel it was considered that whilst the availability of piped water services capacity will remain critical over the life of the Kells Development Plan, there are no particular issues regarding the networks and therefore it was not considered necessary to include this as a decision making factor.

Sites were ranked under each category from 1 – 5, with 1 being most favourable. Following the evaluation exercise, ten sites were put forward as most suitable for residential zoning with a further site identified as a strategic reserve. All other sites were proposed for rezoning.

5.1.2 Lands required for Employment Opportunities

In the 2007 – 2013 Kells Development Plan, two areas were zoned to accommodate employment generating uses namely 40 hectares at the Kells Business Park at Lloyd and 28.64 hectares on the Navan Road opposite the Headfort Golf Club. The combined extent of these two land banks was 68.64 hectares.

It became evident during the plan review process that there was also an oversupply of land zoned for employment opportunities.

At Lloyd Business Park alone, it was considered that the extent of lands zoned were significantly in excess of that required to accommodate the projected workforce of the town and environs over the life of the next Development Plan and beyond.

It was also considered that there was no justification for any other lands to be identified for general enterprise and employment in the Kells Development Plan.

Therefore an assessment of land suitability was carried out to determine which lands should be dezoned.

It was determined that within the Lloyd Business Park landbank the topography of the lands adjacent to the bypass did not readily lend themselves for development. In addition, the area adjoining the R147 / N52 roundabout was not considered suitable for development due to its elevation above the bypass which is in a significant cut at this location. These two pockets of land were therefore selected for dezoning. It was also noted that the lands adjoining the Moynalty Road fall significantly towards the Blackwater River and therefore it was considered preferable to remove the land use zoning objective from these lands in the interest of visual amenity and to protect the qualifying interests of the Natura 2000 sites. As a result of these amendments the quantum of land which was previously zoned at Lloyd Business Park for future development was reduced to 24 hectares.

Given that it was considered that there was no justification for any other lands to be identified for general enterprise and employment in the Kells Development Plan it was determined that the land use zoning objective of the lands previously zoned for E2 land use (employment opportunities) on the Navan Road should be changed to F1 active amenity use.

5.1.3 Lands Required for Retail Use

Following completion of the Retail Evaluation Strategy for County Meath it was determined that there was an oversupply of lands devoted to retail warehouse use on the Cavan Road. Therefore, the proposed draft Development Plan proposes a reduction in the extent of lands zoned for this purpose at this location. This has facilitated the rezoning of the land to provide options for the relocation of Eureka Secondary School in the future.

5.2 Flood Risk Management

A Strategic Flood Risk Assessment for Kells was prepared on behalf of Kells Town Council/Meath County Council. The Flood Zone Map produced provides information on two main areas of flood risk.

The Guidelines for Planning Authorities '*The Planning System and Flood Risk Management*' require Planning Authorities to ensure that development is not permitted in areas of flood risk, particularly floodplains, except where there are no suitable alternative sites available in areas at lower risk that are consistent with the objectives of proper planning and sustainable development. Where such development has to take place, in the case of urban regeneration for example, the types of development has to be carefully considered and the risk should be mitigated and managed through location, layout and design of development to reduce flood risk to an acceptable level.

Having regard to the approach to flood risk set out in the Guidelines and the extent of the areas shown to be at risk in the SFRA mapping for Kells Town & Environs, a number of areas which were zoned for development in the 2007 Kells Development Plan are no longer zoned in this Plan.

In most cases the zoning has been removed because the lands have been identified as being at risk of flooding. Lands which have been dezoned include:

- Areas of the Backlands to the east of Bective Street
- An area to the rear of McKeons garage off Bective Street
- Residential Lands to the northeast of the town close to the Blackwater River

As mentioned previously, the SFRA recommends application of the Planning Guidelines which seek to avoid development in areas of flood risk. The Justification test was applied where there was a clear conflict with flood risk and zoning namely in the case of the distributor roads. For areas zoned for Community Infrastructure it is recommended that the sequential approach (avoidance) will be employed, for example sports pitches will be placed in Flood Zone A or B and more vulnerable development in Zone C. The justification test would have to be applied under a site specific FRA where proposals conflict with this recommendation.

6 Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of Kells Development Plan.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Meath County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Table 4: Monitoring Programme

Environmental Category	Target	Indicators	Data Sources, Responsibility and Frequency
Biodiversity including Flora and Fauna	<ul style="list-style-type: none"> Consider siting of new development on non-sensitive sites. Improve/maintain protection for protected sites and species. Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors. Improve access for the appreciation and promotion of wildlife. 	<ul style="list-style-type: none"> Number and extent of Protected Sites. Areas actively managed for conservation. Population and range of Protected Species. Achievement of the Objectives of Biodiversity Plans. No net loss in length of ecological corridors. 	<p>Sources: Meath County Council, National Parks and Wildlife Services, Fisheries Board and EPA.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Population and Human Health	<ul style="list-style-type: none"> Minimise population exposure to high levels of noise, vibration and air pollution. Increase modal shift to public transport. Co-ordinate land use and transportation policies. Improve access to recreation opportunities. Minimise effect on human health due to flooding 	<ul style="list-style-type: none"> Census population data. Rates of Unemployment per area. % increase in housing (number and type). 	<p>Sources: Meath County Council and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Soils and Geology	<ul style="list-style-type: none"> Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. Ensure polluting substances are appropriately stored and banded. Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. Re-use of brownfield lands, rather than developing Greenfield lands, where possible. Minimise the consumption of non-renewable sand, gravel and rock deposits 	<ul style="list-style-type: none"> Rates of re-use / recycling of construction waste. Rates of cement / concrete production. Rates of brownfield site and contaminated land reuse and development. Rates of greenfield development 	<p>Sources: Meath County Council and Environmental Protection Agency.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

Water Resources	<ul style="list-style-type: none"> • Support the achievement agreed targets in accordance with the Water Framework Directive. • Minimise flood risk through appropriate management of flood vulnerable zones and retention, where practicable, of flood plains. • Promote sustainable drainage practices to improve water quality and flow. • Maintain sustainable levels of abstraction from Lough Bane. • Control/minimise point and diffuse sources of pollution within the Plan area. 	<ul style="list-style-type: none"> • Compliance of potable water sources to water quality regulations • Compliance of surface waters with national and international standards • Potable/wastewater treatment capacity versus population • % of wastewater achieving tertiary treatment • Achievement of the Objectives of the River Basin Management Plans • Implementation of recommendations of SFRA 	<p>Sources: Meath County Council, Environmental Protection Agency and Fisheries Board.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Air, Noise & Climate	<ul style="list-style-type: none"> • Minimise air and noise emissions during construction and operation of new developments. • Promote minimisation of greenhouse gas emissions to the atmosphere 	<ul style="list-style-type: none"> • Traffic, Transport and Vehicular survey data • National and region specific emission data • Compliance with national standards • Reduction in greenhouse gas emissions • Number and extent of emission licensed facilities • Number of energy/renewable energy facilities • % of new residential units with C1 or better CER rating 	<p>Sources: Meath County Council, Environmental protection Agency and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Archaeological, Architectural and Cultural Heritage	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites. • Improve appearance of areas with particular townscape character. • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential. • Enhance access to sites of heritage interest 	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls – Architectural Conservation Areas 	<p>Sources: Meath County Council and Department of Environment Community and Local Government.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Landscape & Visual	<ul style="list-style-type: none"> • Improve protection for landscapes of recognised quality. • Maintain clear urban/rural distinctions. • Enhance provision of, and access to, green infrastructure in Kells. 	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion 	<p>Sources: Meath County Council and Department of Environment, Community and Local Government.</p>

	<ul style="list-style-type: none"> • Ensure development is sensitive to its surroundings 	<ul style="list-style-type: none"> • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban • Areas of new Green Infrastructure established 	<p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Material Assets	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services. • Increase local employment opportunities. • Improve efficiencies of transport, energy and communication infrastructure. • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste management. 	<ul style="list-style-type: none"> • Enhancement/expansion of existing infrastructure. • Achievement of development plan objectives • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<p>Sources: Meath County Council, Central Statistics Office, National Roads Authority and Environmental Protection Agency.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

7 Final Appraisal

7.1 Team Interaction

The SEA process involved the Appropriate Assessment team, the SEA team, SFRA team, Flood Risk Assessment team and Meath County Council. The approach was based upon clear communication, transparent research, planning and an iterative assessment processes from inception to completion.

The SEA team and MCC also regularly communicated in relation to developing the SEA assessment methodology, alternatives to be considered in the SEA, SEA objectives, targets and indicators, mitigation measures and monitoring strategies.

Close involvement of relevant team members in all stages of the project ensured integration of the SEA, SFRA, AA and Development Plan processes.

7.2 Assessment Effectiveness

The assessment process was iterative between the MCC developing the Development Plan and the environmental team. As a consequence, policies and recommendations were reworded and changed where necessary to accommodate mitigation of environmental impacts.

The final Environmental Report highlighted the range of significant potential positive and negative environmental impacts from the implementation of the Development Plan. While potential negative environmental impacts still remain, a range of mitigation measures have been identified to reduce these negative impacts (See Section 8 of the Environmental Report).

The overriding objective of the Kells Development Plan is for the environmentally sustainable development within the Plan area. As a consequence, objectives and policies are cognisant of environmental issues from their original inception, through the iterative interaction process of the SEA and throughout the consultation process. This has resulted in the Kells Development Plan being as positive for the environment as considered possible.

7.3 Concluding Environmental Assessment

The final plan adopted is considered the fairest plan in terms of an equitable and sustainable choice and the other alternative scenarios considered were determined unsuitable in terms of the overall development of the plan area. The matrix lead assessment basis of the SEA provided a holistic, integrated and iterative approach to the formation of the Kells Development Plan objectives and policies. The iterative nature of this process ensured that policies and recommendations considered were changed where necessary to accommodate mitigation of environmental impacts.

The primary mitigation measure is to ensure the sustainable and appropriate development of Kells without compromising the integrity of the natural and built environment.

All new development requiring an Environmental Impact Statement will need to address the range of environmental objectives, indicators and targets and associated environmental mitigation measures and incorporate them into the project specific mitigation measures.

A monitoring programme has been developed (refer to section 9 of the Environmental Report) based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Meath County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Appendix A

Final Assessment Matrix

A1

Table 17: Assessment of Potential Impacts associated with the Proposed Kells Development Plan.

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Chapter 2 - Strategic Context and Core Strategy								
Core Strategy OBJ1	P	P	P	P	P	P	P	P
Core Strategy POL 1	P	P	P	P	P	P	P	P
Core Strategy POL 2	P	P	P	P	P	P	P	P
Core Strategy POL 3	P	P	P	P	P	P	P	P
Core Strategy POL 4	P	P	P	P	P	P	P	P
Core Strategy POL 5	P	P	P	P	P	P	P	P
Core Strategy POL 6	P	P	P	P	P	P	P	P
Core Strategy POL 7	P	P	P	P	P	P	P	P
Core Strategy POL 8	P	P	P	P	P	P	P	P
Core Strategy POL 9	P	P	P	P	P	P	P	P
Core Strategy POL 10	P	P	P	P	P	P	P	P
Core Strategy POL 11	P	P	P	P	P	P	P	P
Core Strategy POL 12	P	P	P	P	P	P	P	P
Core Strategy POL 13	P	P	P	P	P	P	P	P
Core Strategy POL 14	P	P	P	P	P	P	P	P
Core Strategy POL 15	P	P	P	P	P	P	P	P
Core Strategy POL 16	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Chapter 3 - Economy & Employment								
ECON POL 1	P	P	P	P	P	P	P	P
ECON POL 2	P	P	P	P	P	P	P	P
ECON POL 3	P	P	P	P	P	P	P	P
ECON POL 4	P	P	P	P	P	P	P	P
EMP POL 5	P	P	P	P	P	P	P	P
EMP POL 6	P	P	P	P	P	P	P	P
ECON POL 7	P	P	P	P	P	P	P	P
EMP POL 8	P	P	P	P	P	P	P	P
ECON POL 9	P	P	P	P	P	P	P	P
ECON POL 10	P	P	P	P	P	P	P	P
EMP POL 11	P	P	P	P	P	P	P	P
EMP POL 12	P	P	P	P	P	P	P	P
ECON OBJ 1	P	P	P	P	P	P	P	P
EMP OBJ 2	P	P	P	P	P	P	P	P
EMP OBJ 3	P	P	P	P	P	P	P	P
EMP OBJ 4	P	P	P	P	P	P	P	P
TOUR POL 1	P	P	P	P	P	P	P	P
TOUR POL 2	P	P	P	P	P	P	P	P
TOUR POL 3	P	P	P	P	P	P	P	P
TOUR POL 4	P	P	P	P	P	P	P	P
TOUR POL 5	P	P	P	P	P	P	P	P
TOUR POL 6	P	P	P	P	P	P	P	P
TOUR POL 7	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
TOUR POL 8	P	P	P	P	P	P	P	P
TOUR POL 9	P	P	P	P	P	P	P	P
TOUR POL 10	P	P	P	P	P	P	P	P
TOUR OBJ 1	P	P	P	P	P	P	P	P
TOUR OBJ 2	P	P	P	P	P	P	P	P
TOUR OBJ 3	P	P	P	P	P	P	P	P
TOUR OBJ 4	P	P	P	P	P	P	P	P
TOUR OBJ 5	P	P	P	P	P	P	P	P
TOUR OBJ 6	P	P	P	P	P	P	P	P
TOUR OBJ 7	P	P	P	P	P	P	P	P
TOUR OBJ 8	P	P	P	P	P	P	P	P
TOUR OBJ 9	P	P	P	P	P	P	P	P
PMA POL 1	P	P	P	P	P	P	P	P
PMA POL 2	P	P	P	P	P	P	P	P
PMA POL 3	P	P	P	P	P	P	P	P
PMA POL 4	P	P	P	P	P	P	P	P
Chapter 4 - Town Centre								
TOWN CENTRE POL 1	P	P	P	P	P	P	P	P
TOWN CENTRE POL 2	P	P	P	P	P	P	P	P
TOWN CENTRE POL 3	P	P	P	P	P	P	P	P
TOWN CENTRE POL 4	P	P	P	P	P	P	P	P
TOWN CENTRE POL 5	P	P	P	P	P	P	P	P
TOWN CENTRE POL 6	S	P	P	P	P	P	P	P
TOWN CENTRE POL 7	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
TOWN CENTRE POL 8	P	P	P	P	P	P	P	P
TOWN CENTRE POL 9	P	P	P	P	P	P	P	P
TOWN CENTRE POL 10	P	P	P	P	P	P	P	P
TOWN CENTRE POL 11	P	P	P	P	P	P	P	P
TOWN CENTRE POL 12	P	P	P	P	P	P	P	P
TOWN CENTRE POL 13	P	P	P	P	P	P	P	P
TOWN CENTRE POL 14	P	P	P	P	P	P	P	P
TOWN CENTRE POL 15	P	P	P	P	P	P	P	P
TOWN CENTRE POL 16	P	P	P	P	P	P	P	P
TOWN CENTRE POL 17	P	P	P	P	P	P	P	P
TOWN CENTRE POL 18	P	P	P	P	P	P	P	P
TOWN CENTRE POL 19	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 1	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 2	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 3	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 4	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 5	P	P	P	P	P	P	P	P
TOWN CENTRE OBJ 6	P	P	P	P	P	P	P	P
Chapter 5 - Housing								
HS POL 1	P	P	P	P	P	P	P	P
HS POL 2	P	P	P	P	P	P	P	P
HS POL 3	P	P	P	P	P	P	P	P
HS POL 4	P	P	P	P	P	P	P	P
HS POL 5	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
HS POL 6	P	P	P	P	P	P	P	P
HS POL 7	P	P	P	P	P	P	P	P
HS POL 8	P	P	P	P	P	P	P	P
HS POL 9	P	P	P	P	P	P	P	P
HS POL 10	P	P	P	P	P	P	P	P
HS POL 11	P	P	P	P	P	P	P	P
HS POL 12	P	P	P	P	P	P	P	P
HS POL 13	P	P	P	P	P	P	P	P
HS POL 14	P	P	P	P	P	P	P	P
HS OBJ 1	P	P	P	P	P	P	P	P
HS OBJ 2	P	P	P	P	P	P	P	P
Chapter 6 - Community Facilities, Recreation and Open Space								
SOC POL 1	P	P	P	P	P	P	P	P
SOC OBJ 1	P	P	P	P	P	P	P	P
SOC POL 2	P	P	P	P	P	P	P	P
SOC OBJ 2	P	P	P	P	P	P	P	P
SOC POL 3	P	P	P	P	P	P	P	P
SOC POL 4	P	P	P	P	P	P	P	P
SOC POL 5	P	P	P	P	P	P	P	P
SOC OBJ 3	P	P	P	P	P	P	P	P
SOC POL 6	P	P	P	P	P	P	P	P
SOC POL 7	P	P	P	P	P	P	P	P
SOC POL 8	P	P	P	P	P	P	P	P
SOC POL 9	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
SOC POL 10	P	P	P	P	P	P	P	P
SOC OBJ 4	P	P	P	P	P	P	P	P
SOC POL 10	P	P	P	P	P	P	P	P
SOC POL 11	P	P	P	P	P	P	P	P
SOC POL 12	P	P	P	P	P	P	P	P
SOC OBJ 5	P	P	P	P	P	P	P	P
SOC POL 13	P	P	P	P	P	P	P	P
SOC POL 14	P	P	P	P	P	P	P	P
SOC POL 15	P	P	P	P	P	P	P	P
SOC POL 16	P	P	P	P	P	P	P	P
SOC POL 17	P	P	P	P	P	P	P	P
SOC POL 18	P	P	P	P	P	P	P	P
SOC POL 19	P	P	P	P	P	P	P	P
SOC POL 20	P	P	P	P	P	P	P	P
SOC OBJ 6	P	P	P	P	P	P	P	P
SOC OBJ 7	P	P	P	P	P	P	P	P
SOC OBJ 8	P	P	P	P	P	P	P	P
SOC POL 21	P	P	P	P	P	P	P	P
SOC OBJ 9	P	P	P	P	P	P	P	P
SOC OBJ 10	P	P	P	P	P	P	P	P
SOC POL 22	P	P	P	P	P	P	P	P
SOC POL 23	P	P	P	P	P	P	P	P
SOC OBJ 11	P	P	P	P	P	P	P	P
GI POL 1	P	P	P	P	P	P	P	P
GI POL 2	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
GI POL 3	P	P	P	P	P	P	P	P
GI POL 4	P	P	P	P	P	P	P	P
GI POL 5	P	P	P	P	P	P	P	P
GI POL 6	P	P	P	P	P	P	P	P
GI POL 7	P	P	P	P	P	P	P	P
GI POL 8	P	P	P	P	P	P	P	P
GI POL 9	P	P	P	P	P	P	P	P
GI OBJ 1	P	P	P	P	P	P	P	P
GI OBJ 2	P	P	P	P	P	P	P	P
Chapter 7 - Infrastructure								
INF POL 1	P	P	P	P	P	P	P	P
INF POL 2	P	P	P	P	P	P	P	P
INF POL 3	P	P	P	P	P	P	P	P
INF POL 4	P	P	P	P	P	P	P	P
INF POL 5	P	P	P	P	P	P	P	P
INF POL 6	P	P	P	P	P	P	P	P
INF OBJ 1	P	P	P	P	P	P	P	P
INF OBJ 2	P	P	P	P	P	P	P	P
INF POL 7	P	P	P	P	P	P	P	P
INF POL 8	P	P	P	P	P	P	P	P
INF OBJ 3	P	P	P	P	P	P	P	P
INF POL 9	P	P	P	P	P	P	P	P
INF POL 10	P	P	P	P	P	P	P	P
INF POL 11	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
INF POL 12	P	P	P	P	P	P	P	P
INF POL 13	P	P	P	P	P	P	P	P
INF POL 14	P	P	P	P	P	P	P	P
INF POL 15	P	P	P	P	P	P	P	P
INF POL 16	P	P	P	P	P	P	P	P
INF POL 17	P	P	P	P	P	P	P	P
INF POL 18	P	P	P	P	P	P	P	P
INF OBJ 4	P	P	P	P	P	P	P	P
INF OBJ 5	P	P	P	P	P	P	P	P
INF POL 19	P	P	P	P	P	P	P	P
INF POL 20	P	P	P	P	P	P	P	P
Chapter 8 - Traffic & Transportation								
TRAN OBJ 1	P	P	P	P	P	P	P	P
TRAN POL 1	P	P	P	P	P	P	P	P
TRAN OBJ 2	P	P	P	P	P	P	P	P
TRAN OBJ 3	P	P	P	P	P	P	P	P
TRAN POL 2	P	P	P	P	P	P	P	P
TRAN POL 3	P	P	P	P	P	P	P	P
TRAN POL 4	P	P	P	P	P	P	P	P
TRAN POL 5	P	P	P	P	P	P	P	P
TRAN OBJ 4	P	P	P	P	P	P	P	P
TRAN OBJ 5	P	P	P	P	P	P	P	P
TRAN POL 6	P	P	P	P	P	P	P	P
TRAN OBJ 7	M	M	M	M	M	M	M	M

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
Chapter 9 - Telecommunications & Energy								
TE POL 1	P	P	P	P	P	P	P	P
TE POL 2	P	P	P	P	P	P	P	P
TE POL 3	P	P	P	P	P	P	P	P
TE POL 4	P	P	P	P	P	P	P	P
TE POL 5	P	P	P	P	P	P	P	P
TE POL 6	P	P	P	P	P	P	P	P
TE POL 7	P	P	P	P	P	P	P	P
TE POL 8	P	P	P	P	P	P	P	P
TE POL 9	P	P	P	P	P	P	P	P
TE POL 10	P	P	P	P	P	P	P	P
TE POL 11	P	P	P	P	P	P	P	P
TE POL 12	P	P	P	P	P	P	P	P
TE POL 13	P	P	P	P	P	P	P	P
TE OBJ 1	P	P	P	P	P	P	P	P
Chapter 10 - Heritage & Environment								
HER OBJ 1	P	P	P	P	P	P	P	P
HER POL 1	P	P	P	P	P	P	P	P
HER POL 2	P	P	P	P	P	P	P	P
HER POL 3	P	P	P	P	P	P	P	P
HER POL 4	P	P	P	P	P	P	P	P
HER OBJ 2	P	P	P	P	P	P	P	P
HER OBJ 3	P	P	P	P	P	P	P	P

Kells Development Plan 2013 - 2019 Environmental Assessment of Policies & Objectives	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
HER OBJ 4	P	P	P	P	P	P	P	P
HER OBJ 5	P	P	P	P	P	P	P	P
HER OBJ 6	P	P	P	P	P	P	P	P
HER OBJ 7	P	P	P	P	P	P	P	P
HER OBJ 8	P	P	P	P	P	P	P	P
HER POL 5 (i)	P	P	P	P	P	P	P	P
HER POL 5 (ii)	P	P	P	P	P	P	P	P
HER POL 6	P	P	P	P	P	P	P	P
HER OBJ 9	P	P	P	P	P	P	P	P
HER OBJ 10	P	P	P	P	P	P	P	P
HER POL 7	P	P	P	P	P	P	P	P
HER POL 8	P	P	P	P	P	P	P	P
HER POL 9	P	P	P	P	P	P	P	P
HER POL 10	P	P	P	P	P	P	P	P
HER POL 11	P	P	P	P	P	P	P	P
HER POL 12	P	P	P	P	P	P	P	P
HER POL 13	P	P	P	P	P	P	P	P
HER POL 14	P	P	P	P	P	P	P	P
HER OBJ 11	P	P	P	P	P	P	P	P
HER POL 15	P	P	P	P	P	P	P	P
HER POL 16	P	P	P	P	P	P	P	P
H1 High Amenity	P	P	P	P	P	P	P	P

Appendix B

Submissions Received during Consultations

B1



An Roinn
Ealaíon, Oidhreacht agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

Your Ref: 12076
Our Ref: G Pre00339/2012

31 August 2012

Ger O'Donohoe
Moore Group
Corporate House
Ballybrit Business Park
Galway

Re: Appropriate Assessment of Kells Development Plan 2103-2016

A Chara,

I refer to the notification in relation to the above proposed development. Outlined below are the recommendations of the Department of Arts, Heritage and the Gaeltacht in relation to nature conservation.

You have sent this Department a copy of an appropriate assessment (AA) screening of the Draft Kells LAP 2013-2019 for comment. The conclusion appears to be that an AA is required. However you have omitted to send in the draft Plan that was screened for AA and the draft Plan does not appear to be available on the Meath County Council website. In the absence of the Plan that was screened there are no comments but the Department may wish to comment when the draft Plan and AA is referred at a later date. Meanwhile please find below some standard scoping comments for a draft Plan, SEA and AA for your information.

Plan

It is recommended that the Plan should include a natural heritage section. All designated sites within the Plan area should be listed and mapped, including, if applicable, candidate Special Areas of Conservation (cSAC), Special Protection Areas (SPA), Natural Heritage Areas (NHA), proposed Natural Heritage Areas (pNHA), Nature Reserves and Refuges for fauna. Details of these sites are available on www.npws.ie. Where SIs have recently been issued they may not yet be available on www.npws.ie but may be available on www.irishstatutebook.ie. For information on Geological and Geomorphological NHAs the Geological Survey of Ireland should be consulted. The Plan should take cognisance of boundary changes to sites made during the lifetime of the Plan and all such sites should be zoned appropriately and policies and objectives should be devised to ensure their protection. In compiling the proposed new Plan the Council should take cognisance of the relevant circular letters which have been circulated to Local Authorities which are available on our web site at <http://www.npws.ie/planning/appropriateassessment/>. With regard to legislation the Plan and SEA should take account of the Biodiversity Convention, the Ramsar Convention, the Birds and Habitats Directives, the Wildlife Acts of 1976 to 2010, and the European Communities (Natural Habitats) Regulations, 1997 (SI No 94 of 1997) and its amendments.

The proposed Plan should recognise that protected species also occur outside designated sites and should take note of the National Biodiversity Plan and the need to protect the County's biodiversity. 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. 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.

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 maintained 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). Birds' nests can only be intentionally destroyed under licence issued under the Wildlife Acts of 1976 and 2000. Bat roosts may be present in trees, buildings and bridges. Bat roosts can only be destroyed under licence under the Wildlife Acts and a derogation under the Habitats Regulations and such a licence would only be given if suitable mitigation measures were implemented. It is important that the proposed Plan should recognise the importance of linear features such as hedgerows and waterways.

Wetland habitats such as rivers are an important source of biodiversity and contain species such as otters (*Lutra lutra*), Salmon in freshwater (*Salmo salar*), kingfishers (*Alcedo atthis*), crayfish (*Austropotamobius pallipes*) and Lamprey species, all protected under the Wildlife Acts of 1976 to 2010 and/or listed on the annexes of the EC Habitats Directive and Birds Directive. It is important that the proposed Plan should recognise the importance of wetland habitats and ensure that such sites are protected. In addition flood plains, if present, should be identified in the Plans and left undeveloped to allow for the protection of these valuable habitats and provide areas for flood water retention. The plan should take account of the guidelines for Planning Authorities entitled "The Planning System and Flood Risk Management" and published by the Department of the Environment, Heritage and Local Government in November 2009. The proposed Plan should also protect both surface and ground water and care should be taken to ensure that any proposed abstractions or discharges do not negatively impact on Natura 2000 sites.

Negative impacts on biodiversity and designated sites, particularly in the mountains, by the coast and along rivers, 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 otters and bats which are strictly protected under the Habitats Directive and Kingfishers listed on Annex I of the Birds Directive (Council Directive 79/409 EEC). Care therefore needs to be taken to ensure any proposed walkways along rivers are located a suitable distance from the waters edge and, where such proposed developments may impact on a Natura 2000 site, screening for appropriate assessment would be required prior to such a development taking place.

SEA

It is recommended that the Biodiversity SEOs in the SEA cover habitats and species both within and outside of designated sites as below;

- Natura 2000 sites, i.e. Special Areas of Conservation (SAC) designated under the EC Habitats Directive (Council Directive 92/43/EEC) and Special Protection Areas designated under the EC Birds Directive (Directive 2009/147 EC),
- Other designated sites, or sites proposed for designation, such as Natural Heritage Areas, Nature Reserves and Refuges for Fauna or Flora, designated under the Wildlife Acts of 1976 to 2010,
- Habitats listed on annex I of the Habitats Directive,
- Species listed on Annexes II and IV of the Habitats Directive,
- Habitats important for birds,
- Birds listed on Annex I of the EC Birds Directive,
- Species protected under the Wildlife Acts including protected flora,
- Habitats that can be considered to be corridors or stepping stones for the purpose of article 10 of the Habitats Directive,
- Red data book species,
- and biodiversity in general.

Examples of protected species include protected plants listed in SI 94 of 1999, mammals such as badgers (*Meles meles*) and the Irish Hare (*Lepus timidus hibernicus*), protected under the Wildlife Acts and listed on Appendix III of the Berne Convention, and bat species and otters, protected under the Wildlife Acts and listed on Annex IV of the Habitats Directive. All birds are protected under the Wildlife Acts and some, such as the peregrine falcon (*Falco peregrinus*) and kingfisher (*Alcedo atthis*), are listed on annex I of the Birds Directive. With regard to the scope of baseline data for flora and fauna in the SEA, in addition to any County records, we advise consulting the data of the National Parks and Wildlife Service (NPWS) at www.npws.ie and the data of the National Biodiversity Data Centre at <http://www.biodiversityireland.ie/>.

With regard to the SEOs for Water in the SEA it is important that the needs of protected species such as crayfish, salmon and lamprey species, which are listed on annex II of the Habitats Directive, are considered in relation to water quality. The SEOs and targets should be also compatible with the relevant River Basin Management Plans.

Regarding flood risk, flood plains should be left undeveloped to allow for the protection of these valuable habitats along the river corridors and provide areas for floodwater retention. Account should be taken of the guidelines for Planning Authorities entitled “The Planning System and Flood Risk Management” and published by the Department of the Environment, Heritage and Local Government in November 2009. It is also important that ground and surface waters be protected from pollution and the Local Authority should ensure that adequate sewage treatment facilities are in place prior to any development proposed in the LAP. The Local Authority should also ensure that adequate water supplies are present prior to development and the impact of any proposed water abstraction schemes on the natural heritage should be fully assessed.

Appropriate Assessment

Please note that the draft Plan should be screened for appropriate assessment. The Departmental guidance document on Appropriate Assessment is available on the NPWS web site at <http://www.npws.ie/media/npws/publications/codesofpractice/AA%20Guidance%2010-12-09.pdf>. You are also referred to the EU Commission guidance entitled "Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" which can be downloaded from http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_e n.pdf.

It is particularly important that the appropriate assessment procedure, commencing with stage 1 screening, should take place in consultation with the teams working on the draft Plan and SEA as each process can help inform the other to ensure that the objectives and policies in the draft Plan will have no significant effects on any Natura 2000 site. The appropriate assessment should examine the effects of policies, objectives and any indicative maps or zonings, as well as cumulative impacts with other plans and projects both within and outside of the Plan area. In order to carry out the appropriate assessment you will need to collect information about the relevant Natura 2000 sites including their conservation objectives. These may be available on our web site www.npws.ie or can be obtained by requesting them by completing the data request form on our website at <http://www.npws.ie/media/npws/publications/Data%20request%20form.doc>.

It is recommended that you consult with other relevant Local Authorities to determine if there are any projects or plans which, in combination with this proposed Plan, could impact on any Natura 2000 sites.

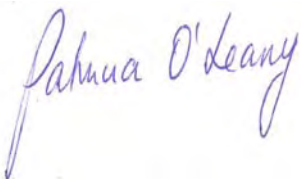
Kindly forward any further information to the following address:

The Manager,
Development Applications Unit,
Department of Arts, Heritage and the Gaeltacht,
Newtown Road,
Wexford

Or refer electronically to DAU at the following address: manager.dau@ahg.gov.ie

Finally, the above observations and recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority, in his role as statutory consultee under the Planning and Development Act 2000, as amended.

Is mise le meas,



Patricia O'Leary
Development Applications Unit
Tel: (053) 911 7482

Ms Lynda Thornton
Meath County Council
Planning Department
Abbey Road
Navan
Co. Meath

11th September 2012

Our Ref: SCP111001.2

Re: SEA Scoping Report for the proposed Draft Kells Development Plan 2013-2019

Dear Ms Thornton,

I refer to and acknowledge your correspondence, dated 23rd August 2012, in relation to the Strategic Environmental Assessment Scoping for the Draft Kells Development Plan, hereafter referred to as “the Plan”.

I refer to the Agency’s previous submission, dated the 8th November 2011, in relation to the Issues Paper for the preparation of the Plan. Further to the specific points made in that submission, please find enclosed an updated SEA Scoping Guidance Document, to assist you in undertaking an environmental assessment as per the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004). Please also find a checklist which may prove useful in ensuring the integration of environmental considerations into the Plan.

Scoping Question Comments

In relation to *Scoping Question No. 1*, consideration should be given to incorporating the following, where relevant and as appropriate to the Plan:

- Eastern CFRAMS, currently undergoing SEA
- Meath County Council Green Infrastructure Strategy

In relation to *Scoping Question 2*, it should be ensured that should any environmental issues be scoped out from the SEA that reasons are provided to this effect to ensure compliance with the SEA Directive.

Baseline Assessment

There would be merits in reviewing the baseline environment from the previous County Development Plan, and associated SEA as relevant to the Plan area, in the context of comparing the earlier Plan against the current baseline environment for Kells to determine how the Plan area has changed. It may also highlight how effective the previous Plan was in addressing environmental issues and assist in determining if any environmental issues need to be afforded greater protection in the Plan.

Alternatives Assessment

Your attention is brought to a recent guidance document “*Do’s and Don’ts Guide to generating and developing alternatives*”, (Levett – Therivel, 2012), which is available at <http://www.levett-therivel.co.uk/options.pdf>, which should be taken into consideration.

Further comment will be provided by the Agency upon receipt of the Draft Environmental Report and Plan and associated documents during the next statutory consultation phase of the SEA Process.

Updated SEA Regulations / Circular

Your attention is brought to the new SEA Regulations, which should be referenced and integrated into the Plan and SEA process.

Amending SEA Regulations were signed into Irish law on 3rd May 2011, amending the original SEA Regulations:

- Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, (S.I. No. 201 of 2011), amending the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).

You are also referred to the recent DoECLG Circular (PSSP 6/2011) issued on the 26th July 2011 to each County/City Manager, Director of Services and Town Clerk in relation to 'Further Transposition of the EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA)' which should also be referred to and integrated into the Plan.

European Communities (Birds and Natural Habitats) Regulations 2011

You are also referred to the requirements of the recent European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), which should be taken into account in implementing the Plan. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.

Environmental Authorities

You are reminded of the requirement, where appropriate under the SEA Regulations, and as amended by S.I. No. 201 of 2011, to give notice to the following:

- The Environmental Protection Agency
- The Minister for the Environment, Community & Local Government
- Minister for Agriculture, Marine and Food, and the Minister for Communications Energy and Natural Resources, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and Gaeltacht Affairs, and
- any adjoining planning authority whose area is continuous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.

You are further reminded that a copy of your decision regarding the determination should be made available for public inspection at your offices, local authority website and should also be notified to any Environmental Authorities already consulted.

Should you have any queries or require further information in relation to the above please contact the undersigned. I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: sea@epa.ie.

Yours Sincerely,



Cian O'Mahony
Scientific Officer
SEA Section
Office of Environmental Assessment
Environmental Protection Agency
Regional Inspectorate
Inniscarra,
County Cork

EPA SEA SCOPING SUBMISSION DRAFT KELLS DEVELOPMENT PLAN 2013-2019

SEA Process Guidance

Up-to-date Environmental Monitoring Data etc.

The current state of the environment should be described using most recent and up-to-date environmental data, information and reports. Where updating of significant environmental data and associated reports become available during the SEA process, where possible, this information should be incorporated into the description of the current state of the environment and where relevant related environmental problems. In addition the current state of drinking water quality and treatment, along with waste water effluent quality and treatment infrastructure, should be described using the most recent and up-to-date data, information and reports.

You are referred in this regard to the full range of Water and Air Quality Reports prepared by the EPA. (See www.epa.ie and <https://www.epa.ie/downloads/pubs/>).

Geographical Information Systems

You are referred to the EPA's web based Environmental Mapping / Geographical Information System (GIS) ENVision, which can be found at: <http://gis.epa.ie/Envision/>

The use, and application, of GIS should be considered where possible at the various key stages in the SEA process. GIS could, along with other methodologies, and depending on the availability of relevant spatial data, assist in determining the cumulative vulnerability of various environmental resources within the Plan area. GIS could also demonstrate visually how the Plan might impact on these resources. In undertaking the SEA, all the environmental data and information presented on these GIS based maps should be taken into account.

You are referred to the EPA GISEA Manual, which has recently been updated and posted as a Consultation Document on the EPA's SEA WebPage. This document can be downloaded via the following link: <http://www.epa.ie/downloads/consultation/name,25835,en.html>

Appropriate Assessment

You are referred to the requirements of Article 6 of *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, the Habitats Directive. Appropriate Assessment, in accordance with the Directive, is required for:

“Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation Objectives...”

The LA should consult with the National Parks and Wildlife Service (NPWS) with regard to screening of the Plan for Appropriate Assessment. Where Appropriate Assessment is required, any findings or recommendations should be incorporated into the SEA Environmental Report and Plan, as appropriate.

In order to determine the requirement for an Appropriate Assessment the following Guidance is referenced.

European Commission, 2000. *Managing Natura 2000 Sites – The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC*

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

European Commission, 2002. *Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_asses_en.pdf

National Parks and Wildlife Service, 2009. *Appropriate Assessment of Plans and Projects in Ireland*

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

National Parks and Wildlife Service, *Natura 2000 Screening Protocol – Water Service Plans and Projects*

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

Scoping Meetings/Workshops

For any environmental issue(s) determined to be scoped out of the SEA process, clear justification should be included in the Environmental Report as to why the specific environmental issues were not considered likely to be potentially affected by the Plan.

Alternatives

In considering and assessing alternatives, the alternatives proposed should be reasonable and realistic and should be set at the appropriate strategic level at which the Plan will be implemented operating within the national planning hierarchy. They should be assessed against the relevant environmental objectives established for the key environmental aspects of the environment likely to be significantly affected. Clear justification should be provided for the selection of the preferred alternative/ combination of alternatives.

Where relevant, the development of alternatives should be clearly described. In addition, the methodology applied in the assessment of alternatives along with any assumptions made should be described.

Consultation

In order to promote Best Practice in SEA in the context of consultation, it is recommended that the public be given an opportunity to make submissions on the issues to be addressed in the SEA process for the Plan. To this effect consideration should be given to the publication of relevant and appropriate notices etc. to inform and engage the wider public in the SEA process.

Following completion of the Draft Scoping Report consideration should be given to the making available of this document on the LA website or other relevant websites.

Assessment of Likely Significant Effects

In assessing the likely significant effects of the Plan on the full range of environmental issues likely to be significantly affected, the full range of effects as set out in Annex I of the SEA Directive - likely significant effects should include- secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive and negative effects, should be assessed and reported on.

Particular reference should be made to the potential for cumulative effects associated with the implementation of the Plan in association with other relevant Plans / Programmes and projects within the Plan area and adjoining areas.

The methodology applied in the assessment of the preferred alternative along with any assumptions made should be described. Where possible and practical, quantitative assessments should be undertaken of the assessment of the preferred alternative/ combination of alternatives.

Mitigation of Significant Effects

Where significant adverse effects are identified associated with the implementation of the Plan, there should be a clear link with relevant and appropriate mitigation measure(s). The emphasis should, in the first instance, be on avoidance of significant adverse effects.

Monitoring Proposals

Monitoring arrangements should be clearly set out along with responsibilities, frequency of monitoring, analysis, and reporting on monitoring. Monitoring arrangements should be sufficiently flexible so as to be able to react to unforeseen / unexpected events. Maximum use should be made of existing environmental monitoring programmes. To this effect, the significant environmental monitoring required under the Water Framework Directive should fulfil most if not all of the requirements with respect to water quality.

The monitoring arrangements and related monitoring programme for the Plan should include relevant and appropriate thresholds which should trigger when remedial action should be undertaken for the particular aspect of the environment being monitored.

Process and SEA-Environmental Report Compliance

The SEA Process for the Plan should comply fully with the procedural and output requirements set out in the SEA Directive, and the relevant national SEA Regulations. The Environmental Report should be prepared in accordance with the specific information specified in Article 5 - Environmental Report, Paragraphs 1 – 3 and Annex I of the SEA Directive.

Integration of SEA and Plan/Programme

Particular emphasis should be given during the SEA and Plan-making process to ensuring that both processes are fully integrated from the outset. Appropriate SEA Team /Plan Team Workshops should be held at key stages during both processes to ensure full engagement, interaction, and sharing of information with key members of both teams and to ensure full integration of environmental considerations in the Plan.

Consideration could also be given to the assigning a facilitator either within or external to the LA with the specific role of ensuring full integration takes place during the SEA process and the Plan making process. This can be particularly beneficial where SEA is being undertaken by the LA.

Documentation of the SEA Process

Where key decisions are made during the SEA process e.g. Scoping In/Out environmental topics, selection of preferred alternative (s) etc. these decisions should be documented as part of an overall SEA/ Plan making process.

Possible Proposed Amendments to the Draft Plan

You are referred to the requirement for any amendments proposed to the Draft Plan, to be assessed for likely significant effects. This assessment should take account of the SEA

Regulations Schedule 2A Criteria (S.I 436 of 2004) and should be subject to the same method of assessment as undertaken in the “environmental assessment” of the Draft Plan.

Information on the Decision/ SEA Statement

Following adoption of the Plan the competent authority is required to make available the adopted P/P and a statement setting out relevant “Information on the Decision” as set out in Article 9 of the SEA Directive.

You are referred to the requirement to prepare an SEA Statement outlining “*Information on the Decision*” as required by Article 13 of Planning and Development Regulations as amended by Article 7 of the SEA Regulations in relation to Development Plans.

This SEA Statement should summarise the following:

- how environmental considerations have been integrated into the Plan;
- how the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- the reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- the measures decided upon to monitor the significant environmental effects of implementation of the Plan.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

While not a mandatory requirement consideration should be given at the Draft Plan stage to providing summary key information on: the key findings of the environmental assessment and how these findings have been integrated within the Plan.

SEA Guidance /Methodology

You are referred to the following Guidance/ Methodology, which should be referred to along with other relevant and appropriate SEA and related Guidance during the SEA process:

- EPA –Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland –Synthesis report (EPA, 2003)
<http://www.epa.ie/downloads/advice/ea/name,13547,en.html>
- The Department of Environment Community and Local Government Guidelines: “Implementation of SEA Directive 92001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment –Guidelines for Local Authorities and Planning Authorities” (DoEH&LG, November 2004) While the focus is on Land use Planning, this SEA guidance is of relevance.
<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload,1616,en.pdf>

In addition, to the above, it is brought to your attention that a Draft Consultation SEA Process Checklist has been published on the EPA website. The Checklist can be accessed at the following link:

<http://www.epa.ie/downloads/consultation/name,24012,en.html>

You are also referred to SEA Process Checklist in EPA –*Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland – Synthesis report* (EPA, 2003).

Updated SEA Regulations / Circular

Your attention is brought to the new SEA Regulations, which should be referenced and integrated into the Plan and SEA process.

Amending SEA Regulations were signed into Irish law on 3rd May 2011, amending the original SEA Regulations:

- Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, (S.I. No. 201 of 2011), amending the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).

You are also referred to the recent DoECLG Circular (PSSP 6/2011) issued on the 26th July 2011 to each County/City Manager, Director of Services and Town Clerk in relation to 'Further Transposition of the EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA)' which should also be referred to and integrated into the Plan.

European Communities (Birds and Natural Habitats) Regulations 2011

You are referred to the requirements of the recent *European Communities (Birds and Natural Habitats) Regulations 2011*, (S.I. No. 477 of 2011), which should be taken into account in implementing the Plan. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.

Environmental Authorities

You are reminded of the requirement, where appropriate under the SEA Regulations, and as amended by S.I. No. 201 of 2011, to give notice to the following:

- The Environmental Protection Agency
- The Minister for the Environment, Community & Local Government
- Minister for Agriculture, Marine and Food, and the Minister for Communications Energy and Natural Resources, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and Gaeltacht Affairs, and
- any adjoining planning authority whose area is continuous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.

You are further reminded that a copy of your decision regarding the determination should be made available for public inspection at your offices, local authority website and should also be notified to any Environmental Authorities already consulted.

INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS IN THE DRAFT KELLS DEVELOPMENT PLAN 2013-2019

The Plan should be set in the context of the planning hierarchy and a clear statement should be provided as to the function of the Plan and what the Plan can and cannot do. Where other Plans/Programmes/Strategies are responsible for implementing relevant policies / objectives / initiatives, these should be acknowledged and fully referenced in the Plan.

The comments below relate to the integration of the environmental considerations and recommendations that have been set out in the Environmental Report, as well as the additional information highlighted by the EPA, within the Plan. Suggestions are put forward for consideration with a view to addressing the integration of a number of key environmental considerations within the Plan.

The EPA is a statutory Environmental Authority under the SEA Regulations. The EPA's role in SEA in relation to Land Use Plans focuses on promoting full integration of the findings of the Environmental Assessment into the Plan. It is not the function of the EPA to either approve or enforce Land Use Plans.

Summary of Latest Updates in 2012

Changes	Comments
05/01/12	Added Green Infrastructure links to Section 2.4
07/03/12	Added <i>Focus on Urban Wastewater Discharges in Ireland</i> (2012)
12/03/12	Updated link to EPA Envision GIS Website
12/03/12	Added <i>Air Quality in Ireland 2010</i> , (EPA, 2011)
12/03/12	Added <i>National Waste Report 2010</i> (EPA, 2012)
12/03/12	Added <i>The Provision and Quality of Drinking Water in Ireland – A Report for the Year 2010</i> (EPA, 2011)
12/03/12	Added <i>The Quality of Bathing Water in Ireland – A Report for the Year 2010</i> , (EPA, 2011)
20/04/12	Added Reference to new National Biodiversity Action Plan 2011-16
29/05/12	Added Reference to Article 4.7 of WFD added to Section 1.1
29/05/212	Added Reference to EU and Comhar Green Infrastructure Links Section 2
17/08/12	Added Reference to <i>Integrated Water Quality Report 2011 SE Ireland</i> (2012)
17/08/12	Included update to <i>Focus on Urban Wastewater Discharges Report</i> (2012)
17/08/12	Updated reference to latest <i>The Quality of Bathing Water in Ireland Report</i> for 2011 (EPA, 2012)
17/08/12	Replaced <i>Ireland's Environment Report</i> References with 2012 edition (EPA, 2012)

1 WATER

1.1 Water Framework Directive

The Plan should promote the protection of surface water and groundwater resources and their associated habitats and species. Provisions should be made in the Plan for the incorporation of the specific relevant objectives and measures for individual water bodies set out in the Eastern River Basin Management Plan (ERBMP) and associated Programme of Measures (POM). The Plan should not hinder, and where possible promote the achievement of these specific objectives at water body level. In addition the plan should outline the current water quality status and the status to be achieved by 2015 in any receiving waters covered by the Plan.

You are in particular referred to the Water Maps GIS Tool within this weblink:

<http://www.wfdireland.ie/maps.html>

You are also referred to the full range of Protected Areas within the Eastern River Basin District (ERBD) as set out in Annex IV 1(i) – (v) inclusive of the Water Framework Directive. These should be taken into account in the Drafting of the Plan.

You are referred to the EU's *Common Implementation Strategy for the Water Framework Directive (2000/60/EC) – Guidance Document No. 20*, in particular *Section 3.5 Key Issues for Article 4.7*. Provisions should be included in the Plan to ensure that any proposed land use zoning or development associated with the Plan is not in breach of the requirements of the Water Framework Directive. The guidance document can be found at:

http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_document/s/documentn20_mars09pdf/ EN_1.0_&a=d

The Plan should refer to and incorporate the recent Surface Water legislation '*Environmental Objectives (Surface Waters) Regulations 2009*' 2009 (S.I. No 272 of 2009), where relevant and appropriate. You are referred to the Legislation at:

<http://www.environ.ie/en/Environment/Water/WaterQuality/EnvironmentalObjectivesSurfaceWatersRegulations2009/>

The Plan should refer to the recent '*Water Quality in Ireland 2007 – 2009*' (EPA, 2011) as appropriate and relevant. You are referred to the Report at:

<http://www.epa.ie/downloads/pubs/water/waterqua/>

1.2 Drinking Water/Water Supply

The SEA and Plan making processes should address drinking water supply capacity, leakage and quality in the Plan area. Future predicted increases in population and demand should be taken into consideration in the context of current drinking water supply and future requirements.

The Plan should implement the European Communities (Drinking Water)(No.2) Regulations 2007 and should implement and include, as appropriate, the relevant recommendations set out in *The Provision and Quality of Drinking Water in Ireland – A Report for the Year 2010*, (Office of Environment Enforcement- EPA, 2011). You are referred to this Report at:

<http://www.epa.ie/downloads/pubs/water/drinking/>

The Plan should seek to implement best practise in the provision of appropriate drinking water to service the Plan area. Where disinfection of drinking water is concerned, you are referred to the recently published *Water Treatment Manual: Disinfection* (EPA, 2011). This manual is a revision of the 1998 EPA Disinfection Manual and has been revised to reflect best practice in drinking water disinfection and the supervisory role of the EPA. It provides practical guidance in plant operation, management, maintenance and supervision as well as an overview of the current disinfection technologies available. It is also available at the link provided above.

The Plan should include, where applicable, specific objectives for the improvement of any water supplies in the Plan area. In particular, the Plan should address the specific objectives to be achieved where these water supplies are included on the EPA's Remedial Action List (RAL). It is noted that the Kells-Oldcastle water supply is currently listed on the RAL, as a result of "*inadequate treatment for cryptosporidium*". The RAL published in the most recent annual Drinking Water report can be found at: <http://www.epa.ie/downloads/pubs/water/drinking/> . It should be noted that the RAL is a dynamic list which is reviewed quarterly by the EPA, so the current list may differ from that

published in the most recent annual Drinking Water Report. Guidance on the Remedial Action List has been prepared by the EPA and is available in Section 6 of the Drinking Water Handbook mentioned above and available at:

<http://www.epa.ie/downloads/pubs/water/drinking/>.

The Plan should refer to the EPA guidance handbook on the *Implementation of the Regulations for Water Services Authorities for Public Water Supplies* which has been prepared under the European Communities (Drinking Water) (No.2) Regulations 2007. This guidance handbook was published in 2010 and contains practical information for local authorities on the implementation of the Drinking Water Regulations, including statutory and binding guidance on certain issues in accordance with the Regulations. You are referred to this guidance document at: <http://www.epa.ie/downloads/pubs/water/drinking/>.

Two parallel handbooks were prepared, one to assist private water suppliers and WSAs to implement the Regulations in respect of private water supplies and the second handbook to cover public water supplies including the role of the EPA as the supervisory authority. The two handbooks together replace the previous handbook, published by the EPA in 2004. The handbooks also replace and incorporate the guidance booklets number 1 to 4 published by the EPA in the last two years. The drinking water guidance booklets that are replaced are as follows:

- Guidance Booklet No.1. *Guidance for local authorities on Regulation 9 and Regulation 10 of EC (Drinking Water) (No.2) Regulations 2007.*
- Guidance Booklet No.2. *Annual reporting of drinking water monitoring results.*
- Guidance Booklet No.3. *Guidance for local authorities on the Remedial Action List for public water supplies.*
- Guidance Booklet No.4. *Risk Screening for Cryptosporidium.*

The EPA has also published a series of Drinking Water Advice Notes, which include the following areas:

- Advice Note No. 1: Lead Compliance Monitoring and Surveys
- Advice Note No. 2: Action programmes to restore the quality of drinking water impacted by lead pipes and lead plumbing
- Advice Note No. 3: E.coli in Drinking Water
- Advice Note No. 4: Disinfection By-Products in Drinking Water
- Advice Note No. 5: Turbidity in Drinking Water
- Advice Note No. 6: Restoring Public Water Supplies Affected by Flooding
- Advice Note No. 9: Cryptosporidium Sampling and Monitoring
- Advice Note No. 10: Service Reservoir Inspection, Cleaning and Maintenance

The complete list of available Advice Notes is available at: <http://www.epa.ie/downloads/advice/water/drinkingwater/>

These Advice Notes set out EPA guidance on the actions that are necessary following exceedances of these parameters and also the preventative measures that should be taken to improve the security of the supply to prevent a repeat failure in the future. This is provided in the context of the EPA recommended approach to managing a drinking water supply i.e. the Water Safety Plan Approach. Please be aware that EPA Lead Guidance Circulars No.s 1 and 2 have been reissued as Advice Notes No.s 1 and 2 though there has been no change to the text of these documents.

As set out in the recommendations referred to above, the Local Authority must develop appropriate solutions that may involve abandoning or replacing drinking water sources, upgrading the treatment facilities or improving management and operational practices.

The Plan should take account of any Groundwater Protection Schemes and Groundwater Source Protection Zones data available at the Geological Survey of Ireland: <http://www.gsi.ie>

1.3 Waste Water Treatment

The Plan should highlight the requirement under *The Waste Water Discharge (Authorisation) Regulations* for all wastewater discharges, including storm water discharges which come within the scope of these Regulations to be licensed (for agglomerations over 500pe) or certified (for agglomeration below 500p.e). In this regard, the Plan should highlight the specific requirements of Regulations 43 & 44 of the *Waste Water Discharge (Authorisation) Regulations, 2007*, S.I. No. 684 of 2007, regarding the consideration of proposals and consultation on such proposals by Planning Authorities and An Bord Pleanála, where applications for proposed development are being considered and decided upon.

The Plan should include as appropriate measures to improve water quality impacted by waste water discharges as identified in the EPA Waste Water Report and the Water Quality in Ireland reports.

The Plan should implement the Urban Waste Water Treatment Regulations 2001 and 2004 and promote, as appropriate, specific provisions for the implementation of the relevant recommendations set out in the recent *Focus on Urban Waste Water Discharges in Ireland report* (EPA, 2012), available at <http://www.epa.ie/downloads/pubs/water/wastewater/>. An *Update on 'Focus on urban Waste Water discharges in Ireland' Report* (EPA, 2012) was published and is available at: <http://www.epa.ie/downloads/advice/water/wastewater/>

A summary of the content to be taken into account, as relevant, is provided below:

- Seriously polluted river locations where the source of pollution is attributed to urban waste water discharges are listed in Appendix D.
- Moderately or slightly polluted river locations where there is a high probability that the principle cause of pollution can be attributed to urban waste water discharges are listed in Appendix E.
- Smaller agglomerations in the size range 500 p.e. up to the Directive thresholds, with no treatment or preliminary treatment only in 2009 are listed in Appendix I.
- Agglomerations where secondary treatment or nutrient treatment is not yet installed as per the Urban Waste Water Treatment Directive are listed in Table 2-2 and Table 2-3.
- There is an asset map showing the national status of urban treatment provided for 2009 (page 6)
- The report now has RBD maps showing the location of all waste water works over 500p.e and whether they are in sensitive areas – pages 30 to 36.

The EPA has published a *Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10)*, (EPA, 2009). The code of practice (CoP) establishes an overall framework of best practice in relation to the development of wastewater treatment and disposal systems, in unsewered rural areas, for protection of our environment and specifically water quality. The code replaces previous guidance issued by the EPA on wastewater treatment systems for single houses (EPA, 2000) and incorporates the requirements of new European guidelines, recent research findings and submissions and comments received during the consultation process. It is available from the link provided above.

The EPA has published a *Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses (p.e ≤ 10)*, (EPA, 2009). The code of practice (CoP) establishes an

overall framework of best practice in relation to the development of wastewater treatment and disposal systems, in unsewered rural areas, for protection of our environment and specifically water quality. The code replaces previous guidance issued by the EPA on wastewater treatment systems for single houses (EPA, 2000) and incorporates the requirements of new European guidelines, recent research findings and submissions and comments received during the consultation process. It is available from the link provided above.

The Plan should, where possible and appropriate, include/ and /or promote the inclusion of specific Policies and Objectives regarding the provision and maintenance of adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments within the Plan area.

Where the introduction of additional lands for development is being proposed within the Plan area, relevant Policies/objectives should be included in the Plan, and as appropriate, to promote assessment of the adequacy of the existing wastewater treatment facility (ies) in terms of both capacity and performance and the potential risk to human health and water quality. Where relevant, the potential impact on habitats and species of ecological importance should be addressed.

The Plan should include as appropriate measures to ensure that trade effluent in the area covered by the Plan is managed properly and discharged to sewer in accordance with relevant discharge licences where appropriate.

1.4 Groundwater Protection

The Plan should include clear Policy and Objective for the protection of groundwater resources and associated habitats and species. The Plan should make reference to the requirements of the Groundwater Directive (2006/118/EC) on the protection of groundwater against pollution and deterioration, which came into force on the 12th December 2006.

This Directive addresses the main elements of groundwater protection as required by Article 17 of the WFD. It establishes underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. You are referred to the following recent legislation *European Communities Environmental Objectives (Groundwater) Regulations 2010* (S.I.9 of 2010) at:

<http://www.environ.ie/en/Environment/Water/WaterQuality/GroundwaterRegulations2010/>

The Agency has also published a number of reports in relation to groundwater which should be integrated as appropriate into the Plan. You are referred to these reports at:

<http://www.epa.ie/downloads/pubs/water/ground/>

Where not already available, the Plan should promote the development of a Groundwater Protection Scheme for the relevant local authority areas covered by the Plan.

Consideration should also be given, where relevant and appropriate, to promotion of the inclusion of Policies and Objectives in the Plan for the following:

- *Enforcement of Planning Conditions related to installation, operation and maintenance of on-site wastewater treatment / septic tank systems.*
- *Connection of all remaining houses within Town Boundary to the Wastewater Treatment Plant.*
- *The development of a wastewater leak detection programme. The use of a strategic metering system to aid in leak detection should be considered*
- *The implementation and enforcement of the European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009 and associated*

European Communities (Good Agricultural Practice For Protection Of Waters) Regulations 2010- *S.I.610 of 2010*.

1.5 Water Conservation

The Plan should include measures to promote conservation of water. In this context, the development of a Water Conservation Strategy should be considered, and where relevant addressed in combination with adjoining local authorities. The Strategy should address new and existing developments within the Plan area. Where such a Strategy is being developed, specific timescales should be assigned to its preparation with clear responsibilities and timescales for its implementation.

1.6 Water Services Act 2007- Strategic Water Services Plans

The Plan should include provisions to promote the preparation and implementation of Water Services Plans in accordance with any Regulations likely to be made under Section 36 of the Water Services Act 2007.

Section 36 Subsection (7) c. of the Water Services Act 2007 makes specific reference to the inclusion in Water Services Strategic Plans, where considered reasonable and necessary, of objectives to:

- “*protect human health and the environment*”;
- “*facilitate the provision of sufficient water services for domestic and non – domestic requirements in the area to which the plan relates*”; and,
- “*support proper planning and sustainable development including sustainable use of water resources*”.

1.7 Flood Prevention and Management

The Plan should promote the appropriate zoning of lands and restriction of use in areas liable to flooding to avoid increased risk of flooding of the lands either within or adjoining the zoned areas. A specific Policy should be included to provide for/promote appropriate flood risk assessments to be undertaken, where development(s) and zoning are being proposed in the Plan area where there is risk of flooding.

The Plan should make reference to the E.U Directive (2007/60/EC) on the assessment and management of flood risks entered into force on 12 December 2007. The provisions of this Directive include the development of flood risk management plans.

The Flood Risk Management approach as adopted by the Office of Public Works (OPW) should be promoted, as appropriate, in consultation with the OPW where there is potential risk of flooding in the Plan area. You are referred to the Planning Guidelines on flooding in “*The Planning System and Flood Risk Management - Guidelines for Planning Authorities (Environment, Heritage and Local Government – OPW, November 2009* which can be consulted at:

<http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/NationalSpatialStrategy/Flood%20Risk%20Management/>

The Plan should promote the development, where appropriate, of adaptation measures to account for the likely increased risk of flooding due to Climate Change within the Plan area.

The Plan should include measures to promote the implementation of adequate and appropriate Sustainable Urban Drainage Systems.

The Plan should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary. See definition of “Wetlands” in - *Wetlands Conservation and Protection in EPA Code of Practice: Environmental Risk Assessment for Waste Sites* (EPA, 2007). The full report is available at:

http://www.epa.ie/downloads/advice/waste/waste/EPA_CoP_waste_disposal_sites.pdf

1.8 Hydrometrics

Consideration should be given to incorporating hydrometric information, as relevant and appropriate, into the Plan, particularly in relation to water services and wastewater treatment. You are referred to the Agency’s available information in this regard at: <http://hydronet.epa.ie/conditions>.

Where flood risk assessment is concerned, your attention is also brought to existing hydrometric data available from the OPW: See: <http://www.opw.ie/hydro/index.asp>

1.9 Integration of infrastructure, zoning and development

Where zoning/rezoning of lands and the introduction of new development is being proposed within the Plan area, the Plan should ensure the adequacy of the existing water supply/wastewater treatment facilities and associated networks are assessed. This should address both capacity and performance and the potential risk to human health, water quality and water quantity. The potential impact on habitats and species of ecological importance should also be addressed as appropriate, from pressures impacting on water quality and quantity.

Zoning for development within the Plan area should be linked to availability and adequacy of water supply/waste water treatment infrastructure and capacity. The provision of adequate and appropriate infrastructure in advance of development within the Plan area should be promoted through the Plan.

The implications of Flood Risk likely to be associated with already zoned and undeveloped lands in the Plan area should also be considered. This should be considered in the context of possible rezoning options as appropriate.

The above requirements should be promoted in the Plan and as appropriate should be reflected in relevant Policies/Objectives.

2 BIODIVERSITY

The Convention on Biological Diversity defines biodiversity as “*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.*” This includes sites, habitats, species and networks of importance at the international, national or local level, and which may occur within or outside the Plan area. The Plan should include clear Objectives to conserve and protect all designated sites within and adjacent to the Plan area (including the habitats and/or species for which they have been selected, or which they support), and should also promote the protection of undesignated sites and local biodiversity features.

The main elements of biodiversity are:

- European (Natura 2000) sites (SACs and SPAs, and candidate SACs and SPAs),
- NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora or sites proposed for designation,
- Undesignated sites such as proposed NHAs (pNHAs), local biodiversity areas,

- Sites and habitats that can be considered to be corridors or stepping stones for the purpose of Article 10 of the Habitats Directive,
- ‘Natural habitats and protected species’ for the purposes of the Environmental Liability Directive, including habitats and species listed under the Habitats Directive (Annex I habitats, Annex II and Annex IV species and their habitats) and Birds Directives (Annex I species and their habitats, and regularly occurring migratory birds) wherever they occur,
- Legally protected species including protected flora under the European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts 1976-2000,
- Sites identified under the Bern, Ramsar and Bonn Conventions,
- Biodiversity in general including habitats important for birds, red listed and BoCCI listed species, natural and semi-natural habitat areas including wetlands, woodlands, waterbodies, etc.

Specific Sites to be considered in the Plan

You are referred to the following designated sites, located within 15km of the Plan Area, which should be taken into account in the Plan: River Boyne & River Blackwater (SAC/SPA), Killyconny Bog (Cloughbally) (SAC/pNHA), Girley Bog (NHA), Jamestown Bog (NHA), Lough Ramor (pNHA), Breakey Loughs (pNHA), Boyne Woods (pNHA) and Lough Shesk (pNHA).

2.1 Legislation

European Communities (Birds and Natural Habitats) Regulations 2011

You are referred to the requirements of the recent European Communities (Birds and Natural Habitats) Regulations 2011, (S.I. No. 477 of 2011), which should be taken into account in implementing the Plan. These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements. Full details of the Regulations can be found at <http://www.npws.ie/legislationandconventions/irishlaw/euregulations/>

Other relevant legislation that should be taken into account include the Habitats and Birds Directives, the Wildlife Acts, the Environmental Liability Directive, etc (see below).

2.2 EU Protected Habitats and Species in Ireland

Habitats Directive

The Plan should include, where relevant, a specific commitment to deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a “favourable conservation status”. In particular, the Plan should include a specific Policy/Objective for promoting the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders. (See section on Annex I, II and IV below)

In addition, provisions should be made in the Plan to deliver the requirements of Article 3, Paragraph 3, to “*improve the ecological coherence of Natura 2000 by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora*”. (see section on green infrastructure below)

Further, the Plan should include a Policy/Objective to reflect the provisions of Article 10 of the Habitats Directive:

“Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies, and in particular, with a view to improving the ecological

coherence of the Natura 2000 Network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.”

Annex I/ Annex II /Annex IV Habitats Directive

The Plan should also commit to the protection of SACs, Annex I habitats and Annex II and Annex IV species and their key habitats which occur within and adjoining the Plan area as per the Habitats Directive and Environmental Liability Directive.

Birds Directive

The Plan should include a commitment to protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and to avoid pollution or deterioration of important bird habitats outside SPAs (as per Article 4(4) of the Birds Directive). The Plan should also promote the protection of wetlands and, in particular, wetlands of international importance as required by Article 4, Paragraph 2 of the Birds Directive.

Appropriate Assessment

The Plan should promote the setting up of procedures to ensure compliance with the requirements of Article 6 of the Habitats Directive, and should be itself subject to Appropriate Assessment (AA). The Plan also should include a clear Policy/Objective that sets out a requirement for AA Screening for new, reviewed or amended Plans and proposed projects being prepared by the local authority for the Plan area, which may have the potential to impact on European sites. Potential for cumulative/in-combination effects associated with other relevant Plans/Programmes/Projects should also be determined.

A determination for the requirement for an Appropriate Assessment of all Land Use Plans and related variations should be made in consultation with the DAHG - National Parks and Wildlife Service, and this should be highlighted in the Plan.

The Plan should promote the application of the Guidance set out in the recent DoEHLG Publication ‘*Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities* (2009; revision 2010)’, which can be found at:

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

The Plan should also promote the application of the EU Guidance “*Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites*” and “*Managing Natura 2000 Sites*”, which can be found at the links below. Section 3.6 “*Habitats Directive Article 6(3) and (4) Assessment Review Package*” of the former is of particular relevance and can be found at:

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_asses_s_en.pdf

http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

The Plan should include Policies/Objectives to ensure that the local authority, in fulfilling its responsibilities in the supply of services, zoning of lands and undertaking and authorisation of development, addresses the potential effects on biodiversity and the needs of priority habitats and species which occur within or adjoining the LA areas, as identified in the National Parks and Wildlife Service Report “*The Status of EU Protected Habitats and Species in Ireland*”, (NPWS, Department of the Environment, Heritage and Local Government, 2008).
<http://www.npws.ie/en/media/Media.6440,en.pdf>

Water Framework Directive

You are referred to the Water Framework Directive Register of Protected Areas (www.wfdireland.ie), and in particular those protected areas relating to biodiversity. The Plan should include policies/objectives for the protection of these areas occurring within and adjacent to the Plan area. The Plan should also incorporate, as relevant, the objectives of the Water Framework Directive Eastern River Basin Management Plan.

Fisheries

The Plans should promote the guidance from Inland Fisheries Ireland (formed from the amalgamation of the Regional Fisheries Boards in July 2010), including where appropriate and relevant:

- *Guidelines to the Planning, Design, Construction and Operation of Small Scale Hydro Electric Schemes and Fisheries*
- *10 steps to environmentally friendly drainage maintenance*

See: <http://www.fisheriesireland.ie/Research/recent-publications.html>

2.3 Nationally Designated Habitats and Species

The Plan should include policies/objectives for the protection of NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation. In addition, species protected under the Wildlife Acts including protected flora (Flora (Protection) Order, 1999 – S.I. No. 94 of 1999) should be taken into account. Consideration should be given to protecting proposed NHAs in a similar way to fully designated NHAs.

2.4 Other (Undesignated) Biodiversity Considerations

The Plan should promote the protection of non-designated areas including the protection of habitats, species and local biodiversity features including rivers, wetlands, hedgerows, individual trees, streams, grassland. The protection of habitats in undesignated areas such as pNHAs, and species found on Irish Red Lists and Birds of Conservation Concern in Ireland (BoCCI), should also be promoted in the Plan. These can be found at: <http://www.npws.ie/publications/redlists/>

Buffer Zones / Linkages

The Plan should promote the provision/application of appropriate buffer zones between designated ecological sites and areas zoned for development, and should take cognisance of potential boundary changes to designated sites made during the lifetime of the Plan. Where the application of buffer zones is being considered, you should consult with the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht (DAHG). Inland Fisheries Ireland should also be consulted where fisheries protection is a concern/objective.

The provision of appropriate buffer zones between local (undesignated) biodiversity features and areas zoned for development should be considered. The Plan should promote the protection of linkages between local biodiversity features and ecological networks, e.g. hedgerows, watercourses etc. Opportunities for enhancement of local biodiversity features should be promoted where appropriate.

A relevant policy should be included to maintain or enhance biodiversity richness by protecting rivers, stream corridors and valleys by reserving riparian zones/ecological corridors, maintaining them free from inappropriate development, discouraging culverting or realignment, and promoting natural flood functions.

Green Infrastructure

Green infrastructure is the network of green spaces, habitats and ecosystems, including wild, semi natural and developed environments, which provide multiple social, environmental and economic benefits to society (including ecosystem services). Consideration should be given to including policies/objectives in the Plan for the development of green infrastructure within the Plan area. It should be noted that the new EU Biodiversity strategy promotes green infrastructure, and an EU strategy on green infrastructure is likely to emerge in 2012. Publications on green infrastructure, which should be considered, are available at:

- <http://www.irishlandscapeinstitute.com/home.html>
- <http://www.uep.ie/news/greencity.htm>
- <http://www.eea.europa.eu/publications/green-infrastructure-and-territorial-cohesion>
- <http://www.comharsdc.ie/files/Comhar%20Green%20infrastructure%20report%20final.pdf>

Consideration should be given to providing a Plan lead approach to the inclusion of green infrastructure taking into account the above guidelines as relevant and appropriate.

Habitat Mapping

Plans with landuse zoning should be supported/informed by available habitat information and maps (including wetland mapping) and other ecological surveys. Where these are not available, consideration should be given to including a policy/objective in the Plan for carrying out future habitat mapping. This Habitat Mapping should be undertaken at an appropriate scale and in accordance with the Heritage Council's "*Best Practice Guidance to Habitat Mapping and Survey*" available at <http://www.heritagecouncil.ie/wildlife/publications/>. It should be undertaken on a phased basis and should have specific timescales assigned. The scope of the proposed habitat mapping should be agreed in consultation with the National Parks and Wildlife Service, DAHG, the Heritage Council, Inland Fisheries Ireland, and other relevant statutory and non-statutory nature conservation interest groups.

Biodiversity Action Plans

The Plan should, where relevant and appropriate, refer to and integrate the new National Biodiversity Action Plan, *Ireland's National Biodiversity Plan – Actions for Biodiversity 2011-16* (DoAHG, 2011). You are referred to this at:

<http://www.npws.ie/legislationandconventions/nationalbiodiversityplan/>

The Plan also should support/acknowledge existing Heritage and Biodiversity Plans and should promote the implementation of key actions set out in these Plans.

2.5 Data Sources / Resources

Alien Species & Noxious Weeds

The Plan should promote the implementation of measures to control and manage alien/invasive species (e.g. Japanese Knotweed, Giant Hogweed, Zebra Mussel etc.) and noxious weeds (e.g. Ragwort, Thistle, Dock etc.) within the Plan area according to best practice (as per the new Birds and Habitats Regulations).

Invasive Species Action Plans are available for a number of species on the Invasive Species Ireland website. Information on invasive species can be found at: <http://www.invasivespeciesireland.com/>. In addition, the National Biodiversity Data Centre website <http://invasives.biodiversityireland.ie/> contains online maps and information showing the distribution of invasive species on a national level which should be consulted where relevant.

The National Roads Authority has produced a report entitled the “*Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads*” which can be found at: <http://www.nra.ie/Publications/DownloadableDocumentation/Environment/file.16172.en.pdf>

The measures set out in these documents should be applied at a Plan level where appropriate and could control further spread of these species at regional, county and local level.

European Environmental Agency “10 Message” Publications

The European Environment Agency (EEA) has released a series of publications which provide a short assessment of European Biodiversity and associated climate change impacts on a range of ecosystems. These topics include the following: *Protected Areas, Freshwater Ecosystems, Urban Ecosystems, Agriculture Ecosystems and Cultural landscapes and biodiversity heritage*. These publications are available at:

<http://www.eea.europa.eu/publications/10-messages-for-2010>

National Parks and Wildlife Service

The National Parks and Wildlife Service holds data and information on nature conservation sites, ecological survey datasets, including data on certain habitats and species inside and outside designated sites, ecological survey reports and ecological monitoring reports, including as summarised in *The Status of EU Protected Habitats and Species in Ireland* (NPWS, Department of the Environment, Heritage and Local Government, 2008).

<http://www.npws.ie/en/media/Media.6440.en.pdf>

Management Plans for Designated Areas

The availability of conservation objectives and Management Plans for European sites within the Plan area should be determined. Where available, the Plan should include a specific Policy/Objective in local authority land use Plans to take into account the objectives and management practices proposed in the available Management Plans.

National Biodiversity Data Centre (the Data Centre)

The National Biodiversity Data Centre has recently launched a new website. <http://www.biodiversityireland.ie/>. This website is to be used as a national resource, presenting data and information on all aspects of biodiversity. It also serves as a link between the Data Centre knowledgebase and the provision of high quality information to improve decision making. Key features of the website include:

- Easy access to detailed information on over 1.5 million observations of Ireland’s wildlife (as of July 2011). This includes a feature to query the database for protected, threatened or invasive species of interest only.
- Provisional distribution maps of more than 10,000 Irish species (as of July 2011) presented on national Biodiversity Maps, including a dedicated mapping tool for information on Ireland’s threatened habitats and species which serves as a portal to data and information on all species protected under legislation in Ireland and all Red Listed species, available at: <http://maps.biodiversityireland.ie/>
- An inventory of the primary sources of data on Ireland’s biodiversity resource <http://biodiversity.biodiversityireland.ie/>
- A latest news feature to highlight any new developments in wildlife recording and surveying in Ireland

3 AIR, NOISE AND CLIMATIC FACTORS

3.1 Noise

The Plan should include reference to and, as appropriate, promote the implementation of Noise Directive and associated national regulations.

3.2 Air & Climatic Factors

Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area, particularly in areas zoned for increased urban and transport related development.

The Plan should promote specific Policies/Objectives and associated provisions for the development and promotion of appropriate climate change adaptation and mitigation measures that can be implemented through relevant land use plans and/or specific plans e.g. Flood Risk Management Plans etc.

The Plan should also promote the inclusion of specific Policies, which promote the integration of the implications of Climate Change at a county and local level, in land use planning within the Plan area. In particular the Plan should refer to *Ireland's National Climate Strategy 2007 – 2012*. This is available at:

<http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/>

As referred to above, the European Environment Agency (EEA) has released *10 Messages for 2010* including a publication on '*Climate Change and Biodiversity*' which provides a short assessment focusing on climate change. This is available at:

<http://www.eea.europa.eu/publications/10-messages-for-2010>

The Plan should also address how climate change might impact on the implementation of the Plan. In this regard you are referred to the potential impact of climate change on “increased risk of flooding” and possible “increased occurrence of drought conditions”

You are referred to *Air Quality in Ireland 2010*, (EPA, 2011), which sets out the most recent status in each of the four air quality zones in Ireland. You are referred to this report at:

<http://www.epa.ie/downloads/pubs/air/quality/>

The objectives of EU and Irish air quality legislation is “to avoid, prevent or reduce harmful effects on human health and the environment as a whole”, and the relevant local authorities, where appropriate, “shall promote the preservation of best ambient air quality compatible with sustainable development.” To this effect the Plan should include as appropriate a Policy/Objective to ensure this requirement is complied with.

Consideration should be given to promoting specific Policies / Objectives in the Plan for the protection and improvement, as appropriate, of air quality within the Plan area, particularly in areas zoned for increased urban and transport related development.

4 ENERGY CONSERVATION/RENEWABLE ENERGY

Consideration should be given to the inclusion in the Plan, as appropriate, of a Policy/Objective in relation to the preparation and implementation of “An Energy Conservation Strategy” and associated awareness campaign within the Plan area. Specific timescales should be assigned to the preparation of such a strategy.

The Plan should promote, where appropriate, the use of renewable energy systems (e.g. solar, wind, geothermal etc.) within the Plan area. The Plan should also provide for promotion of energy conservation measures in buildings. Relevant guidance can be found on the website of Sustainable Energy Ireland: www.sei.ie

5 LANDSCAPE CHARACTER ASSESSMENT

The Plan should promote the protection of designated scenic landscapes, scenic views, scenic routes and landscape features of regional, county and local value. The Plan should also take into account the landscape character adjoining the Plan area. There is a need to take into account landscape features and designations adjoining the Plan area.

Consideration should also be given to promoting the requirement for an appropriate “Visual Impact Assessment” for proposed development with potential to impact adversely on significant landscape features within the Plan area. The Plan should promote the application of standard impact assessment methodology for all such development.

Consideration should also be given to the promotion of the designation, and use of, agreed and appropriate viewing points for these assessments. The scope of each assessment should be agreed in consultation with the relevant Planning Department staff.

The Plan should promote the recognition of visual linkages between established landmarks and landscape features and views which should be taken into account when land is being zoned and when individual development proposals are being assessed / considered within the Plan area.

6 GEOLOGY / GEOMORPHOLOGY

Where relevant and appropriate, the Plan should promote the protection of any designated Geological and Geomorphological NHAs/pNHAs, which may be present within or adjacent to the Plan area. The Geological Survey of Ireland should be consulted in this regard.

7 HUMAN HEALTH / QUALITY OF LIFE

The Plan should ensure provision of adequate and appropriate infrastructure and to serve both the existing community and likely future predicted increases in population within the Plan area.

In preparing the Plan, there would be merits in exploring current practice and opportunities with respect to promoting the protection and, as appropriate, improvement of “Quality of Life”. Where relevant, the application of existing “Quality of Life Indices” would be considered in consultation with relevant statutory and non-statutory bodies/organisations.

You are also referred the relevant aspects already referred to above under water, biodiversity, air, energy.

8 TRANSPORTATION

The Plan should promote and, as appropriate provide for, the provision of sustainable modes of transport. The *Department of Transport 2020 Vision – Sustainable Travel and Transport Public Consultation Document (February 2009)* should be reviewed in the context of possible initiatives which could be included as Objectives within the Plan.

9 TOURISM

The Plan should promote where relevant and appropriate long term, sustainable planning for tourism within the Plan area. There may be merits in considering the promotion of the preparation of Integrated Sustainable Tourism Strategy for the County.

10 INFRASTRUCTURE PLANNING

The Plan should promote the integrated planning for adequate and appropriate infrastructure to service any development proposed and authorised during the lifetime of the Plan.

In particular, the Plan should promote the provision of adequate and appropriate wastewater treatment, water supply, surface and storm water drainage, transport, waste management, community services and amenities etc. on planned and phased basis to address any current problems and/or deficits and to reflect predicted increases in population during the life of individual plans adopted within the Plan area.

The Plan should promote the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions within the Plan area. In particular the preparation of Integrated Traffic Management Plans, where relevant and appropriate, for the existing urban areas and proposed new urban developments should be promoted as appropriate through the Plan. This approach should address the short, medium and long-term traffic management requirements within the Plan area.

11 URBAN WASTE WATER DISCHARGE LICENSING

The Plan should refer to the requirement under The Waste Water Discharge (Authorisation) Regulations (as described in *Section 1.3 Wastewater Treatment* above) for all wastewater discharges, including storm water discharges which come within the scope of these Regulations to be licensed. The EPA is currently in the process of licensing discharges from wastewater treatment facilities.

12 WASTE MANAGEMENT

The Plan should promote the integration of land use zoning and development to existing and planned availability of waste infrastructure and capacity. Priority should be given to provision of adequate and appropriate waste related infrastructure in advance of any development.

The Plan should seek to incorporate relevant guidance and legislation to address issues such as Waste Prevention, Food Wastes, Identification of Historic Landfill Sites, Backyard Burning, Illegal Dumping, Brown Field Development etc

The Plan should promote and incorporate the information, and any recommendations, in the following EPA reports:

- *The Nature and Extent of Unauthorised Waste Activity in Ireland (Sep 2005)* - This report sets out the findings of a nationwide investigation by the EPA's Office of Environmental Enforcement (OEE) on unauthorised waste activities in Ireland and sets out an Action Plan to deal with the issue. You are referred to the report at: <http://www.epa.ie/downloads/pubs/waste/unauthorisedwaste>
- *National Waste Report 2010* – you are referred to this Report at: <http://www.epa.ie/downloads/pubs/waste/stats/>

- *National Hazardous Waste Management Plan 2008 – 2012* – available at <http://www.epa.ie/downloads/pubs/waste/haz/>
- *Ireland's Environment 2012* – State of the Environment report - This fifth state of the environment report evaluates the state of the environment across a number of themes including, water quality, air quality and emissions, waste, chemicals, land and soil. You are referred to this report at: <http://www.epa.ie/downloads/pubs/indicators/name.33606.en.html>.

13 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The Plan should highlight that under the EIA and Planning and Development Regulations certain projects that may arise during the implementation of the Plan may require an Environmental Impact Assessment. There are also requirements with regard to EIA for sub-threshold development. In this regard, you are referred to the following Publications:

- “*Guidelines on Information to be contained in Environmental Impact Statements*” (EPA, 2002).
- “*Advice Notes on Current Practice in the preparation of Environmental Impact Statements*”, (EPA, 2003).

In addition to the above, you are referred to the Department of the Environment, Community and Local Government's Publication:

“*Environmental Impact Assessment (EIA) Guidance for consent Authorities regarding sub-threshold development*”, (DoEH&LG, 2003).

These documents can be downloaded at: <http://www.epa.ie/downloads/advice/ea/guidelines/>

It should be noted that the Projects would also be required to be screened with respect to the requirement for Habitats Directive Assessment/Appropriate Assessment as required by Article 6 of the Habitats Directive.

You are also referred to the recently published DoEHLG guidance available in relation to Appropriate Assessment ‘*Appropriate Assessment of Plans and Projects in Ireland*’ (DoEHLG, 2009) at:

<http://www.npws.ie/en/media/NPWS/Publications/CodesofPractice/AA%20Guidance.pdf>

14 STRATEGIC ENVIRONMENTAL ASSESSMENT(SEA)

Consideration should be given to the inclusion of a specific Policy/Objective in the Plan to ensure full compliance, with the requirements of *Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment* – The SEA Directive and the associated *Planning and Development (Strategic Environmental Assessment) Regulations, 2004*.

Your attention is brought to the new SEA Regulations, which should be referenced and integrated into the Plan and SEA process. Amending SEA Regulations were signed into Irish law on 3rd May 2011, amending the original SEA Regulations:

- Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, (S.I. No. 201 of 2011), amending the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).

You are also referred to the recent DoECLG Circular (PSSP 6/2011) issued on the 26th July 2011 to each County/City Manager, Director of Services and Town Clerk in relation to

‘Further Transposition of the EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA)’ which should also be referred to and integrated into the Plan.

Meath County Council need to be cognisant of their responsibilities with respect to the SEA Directive and related SEA Regulations through the Plan. This is of relevance to County Development Plans, Town Plans, Local Area Plans including reviews, variations and amendments etc.

The Plan should promote the development and implementation of Procedures to ensure compliance with the requirements of the SEA Directive and related SEA Regulations.

15 OBLIGATIONS WITH RESPECT TO NATIONAL PLANS AND POLICIES AND EU ENVIRONMENTAL LEGISLATION

The Plan should refer to Meath County Council’s responsibilities and obligations in accordance with all national and EU environmental legislation. It is a matter for Meath County Council to ensure that, when undertaking and fulfilling their statutory responsibilities, they are at all times compliant with the requirements of national and EU environmental legislation.

16 EPA REPORT: IRELAND’S ENVIRONMENT 2012 “MAIN ENVIRONMENTAL CHALLENGES”

The Plan should include relevant Policies and Objectives are included, to address, where appropriate, the “Environmental Challenges and Priorities” for Ireland as set out in Chapter 10 of *EPA Ireland’s Environment 2012* (EPA, 2012). These are as follows:

Environmental Goals

- Limiting and Adapting to Climate Change
- Protecting Water Resources
- Sustainable Use of Resources
- Clean Air
- Protection of Soil and Biodiversity
- Integration and Enforcement

Environmental Challenges

- Valuing and Protecting our Natural Environment
- Building a Resource-Efficient, Low Carbon Economy
- Implementing Environmental Legislation
- Putting the Environment at the Centre of Decision Making
- Meeting the Challenges to Build a Sustainable Ireland

This Chapter can be downloaded at:

<http://www.epa.ie/downloads/pubs/indicators/name,33606,en.html>

Meath County Council in implementing the Plan and in fulfilling its responsibilities should ensure Plan –making authorities take into account and address, where appropriate, the relevant Environmental Challenges” set out above.

Appendix C

Submissions Draft
Environmental Report

C1

APPENDIX 1

ADDITIONAL CONSIDERATIONS FOR THE DRAFT KELLS DEVELOPMENT PLAN 2013-2019

1 WATER

1.1 *Drinking Water/Water Supply*

The Plan should include, where applicable, specific objectives for the improvement of any water supplies in the Plan area. In particular, the Plan should address the specific objectives to be achieved where these water supplies are included on the EPA's Remedial Action List (RAL). The RAL published in the most recent annual Drinking Water report can be found at: <http://www.epa.ie/downloads/pubs/water/drinking/>. It should be noted that the RAL is a dynamic list which is reviewed quarterly by the EPA, so the current list may differ from that published in the most recent annual Drinking Water Report. Guidance on the Remedial Action List has been prepared by the EPA and is available in Section 6 of the Drinking Water Handbook mentioned above and available at: <http://www.epa.ie/downloads/pubs/water/drinking/>.

The Plan should refer to the EPA guidance handbook on the *Implementation of the Regulations for Water Services Authorities for Public Water Supplies* which has been prepared under the European Communities (Drinking Water) (No.2) Regulations 2007. This guidance handbook was published in 2010 and contains practical information for local authorities on the implementation of the Drinking Water Regulations, including statutory and binding guidance on certain issues in accordance with the Regulations. You are referred to this guidance document at: <http://www.epa.ie/downloads/pubs/water/drinking/>.

Two parallel handbooks were prepared, one to assist private water suppliers and WSAs to implement the Regulations in respect of private water supplies and the second handbook to cover public water supplies including the role of the EPA as the supervisory authority. The two handbooks together replace the previous handbook, published by the EPA in 2004. The handbooks also replace and incorporate the guidance booklets number 1 to 4 published by the EPA in the last two years. The drinking water guidance booklets that are replaced are as follows:

- Guidance Booklet No.1. *Guidance for local authorities on Regulation 9 and Regulation 10 of EC (Drinking Water) (No.2) Regulations 2007.*
- Guidance Booklet No.2. *Annual reporting of drinking water monitoring results.*
- Guidance Booklet No.3. *Guidance for local authorities on the Remedial Action List for public water supplies.*
- Guidance Booklet No.4. *Risk Screening for Cryptosporidium.*

The EPA has also published a series of Drinking Water Advice Notes, which include the following areas:

- Advice Note No. 1: Lead Compliance Monitoring and Surveys
- Advice Note No. 2: Action programmes to restore the quality of drinking water impacted by lead pipes and lead plumbing
- Advice Note No. 3: E.coli in Drinking Water
- Advice Note No. 4: Disinfection By-Products in Drinking Water
- Advice Note No. 5: Turbidity in Drinking Water
- Advice Note No. 6: Restoring Public Water Supplies Affected by Flooding
- Advice Note No. 9: Cryptosporidium Sampling and Monitoring
- Advice Note No. 10: Service Reservoir Inspection, Cleaning and Maintenance

The complete list of available Advice Notes is available at: <http://www.epa.ie/downloads/advice/water/drinkingwater/>

These Advice Notes set out EPA guidance on the actions that are necessary following exceedances of these parameters and also the preventative measures that should be taken to improve the security of the supply to prevent a repeat failure in the future. This is provided in the context of the EPA recommended approach to managing a drinking water supply i.e. the Water Safety Plan Approach. Please be aware that EPA Lead Guidance Circulars No.s 1 and 2 have been reissued as Advice Notes No.s 1 and 2 though there has been no change to the text of these documents.

As set out in the recommendations referred to above, the Local Authority must develop appropriate solutions that may involve abandoning or replacing drinking water sources, upgrading the treatment facilities or improving management and operational practices.

2 BIODIVERSITY

2.1 Water Framework Directive

You are referred to the Water Framework Directive Register of Protected Areas (www.wfdireland.ie), and in particular those protected areas relating to biodiversity. The Plan should include policies/objectives for the protection of these areas occurring within and adjacent to the Plan area.

The plan should incorporate, as relevant, the objectives of the Water Framework Directive River Basin Management Plans. Copies of the Draft Management Plans and Programmes of Measures for this species can be accessed at: http://www.wfdireland.ie/docs/5_FreshwaterPearlMusselPlans/

2.2 Habitat Mapping

Plans with landuse zoning should be supported/informed by available habitat information and maps (including wetland mapping) and other ecological surveys. Where these are not available, consideration should be given to including a policy/objective in the Plan for carrying out future habitat mapping. This Habitat Mapping should be undertaken at an appropriate scale and in accordance with the Heritage Council's "*Best Practice Guidance to Habitat Mapping and Survey*" available at <http://www.heritagecouncil.ie/wildlife/publications/>. It should be undertaken on a phased basis and should have specific timescales assigned. The scope of the proposed habitat mapping should be agreed in consultation with the National Parks and Wildlife Service, DAHG, the Heritage Council, Inland Fisheries Ireland, and other relevant statutory and non-statutory nature conservation interest groups.

2.3 Data Sources / Resources

Alien Species & Noxious Weeds

The Plan should promote the implementation of measures to control and manage alien/invasive species (e.g. Japanese Knotweed, Giant Hogweed, Zebra Mussel etc.) and noxious weeds (e.g. Ragwort, Thistle, Dock etc.) within the Plan area according to best practice (as per the new Birds and Habitats Regulations).

Invasive Species Action Plans are available for a number of species on the Invasive Species Ireland website. Information on invasive species can be found at: <http://www.invasivespeciesireland.com/>

In addition, the National Biodiversity Data Centre website <http://invasives.biodiversityireland.ie/> contains online maps and information showing the distribution of invasive species on a national level which should be consulted where relevant.

The National Roads Authority has produced a report entitled the "Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads" which can be found at: <http://www.nra.ie/Publications/DownloadableDocumentation/Environment/file,16172,en.pdf>

The measures set out in these documents should be applied at a Plan level where appropriate and could control further spread of these species at regional, county and local level.

Draft Kells Development Plan 2013-2019

Strategic Environmental Assessment (SEA) Environmental Report

Environmental Protection Agency Comments 6th March 2013

The comments below relate to the integration of the environmental considerations and recommendations that have been set out in the Environmental Report, as well as the additional information highlighted by the EPA, within the Plan. Suggestions are put forward for consideration with a view to addressing the integration of a number of key environmental considerations within the Plan.

The EPA is a statutory Environmental Authority under the SEA Regulations. The EPA's role in SEA in relation to Land Use Plans focuses on promoting full integration of the findings of the Environmental Assessment into the Plan. It is not the function of the EPA to either approve or enforce Land Use Plans.

Attached to this submission is an Appendix containing additional comments on the Integration of Environmental Considerations for the Plan, which refers to key environmental considerations which should be considered, where relevant, in the context of the SEA of the Plan.

The Draft Kells Development Plan 2013-2019, hereafter referred to as "the Plan", has taken a number of key environmental considerations, as identified in the SEA Environmental Report, into account, among them, Core Strategy, Biodiversity, Flood Risk Assessment and Traffic Management. There are however, certain aspects within the Plan for which a stronger commitment to protect and manage environmental sensitivities and vulnerabilities should be considered. Where other Plans/Programmes are responsible for implementing relevant policies / objectives, these should be acknowledged and fully referenced in the Plan.

Consideration should be given to the inclusion of a specific policy/objective to ensure that implementation of the Plan does not conflict with the aims and objectives of the Water Framework Directive.

It is noted that the Kells/Oldcastle water supply scheme is currently on the EPA's Remedial Action list to prevent cryptosporidium and that "*upgrade works are included in the current Water Services Investment Programme*". It is further noted that the Kells Wastewater Treatment Plant is "*nearing capacity and that wastewater constraint in Kells will remain for the vast majority of the next plan period, 2013-19*". It should be ensured that, where relevant, adequate and appropriate Critical Infrastructure is in place prior to permission being granted for any future development in the Plan area.

The Plan should include measures to promote conservation of water. In this context, the development of a Water Conservation Strategy should be considered, and where relevant addressed in combination with adjoining local authorities. The Strategy should address new and existing developments within the Plan area. Where such a Strategy is being developed, specific timescales should be assigned to its preparation with clear responsibilities and timescales for its implementation.

SECTION 1: DEVELOPMENT PLAN

The comments below relate to the Development Plan. Comments and suggestions in this Section are put forward for consideration and mainly relate to the key stages and outputs of the SEA Process.

Specific Comments on the Plan

Chapter 2-Strategic Context and Core Strategy

2.3.1 Development Strategy

The de-zoning of lands originally zoned under the Kells Development Plan 2007-2013 and outlined in Section 2.3.3 *Housing Demand and Land Supply* is noted. Consideration should be given to outlining the exact nature of the proposed zoning status for the 56.8 ha of lands described as Deficit/Excess Zoning.

It is noted that two subsections entitled *Transportation Infrastructure and Development of Linkages* and *Phasing Lands* under Section 2.3.1 have both been numbered (v). Consideration should be given to renumbering *Phasing Lands* as (vi).

2.4.6 Land Use Zoning Objectives

Consideration should be given to amending *Objective A2-New Residential* as follows “To provide for **sustainable** new residential communities...”

There would also be merits in amending *Objective C1-Mixed Use* as follows “To provide for and facilitate **sustainable** mixed residential and business uses...”

Chapter 7-Infrastructure

7.2 Drinking Water

There would be merit in including in the Plan a commitment to a policy/objective for Water Conservation initiatives.

7.3.1 Planned Investment

While *INF POL 1* on the development and upgrading of the Kells Water Supply system is noted, there would be merits in amending the policy as follows “...an adequate, sustainable and economic piped supply of **safe and secure** water is available for the..”

7.7 Flood Risks

Consideration should be given to the addition of a sub heading entitled ‘*Flood Risk Policies*’ as an introduction to Infrastructure Policies 16 & 17 on Page 110 of the Plan.

There would also be merits to including within 7.7 *Flood Risk* a policy/objective ensuring a commitment to full implementation of the findings of the Eastern CFRAMS.

Consideration should also be given to including the commitment given under **Key Infrastructure Aims for Kells No. 4** “*Ensure new development complies with the requirements of ‘The Planning System and Flood Risk Management- Guidelines for Planning Authorities, 2009’*” in the form of a policy/objective in the Plan.

Mapping

The quality and range of mapping associated with the Kells Development Plan is acknowledged and noted. In particular, the inclusion of *Green Infrastructure Map No. 4* is noted and welcomed.

While *Map No. 2 Land Use Zoning* identifies the extent to which the land use zoning applies and the extent of the Town Council boundary, consideration should be given to the inclusion of a map outlining the exact boundary defining the Draft Development Plan area.

There would be merits in providing a combined environmental sensitivity map for the Plan area, to highlight areas where the potential for significant cumulative effects may occur.

SECTION 2: ENVIRONMENTAL REPORT

The comments below relate to the Strategic Environmental Assessment Process and the Environmental Report. Comments and suggestions in this Section are put forward for consideration and mainly relate to the key stages and outputs of the SEA Process.

Chapter 1-Non Technical Summary

It is noted that in the NTS index, the chapter heading on the current Kells Development Plan should read as follows “*1.2 Existing Kells Development Plan 2007-2013*”

Chapter 4-Current State of the Environment

4.3.5.3 Invasive Species

Where relevant and appropriate there would be merits in the inclusion of a policy/objective with respect to the management and control of invasive species.

Chapter 9-SEA Monitoring

The determination reached in *Chapter 9- SEA Monitoring* that “*No significant impacts have been identified as part of the SEA process, consequently it has been determined that no additional monitoring is required,*” is noted. It is also noted however, that *Table 17 Assessment of Potential Impacts Associated with the Proposed Kells Development Plan* highlights a number of *uncertain* outcomes. A commitment to the implementation of a monitoring programme should be included in the Plan. The monitoring programme should include the following:

- The inclusion of monitoring frequencies.
- Monitoring of both positive and negative effects, where they occur.
- Inclusion of the on-going review of environmental targets and indicators in the monitoring programme. Responsibility for this role should be clearly defined.

The Monitoring Programme should be flexible to take account of specific environmental issues as they arise. The programme must be able to deal with the possibility of cumulative effects.

Mr Michael Griffin,
Senior Executive Officer,
Planning and Transport Department,
Meath County Council,
Abbey Mall,
Abbey Road,
Navan,
Co. Meath

6th March 2013

Our Ref: SCP110101.3

Re. Draft Kells Development Plan 2013-2019

Dear Mr Griffin,

The Environmental Protection Agency (EPA) acknowledges your notice, dated 19th December 2012 regarding the above. Please find attached the Environmental Protection Agency's submission in relation to the Draft Kells Development Plan 2013-2019, (the Plan), and Environmental Report.

Annex 1 of Directive 2001/42/EC (SEA Directive) and Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004, the SEA Regulations , set out the "Information to be contained in an Environmental Report".

This submission is intended to promote

- full and transparent integration of environmental considerations in the Plan,
- the integration of the Plan-making and SEA processes and
- compliance with the requirements of the SEA Directive and associated Regulations.

The Draft Kells Development Plan 2013-2019, hereafter referred to as "the Plan", has taken a number of key environmental considerations, as identified in the SEA Environmental Report, into account, among them, Core Strategy, Biodiversity, Flood Risk Assessment and Traffic Management. There are however, certain aspects within the Plan for which a stronger commitment to protect and manage environmental sensitivities and vulnerabilities should be considered. Where other Plans/Programmes are responsible for implementing relevant policies / objectives, these should be acknowledged and fully referenced in the Plan.

Consideration should be given to the inclusion of a specific policy/objective to ensure that implementation of the Plan does not conflict with the aims and objectives of the Water Framework Directive.

It is noted that the Kells/Oldcastle water supply scheme is currently on the EPA's Remedial Action list to prevent cryptosporidium and that "*upgrade works are included in the current Water Services Investment Programme*". It is further noted that the Kells Wastewater Treatment Plant is "*nearing capacity and that wastewater constraint in Kells will remain for the vast majority of the next plan period, 2013-19*". It should be ensured that, where relevant, adequate and appropriate Critical Infrastructure is in place prior to permission being granted for any future development in the Plan area.

Future Amendments to the Draft Plan

Where amendments to the Plan are proposed, these should be screened for likely significant effects in accordance with the criteria as set out in Schedule 2A of the SEA Regulations and should be subject to the same method of assessment applied in the “environmental assessment” of the Draft Plan.

SEA Statement – “Information on the Decision”

Following adoption of the Plan, an SEA Statement, should summarise the following:

- How environmental considerations have been integrated into the Plan;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- The measures decided upon to monitor the significant environmental effects of implementation of the Plan.

A copy of the SEA Statement with the above information should be sent to any environmental authority consulted during the SEA process.

Should you have any queries or require further information in relation to the above please contact the undersigned.

I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: sea@epa.ie.

Yours sincerely



David Galvin

SEA Officer

SEA Section

Office of Environmental Assessment

Environmental Protection Agency

Regional Inspectorate

Inniscarra, County Cork

Appendix D

Submissions - Material Amendments

D1



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht

19 August 2013

Our Ref: FP2013/120

Forward Planning Team,
Meath County Council,
Planning Department,
Abbey Mall,
Abbey Road,
Navan,
Co. Meath

Re: Proposed Material Alterations to the Draft Kells Development Plan 2013 - 2019

A Chara,

I refer to the above Plans. Please find hereunder the observations and recommendations of the Department of Arts, Heritage and the Gaeltacht for consideration by your Authority.

Nature Conservation

The proposed amendments include one under the heading of primary land use zoning categories on page 12. It relates to a zoning of H1 applicable to lands within the area of Rabbit Hill wood adjacent to the River Blackwater. Permitted uses for this zoning are Cycleways/Greenways/Trail Development, Land and Water Based Recreational Activities & Open space. No other uses shall be considered as being open for consideration having regard to the location of the site within a Natura 2000 site. There is also a new section 6.4.1 on page 22 dealing with this amendment.

While the Department welcomes the recognition of the Natura 2000 site, such activities within a Natura 2000 site do have a potential to impact on the Natura 2000 site. As there appears to be an increasing demand nationwide at present to open up rivers and other waterways for amenity purposes it is essential that such developments are considered carefully as there is a potential for a cumulative impact on biodiversity and such a cumulative impact would need to be assessed on a catchment basis.

This issue of the H1 zoning amendment is dealt with in the SEA and AA screening dated 23 July 2013. The SEA screening shows this proposed amendment will have an uncertain impact on Biodiversity, Flora and Fauna. However, it is stated that it is unlikely that significant negative impacts will arise due to the protection of the environment provided by objectives and policies contained in the draft Kells Development Plan. These objectives and policies have not been shown here.

Section 2.4 of the AA screening states that in the absence of NPWS management plans for the three SAC sites that the draft general conservation objectives available from NPWS are set out. However, the AA screening has not used the most up to date versions of the generic conservation objectives for the sites. The version number and date of any conservation objectives quoted should be given. In addition, for the purposes of AA it is the conservation objectives and not a management plan that is referred to in AA guidance and used in the AA process.

Since the permitted uses of the H1 zoning within the Natura 2000 site have the potential to impact on the Natura 2000 sites of the River Boyne and River Blackwater cSAC and SPA the Department would have expected that the AA process would have proceeded beyond screening. The AA screening has referred to the mitigation measures contained in HER OBJ 6, which is essentially to carry out an AA screening and an appropriate level of ecological/environmental assessment, and a new core strategy OBJ 1 for new residential properties at Rabbit Hill Wood which will be linked to the opening of a publicly accessible river walk for which an agreed framework plan will be drawn up. This framework plan is to include a number of items including that any development within the subject lands shall be subject to the carrying out of an appropriate assessment ensuring the proposed development will not adversely impact on the qualifying interests of the Natura 2000 site.

The Department is still of the view that it would have expected this to proceed beyond screening because as indicated on a map it is within a Natura 2000 site and there is potential for significant effect on the European site, or the effect is uncertain.

Archaeological and architectural heritage observations, if any, will follow in due course.

Kindly forward any further information to the following address:

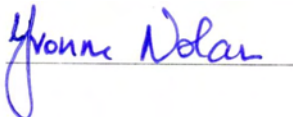
The Manager,
Development Applications Unit,
Department of Arts, Heritage and the Gaeltacht,
Newtown Road,
Wexford.

Alternatively, documentation associated with the above can be referred electronically to the DAU at the following address:

manager.dau@ahg.gov.ie

In addition, please acknowledge receipt of these observations by return.

Is mise le meas,



Yvonne Nolan,
Development Applications Unit
Tel: (053) 911 7382

Appendix E

SEA Assessment of Amended
Kells Development Plan as
recommended in Manager
Report

E1

Meath County Council
**Strategic Environmental
Assessment of Kells Development
Plan 2013-2019**

Assessment and Screening of
Proposed Amendments to Kells
Development Plan 2013-2019 as
recommended in Manager's Report
on Submissions received

Issue 1 May 2013

This report takes into account the particular
instructions and requirements of our client.
It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party.

Job number 225245-00

Ove Arup & Partners Ireland Ltd

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Dublin 4
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ARUP

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Appendices

Appendix A

Appropriate Assessment Screening of Proposed Amendments to Kells
Development Plan 2013-2019 as recommended in Managers Report on
Submissions Received

1 Introduction

This report is an addendum to the Environmental Report for the draft Kells Development Plan 2013-2019. The report details the following:

- Assessment of the proposed amended objectives and policies as outlined in the amended Draft Kells Development Plan 2013-2019.
- Summary of the results of the Appropriate Assessment Screening.
- Response to the Environment Protection Agency's submission (6th March 2013) regarding the SEA draft Environmental Report.

2 Assessment of Likely Significant Effects

A review of the proposed amendments to the Draft Kells Development Plan was undertaken. In general terms, most amendments to policies and objectives relate to text changes and do not change the original impact rating identified in the draft Environmental Report and so are not considered further.

The exception is SOC OBJ 6 outlined below. The assessment of water resources and material assets has both changed from a neutral impact to a major positive impact, which is illustrated in the updated Table 17 from the Environmental Report.

SOC OBJ 6: To develop the lands in Council ownership at the Tower of Lloyd for passive and active recreation purposes whilst acknowledging that the topography does not lend itself to be developed for sports playing pitches. **This shall also require the investigation and provision (subject to finances permitting) for the extension of the existing wastewater collection and treatment infrastructure along the Oldcastle Road to the People's Park area**

The assessment matrix (Table 17) assesses the proposed new policy INF POL 20. The assessment shows that the policy will have a neutral impact on biodiversity, soil and geology, air, noise and climate, landscape and visual. The proposed policy will have a major positive impact on population and human health, archaeological, architectural and cultural heritage and material assets.

The approach used for assessing likely significant impacts was objectives led. The assessment was primarily qualitative in nature, with some assessment based on expert judgement. This qualitative assessment compares the likely impacts against the Strategic Environmental Objectives to see which Policies and Recommendations meet the Strategic Environmental Objectives and which, if any, contradict these.







Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes within the Meath/Greater Dublin Area.

Particular regard was also paid to the need for the sustainable development of ecological resources (including the conservation of fish and other species of fauna and flora, habitats and the biodiversity of water ecosystems and commercial and natural fisheries) as economic resources. In conjunction with the Habitats Directive Assessment due consideration was given to potential significant impacts of the policies and recommendations on ecological resources for the following areas:

- Surface and Ground Water quality.
- Surface water hydrology.
- Fish spawning and nursery areas.
- Passage of migratory fish.
- Areas of natural heritage importance.
- Designated marine protected areas.
- Biological Diversity.
- Ecosystem structure and functioning.
- Seabirds and marine mammals.
- Fish and shellfish cultivation.
- Sport and commercial fishing and angling.
- Amenity and recreational areas.
- Mineral and aggregate resources.
- Sediment transport and coastal erosion.

The assessment process categorised environmental impacts using the ratings outlined in **Table 16** of the Environmental Report which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 16: Impact Ratings

Duration and Type of Impact	
S	Short-term - Impact lasting one to seven years
M	Medium-term - Impact lasting seven to fifteen years
L	Long-term - Impact lasting fifteen to sixty years
P	Permanent - Impact lasting over sixty years
T	Temporary - Impact lasting for one year or less
C	Cumulative – Impact that is ameliorated by other impacts
Significance of Impact	
	Major Positive
	Positive
	Neutral
	Negative
	Major Negative
	Uncertain

Revised Table 17: Assessment of Potential Impacts associated with the Amendments to the Kells Development Plan

Kells Development Plan 2013 - 2019 Environmental Assessment of Amended Policies & Objectives*	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
SOC OBJ 6	P	P	P	P	P	P	P	P
INF POL 20	P	P	P	P	P	P	P	P
TRAN OBJ 7	M	M	M	M	M	M	M	M

* Note: other amendments to policies and objectives are not included in the table where the impact rating from the original Table 17 is not deemed to have changed.

3 SEA Screening

This section presents the findings of a screening process to determine whether a Strategic Environmental Assessment (SEA) is required for the proposed amendments to Kells draft Development Plan 2013 – 2019.

3.1 Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of Certain Plans and Programmes on the Environment, (also known as the Strategic Environmental Assessment Directive), was transposed into Irish Law by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended by S.I. No 200 of 2011. It provided a statutory basis for the making of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004) as amended by S.I. No. 201 of 2011. These Planning and Development Regulations, S.I. No. 436 of 2004 and S.I. No. 201 of 2011, amended articles and schedules to the Planning and Development Regulations, (SI 600 of 2001).

The objective of the Strategic Environmental Assessment (SEA) Directive is *'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development'* (Article 1, SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The Planning and Development Act 2000, as amended by the Planning and Development Amendment Act 2010 states that the planning authority shall determine if a strategic environmental assessment or an appropriate assessment or both such assessments, as the case may be, is or are required to be carried out as respects one of more than one proposed material alteration of the draft development plan.

3.2 SEA Screening

An assessment of the proposed amendments to the draft Kells Development Plan 2013-2019 was undertaken as outlined in Section 2 above. As the proposed amendments are deemed not to have a potential significant negative environmental impact, a full Strategic Environmental Assessment is not required in this instance.

4 Appropriate Assessment

An Appropriate Assessment Screening Report of the proposed amended objectives and policies in the amended Draft Kells Development Plan 2013-2019 is contained in Appendix A.

The report concludes that:

- Non-Natura 2000 sites that may form a supporting feature for some species that also use the Natura 2000 sites were assessed and only one site, Girley Bog NHA was identified and screened out due to lack of hydrological and biological connectivity.
- There would be no significant impacts as a result of the Amendment to the Plan to any of the Natura 2000 Sites considered in the Plan.
- A Finding of No Significant Effects Report is provided in Appendix A of the Appropriate Assessment.

5 EPA Submission

This section responds to the Environmental Protection Agency submission of 6th March 2013 relating to the draft Environmental Report of 06th March 2013. A summary of the submission and responses are provided below.

EPA Submission	Response
Chapter 1-Non Technical Summary It is noted that in the NTS index, the chapter heading on the current Kells Development Plan should read as follows <i>"1.2 Existing Kells Development Plan 2007-2013"</i>	This section of the NTS refers to the proposed Kells Development Plan 2013 -2019. The heading and content page will be changed to read "Kells Development Plan 2013-2019".
Chapter 4-Current State of the Environment 4.3.5.3 Invasive Species Where relevant and appropriate there would be merits in the inclusion of a policy/objective with respect to the management and control of invasive species.	This is an issue for Meath County Council to include in the development plan if deemed necessary.
Chapter 9-SEA Monitoring The determination reached in <i>Chapter 9- SEA Monitoring</i> that <i>"No significant impacts have been identified as part of the SEA process, consequently it has been determined that no additional monitoring is required,"</i> is noted. It is also noted however, that <i>Table 17 Assessment of Potential Impacts Associated with the Proposed Kells Development Plan</i> highlights a number of <i>uncertain</i> outcomes. A commitment to the implementation of a monitoring programme should be included in the Plan. The monitoring programme should include the following: <ul style="list-style-type: none"> • The inclusion of monitoring frequencies. • Monitoring of both positive and negative effects, where they occur. • Inclusion of the on-going review of environmental targets and indicators in the monitoring programme. Responsibility for this role should be clearly defined. 	The Environment Report will be updated to reflect the comments suggested.

<p>The Monitoring Programme should be flexible to take account of specific environmental issues as they arise. The programme must be able to deal with the possibility of cumulative effects.</p>	
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5.1 Amended Non-Technical Summary

NTS1: Introduction

This is a non-technical summary of the Environmental Report that has been prepared as part of the Strategic Environmental Assessment of the proposed Kells Development Plan 2013 - 2019. The document has been prepared in accordance with national and EU legislation. It draws attention to the most important issues and provides information on other significant topics. Any topic which causes concern can be followed in greater detail in the main Environmental Report.

The relevant planning legislation comprises the Planning and Development Act 2000-2010 and the Planning and Development Regulations 2001-2007. The main planning documents reviewed as part of the assessment were:

- The National Spatial Strategy 2002-2020.
- The Regional Planning Guidelines.
- Meath County Development Plan 2007 – 2013.
- Draft Meath County Development Plan 2013 – 2019.

Cognisance was also given to a wide range of legislation, plans and programmes at international, national, regional and local level for relevance to the proposed plan.

NTS2: Kells Development Plan 2013-2019

The proposed Kells Development Plan will provide the main public statement of planning policies and objectives for Kells town and environs for the 2013 – 2019 period. The policies and objectives will be critical in determining appropriate locations and forms of different types of development for the town and environs. The plan will also be used by Kells Town Council and Meath County Council to guide priorities for investment during the lifetime of the plan.

NTS3: SEA Methodology

The objective of the Strategic Environmental Assessment (SEA) Directive is *'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development'*

(Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The SEA methodology is based on legislative requirements and DoEHLG/EPA guidance and will ensure compliance with the SEA Directive and associated

legislation. The EPA's SEA Pack (Version 11/10/2011) was also used as a source of information during the scoping process.

NTS4: Current State of the Environment

The assessment of the proposed plan with respect to the current Environmental Baseline is the principal task of the SEA process. Consequently, this baseline description must be cognisant of the local level nature of the proposed plan and the pressures and interrelationships between environmental topics.

The Environmental Baseline provides an overview of the existing conditions in the Kells Town and Environs area relevant to the proposed plan and will cover the following environmental topics:

- Biodiversity including Flora and Fauna.
- Population and Human Health.
- Soils and Geology.
- Water Resources.
- Air, Noise and Climate.
- Archaeological, Architectural and Cultural Heritage.
- Landscape and Visual.
- Material Assets.

Kells is located in the north-west corner of County Meath. It was established in the ninth century AD by Columbian Monks fleeing Viking raids on their island monastery of Iona. A number of buildings and monuments survive from this period and the influence of the monastic settlement is reflected in the town today.

Kells town lies off the M3 motorway, 16 km from Navan and 65 km from Dublin. From the mid-1990's to 2002, the town and environs experienced extensive growth with many Dublin commuters moving to the area.

In the EPA's 2020 Vision document it is noted that pressures on the Irish environment have increased significantly in recent years as a result of a decade of rapid and unprecedented economic growth. Unfortunately, these pressures have accelerated at a rate that far exceeds that observed in other EU countries.

NTS5: SEA Objectives, Targets and Indicators

The SEA is designed to assess the potential environmental impact of the proposed Development Plan and its associated policies and objectives against the environmental baselines established.

The plan policies and objectives are assessed against a range of established environmental objectives and targets.

Indicators that are recommended in the SEA are utilised over the lifetime of the Development Plan to quantify the level of impact that the policies and objectives have on the environment. This enables us to measure whether they were successful in promoting the sustainable development of the County.

NTS6: Assessment of Likely Significant Effects

The environmental impacts of the proposed Development Plan policies and objectives were assessed with respect to the existing environmental baseline and the environmental objectives.

As the policies included in the Development Plan have been designed to promote sustainability and to protect the environment, the majority of recommendations have positive impacts when assessed against the environmental objectives. A matrix was prepared to highlight these potential impacts.

NTS7: Consideration of Alternatives

Alternative development scenarios were considered in the development of the proposed Development Plan. These options primarily related to rezoning of lands for residential development, employment opportunities and retail use. The zoning of lands identified as being at risk of flooding was also reviewed.

NTS8: Mitigation Measures

This Environmental Report has not highlighted any significant potential negative environmental impacts that will arise from the implementation of the proposed Kells Development Plan. However, a number of mitigation measures have been identified to ensure no negative impacts occur.

NTS9: SEA Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the proposed Development Plan.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration. No significant impacts have been identified as part of the SEA process. Consequently it has been determined that no additional monitoring is required.

5.2 Monitoring

The revised section below will be included in Section 9 of the final SEA Environmental Report.

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive, negative and cumulative impacts on the environment to be measured.

As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the proposed Kells Development Plan.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

Meath County Council is responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Environmental Category	Target	Indicators	Data Sources, Responsibility and Frequency
Biodiversity including Flora and Fauna	<ul style="list-style-type: none"> Consider siting of new development on non-sensitive sites. Improve/maintain protection for protected sites and species. Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors. Improve access for the appreciation and promotion of wildlife. 	<ul style="list-style-type: none"> Number and extent of Protected Sites. Areas actively managed for conservation. Population and range of Protected Species. Achievement of the Objectives of Biodiversity Plans. No net loss in length of ecological corridors. 	<p>Sources: Meath County Council, National Parks and Wildlife Services, Fisheries Board and EPA.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Population and Human Health	<ul style="list-style-type: none"> Minimise population exposure to high levels of noise, vibration and air pollution. Increase modal shift to public transport. Co-ordinate land use and transportation policies. Improve access to recreation opportunities. Minimise effect on human health due to flooding 	<ul style="list-style-type: none"> Census population data. Rates of Unemployment per area. % increase in housing (number and type). 	<p>Sources: Meath County Council and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Soils and Geology	<ul style="list-style-type: none"> Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. Ensure polluting substances are appropriately stored and banded. Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. Re-use of brownfield lands, rather than developing Greenfield lands, where possible. 	<ul style="list-style-type: none"> Rates of re-use / recycling of construction waste. Rates of cement / concrete production. Rates of brownfield site and contaminated land reuse and development. Rates of greenfield development 	<p>Sources: Meath County Council and Environmental Protection Agency.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

	<ul style="list-style-type: none"> Minimise the consumption of non-renewable sand, gravel and rock deposits 		
Water Resources	<ul style="list-style-type: none"> Support the achievement agreed targets in accordance with the Water Framework Directive. Minimise flood risk through appropriate management of flood vulnerable zones and retention, where practicable, of flood plains. Promote sustainable drainage practices to improve water quality and flow. Maintain sustainable levels of abstraction from Lough Bane. Control/minimise point and diffuse sources of pollution within the Plan area. 	<ul style="list-style-type: none"> Compliance of potable water sources to water quality regulations Compliance of surface waters with national and international standards Potable/wastewater treatment capacity versus population % of wastewater achieving tertiary treatment Achievement of the Objectives of the River Basin Management Plans Implementation of recommendations of SFRA 	<p>Sources: Meath County Council, Environmental Protection Agency and Fisheries Board.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Air, Noise & Climate	<ul style="list-style-type: none"> Minimise air and noise emissions during construction and operation of new developments. Promote minimisation of greenhouse gas emissions to the atmosphere 	<ul style="list-style-type: none"> Traffic, Transport and Vehicular survey data National and region specific emission data Compliance with national standards Reduction in greenhouse gas emissions Number and extent of emission licensed facilities Number of energy/renewable energy facilities % of new residential units with C1 or better CER rating 	<p>Sources: Meath County Council, Environmental protection Agency and Central Statistics Office.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>

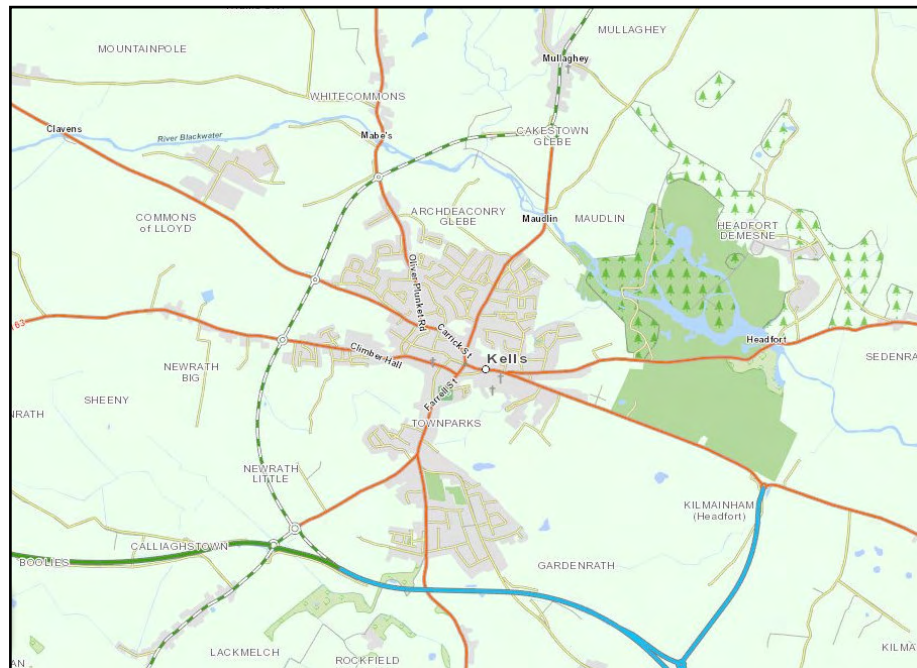
Archaeological, Architectural and Cultural Heritage	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites. • Improve appearance of areas with particular townscape character. • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential. • Enhance access to sites of heritage interest 	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls – Architectural Conservation Areas 	<p>Sources: Meath County Council and Department of Environment Community and Local Government.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Landscape & Visual	<ul style="list-style-type: none"> • Improve protection for landscapes of recognised quality. • Maintain clear urban/rural distinctions. • Enhance provision of, and access to, green infrastructure in Kells. • Ensure development is sensitive to its surroundings 	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban • Areas of new Green Infrastructure established 	<p>Sources: Meath County Council and Department of Environment, Community and Local Government.</p> <p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
Material Assets	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services. • Increase local employment opportunities. • Improve efficiencies of transport, energy and communication infrastructure. 	<ul style="list-style-type: none"> • Enhancement/expansion of existing infrastructure. • Achievement of development plan objectives 	<p>Sources: Meath County Council, Central Statistics Office, National Roads Authority and Environmental Protection Agency.</p>

	<ul style="list-style-type: none"> • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste management. 	<ul style="list-style-type: none"> • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<p>Responsibility: Meath County Council</p> <p>Frequency: Align with monitoring and review process of implementing Kells Development Plan 2013-2019.</p>
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Appendix A

Appropriate Assessment
Screening of Proposed
Amendments to Kells
Development Plan 2013-2019 as
recommended in Managers
Report on Submissions Received

**Appropriate Assessment Screening of
Proposed Amendments to Kells Development Plan 2013 – 2019
as Recommended in Manager's Report on Submissions Received**



**Prepared by: Moore Group – Environmental Services
On behalf of Kells Town Council & Meath County Council
May 2013**



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1. Introduction

1.1. General Introduction

This report contains information required for the competent authorities (in this case Meath County Council and Kells Town Council) to complete an Appropriate Assessment (AA). It has been prepared by Moore Group – Environmental Services on behalf of Meath County Council and Kells Town Council and assesses the potential for the proposed development to impact on sites of European level ecological importance. It is necessary that the Amendment to the Development Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations).

1.2. Legislative Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. Article 6(3) and 6(4) of the Directive set out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4): “If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

This Screening Report is a documentary record of the Appropriate Assessment process for the Amendment to the Kells Development Plan 2013-2019.

1.3. Methodology

The Commission’s methodological guidance (EC, 2002) promotes a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 Appropriate Assessment: In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

In order to ensure that the Draft Development Plan complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group on behalf of Meath County Council and Kells Town Council carried out the screening of proposals for the Draft Plan to see if Stage 2 AA is required. The output of the Screening Stage is recorded in Section 2 below.

1.4. Guidance

The AA has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article Guidance Document.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.

1.5. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth aerial photography 2011 and 2012.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopsis; Generic Conservation Objective data
 - Online database of rare, threatened and protected species
 - Publicly accessible biodiversity datasets.
- Biodiversity Data for County Meath including that collated in the Meath County Heritage Plan.
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2008)
- The Status of Birds in Ireland: An Analysis of Conservation Concern 2008-2013 (Lynas *et al.*, 2007)
- Relevant Development Plans and Local Area Plans in neighbouring areas.
- Kells Development Plan Strategic Issues Paper.
- Submissions made on the Pre-Draft Consultation Report.
- Meath County Development Plan 2013-2019 Screening Report & Natura Impact Statement 2012
- County Meath Biodiversity Action Plan: 2008 –2012
- Kells Development Plan: 2007 –2013
- Kells Development Plan: 2013 –2019

1.6. Consultation

Meath County Council has notified the Department of Arts, Heritage and the Gaeltacht (DAHG) of their intention to commence a review of the Development Plan. The Development Applications Unit was consulted as part of the Screening Process and comments received addressed in the Draft Development Plan Natura Impact Report.

2. Stage 1 – Screening for Appropriate Assessment

Screening determines whether appropriate assessment is necessary by examining:

- 1) whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and
- 2) the potential effects of a project or plan, either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives, and considering whether these effects will be significant.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.1. Description of the Plan

The Kells (Ceanannas Mór) Town & Environs Development Plan establishes a framework for the coordinated and sustainable economic, social, cultural and environmental development of Kells. It acts as a guide to the requirements and policies of the Authorities for those interested in pursuing development as well as informing the general public as to how these development proposals are likely to be assessed.

The Plan sets out the Council's vision for the spatial and sectoral development of Kells over the lifetime of the Plan. The Plan is divided into ten Chapters. Chapter 1 is an introduction to the Plan and outlines the components of the Plan; Chapter 2 details the Strategic Context and Core Strategy of the Plan. Chapters 3 to 10 outline the development strategy for the county on a thematic basis. Each of these chapters includes a written statement in which strategic themes, policies and objectives for each planning topic are provided.

The guidelines and standards contained therein give general guidance to applicants on the criteria which will be used by the Planning Authorities in assessing planning applications. These supplement the various policies and objectives which are provided throughout the Plan.

The present report presents a Screening Assessment for Amendments to the Plan subsequent to the Mangers Report on the Plan and outlined as follows:

AMENDMENT

TRAN OBJ 3: To implement the specific Traffic Management measures for the town centre as outlined in the Kells Local Transport Plan **in order to significantly improve the environment for pedestrians and cyclists and to prioritise public transport movements. The National Transport Authority shall be consulted on the introduction of the revised traffic management measures outlined in the plan.**

AMENDMENT

ECON POL 7: To provide for and facilitate the orderly phased development of enterprise and employment uses at Kells Business Park generally in accordance with the Kells Business Park Framework Plan 2013 (Appendix G). Further development can only be facilitated subject to the availability of adequate piped water services. The Planning Authority shall seek to achieve a high standard of layout, landscaping and design of the overall site, buildings and groups of buildings. It shall be a requirement of the Planning Authority that all development proposals are generally in accordance with the provisions of the Framework Plan. **In addition, future development proposals will be subject to a Traffic & Transport Assessment (TTA), where appropriate, in relation to the potential impact of any specific development on the national road network in the area.**

AMENDMENT

TOWN CENTRE POL 7: To facilitate the appropriate expansion of the lands adjoining the Aldi Discount Foodstore on the Cavan Road for the provision of retail warehousing / car showrooms / service areas generally in accordance with the agreed Framework Plan for the extent of lands now zoned. **In addition, future development proposals will be subject to a Traffic & Transport Assessment (TTA), where appropriate, in relation to the potential impact of any specific development on the national road network in the area.**

AMENDMENT

TOUR OBJ 6: To prepare and implement an overall tourism and amenity development strategy for the Town Council land bank at Lloyd which would, inter alia, implement the recommendations contained in the Boyne Valley Drive Infrastructure Study & Tourism Route Interpretation Plan for the Boyne Valley Drive. The preparation of the development strategy shall be completed within 2 years of the adoption of this Development Plan, subject to funding. **In addition, future development proposals will be subject to a Traffic & Transport Assessment (TTA), where appropriate, in relation to the potential impact of any specific development on the national road network in the area.**

AMENDMENT

Amend INF OBJ 3 as follows:

INF OBJ 3: To ensure through the implementation of the River Basin Management Plans and their associated programmes of measures, and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters within the development plan envelop and beyond. **The implementation of this development plan shall not conflict with the aims and objectives of the Water Framework Directive.**

AMENDMENT

Amend INF POL 1 & 2 as follows:

INF POL 1:

- a) To continue the development and upgrading of the water supply system serving Kells to ensure that an adequate, sustainable and economic supply of **safe and secure** piped

water of suitable quality is available for the sustainable development of Kells as finances permit. **The Planning Authority shall ensure that adequate and appropriate water supply is in place prior to the granting of future development in the plan area.**

- b) **To promote and require the use of water conservation techniques, where practicable, in new developments within the town so as to provide for the sustainable investment and continued availability of water supply for the ongoing population and business needs of the town.**

INF POL 2: To continue the development and upgrading of the waste water system serving Kells to ensure that an adequate treatment capacity is available for the sustainable development of Kells as finances permit. **The Planning Authority shall ensure that adequate and appropriate wastewater treatment capacity is in place prior to the granting of future development in the plan area.**

**AMENDMENT
NEW POLICY**

INF POL 20: To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved

AMENDMENT

INF POL 20 becomes INF POL 21 as follows

INF POL 21: To protect water courses, banks and bankside vegetation from interference by inappropriate bridging, draining, culverting or other works which would be detrimental to fisheries, biodiversity and the qualifying interests of Natura 2000 sites.

AMENDMENT

Amend HER POL 3 as follows

HER POL 3:

- a) To protect and enhance the quality of the natural heritage of Kells and to safeguard it as a resource in its own right and ensure that future generations can understand and appreciate their heritage.
- b) **To promote best practice in the control of invasive species in the carrying out of development.**

Amend SOC OBJ 6 as follows:

SOC OBJ 6: To develop the lands in Council ownership at the Tower of Lloyd for passive and active recreation purposes whilst acknowledging that the topography does not lend itself to be developed for sports playing pitches. **This shall also require the investigation and provision (subject to finances permitting) for the extension of the existing wastewater collection and treatment infrastructure along the Oldcastle Road to the People's Park area.**

AMENDMENT NEW OBJECTIVE

TRAN OBJ 7 To review the existing Section 49 Supplementary Contributions Scheme (N3 – N52 Urban Collector / Distributor Road Link and Newrath Stream Culvert Replacement Scheme) following the adoption of the 2013 – 2019 Kells Development Plan.

2.2. Screening Steps

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidance, this AA has been structured as a stage by stage approach as follows:

Screening stage

- Description of the draft Plan;
- Brief description of the Natura 2000 site(s) potentially affected;
- Conservation objectives of the Natura 2000 site(s);
- Assessment criteria;
 - Likely impacts on Natura 2000 site(s);
 - Cumulative and in combination impacts;
 - Likely changes to Natura 2000 site(s);
 - Elements of the draft Plan where the impacts are likely to be significant;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified above on site(s) integrity;
- Exclusion of site(s) where it can be objectively concluded that there will be no significant effects;
and
- Screening conclusion and statement.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.3. Description of Natura Sites Potentially Affected

In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the Development Plan boundary was selected for consideration of Natura 2000 sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the Plan on Natura 2000 sites. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website on 25th July 2012.

Lough Bane and Lough Glass SAC, although more than 15km from the plan boundary, is included in this assessment as Kells obtains its water through abstraction from Lough Bane.

There are four Natura 2000 sites which are considered relevant to the Plan Administrative Area. These are listed in Tables 1 and 2 below and Site Synopses are presented in Appendix B:

Table 1. Special Areas of Conservation located within 15km of the Kells Development Plan area (*indicates priority habitat).

Site Code	Site Name	Qualifying Habitats	Qualifying Species
000006	Killyconny Bog SAC	*Active raised bogs; and Degraded raised bogs still capable of natural regeneration	
002120	Lough Bane and Lough Glass SAC	Hard oligo mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	White-clawed Crayfish (<i>Austropotamobius pallipes</i>)
002299	River Boyne and River Blackwater SAC	Alkaline fens; and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>).	River Lamprey (<i>Lampetra fluviatilis</i>) and Otter (<i>Lutra lutra</i>)

Table 2. Special Protection Areas located within 15km of the Kells Development Plan area.

Site Code	Site Name	Qualifying Habitats	Qualifying Species
004232	River Boyne and River Blackwater SPA	Wetlands	Kingfisher (<i>Alcedo atthis</i>) [breeding]

2.4. Conservation Objectives of the Natura 2000 Sites

In the absence of NPWS Management Plans for the three SAC sites to date, the following general draft conservation objectives, available from the NPWS, are set out:

Objective 1: To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status;

Objective 2: To maintain the Annex II species for which the SAC has been selected at favourable conservation status;

Objective 3: To maintain the extent, species richness and biodiversity of the entire site; and

Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The conservation Objective for the SPA is:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

2.5. Assessment Criteria

2.5.1. Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Development Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and

telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions. In practice and as outlined in the EU document “Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”, and the national guidance document ‘Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities’, impacts that could potentially occur through the implementation of the proposed Development Plan can be categorised under a number of headings:

- Habitat loss within Natura 2000 site,
- Direct species mortality,
- Disturbance of species during construction,
- Disturbance of species due to active/passive recreation,
- Disturbance due to lighting,
- Surface water run off during construction,
- Surface water run off from increased hard standing areas,
- Disturbance of watercourses due to diversions, culverting,
- Water Supply,
- Wastewater treatment plant capacity.

In order to identify those sites that could be potentially affected, it is necessary to describe the Natura 2000 site in the context of why it has been designated i.e. in terms of its Qualifying Interests and the environmental and ecological conditions that maintain the condition of these features. The underpinning conditions that are required to maintain the ‘health’ of these features are listed in Table 3 below.

Table 3. Qualifying Interests and Key environmental conditions supporting site integrity.

Qualifying Interests	Key environmental conditions supporting site integrity
Active raised bog	Surface water supply. Low nutrient, acidic conditions to support growth of Sphagnum spp. Restricted drainage at perimeter.
Alkaline fens	High water table. Ground surface water supply. Calcium-rich conditions.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	Riparian/lacustrine habitat prone to flooding
Degraded raised bogs still capable of natural regeneration	Desiccation from drainage. Low moss cover.
Hard oligo mesotrophic waters with	Water quality and availability. Oligotrophic conditions and marl

benthic vegetation of <i>Chara</i> spp.	deposition. Wetland vegetation.
White-clawed Crayfish (<i>Austropotamobius pallipes</i>)	Water quality and availability. Calcium-rich conditions and marl deposition.
Kingfisher (<i>Alcedo atthis</i>)	Freshwater food availability. Undisturbed soft substrate riparian nest sites. Regularity of extreme weather. Water quality.
Otter (<i>Lutra lutra</i>)	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways.
River Lamprey (<i>Lampetra fluviatilis</i>)	Riverine habitat. Water quality. Riverbed breeding gravels and silt nursery substrate. Unhindered migratory channels.

In terms of the Kells Development Plan, the following generic threats have been identified:

Rural/Agricultural activities

Restructuring agricultural land holdings;
Drainage/flooding;
Pesticides.

Economic and Infrastructural Development

Business Parks;
Roads, motorways;
Sewage outflows;
Wastewater Treatment Capacity;
Water abstraction;
Housing developments;
Communications Networks;
Landfill land reclamation;
Disposal of household waste;
River Channel Maintenance, and;
Invasive Alien Species.

Recreation and Leisure

Walking, horse riding and non-motorised vehicles;
New Paths and Tracks.

2.5.2. Likely Impacts on Natura 2000 Sites

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each Natura 2000 site and describes any likely significant effects of implementation of Amendment to the Plan. This assumes the absence of any controls, conditions or assumption mitigation measures.

The likely significant effects of the Amendment to the Plan are presented In Table 4, both in isolation and potentially in combination with other Plans. A screening matrix of potential impacts is then presented in Table 5.

Table 4. Outlining the potential impacts of the Plan in the absence of mitigation.

Site	Potential Impacts from the Amendment to the Plan	Risk of Significant Effect	In-Combination Effects	Significant Risk In-Combination
Killyconny Bog SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath & Cavan County Development Plans. River Basin Management Plan.	No
Lough Bane and Lough Glass SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath & Westmeath, County Development Plans, Local Area Plans, River Basin Management Plan.	No
River Boyne and River Blackwater SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath, Cavan & Louth County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	No
River Boyne and River Blackwater SPA	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath, Cavan & Louth, County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	No

Table 5. Matrix of potential impacts and determination of Stage 2 AA.

Site	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Diversity	Changes in Key Indicators of Conservation Value (Water Quality etc.)	Stage 2 AA required
Killyconny Bog SAC	No	No	No	No	No	No
Lough Bane and Lough Glass SAC	No	No	No	No	No	No
River Boyne and River Blackwater SAC	No	No	No	No	No	No
River Boyne and River Blackwater SPA	No	No	No	No	No	No

2.6. Ecological Network Supporting Natura 2000 Sites

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as “stepping stones” between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account during the rest of the AA process.

Only one NHA is located within the 15km buffer zone of the Plan, namely Girley Bog NHA, which is designated because of its Raised Bog habitat. Located at just over 4.5 km to the southwest of the Plan Area it has no hydrological or biological connectivity with the Plan Area and would not be affected by the Amendment of policies or objectives of the Plan.

2.7. Screening Conclusions

Non-Natura 2000 sites that may form a supporting feature for some species that also use the Natura 2000 sites were assessed and only one site, Girley Bog NHA was identified and screened out due to lack of hydrological and biological connectivity.

This Screening Assessment has identified that there would be no significant impacts as a result of the Amendment to the Plan to any of the Natura 2000 Sites considered in the Plan.

A Finding of No Significant Effects Report is provided in Appendix A.

Appendix A

FINDING OF NO SIGNIFICANT EFFECTS REPORT

Finding no significant effects report matrix

Name of project or plan

Amendment to Kells Development Plan 2013 - 2019.

Name and location of the Natura 2000 site(s)

The Plan Area is located adjacent to the River Blackwater which is a major tributary of the River Boyne. The River Blackwater is designated as part of the River Boyne and River Blackwater SAC (Site Code 002299) and SPA (Site Code 004232).

Other Natura 2000 sites within 15 km of the Plan Area include:

Killyconny Bog SAC 000006

Lough Bane and Lough Glass SAC 002120

Description of the project or plan

The present report presents a Screening Assessment for Amendments to the Plan subsequent to the Mangers Report on the Plan and outlined as follows:

AMENDMENT

TRAN OBJ 3: To implement the specific Traffic Management measures for the town centre as outlined in the Kells Local Transport Plan in order to significantly improve the environment for pedestrians and cyclists and to prioritise public transport movements. The National Transport Authority shall be consulted on the introduction of the revised traffic management measures outlined in the plan.

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a) To continue the development and upgrading of the water supply system serving Kells to ensure that an adequate, sustainable and economic supply of safe and secure piped water of suitable quality is available for the sustainable development of Kells as finances permit. The Planning Authority shall ensure that adequate and appropriate water supply is in place prior to the granting of future development in the plan area.

b) To promote and require the use of water conservation techniques, where practicable, in new developments within the town so as to provide for the sustainable investment and continued availability of water supply for the ongoing population and business needs of the town.

INF POL 2: To continue the development and upgrading of the waste water system serving Kells to ensure that an adequate treatment capacity is available for the sustainable development of Kells as finances permit. The Planning Authority shall ensure that adequate and appropriate wastewater treatment capacity is in place prior to the granting of future development in the plan area.

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INF POL 21: To protect water courses, banks and bankside vegetation from interference by inappropriate bridging, draining, culverting or other works which would be detrimental to fisheries, biodiversity and the qualifying interests of Natura 2000 sites.

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SOC OBJ 6: To develop the lands in Council ownership at the Tower of Lloyd for passive and active recreation purposes whilst acknowledging that the topography does not lend itself to be developed for sports playing pitches. This shall also require the investigation and provision (subject to finances permitting) for the extension of the existing wastewater collection and treatment infrastructure along the Oldcastle Road to the People's Park area.

AMENDMENT
NEW OBJECTIVE

TRAN OBJ 7 To review the existing Section 49 Supplementary Contributions Scheme (N3 – N52 Urban Collector / Distributor Road Link and Newrath Stream Culvert Replacement Scheme) following the adoption of the 2013 – 2019 Kells Development Plan.

Is the project or plan directly connected with or necessary to the management of the site(s)

No

Are there other projects or plans that together with the projects or plan being assessed could affect the site

The E.C. Habitats Directive and the Irish Habitats Regulations 2011 require that the impacts on Natura 2000 sites be assessed from the plan or project in question and also in combination with other plans and projects that could affect the same Natura 2000 sites.

The screening process identified the plans that could act in combination with the Draft Development Plan to pose likely significant effects on Natura 2000 sites in its administrative area and its environs. If the Plans considered have undergone appropriate assessment themselves, it is assumed that if a Plan has been adopted following AA, then it cannot pose likely significant adverse effects on Natura 2000 sites.

Since Local Area Plans in County Meath will be amended following the adoption of the County Development Plan, Local Plans will all undergo their own appropriate assessment where necessary and will take into account the cumulative effects at this scale, particularly of projects which can act in-combination and identified at a local scale. The amendments/variations to these Plans will be in accordance with the Policies and Objectives that are described in the County Development Plan. Therefore it is assumed that the amendments/variations themselves will not pose likely significant effects to the Natura 2000 sites. Local Area Plans in County Meath are therefore not predicted to pose cumulative adverse impacts, provided they are in compliance with the County Development Plan.

The cumulative/in-combination impact assessment next focuses on the other County Development Plans that had the highest potential to affect the same Natura 2000 sites that could be affected by the Draft Kells Development Plan. Other higher-level plans that could promote infrastructure are integrated within the County Development Plan and have been assessed as such.

The assessment of significance of effects

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.

The proposed Amendments will not affect the conservation objectives of the Natura 2000 Sites considered in this assessment.

Explain why these effects are not considered significant.

The proposed Amendments support sustainable policies and objectives set out in the Kells Development Plan 2013 – 2019 which has been the subject of Stage 2 Appropriate Assessment.

List of agencies consulted: provide contact name and telephone or e-mail address

Development Applications Unit, DAHG - Manager.Dau@ahg.gov.ie

Response to consultation

The Development Applications Unit was consulted as part of the Screening Process and comments received addressed in the Development Plan Natura Impact Report.

Data collected to carry out the assessment

Who carried out the assessment

Moore Group Environmental Services.

Sources of data

NPWS database of designated sites at www.npws.ie

Level of assessment completed

Desktop Assessment.

Where can the full results of the assessment be accessed and viewed

Meath County Council Planning Section.

Overall Conclusions

This Screening Assessment has identified that there would be no significant impacts as a result of the Amendment to the Kells Development Plan 2013 – 2019 to any of the Natura 2000 Sites considered in the Plan.

Appendix B

National Parks and Wildlife Service Site Synopses

SITE SYNOPSIS

SITE NAME : KILLYCONNY BOG SAC

SITE CODE : 000006

There is presently no Site Synopsis available for Killyconny Bog SAC and so the following is taken from the Natura 2000 Standard Form:

Killyconny Bog is a rather small raised bog site located in the north-east of the country. The site contains good examples of the priority Annex I habitat active raised bog and the non-priority habitat degraded raised bog (capable of regeneration). The uncut high bog area is surrounded by extensive cutover surfaces and a portion of this cutover has been planted with conifers. Although the site is rather damaged at present due to drainage effects, it remains one of the largest extant areas of relatively intact raised bog in the north-east of the country and thus is of considerable ecological and biogeographical importance.

SITE SYNOPSIS**SITE NAME: LOUGH BANE AND LOUGH GLASS****SITE CODE: 002120**

This site is located on the Meath/Westmeath border, about 10 km south of Oldcastle. It comprises three lakes situated in a shallow valley. Lough Bane is by far the largest of the group, with the much smaller Lough Glass occurring immediately to the east and Lough Glass North to the north-west. The lakes occur at the headwaters of the River Deel, with the main outflow at the south-east end of Lough Bane. The outflow is not very substantial and partly overgrown with vegetation. The connection between Lough Glass and Lough Bane has now been severed and the flow from Glass is diverted to the south-west. The water level has dropped over the years and has exposed soft marl along parts of the shore.

Lough Bane is a good example of a hard water marl lake with well developed stonewort (*Chara* spp.) communities. This is an important habitat listed on Annex I of the E.U. Habitats Directive. Sampling of the aquatic flora has shown the presence in Lough Bane of at least four species of Charophyte, i.e. *Chara rudis* (dominant in deep water), *C. curta* (shallow water at north shore), *C. globularis* and *C. contraria* (both mid-south shore).

Much of the shoreline of the lakes has a fringe of wetland vegetation, mostly Common Reed (*Phragmites australis*) and Common Club-rush (*Scirpus lacustris*), but also some Water Horsetail (*Equisetum fluviatile*) and Bottle Sedge (*Carex rostrata*). At the east and west ends of Lough Bane the swamp vegetation is particularly well developed and there is also fen vegetation. Species include Jointed Rush (*Juncus articulatus*), Water-cress (*Nasturtium officinale*), Meadowsweet (*Filipendula ulmaria*), Devils'-bit Scabious (*Succisa pratensis*), Meadow Thistle (*Cirsium dissectum*), Marsh Bedstraw (*Galium palustre*) and Grass-of-parnassus (*Parnassia palustris*).

Mixed woodland occurs along parts of the south and north shores. Species present include Beech (*Fagus sylvatica*), Oak (*Quercus* sp.), Holly (*Ilex aquifolium*), Scots Pine (*Pinus sylvestris*) and European Larch (*Larix decidua*). In some areas Hazel (*Corylus avellana*) becomes dominant, along with other shrubby species such as Hawthorn (*Crataegus monogyna*).

Dry calcareous grassland (mostly unimproved) is found in a few areas, notably at Noggin Hill. Species present here include Primrose (*Primula vulgaris*), Fairy Flax (*Linum catharticum*), Lady's Bedstraw (*Galium verum*), Ribwort Plantain (*Plantago lanceolata*) and the grasses *Briza media* and *Cynosurus cristatus*. The lake has Brown Trout and is an important angling lake. An important population of White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the E.U. Habitats Directive, was known from these lakes, but it was wiped out by a fungal plague (*Aphanomyces astaci*) in the 1980s. Crayfish have successfully been reintroduced to other lakes in the area and National Parks and Wildlife intend to reintroduce them to Lough Bane. The lakes and fringing wetlands also support a varied avifauna including Little Grebe, Cormorant, Lapwing, Curlew and Snipe. Despite being surrounded by mostly improved pasture, the quality of the water appears good and Lough Bane has been classified as a very oligotrophic system. However, as it is a small waterbody and situated in a valley, it is vulnerable to water pollution. A further threat comes from afforestation within the catchment – should there be an increase in the areas under commercial forestry, the quality of the water could be affected.

Overall, this is a fine example of a hard water marl lake system with good *Chara* communities. Such systems are becoming scarce in Europe.

31.10.00

SITE SYNOPSIS**SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SAC****SITE CODE: 002299**

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site. Towns both small and large, include Slane, Navan, Kells, Trim, Athboy and Ballivor.

The site is a candidate SAC selected for alkaline fen and alluvial woodlands, 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 – Atlantic Salmon, Otter and River Lamprey.

The main areas of alkaline fen are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*) and this last species also extends shorewards where a dense stand of Great Fen Sedge or Saw Sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex* spp., *Molinia caerulea*) or one dominated by the Black Bogrush (*Schoenus nigricans*). An alternative direction for the aquatic/terrestrial transition to take is through a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum* spp.). Diversity of plant and animal life is high in the fen and the flora, includes many rarities. The plants of interest include Narrow-leaved Marsh Orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic Stoneworts (*Chara* spp.) which are characteristic of calcareous wetlands. The rare plant, Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs around Newtown Lough. This species is listed in the Red Data Book and is protected under the Flora Protection Order, 1999, and this site is its only occurrence in Co. Meath. Wet woodland fringes many stretches of the Boyne. The Boyne River Islands are a small chain of three islands situated 2.5 km west of Drogheda. The islands were formed by the build up of alluvial sediment in this part of the river where water movement is sluggish. All of the islands are covered by dense thickets of wet, Willow (*Salix* spp.) woodland, with the following species occurring: Osier (*S. viminalis*), Crack Willow (*S. fragilis*), White Willow (*S. alba*), Purple Willow (*Salix purpurea*) and Grey Willow (*S. cinerea*). A small area of Alder (*Alnus glutinosa*) woodland is found on soft ground at the edge of the canal in the north-western section of the islands. Along other stretches of the rivers of the site Grey Willow scrub and pockets of wet woodland dominated by Alder have become established, particularly at the river edge of mature deciduous woodland. Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*) are common in the latter and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Angelica (*Angelica sylvestris*), Yellow Iris, Horsetail (*Equisetum* spp.) and occasional tussocks of Greater Tussocksedge (*Carex paniculata*).

The dominant habitat along the edges of the river is freshwater marsh - the following plant species occur commonly here: Yellow Flag (*Iris pseudacorus*), Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinacea*), Marsh Bedstraw (*Galium palustre*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas of the marsh Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species

mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic is from a site in Co. Monaghan. The secondary habitat associated with the marsh is wet grassland and species such as Tall Fescue (*Festuca arundinacea*), Silverweed (*Potentilla anserina*), Creeping Buttercup (*Ranunculus repens*), Meadowsweet (*Filipendula ulmaria*) and Meadow Vetchling (*Lathyrus pratensis*) are well represented. Strawberry Clover (*Trifolium fragiferum*), a plant generally restricted to coastal locations in Ireland, has been recorded from wet grassland vegetation at Trim. At Rossnaree river bank on the River Boyne, is Round-Fruited Rush (*Juncus compressus*) found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland. Along much of the Boyne and along tributary stretches are areas of mature deciduous woodland on the steeper slopes above the floodplain marsh or wet woodland vegetation. Many of these are planted in origin. However the steeper areas of King Williams Glen and Townley Hall wood have been left unmanaged and now have a more natural character. East of Curley Hole the woodland has a natural appearance with few conifers. Broad-leaved species include Oak (*Quercus* spp.), Ash (*Fraxinus excelsior*), Willows, Hazel (*Corylus avellana*), Sycamore (*Acer pseudoplatanus*), Holly (*Ilex aquifolium*), Horse chestnut (*Aesculus* sp.) and the shrubs Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Elder (*Sambucus nigra*).

South-west of Slane and in Dowth, the addition of some more exotic tree species such as Wych Elm (*Ulmus glabra*), Beech (*Fagus sylvatica*), and occasionally Lime (*Tilia cordata*), are seen. Coniferous trees, Larch (*Larix* sp.) and Scots Pine (*Pinus sylvestris*) also occur. The woodland ground flora includes Barren Strawberry (*Potentilla sterilis*), Enchanter's Nightshade (*Circaea lutetiana*) and Ground-ivy (*Glechoma hederacea*), along with a range of ferns. Variation occurs in the composition of the canopy, for example, in wet patches alongside the river, White Willow and Alder form the canopy.

Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reedswamp, weedy wasteground areas, scrub, hedge, drainage ditches and canal. In the vicinity of Lough Shesk, the dry slopes of the morainic hummocks support grassland vegetation which, in some places, is partially colonised by Gorse (*Ulex europaeus*) scrub. Those grasslands which remain unimproved for pasture are species-rich with Common Knapweed (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*) and Ribwort Plantain (*Plantago lanceolata*) commonly present. Fringing the canal alongside the Boyne south-west of Slane, are Reed Sweet-grass (*Glyceria maxima*), Great Willowherb (*Epilobium hirsutum*) and Meadowsweet.

The Boyne and its tributaries is one of Ireland's premier game fisheries and it offers a wide range of angling from fishing for spring salmon and grilse to seatrout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds. Although this species is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. Atlantic Salmon run the Boyne almost every month of the year. The Boyne is most important as it represents an eastern river which holds large three-sea-winter fish from 20 –30 lb. These fish generally arrive in February with smaller spring fish (10 lb) arriving in April/May. The grilse come in July, water permitting. The river gets a further run of fish in late August and this run would appear to last well after the fishing season. The salmon fishing season lasts from 1st March to 30th September.

The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 70's. Salmon stocks have not recovered to the numbers pre drainage. The Deel, Riverstown, Stoneyford and Tremblestown Rivers are all spring fed with a continuous high volume of water. They are difficult to fish in that some are overgrown while others have been affected by drainage with the resulting high banks.

The site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive, namely River Lamprey (*Lampetra fluviatilis*) which is present in the lower reaches of the Boyne River while the Otter (*Lutra lutra*) can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act.

Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Parts of these areas are within the cSAC site. Known sites are at Newgrange (c. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys. The birds use a range of feeding sites but roosting sites are not well known. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

Intensive agriculture is the main landuse along the site. Much of the grassland is in very large fields and is improved. Silage harvesting is carried out. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the lakes. In the more extensive agricultural areas sheep grazing is carried out. Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many cases in leaving very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the EU Freshwater Fish Directive.

The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as examples of other important habitats. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

6.10.2006

SITE SYNOPSIS

SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SPA

SITE CODE: 004232

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

25.11.2010

Appendix F

**Assessment and Screening of
Amended Kells Development
Plan following Resolution of
Elected Members**

F1

Meath County Council
**Strategic Environmental
Assessment of Kells Development
Plan 2013-2019**

Assessment and Screening of Proposed
Amendments to Kells Development Plan 2013 –
2019 Following Resolution of Elected Members

Rev C

Issue | 23 July 2013

This report takes into account the particular
instructions and requirements of our client.
It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party.

Job number 225245-00

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Appendix A

Appropriate Assessment Screening of Proposed Amendments to Kells
Development Plan 2013 – 2019 Following Resolution of Elected Members

1 Introduction

This report is an addendum to the Environmental Report for the draft Kells Development Plan 2013-2019. The report details the following:

- Assessment of the proposed material alterations of the draft Kells Development Plan 2013-2019.
- Summary of the results of the Appropriate Assessment Screening.

2 Assessment of Likely Significant Effects

A review of the proposed material alterations to the draft Kells Development Plan was undertaken. In general terms, most amendments to policies and objectives relate to text changes and do not change the original impact rating identified in the draft Environmental Report and so are not considered further.

The assessment matrix (Table 17) assesses the proposed new land use zoning objective H1 High Amenity. The assessment shows that the objective H1 High Amenity will have an uncertain impact on biodiversity, soils and geology, water resources, air noise and climate, archaeological architectural and cultural heritage, and landscape and visual. It will have a neutral impact on material assets and a positive impact on population and human health.

Where an impact is deemed uncertain it is unlikely that significant negative impacts will arise due to the protection of the environment provided by the objectives and policies contained in the draft Kells Development Plan.

The assessment matrix also assesses a new proposed objective. Core Strategy Objective 1 will have a very positive impact on population and human health and a positive impact on material aspects. It is deemed to have a neutral impact on all other aspects.

It is noted that the proposed amendments make provision to remove one structure from the Record of Protected Structures (Westfield Cottage) and to amend the description of Presbyterian Manse to façade only. It is noted that HER Pol 1 and 7 as outlined below will protect structures of merit. It is therefore envisaged that the proposed amendments will have no significant environmental impacts.

HER POL 1: To protect and enhance the quality of the natural and built heritage of Kells, to safeguard it as a resource in its own right and ensure that future generations can understand and appreciate their heritage.

HER POL 7: To conserve, protect and enhance the architectural heritage of Kells and to ensure that new development makes a positive contribution to the historic character of Kells.

The approach used for assessing likely significant impacts was objectives led. The assessment was primarily qualitative in nature, with some assessment based on expert judgement.

This qualitative assessment compares the likely impacts against the Strategic Environmental Objectives to see which Policies and Recommendations meet the Strategic Environmental Objectives and which, if any, contradict these.

Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes within the Meath/Greater Dublin Area.

Particular regard was also paid to the need for the sustainable development of ecological resources (including the conservation of fish and other species of fauna and flora, habitats and the biodiversity of water ecosystems and commercial and natural fisheries) as economic resources. In conjunction with the Habitats Directive Assessment due consideration was given to potential significant impacts of the policies and recommendations on ecological resources for the following areas:

- Surface and Ground Water quality.
- Surface water hydrology.
- Fish spawning and nursery areas.
- Passage of migratory fish.
- Areas of natural heritage importance.
- Designated marine protected areas.
- Biological Diversity.
- Ecosystem structure and functioning.
- Seabirds and marine mammals.
- Fish and shellfish cultivation.
- Sport and commercial fishing and angling.
- Amenity and recreational areas.
- Mineral and aggregate resources.
- Sediment transport and coastal erosion.

The assessment process categorised environmental impacts using the ratings outlined in Table 16 of the Environmental Report which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 16: Impact Ratings

Duration and Type of Impact	
S	Short-term - Impact lasting one to seven years
M	Medium-term - Impact lasting seven to fifteen years
L	Long-term - Impact lasting fifteen to sixty years
P	Permanent - Impact lasting over sixty years
T	Temporary - Impact lasting for one year or less
C	Cumulative – Impact that is ameliorated by other impacts
Significance of Impact	
	Major Positive
	Positive
	Neutral
	Negative
	Major Negative
	Uncertain

Revised Table 17: Assessment of Potential Impacts associated with Proposed Material Alterations to the Kells Development Plan

Kells Development Plan 2013 - 2019 Environmental Assessment of Proposed Material Alterations to Policies & Objectives*	Biodiversity incl. Flora & Fauna	Population & Human Health	Soils & Geology	Water Resources	Air, Noise & Climate	Archaeological, Architectural & Cultural Heritage	Landscape & Visual	Material Assets
H1 High Amenity	P	P	P	P	P	P	P	P
Core Strategy OBJ 1	P	P	P	P	P	P	P	P

* Note: other amendments to policies and objectives are not included in the table where the impact rating from the original Table 17 is not deemed to have changed.

3 SEA Screening

This section presents the findings of a screening process to determine whether a Strategic Environmental Assessment (SEA) is required for the proposed material alterations to the Kells draft Development Plan 2013 – 2019.

3.1 Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of Certain Plans and Programmes on the Environment, (also known as the Strategic Environmental Assessment Directive), was transposed into Irish Law by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended by S.I. No 200 of 2011. It provided a statutory basis for the making of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004) as amended by S.I. No. 201 of 2011. These Planning and Development Regulations, S.I. No. 436 of 2004 and S.I. No. 201 of 2011, amended articles and schedules to the Planning and Development Regulations, (SI 600 of 2001).

The objective of the Strategic Environmental Assessment (SEA) Directive is ‘*to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans ... with a view to promoting sustainable development*’ (Article 1, SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The Planning and Development Act 2000, as amended by the Planning and Development Amendment Act 2010 states that the planning authority shall determine if a strategic environmental assessment or an appropriate assessment or both such assessments, as the case may be, is or are required to be carried out as respects one of more than one proposed material alteration of the draft development plan.

3.2 SEA Screening

An assessment of the proposed material alterations to the draft Kells Development Plan 2013-2019 was undertaken as outlined in Section 2 above. As the proposed amendments are deemed not to have a potential significant negative environmental impact, a full Strategic Environmental Assessment is not required in this instance.

4 Appropriate Assessment

An Appropriate Assessment Screening Report of the proposed amended objectives and policies in the amended Draft Kells Development Plan 2013-2019 is contained in Appendix A.

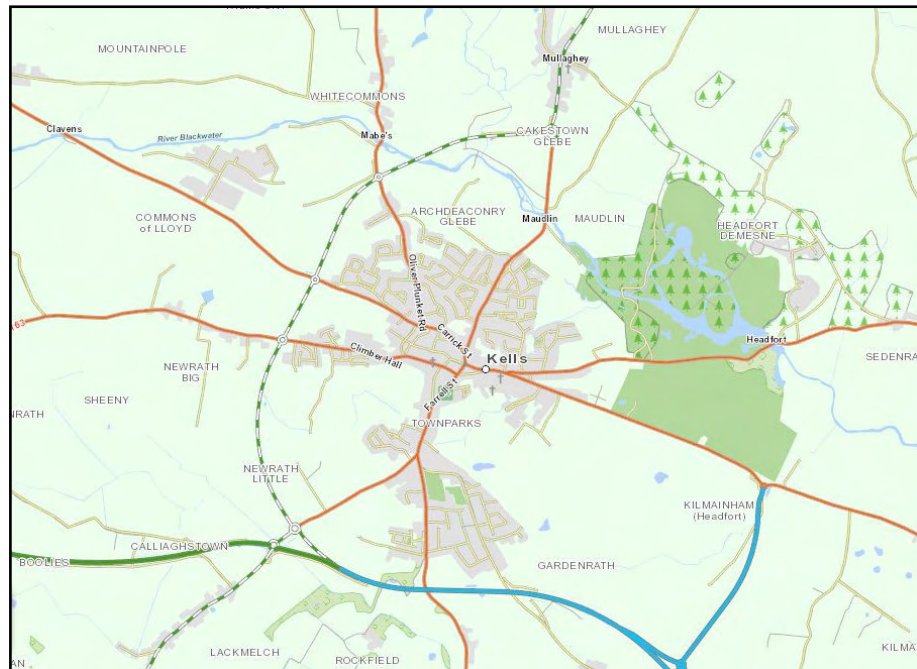
The report concludes that:

- Non-Natura 2000 sites that may form a supporting feature for some species that also use the Natura 2000 sites were assessed and only one site, Girley Bog NHA was identified and screened out due to lack of hydrological and biological connectivity.
- Having regard to HER OBJ 6 of the Plan, this Screening Assessment concludes that there would be no significant impacts as a result of the inclusion of the Amendments to the Plan to any of the Natura 2000 Sites considered in the Plan.
- A Finding of No Significant Effects Report is provided.

Appendix A

Appropriate Assessment
Screening of Proposed
Amendments to Kells
Development Plan 2013 – 2019
Following Resolution of Elected
Members

Appropriate Assessment Screening of Proposed Amendments to Kells Development Plan 2013 – 2019 Following Resolution of Elected Members



**Prepared by: Moore Group – Environmental Services
On behalf of Kells Town Council & Meath County Council
July 2013**



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1. Introduction

1.1. General Introduction

The Members of Kells Town Council & Meath County Council, having considered the Draft Kells Development Plan 2013–2019 and the Managers Report thereon in accordance with Section 12 of the Planning and Development Acts, 2000-2011 (as amended) have resolved that the Draft Kells Development Plan 2013 - 2019 be amended. The proposed amendments constitute a material alteration of the Draft Kells Development Plan 2013-2019.

This report contains information required for the competent authorities (in this case Meath County Council and Kells Town Council) to complete an Appropriate Assessment (AA). It has been prepared by Moore Group – Environmental Services on behalf of Meath County Council and Kells Town Council and assesses the potential for the proposed development to impact on sites of European level ecological importance. It is necessary that the Amendment to the Development Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations).

1.2. Legislative Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. Article 6(3) and 6(4) of the Directive set out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4): “If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

This Screening Report is a documentary record of the Appropriate Assessment process for Amendment to the Kells Development Plan 2013-2019.

1.3. Methodology

The Commission's methodological guidance (EC, 2002) promotes a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 Appropriate Assessment: In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

In order to ensure that the Draft Development Plan complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group on behalf of Meath County Council and Kells Town Council carried out the screening of proposals for the Draft Plan to see if Stage 2 AA is required. The output of the Screening Stage is recorded in Section 2 below.

1.4. Guidance

The AA has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article Guidance Document.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.

1.5. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth aerial photography 2011 and 2012.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopsis; Generic Conservation Objective data
 - Online database of rare, threatened and protected species
 - Publicly accessible biodiversity datasets.
- Biodiversity Data for County Meath including that collated in the Meath County Heritage Plan.
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2008)
- The Status of Birds in Ireland: An Analysis of Conservation Concern 2008-2013 (Lynas *et al.*, 2007)
- Relevant Development Plans and Local Area Plans in neighbouring areas.
- Kells Development Plan Strategic Issues Paper.
- Submissions made on the Pre-Draft Consultation Report.
- Meath County Development Plan 2013-2019 Screening Report & Natura Impact Statement 2012
- County Meath Biodiversity Action Plan: 2008 –2012
- Kells Development Plan: 2007 –2013
- Kells Development Plan: 2013 –2019

1.6. Consultation

Meath County Council has notified the Department of Arts, Heritage and the Gaeltacht (DAHG) of their intention to commence a review of the Development Plan. The Development Applications Unit was consulted as part of the Screening Process and comments received addressed in the Draft Development Plan Natura Impact Report.

2. Stage 1 – Screening for Appropriate Assessment

Screening determines whether appropriate assessment is necessary by examining:

- 1) whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and
- 2) the potential effects of a project or plan, either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives, and considering whether these effects will be significant.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.1. Description of the Plan

The Kells (Ceanannas Mór) Town & Environs Development Plan establishes a framework for the coordinated and sustainable economic, social, cultural and environmental development of Kells. It acts as a guide to the requirements and policies of the Authorities for those interested in pursuing development as well as informing the general public as to how these development proposals are likely to be assessed.

The Plan sets out the Council's vision for the spatial and sectoral development of Kells over the lifetime of the Plan. The Plan is divided into ten Chapters. Chapter 1 is an introduction to the Plan and outlines the components of the Plan; Chapter 2 details the Strategic Context and Core Strategy of the Plan. Chapters 3 to 10 outline the development strategy for the county on a thematic basis. Each of these chapters includes a written statement in which strategic themes, policies and objectives for each planning topic are provided.

The guidelines and standards contained therein give general guidance to applicants on the criteria which will be used by the Planning Authorities in assessing planning applications. These supplement the various policies and objectives which are provided throughout the Plan.

The present report presents a Screening Assessment for Amendments to the Plan subsequent to consideration of the Mangers Report on the Plan and workshops with the Kells Area Committee / Kells Town Council, July 2013. Only those amendments with potential bearing on Natura 2000 sites were considered and these are highlighted as follows:

Chapter 2 – Strategic Context & Core Strategy

AMENDMENT

Primary Land Use Zoning Categories

H1 High Amenity

Objective - To protect and improve areas of high amenity.

Permitted Uses

Cycleways/ Greenways/ Trail Development, Land & Water Based Recreational Activities & Open Space.

Note

The H1 Land Use zoning Objective in this Development Plan specifically relates to lands within the area of Rabbit Hill Wood adjacent to the River Blackwater. No other uses shall be considered as being open for consideration having regard to the location of the site within a Natura 2000 site.

NEW OBJECTIVE

Core Strategy OBJ 1: The development of new residential properties at Rabbit Hill Wood along the Headfort Road shall be linked to the opening of a publicly accessible river walk. This proposal shall be subject to a Framework Plan being agreed in writing with the Planning Authority. The Framework Plan shall provide inter alia the following;

- The development of additional residential properties shall be subject to the opening of recreational trails / lands identified as H1 land use zoning objective to the general public from the Headfort Road to the Mausoleum. The development of recreational trails shall maximise the use of the existing available trails within the sensitive Natura 2000 site. No additional residential development shall be constructed prior to the entering into of a legal agreement between the landowner and the Local Authority satisfying this aspect of the overall development.
- The scale and number of additional residential dwellings which shall be considered within the area of the Framework Plan identified as A1 "*Existing Residential*" shall seek to minimise the loss of any existing mature specimen trees and seek to assimilative new development into its sensitive woodland setting. A consistent design theme shall be provided for all development. The location of new development shall primarily be located within the cleared area to the north of the site identified as A1 "*Existing Residential*" land use zoning objective to ensure that dwellings maximise available sunlight / passive solar gain.

- The permissible density shall be a maximum of 5 units per hectare and shall be on the basis of a qualitative assessment which demonstrates compliance with the remainder of this objective but also the setting of the site within the Headfort Demesne Architectural Conservation Area.
- Any development within the subject lands shall be subject to the carrying out of an Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites.

No application for development within the subject lands will be considered in the absence of the required Framework Plan having first being agreed in writing with the Planning Authority. When prepared, all subsequent applications for development shall be accompanied with a design statement demonstrating compliance with the Framework Plan.

However, should a single application be lodged at any time over the life of the Development Plan seeking the replacement of the existing Rabbit Hill Lodge, it shall be assessed against the remaining policies in the Development Plan and shall not be subject to the requirements of the Framework Plan.

2.2. Screening Steps

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidance, this AA has been structured as a stage by stage approach as follows:

Screening stage

- Description of the draft Plan;
- Brief description of the Natura 2000 site(s) potentially affected;
- Conservation objectives of the Natura 2000 site(s);
- Assessment criteria;
 - Likely impacts on Natura 2000 site(s);
 - Cumulative and in combination impacts;
 - Likely changes to Natura 2000 site(s);
 - Elements of the draft Plan where the impacts are likely to be significant;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified above on site(s) integrity;

- Exclusion of site(s) where it can be objectively concluded that there will be no significant effects; and
- Screening conclusion and statement.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.3. Description of Natura Sites Potentially Affected

In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the Development Plan boundary was selected for consideration of Natura 2000 sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the Plan on Natura 2000 sites. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website on 25th July 2012.

Lough Bane and Lough Glass SAC, although more than 15km from the plan boundary, is included in this assessment as Kells obtains its water through abstraction from Lough Bane.

There are four Natura 2000 sites which are considered relevant to the Plan Administrative Area. These are listed in Tables 1 and 2 below and Site Synopses are presented in Appendix B:

Table 1. Special Areas of Conservation located within 15km of the Kells Development Plan area (*indicates priority habitat).

Site Code	Site Name	Qualifying Habitats	Qualifying Species
000006	Killyconny Bog SAC	*Active raised bogs; and Degraded raised bogs still capable of natural regeneration	
002120	Lough Bane and Lough Glass SAC	Hard oligo mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	White-clawed Crayfish (<i>Austropotamobius pallipes</i>)
002299	River Boyne and River Blackwater SAC	Alkaline fens; and Alluvial forests with <i>Alnus glutinosa</i> and	River Lamprey (<i>Lampetra fluviatilis</i>) and

		Fraxinus excelsior (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>).	Otter (<i>Lutra lutra</i>)
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Table 2. Special Protection Areas located within 15km of the Kells Development Plan area.

Site Code	Site Name	Qualifying Habitats	Qualifying Species
004232	River Boyne and River Blackwater SPA	Wetlands	Kingfisher (<i>Alcedo atthis</i>) [breeding]

2.4. Conservation Objectives of the Natura 2000 Sites

In the absence of NPWS Management Plans for the three SAC sites to date, the following general draft conservation objectives, available from the NPWS, are set out:

Objective 1: To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status;

Objective 2: To maintain the Annex II species for which the SAC has been selected at favourable conservation status;

Objective 3: To maintain the extent, species richness and biodiversity of the entire site; and

Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The conservation Objective for the SPA is:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

2.5. Assessment Criteria

2.5.1. Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Development Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions. In practice and as outlined in the EU document “Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”, and the national guidance document ‘Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities’, impacts that could potentially occur through the implementation of the proposed Development Plan can be categorised under a number of headings:

- Habitat loss within Natura 2000 site,
- Direct species mortality,
- Disturbance of species during construction,
- Disturbance of species due to active/passive recreation,
- Disturbance due to lighting,
- Surface water run off during construction,
- Surface water run off from increased hard standing areas,
- Disturbance of watercourses due to diversions, culverting,
- Water Supply,
- Wastewater treatment plant capacity.

In order to identify those sites that could be potentially affected, it is necessary to describe the Natura 2000 site in the context of why it has been designated i.e. in terms of its Qualifying Interests and the environmental and ecological conditions that maintain the condition of these features. The underpinning conditions that are required to maintain the ‘health’ of these features are listed in Table 3 below.

Table 3. Qualifying Interests and Key environmental conditions supporting site integrity.

Qualifying Interests	Key environmental conditions supporting site integrity
Active raised bog	Surface water supply. Low nutrient, acidic conditions to support growth of <i>Sphagnum</i> spp. Restricted drainage at perimeter.
Alkaline fens	High water table. Ground surface water supply. Calcium-rich conditions.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	Riparian/lacustrine habitat prone to flooding
Degraded raised bogs still capable of natural regeneration	Desiccation from drainage. Low moss cover.
Hard oligo mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	Water quality and availability. Oligotrophic conditions and marl deposition. Wetland vegetation.
White-clawed Crayfish (<i>Austropotamobius pallipes</i>)	Water quality and availability. Calcium-rich conditions and marl deposition.
Kingfisher (<i>Alcedo atthis</i>)	Freshwater food availability. Undisturbed soft substrate riparian nest sites. Regularity of extreme weather. Water quality.
Otter (<i>Lutra lutra</i>)	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways.
River Lamprey (<i>Lampetra fluviatilis</i>)	Riverine habitat. Water quality. Riverbed breeding gravels and silt nursery substrate. Unhindered migratory channels.

In terms of the Kells Development Plan, the following generic threats have been identified:

Rural/Agricultural activities

Restructuring agricultural land holdings;

Drainage/flooding;

Pesticides.

Economic and Infrastructural Development

Business Parks;

Roads, motorways;

Sewage outflows;

Wastewater Treatment Capacity;

Water abstraction;

Housing developments;

Communications Networks;

Landfill land reclamation;
Disposal of household waste;
River Channel Maintenance, and;
Invasive Alien Species.

Recreation and Leisure

Walking, horse riding and non-motorised vehicles;
New Paths and Tracks.

2.5.2. Likely Impacts on Natura 2000 Sites

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each Natura 2000 site and describes any likely significant effects of implementation of Amendment to the Plan. This assumes the absence of any controls, conditions or assumption mitigation measures.

The Amendments listed in Section 2.1 of this document relate to potential development in Rabbit Hill Wood which is included in the River Boyne and River Blackwater SAC Natura 2000 site.

This report is a test of the inclusion of Amendments to the Plan and as such the amendments listed in Section 2.1 are subject to the Policies and Objectives of the Plan including *inter alia* HER OBJ 6.

HER OBJ 6: In association with HER OBJ 2- 5, the respective Planning Authority will;

- carry out screening to determine the potential for all proposed plans and projects authorised by the Councils to impact (directly or through indirect cumulative impact) on Natura 2000 sites,
- Carry out appropriate level of ecological/environmental assessment for all proposed plans or projects to ensure the implementation of the policies set out above.

Therefore the inclusion of the specific amendments has been addressed under HER OBJ 6 of the Plan.

This objective is reiterated under the text of the new objective Core Strategy OBJ 1 which reinforces the requirement for Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites.

The likely significant effects of the Amendment to the Plan are presented In Table 4, both in isolation and potentially in combination with other Plans. A screening matrix of potential impacts is then presented in Table 5.

Table 4. Outlining the potential impacts of the Plan in the absence of mitigation.

Site	Potential Impacts from the Amendment to the Plan	Risk of Significant Effect	In-Combination Effects	Significant Risk In-Combination
Killyconny Bog SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath & Cavan County Development Plans. River Basin Management Plan.	No
Lough Bane and Lough Glass SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath & Westmeath, County Development Plans, Local Area Plans, River Basin Management Plan.	No
River Boyne and River Blackwater SAC	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath, Cavan & Louth County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	No
River Boyne and River Blackwater SPA	The proposed Amendments will not affect the conservation objectives of this Natura 2000 Site.	No	Meath, Westmeath, Cavan & Louth, County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	No

Table 5. Matrix of potential impacts and determination of Stage 2 AA.

Site	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Diversity	Changes in Key Indicators of Conservation Value (Water Quality etc.)	Stage 2 AA required
Killyconny Bog SAC	No	No	No	No	No	No
Lough Bane and Lough Glass SAC	No	No	No	No	No	No
River Boyne and River Blackwater SAC	No	No	No	No	No	No
River Boyne and River Blackwater SPA	No	No	No	No	No	No

2.6. Ecological Network Supporting Natura 2000 Sites

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as “stepping stones” between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account during the rest of the AA process.

Only one NHA is located within the 15km buffer zone of the Plan, namely Girley Bog NHA, which is designated because of its Raised Bog habitat. Located at just over 4.5 km to the southwest of the Plan Area it has no hydrological or biological connectivity with the Plan Area and would not be affected by the Amendment of policies or objectives of the Plan.

2.7. Screening Conclusions

Non-Natura 2000 sites that may form a supporting feature for some species that also use the Natura 2000 sites were assessed and only one site, Girley Bog NHA was identified and screened out due to lack of hydrological and biological connectivity.

Having regard to HER OBJ 6 of the Plan, this Screening Assessment concludes that there would be no significant impacts as a result of the inclusion of the Amendments to the Plan to any of the Natura 2000 Sites considered in the Plan.

A Finding of No Significant Effects Report is provided in Appendix A.

Appendix A

FINDING OF NO SIGNIFICANT EFFECTS REPORT

Finding no significant effects report matrix

Name of project or plan

Amendment to Kells Development Plan 2013 – 2019, July 2013.

Name and location of the Natura 2000 site(s)

The Plan Area is located adjacent to the River Blackwater which is a major tributary of the River Boyne. The River Blackwater is designated as part of the River Boyne and River Blackwater SAC (Site Code 002299) and SPA (Site Code 004232).

Other Natura 2000 sites within 15 km of the Plan Area include:

Killyconny Bog SAC 000006

Lough Bane and Lough Glass SAC 002120

Description of the project or plan

The present report presents a Screening Assessment for Amendments to the Plan subsequent to consideration of the Mangers Report on the Plan and workshops with the Kells Area Committee / Kells Town Council, July 2013, and highlighted as follows:

Chapter 2 – Strategic Context & Core Strategy

AMENDMENT

Primary Land Use Zoning Categories

H1 High Amenity

Objective - To protect and improve areas of high amenity.

Permitted Uses

Cycleways/ Greenways/ Trail Development, Land & Water Based Recreational Activities & Open Space.

Note

The H1 Land Use zoning Objective in this Development Plan specifically relates to lands within the area of Rabbit Hill Wood adjacent to the River Blackwater. No other uses shall be considered as being open for consideration having regard to the location of the site within a Natura 2000 site.

NEW OBJECTIVE

Core Strategy OBJ 1: The development of new residential properties at Rabbit Hill Wood along the Headfort Road shall be linked to the opening of a publicly accessible river walk. This proposal shall be subject to a Framework Plan being agreed in writing with the Planning Authority. The Framework Plan shall provide inter alia the following;

- The development of additional residential properties shall be subject to the opening of recreational trails / lands identified as H1 land use zoning objective to the general public from the Headfort Road to the Mausoleum. The development of recreational trails shall maximise the use of the existing

available trails within the sensitive Natura 2000 site. No additional residential development shall be constructed prior to the entering into of a legal agreement between the landowner and the Local Authority satisfying this aspect of the overall development.

- The scale and number of additional residential dwellings which shall be considered within the area of the Framework Plan identified as A1 "*Existing Residential*" shall seek to minimise the loss of any existing mature specimen trees and seek to assimilate new development into its sensitive woodland setting. A consistent design theme shall be provided for all development. The location of new development shall primarily be located within the cleared area to the north of the site identified as A1 "*Existing Residential*" land use zoning objective to ensure that dwellings maximise available sunlight / passive solar gain.
- The permissible density shall be a maximum of 5 units per hectare and shall be on the basis of a qualitative assessment which demonstrates compliance with the remainder of this objective but also the setting of the site within the Headfort Demesne Architectural Conservation Area.
- Any development within the subject lands shall be subject to the carrying out of an Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites.

No application for development within the subject lands will be considered in the absence of the required Framework Plan having first being agreed in writing with the Planning Authority. When prepared, all subsequent applications for development shall be accompanied with a design statement demonstrating compliance with the Framework Plan.

However, should a single application be lodged at any time over the life of the Development Plan seeking the replacement of the existing Rabbit Hill Lodge, it shall be assessed against the remaining policies in the Development Plan and shall not be subject to the requirements of the Framework Plan.

Is the project or plan directly connected with or necessary to the management of the site(s)

No

Are there other projects or plans that together with the projects or plan being assessed could affect the site

The E.C. Habitats Directive and the Irish Habitats Regulations 2011 require that the impacts on Natura 2000 sites be assessed from the plan or project in question and also in combination with other plans and projects that could affect the same Natura 2000 sites.

The screening process identified the plans that could act in combination with the Draft Development Plan to pose likely significant effects on Natura 2000 sites in its administrative area and its environs. If the Plans considered have undergone appropriate assessment themselves, it is assumed that if a Plan has been adopted following AA, then it cannot pose likely significant adverse effects on Natura 2000 sites.

Since Local Area Plans in County Meath will be amended following the adoption of the County Development Plan, Local Plans will all undergo their own appropriate assessment where necessary and will take into account the cumulative effects at this scale, particularly of projects which can act in-combination and identified at a local scale. The amendments/variations to these Plans will be in

accordance with the Policies and Objectives that are described in the County Development Plan. Therefore it is assumed that the amendments/variations themselves will not pose likely significant effects to the Natura 2000 sites. Local Area Plans in County Meath are therefore not predicted to pose cumulative adverse impacts, provided they are in compliance with the County Development Plan.

The cumulative/in-combination impact assessment next focuses on the other County Development Plans that had the highest potential to affect the same Natura 2000 sites that could be affected by the Draft Kells Development Plan. Other higher-level plans that could promote infrastructure are integrated within the County Development Plan and have been assessed as such.

The assessment of significance of effects

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.

The proposed Amendments will not affect the conservation objectives of the Natura 2000 Sites considered in this assessment.

Explain why these effects are not considered significant.

The amendments support sustainable policies and objectives set out in the Kells Development Plan 2013 – 2019 which has been the subject of Stage 2 Appropriate Assessment.

The amendments listed in Section 2.1 are subject to the Policies and Objectives of the Plan including inter alia HER OBJ 6.

HER OBJ 6: In association with HER OBJ 2- 5, the respective Planning Authority will;

- carry out screening to determine the potential for all proposed plans and projects authorised by the Councils to impact (directly or through indirect cumulative impact) on Natura 2000 sites,
- Carry out appropriate level of ecological/environmental assessment for all proposed plans or projects to ensure the implementation of the policies set out above.

Therefore the inclusion of the specific amendments has been addressed under HER OBJ 6 of the Plan.

This objective is reiterated under the text of the new objective Core Strategy OBJ 1 which reinforces the requirement for Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites.

List of agencies consulted: provide contact name and telephone or e-mail address

Development Applications Unit, DAHG - Manager.Dau@ahg.gov.ie

Response to consultation

The Development Applications Unit was consulted as part of the Screening Process and comments received addressed in the Development Plan Natura Impact Report.

Data collected to carry out the assessment

Who carried out the assessment

Moore Group Environmental Services.

Sources of data

NPWS database of designated sites at www.npws.ie

Level of assessment completed

Desktop Assessment.

Where can the full results of the assessment be accessed and viewed

Meath County Council Planning Section.

Overall Conclusions

Having regard to HER OBJ 6 of the Plan, this Screening Assessment concludes that there would be no significant impacts as a result of the inclusion of the Amendments to the Plan to any of the Natura 2000 Sites considered in the Plan.

Appendix B

National Parks and Wildlife Service Site Synopses

SITE SYNOPSIS

SITE NAME : KILLYCONNY BOG SAC

SITE CODE : 000006

There is presently no Site Synopsis available for Killyconny Bog SAC and so the following is taken from the Natura 2000 Standard Form:

Killyconny Bog is a rather small raised bog site located in the north-east of the country. The site contains good examples of the priority Annex I habitat active raised bog and the non-priority habitat degraded raised bog (capable of regeneration). The uncut high bog area is surrounded by extensive cutover surfaces and a portion of this cutover has been planted with conifers. Although the site is rather damaged at present due to drainage effects, it remains one of the largest extant areas of relatively intact raised bog in the north-east of the country and thus is of considerable ecological and biogeographical importance.

SITE SYNOPSIS

SITE NAME: LOUGH BANE AND LOUGH GLASS

SITE CODE: 002120

This site is located on the Meath/Westmeath border, about 10 km south of Oldcastle. It comprises three lakes situated in a shallow valley. Lough Bane is by far the largest of the group, with the much smaller Lough Glass occurring immediately to the east and Lough Glass North to the north-west. The lakes occur at the headwaters of the River Deel, with the main outflow at the south-east end of Lough Bane. The outflow is not very substantial and partly overgrown with vegetation. The connection between Lough Glass and Lough Bane has now been severed and the flow from Glass is diverted to the south-west. The water level has dropped over the years and has exposed soft marl along parts of the shore.

Lough Bane is a good example of a hard water marl lake with well developed stonewort (*Chara* spp.) communities. This is an important habitat listed on Annex I of the E.U. Habitats Directive. Sampling of the aquatic flora has shown the presence in Lough Bane of at least four species of Charophyte, i.e. *Chara rudis* (dominant in deep water), *C. curta* (shallow water at north shore), *C. globularis* and *C. contraria* (both mid-south shore).

Much of the shoreline of the lakes has a fringe of wetland vegetation, mostly Common Reed (*Phragmites australis*) and Common Club-rush (*Scirpus lacustris*), but also some Water Horsetail (*Equisetum fluviatile*) and Bottle Sedge (*Carex rostrata*). At the east and west ends of Lough Bane the swamp vegetation is particularly well developed and there is also fen vegetation. Species include Jointed Rush (*Juncus articulatus*), Water-cress (*Nasturtium officinale*), Meadowsweet (*Filipendula ulmaria*), Devils'-bit Scabious (*Succisa pratensis*), Meadow Thistle (*Cirsium dissectum*), Marsh Bedstraw (*Galium palustre*) and Grass-of-parnassus (*Parnassia palustris*).

Mixed woodland occurs along parts of the south and north shores. Species present include Beech (*Fagus sylvatica*), Oak (*Quercus* sp.), Holly (*Ilex aquifolium*), Scots Pine (*Pinus sylvestris*) and European Larch (*Larix decidua*). In some areas Hazel (*Corylus avellana*) becomes dominant, along with other shrubby species such as Hawthorn (*Crataegus monogyna*).

Dry calcareous grassland (mostly unimproved) is found in a few areas, notably at Noggin Hill. Species present here include Primrose (*Primula vulgaris*), Fairy Flax (*Linum catharticum*), Lady's Bedstraw (*Galium verum*), Ribwort Plantain (*Plantago lanceolata*) and the grasses *Briza media* and *Cynosurus cristatus*. The lake has Brown Trout and is an important angling lake. An important population of White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the E.U. Habitats Directive, was known from these lakes, but it was wiped out by a fungal plague (*Aphanomyces astaci*) in the 1980s. Crayfish have successfully been reintroduced to other lakes in the area and National Parks and Wildlife intend to reintroduce them to Lough Bane. The lakes and fringing wetlands also support a varied avifauna including Little Grebe, Cormorant, Lapwing, Curlew and Snipe. Despite being surrounded by mostly improved pasture, the quality of the water appears good and Lough Bane has been classified as a very oligotrophic system. However, as it is a small waterbody and situated in a valley, it is vulnerable to water pollution. A further threat comes from afforestation within the catchment – should there be an increase in the areas under commercial forestry, the quality of the water could be affected.

Overall, this is a fine example of a hard water marl lake system with good *Chara* communities. Such systems are becoming scarce in Europe.

31.10.00

SITE SYNOPSIS**SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SAC****SITE CODE: 002299**

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site. Towns both small and large, include Slane, Navan, Kells, Trim, Athboy and Ballivor.

The site is a candidate SAC selected for alkaline fen and alluvial woodlands, 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 – Atlantic Salmon, Otter and River Lamprey.

The main areas of alkaline fen are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*) and this last species also extends shorewards where a dense stand of Great Fen Sedge or Saw Sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex* spp., *Molinia caerulea*) or one dominated by the Black Bogrush (*Schoenus nigricans*). An alternative direction for the aquatic/terrestrial transition to take is through a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum* spp.). Diversity of plant and animal life is high in the fen and the flora, includes many rarities. The plants of interest include Narrow-leaved Marsh Orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic Stoneworts (*Chara* spp.) which are characteristic of calcareous wetlands. The rare plant, Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs around Newtown Lough. This species is listed in the Red Data Book and is protected under the Flora Protection Order, 1999, and this site is its only occurrence in Co. Meath. Wet woodland fringes many stretches of the Boyne. The Boyne River Islands are a small chain of three islands situated 2.5 km west of Drogheda. The islands were formed by the build up of alluvial sediment in this part of the river where water movement is sluggish. All of the islands are covered by dense thickets of wet, Willow (*Salix* spp.) woodland, with the following species occurring: Osier (*S. viminalis*), Crack Willow (*S. fragilis*), White Willow (*S. alba*), Purple Willow (*Salix purpurea*) and Grey Willow (*S. cinerea*). A small area of Alder (*Alnus glutinosa*) woodland is found on soft ground at the edge of the canal in the north-western section of the islands. Along other stretches of the rivers of the site Grey Willow scrub and pockets of wet woodland dominated by Alder have become established, particularly at the river edge of mature deciduous woodland. Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*) are common in the latter and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Angelica (*Angelica sylvestris*), Yellow Iris, Horsetail (*Equisetum* spp.) and occasional tussocks of Greater Tussocksedge (*Carex paniculata*).

The dominant habitat along the edges of the river is freshwater marsh - the following plant species occur commonly here: Yellow Flag (*Iris pseudacorus*), Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinacea*), Marsh Bedstraw (*Galium palustre*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas of the marsh Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species

mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic is from a site in Co. Monaghan. The secondary habitat associated with the marsh is wet grassland and species such as Tall Fescue (*Festuca arundinacea*), Silverweed (*Potentilla anserina*), Creeping Buttercup (*Ranunculus repens*), Meadowsweet (*Filipendula ulmaria*) and Meadow Vetchling (*Lathyrus pratensis*) are well represented. Strawberry Clover (*Trifolium fragiferum*), a plant generally restricted to coastal locations in Ireland, has been recorded from wet grassland vegetation at Trim. At Rossnaree river bank on the River Boyne, is Round-Fruited Rush (*Juncus compressus*) found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland. Along much of the Boyne and along tributary stretches are areas of mature deciduous woodland on the steeper slopes above the floodplain marsh or wet woodland vegetation. Many of these are planted in origin. However the steeper areas of King Williams Glen and Townley Hall wood have been left unmanaged and now have a more natural character. East of Curley Hole the woodland has a natural appearance with few conifers. Broad-leaved species include Oak (*Quercus* spp.), Ash (*Fraxinus excelsior*), Willows, Hazel (*Corylus avellana*), Sycamore (*Acer pseudoplatanus*), Holly (*Ilex aquifolium*), Horse chestnut (*Aesculus* sp.) and the shrubs Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Elder (*Sambucus nigra*).

South-west of Slane and in Dowth, the addition of some more exotic tree species such as Wych Elm (*Ulmus glabra*), Beech (*Fagus sylvatica*), and occasionally Lime (*Tilia cordata*), are seen. Coniferous trees, Larch (*Larix* sp.) and Scots Pine (*Pinus sylvestris*) also occur. The woodland ground flora includes Barren Strawberry (*Potentilla sterilis*), Enchanter's Nightshade (*Circaea lutetiana*) and Ground-ivy (*Glechoma hederacea*), along with a range of ferns. Variation occurs in the composition of the canopy, for example, in wet patches alongside the river, White Willow and Alder form the canopy.

Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reedswamp, weedy wasteground areas, scrub, hedge, drainage ditches and canal. In the vicinity of Lough Shesk, the dry slopes of the morainic hummocks support grassland vegetation which, in some places, is partially colonised by Gorse (*Ulex europaeus*) scrub. Those grasslands which remain unimproved for pasture are species-rich with Common Knapweed (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*) and Ribwort Plantain (*Plantago lanceolata*) commonly present. Fringing the canal alongside the Boyne south-west of Slane, are Reed Sweet-grass (*Glyceria maxima*), Great Willowherb (*Epilobium hirsutum*) and Meadowsweet.

The Boyne and its tributaries is one of Ireland's premier game fisheries and it offers a wide range of angling from fishing for spring salmon and grilse to seatrout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds. Although this species is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. Atlantic Salmon run the Boyne almost every month of the year. The Boyne is most important as it represents an eastern river which holds large three-sea-winter fish from 20 –30 lb. These fish generally arrive in February with smaller spring fish (10 lb) arriving in April/May. The grilse come in July, water permitting. The river gets a further run of fish in late August and this run would appear to last well after the fishing season. The salmon fishing season lasts from 1st March to 30th September.

The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 70's. Salmon stocks have not recovered to the numbers pre drainage. The Deel, Riverstown, Stoneyford and Tremblestown Rivers are all spring fed with a continuous high volume of water. They are difficult to fish in that some are overgrown while others have been affected by drainage with the resulting high banks.

The site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive, namely River Lamprey (*Lampetra fluviatilis*) which is present in the lower reaches of the Boyne River while the Otter (*Lutra lutra*) can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act.

Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Parts of these areas are within the cSAC site. Known sites are at Newgrange (c. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys. The birds use a range of feeding sites but roosting sites are not well known. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

Intensive agriculture is the main landuse along the site. Much of the grassland is in very large fields and is improved. Silage harvesting is carried out. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the lakes. In the more extensive agricultural areas sheep grazing is carried out. Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many cases in leaving very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the EU Freshwater Fish Directive.

The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as examples of other important habitats. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

6.10.2006

SITE SYNOPSIS

SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SPA

SITE CODE: 004232

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

25.11.2010

Natura Impact Report

Appropriate Assessment of

Kells Development Plan 2013 – 2019



Prepared by: Moore Group – Environmental Services

On behalf of Kells Town Council & Meath County Council

October 2013



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1. Introduction

1.1. General Introduction

This report contains information required for the competent authorities (in this case Meath County Council and Kells Town Council) to complete an Appropriate Assessment (AA). It has been prepared by Moore Group – Environmental Services on behalf of Meath County Council and Kells Town Council and assesses the potential for the proposed development to impact on sites of European level ecological importance. It is necessary that the Draft Development Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations).

1.2. Legislative Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. Article 6(3) and 6(4) of the Directive set out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): “Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4): “If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

This Natura Impact Report is a documentary record of the Appropriate Assessment process for the Kells Development Plan 2013-2019. It also includes amendments to the Plan following resolution of Elected Members and the Managers Report.

1.3. Methodology

The Commission’s methodological guidance (EC, 2002) promotes a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 Appropriate Assessment: In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

In order to ensure that the Draft Development Plan complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group on behalf of Meath County Council and Kells Town Council carried out the screening of proposals for the Draft Plan to see if Stage 2 AA is required. The output of the Screening Stage is recorded in Section 2 below.

1.4. Guidance

The AA has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article Guidance Document.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.

1.5. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth aerial photography 2011 and 2012.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopsis; Generic Conservation Objective data
 - Online database of rare, threatened and protected species
 - Publicly accessible biodiversity datasets.
- Biodiversity Data for County Meath including that collated in the Meath County Heritage Plan.
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie
- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2008)
- The Status of Birds in Ireland: An Analysis of Conservation Concern 2008-2013 (Lynas *et al.*, 2007)
- Relevant Development Plans and Local Area Plans in neighbouring areas.
- Kells Development Plan Strategic Issues Paper.
- Submissions made on the Pre-Draft Consultation Report.
- Draft Meath County Development Plan 2013-2019 Screening Report & Natura Impact Statement 2012
- County Meath Biodiversity Action Plan: 2008 –2012
- Kells Development Plan: 2007 –2013

1.6. Consultation

Meath County Council has notified the Department of Arts, Heritage and the Gaeltacht (DAHG) of their intention to commence a review of the Development Plan. The Development Applications Unit was consulted as part of the Screening Process and comments received addressed in the Draft Development Plan Natura Impact Report.

2. Stage 1 – Screening for Appropriate Assessment

Screening determines whether appropriate assessment is necessary by examining:

- 1) whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and
- 2) the potential effects of a project or plan, either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives, and considering whether these effects will be significant.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.1. Description of the Plan

The Kells (Ceanannas Mór) Town & Environs Development Plan establishes a framework for the coordinated and sustainable economic, social, cultural and environmental development of Kells. It acts as a guide to the requirements and policies of the Authorities for those interested in pursuing development as well as informing the general public as to how these development proposals are likely to be assessed.

The Plan sets out the Council's vision for the spatial and sectoral development of Kells over the lifetime of the Plan. The Plan is divided into ten Chapters. Chapter 1 is an introduction to the Plan and outlines the components of the Plan; Chapter 2 details the Strategic Context and Core Strategy of the Plan. Chapters 3 to 10 outline the development strategy for the county on a thematic basis. Each of these chapters includes a written statement in which strategic themes, policies and objectives for each planning topic are provided.

The guidelines and standards contained therein give general guidance to applicants on the criteria which will be used by the Planning Authorities in assessing planning applications. These supplement the various policies and objectives which are provided throughout the Plan.

The assessment also includes amendments to the Plan following resolution of Elected Members and the Managers Report.

2.2. Screening Steps

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidance, this AA has been structured as a stage by stage approach as follows:

Screening stage

- Description of the draft Plan;
- Brief description of the Natura 2000 site(s) potentially affected;
- Conservation objectives of the Natura 2000 site(s);
- Assessment criteria;
 - Likely impacts on Natura 2000 site(s);
 - Cumulative and in combination impacts;
 - Likely changes to Natura 2000 site(s);
 - Elements of the draft Plan where the impacts are likely to be significant;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified above on site(s) integrity;
- Exclusion of site(s) where it can be objectively concluded that there will be no significant effects;
and
- Screening conclusion and statement.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

2.3. Description of Natura Sites Potentially Affected

In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the Development Plan boundary was selected for consideration of Natura 2000 sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the Plan on Natura 2000 sites. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website on 25th July 2012.

Lough Bane and Lough Glass SAC, although more than 15km from the plan boundary, is included in this assessment as Kells obtains its water through abstraction from Lough Bane.

There are four Natura 2000 sites which are considered relevant to the Plan Administrative Area. These are listed in Tables 1 and 2 below and Site Synopses are presented in Appendix A:

Table 1. Special Areas of Conservation located within 15km of the Kells Development Plan area (*indicates priority habitat).

Site Code	Site Name	Qualifying Habitats	Qualifying Species
000006	Killyconny Bog SAC	*Active raised bogs; and Degraded raised bogs still capable of natural regeneration	
002120	Lough Bane and Lough Glass SAC	Hard oligo mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	White-clawed Crayfish (<i>Austropotamobius pallipes</i>)
002299	River Boyne and River Blackwater SAC	Alkaline fens; and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>).	River Lamprey (<i>Lampetra fluviatilis</i>) and Otter (<i>Lutra lutra</i>)

Table 2. Special Protection Areas located within 15km of the Kells Development Plan area.

Site Code	Site Name	Qualifying Habitats	Qualifying Species
004232	River Boyne and River Blackwater SPA	Wetlands	Kingfisher (<i>Alcedo atthis</i>) [breeding]

2.4. Conservation Objectives of the Natura 2000 Sites

The following generic conservation objectives for the three SACs, available from the NPWS (Generic Vers. 3.0 18th July 2011), are set out as follows:

Objective 1: To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status;

Objective 2: To maintain the Annex II species for which the SAC has been selected at favourable conservation status;

Objective 3: To maintain the extent, species richness and biodiversity of the entire site; and

Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The Conservation Objective (Generic Vers 4.0 16th April 2012) for the SPA is:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

2.5. Assessment Criteria

2.5.1. Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Development Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions. In practice and as outlined in the EU document “Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”, and the national guidance document ‘Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities’, impacts that could potentially occur through the implementation of the proposed Development Plan can be categorised under a number of headings:

- Habitat loss within Natura 2000 site,
- Direct species mortality,
- Disturbance of species during construction,
- Disturbance of species due to active/passive recreation,
- Disturbance due to lighting,
- Surface water run off during construction,
- Surface water run off from increased hard standing areas,
- Disturbance of watercourses due to diversions, culverting,
- Water Supply,
- Wastewater treatment plant capacity.

In order to identify those sites that could be potentially affected, it is necessary to describe the Natura 2000 site in the context of why it has been designated i.e. in terms of its Qualifying Interests and the environmental and ecological conditions that maintain the condition of these features. The underpinning conditions that are required to maintain the 'health' of these features are listed in Table 3 below.

Table 3. Qualifying Interests and Key environmental conditions supporting site integrity.

Qualifying Interests	Key environmental conditions supporting site integrity
Active raised bog	Surface water supply. Low nutrient, acidic conditions to support growth of <i>Sphagnum</i> spp. Restricted drainage at perimeter.
Alkaline fens	High water table. Ground surface water supply. Calcium-rich conditions.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	Riparian/lacustrine habitat prone to flooding
Degraded raised bogs still capable of natural regeneration	Desiccation from drainage. Low moss cover.
Hard oligo mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	Water quality and availability. Oligotrophic conditions and marl deposition. Wetland vegetation.
White-clawed Crayfish (<i>Austropotamobius pallipes</i>)	Water quality and availability. Calcium-rich conditions and marl deposition.
Kingfisher (<i>Alcedo atthis</i>)	Freshwater food availability. Undisturbed soft substrate riparian nest sites. Regularity of extreme weather. Water quality.
Otter (<i>Lutra lutra</i>)	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways.
River Lamprey (<i>Lampetra fluviatilis</i>)	Riverine habitat. Water quality. Riverbed breeding gravels and silt nursery substrate. Unhindered migratory channels.

In terms of the Kells Development Plan, the following generic threats have been identified:

Rural/Agricultural activities

Restructuring agricultural land holdings;
Drainage/flooding;
Pesticides.

Economic and Infrastructural Development

Business Parks;
Roads, motorways;
Sewage outflows;
Wastewater Treatment Capacity;
Water abstraction;
Housing developments;
Communications Networks;
Landfill land reclamation;
Disposal of household waste;
River Channel Maintenance, and;
Invasive Alien Species.

Recreation and Leisure

Walking, horse riding and non-motorised vehicles;
New Paths and Tracks.

2.5.2. Likely Impacts on Natura 2000 Sites

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each Natura 2000 site and describes any likely significant effects of implementation of the Draft Plan. This assumes the absence of any controls, conditions or assumption mitigation measures.

The likely significant effects of the Draft Plan are presented In Table 4, both in isolation and potentially in combination with other Plans. A screening matrix of potential impacts is then presented in Table 5.

Table 4. Outlining the potential impacts of the Plan in the absence of mitigation.

Site	Potential Impacts from the Plan	Risk of Significant Effect	In-Combination Effects	Significant Risk In-Combination
Killyconny Bog SAC	Too distant at 5.8 km for any groundwater impacts to be likely as a result of the Plan.	No	Meath, Westmeath & Cavan County Development Plans. River Basin Management Plan.	No
Lough Bane and Lough Glass SAC	Indirect impacts on White-clawed Crayfish and <i>Chara</i> spp. as a result of reduced water levels.	Yes	Meath & Westmeath, County Development Plans, Local Area Plans, River Basin Management Plan.	Yes
River Boyne and River Blackwater SAC	Direct and indirect impacts on alluvial forests, disturbance of otter holts from riverside development including active and passive recreation. Bankside and instream developments have potential to affect River Lamprey. Wastewater discharge has the capacity to increase loading.	Yes	Meath, Westmeath, Cavan & Louth County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	Yes
River Boyne and River Blackwater SPA	Kingfisher nesting sites may be affected by increased levels of active and passive recreation, construction of riverside walks, removal of riparian woodland and alteration of watercourses and flooding regime. Wastewater discharge has the capacity to increase loading.	Yes	Meath, Westmeath, Cavan & Louth, County Development Plans, Local Area Plans, River Basin Management Plan, Waste Water Discharge to the River Blackwater.	Yes

Table 5. Matrix of potential impacts and determination of Stage 2 AA.

Site	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Diversity	Changes in Key Indicators of Conservation Value (Water Quality etc.)	Stage 2 AA required
Killyconny Bog SAC	No	No	No	No	No	No
Lough Bane and Lough Glass SAC	Yes	Yes	Yes	Yes	Yes	Yes
River Boyne and River Blackwater SAC	Yes	Yes	Yes	Yes	Yes	Yes
River Boyne and River Blackwater SPA	Yes	Yes	Yes	Yes	Yes	Yes

2.6. Ecological Network Supporting Natura 2000 Sites

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as “stepping stones” between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account during the rest of the AA process.

Only one NHA is located within the 15km buffer zone of the Plan, namely Girley Bog NHA, which is designated because of its Raised Bog habitat. Located at just over 4.5 km to the southwest of the Plan Area it has no hydrological or biological connectivity with the Plan Area and would not be affected by the policies or objectives of the Plan.

2.7. Screening Conclusions

Killyconny Bog SAC was screened out and is not deemed to be subject to further consideration in the assessment.

Non-Natura 2000 sites that may form a supporting feature for some species that also use the Natura 2000 sites were assessed and only one site, Girley Bog NHA was identified and screened out due to lack of hydrological and biological connectivity.

The Screening process has identified that three of the Natura 2000 sites assessed have the potential to be adversely affected by the implementation of the proposed Kells Development Plan 2013-2019. Given that water is currently abstracted from Lough Bane, the effects of this abstraction on the Lough Bane and Lough Glass SAC need to be examined in greater detail.

The Screening Assessment has identified that there may be potential impacts as a result of the implementation of the draft Plan on three sites listed below and that Stage 2 AA is required to assess the potential impacts of the Plan in detail on these sites:

- Lough Bane and Lough Glass SAC
- River Boyne and River Blackwater SAC
- River Boyne and River Blackwater SPA

3. Stage 2 Appropriate Assessment

3.1. Assessment Methodology

The assessment of impacts on the Natura 2000 network of sites was undertaken by the following steps:

1. Establishing site-specific issues so that the impact evaluation is correctly informed.
 - This was primarily achieved through research of desktop information including the Meath County Development Plan and consultation with the Development Applications Unit.
2. Issuing a Draft Natura Impact Report for Kells Town Council to pro-actively inform the preparation of Policies and Objectives.
 - This Draft NIR contained a summary of the Screening Exercise and recommendations of policies to promote and avoid during the preparation of the Development Plan.
3. Iterative review of draft chapters of the Draft Development Plan to allow the amendment of Policies, Objectives and supporting text. By doing so, potential impacts were avoided or mitigated through the addition of additional Policies and Objectives.

3.2. Site-specific Issues at Natura 2000 sites

3.2.1. Lough Bane and Lough Glass SAC

- There were adverse effects of historic over-abstraction but this has now been solved and Lough Bane recovered to a good conservation status.

3.2.2. River Boyne and Blackwater SAC

- Riverside recreation poses a threat to alluvial woodland.
- Otters, Kingfisher and possibly Salmon and Lamprey can be affected by bankside works.

- There are ongoing concerns over the quality of treated effluent discharging into the Boyne catchment but it was acknowledged that upgrading of works is being addressed. During the AA process, Kells Town Council received a letter from the Department of Environment indicating approval for the Local Authority to proceed with the competition for the appointment of consulting engineers for the Kells Sewerage Scheme upgrade.

3.2.3. River Boyne and Blackwater SPA

- Riverside walks pose a threat to nesting sites if not correctly located or designed.
- Otters and possibly Salmon and Lamprey can be affected by bankside works.

3.3. Likely Effects of the Plan on Natura 2000 Sites

In September 2012, Kells Town Council prepared and revised versions of each Chapter of the Draft Development Plan. The Appropriate Assessment consultants, in conjunction with the SEA consultants, reviewed these draft Chapters and provided feedback on the Policies, Objectives and supporting text.

Iterative reviews were carried out by the Appropriate Assessment team and recommendations were forwarded to the Council after each review to allow them to consider the proposed changes. The output was the final version of each Chapter that contained amended policies and mitigation measures specifically designed to address impacts on Natura 2000 sites.

The assessment also includes amendments to the Plan following resolution of Elected Members and the Managers Report.

Table 6 shows how specific elements of the Draft Development Plan were deemed to pose likely significant effects to Natura 2000 sites. It also shows how these policies have been amended to avoid, reduce or minimise the potential adverse effects.

3.3.1. Conservation Objectives

The E.C. Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives.

The following generic conservation objectives for the three SACs, available from the NPWS (Generic Vers. 3.0 18th July 2011), are set out as follows:

Objective 1: To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status;

Objective 2: To maintain the Annex II species for which the SAC has been selected at favourable conservation status;

Objective 3: To maintain the extent, species richness and biodiversity of the entire site; and

Objective 4: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

The Conservation Objective (Generic Vers 4.0 16th April 2012) for the SPA is:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

Favourable Conservation status/condition is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is “favourable”.

“Favourable” is defined as:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

Table 6. Aspects of the Draft Development Plan and how they have been mitigated as a result of the Appropriate Assessment process.

Chapter	Section/Policy/Objective	Potential Likely Significant Impact	Mitigation
2. Strategic Context and Core Strategy	<p>Core Strategy OBJ 1: The development of new residential properties at Rabbit Hill Wood along the Headfort Road shall be linked to the opening of a publicly accessible river walk. This proposal shall be subject to a Framework Plan being agreed in writing with the Planning Authority. The Framework Plan shall provide inter alia the following;</p> <ul style="list-style-type: none"> The development of additional residential properties shall be subject to the opening of recreational trails / lands identified as H1 land use zoning objective to the general public from the Headfort Road to the Mausoleum. The development of recreational trails shall seek to only use the existing available trails within the sensitive Natura 2000 site. No additional residential 	Such development could have alone or in-combination effects on the water quality of the River Blackwater.	<p>The inclusion of Core Strategy POL 16: “Any development proposed as a result of these core strategies will be screened for the need to undertake Appropriate Assessment” Is acknowledged.</p> <p>The inclusion in Core Strategy OBJ 1: “Any development within the subject lands shall be subject to the carrying out of an Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites” Is acknowledged.</p> <p>This strategy is reiterated in HER OBJ 6 below.</p>

2. Strategic Context and Core Strategy (cont)	<p>development shall be constructed prior to the entering into of a legal agreement between the landowner and the Local Authority satisfying this aspect of the overall development.</p> <ul style="list-style-type: none">• The scale and number of additional residential dwellings which shall be considered within the area of the Framework Plan identified as A1 “Existing Residential” shall seek to minimise the loss of any existing mature specimen trees and seek to assimilative new development into its sensitive woodland setting. A consistent design theme shall be provided for all development. The location of new development shall primarily be located within the cleared area to the north of the site identified as A1 “Existing Residential” land use zoning objective to ensure that dwellings maximise available sunlight / passive solar gain.		
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<p>2. Strategic Context and Core Strategy (cont)</p>	<ul style="list-style-type: none"> • The permissible density shall be a maximum of 5 units per hectare and shall be on the basis of a qualitative assessment which demonstrates compliance with the remainder of this objective but also the setting of the site within the Headfort Demesne Architectural Conservation Area. • Any development within the subject lands shall be subject to the carrying out of an Appropriate Assessment pursuant to the Habitats Directive ensuring that the proposed development will not adversely impact upon the qualifying interests of the Natura 2000 sites. <p>No application for development within the subject lands will be considered in the absence of the required Framework Plan having first being agreed in writing with the Planning Authority. When prepared, all subsequent applications for development shall be accompanied with a design</p>		
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<p>2. Strategic Context and Core Strategy (cont)</p>	<p>statement demonstrating compliance with the Framework Plan.</p> <p>However, should a single application be lodged at any time over the life of the Development Plan seeking the replacement of the existing Rabbit Hill Lodge, it shall be assessed against the remaining policies in the Development Plan and shall not be subject to the requirements of the Framework Plan.</p> <p>Core Strategy POL 2: To facilitate the development of new housing in accordance with the targets set out in the Regional Planning Guidelines and the County Settlement Hierarchy in the County Development Plan.</p> <p>Core Strategy POL 15: To promote development of brownfield / infill sites of less than 0.5 hectares in extent by excluding such sites from the requirement to comply with the phasing strategy throughout the</p>		
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2. Strategic Context and Core Strategy (cont)	Development Plan Area.		
3. Economy & Employment	<p>ECON POL 7: To provide for and facilitate the orderly phased development of enterprise and employment uses at Kells Business Park generally in accordance with the Kells Business Park Framework Plan 2013 (Appendix G). Further development can only be facilitated subject to the availability of adequate piped water services. The Planning Authority shall seek to achieve a high standard of layout, landscaping and design of the overall site, buildings and groups of buildings. It shall be a requirement of the Planning Authority that all development proposals are generally in accordance with the provisions of the Framework Plan. In addition, future development proposals will be subject to a Traffic & Transport Assessment (TTA), where appropriate, in relation to the potential impact of any specific development on the national road</p>	<p>Such development could have alone or in-combination effects on the water quality of the River Blackwater.</p> <p>The availability of piped water services will depend on the capacity of Lough Bane potential additional abstraction impacts need to be considered.</p> <p>Sections of the Lloyd Business Park are located within the River Boyne and River Blackwater SAC and any development requiring planning permission should be subject to Screening for Appropriate Assessment.</p>	<p>The inclusion of ECON POL 12: “Any land development proposed as a result of Economic and Employment policies and objectives will be screened for the need to undertake Appropriate Assessment” is acknowledged.</p>

<p>3. Economy & Employment (cont)</p>	<p>network in the area.</p> <p>ECON POL 9: To facilitate the sustainable development of commercial, office, incubator units, light industrial and warehousing development on appropriately zoned and serviced lands in co-operation with the IDA, Enterprise Ireland and the County Enterprise Board.</p> <p>EMP OBJ 2: To provide landmark commercial buildings of significant architectural merit and within a landscaped setting on lands identified on the Navan Road opposite the entrance to Headfort Golf Club.</p> <p>EMPOBJ 3: To monitor the release of land zoned for employment generating uses and the progress made in providing the necessary piped water services capacity to service such lands and thereby ensuring that sufficient land is available to cater for the development of retail, commercial, industrial and</p>	<p>New developments should only be permitted where it can be clearly demonstrated that they can be serviced and that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect Natura 2000 Sites and their respective Qualifying Interests.</p>	
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<p>3. Economy & Employment (cont)</p>	<p>enterprise uses to match the needs of the town's growing population.</p> <p>TOUR POL 8: To facilitate the development of high-quality tourist accommodation such as hotels, hostels, B & Bs / Guesthouses, etc. at suitable locations, subject to ensuring a high standard of architecture, the provision of adequate infrastructure and compliance with normal planning considerations.</p> <p>TOUR POL 9: To consider the provision of caravan, camping and motor home sites at suitable locations. In all instances, the Planning Authorities will seek to ensure a high standard of layout, design and amenity in such proposals whilst safeguarding the landscape character in sensitive areas.</p> <p>TOUR OBJ 6: To prepare and implement an overall tourism and amenity development strategy for the Town Council land bank at Lloyd which would, inter alia, implement the</p>		<p>The inclusion of TOUR POL 10:</p> <p>"Any land development proposed as a result of Tourism policies, particularly in relation to development at Lloyd or adjacent to the River Blackwater, will be screened for the need to undertake Appropriate Assessment" is acknowledged.</p>
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3. Economy & Employment (cont)	recommendations contained in the Boyne Valley Drive Infrastructure Study & Tourism Route Interpretation Plan for the Boyne Valley Drive. The preparation of the development strategy shall be completed within 2 years of the adoption of this Development Plan, subject to funding.		
4. Town Centre/Retailing	TOWN CENTRE POL 4: To facilitate the development of lands to the east of Farrell street / Bective Street / Kenlis Place, known locally as the “Backlands”, as the preferred area for retail led mixed use expansion of the town centre in accordance with the design guidance set out in Section ** of this plan. Any proposed scheme shall provide a mix of uses within the overall agreed phasing programme and an overall design and layout that provides strong connectivity / linkages to the historic town centre. The Planning Authority will consider retail and other commercial development as part of Phase I with other uses being included in subsequent phases. All subsequent applications for	Such development could have alone or in-combination effects on the water quality of the River Blackwater.	The inclusion of TOWN CENTRE POL 19: “Any land development proposed as a result of Town Centre policies and objectives will be screened for the need to undertake Appropriate Assessment” is acknowledged. The inclusion of TOWN CENTRE POL 14; To assess all planning applications for large retail developments in accordance with the criteria set out in the Meath County Development Plan 2013-2019 (when adopted) and the Retail Planning Guidelines 2012 is acknowledged.

<p>4. Town Centre/Retailing (cont)</p>	<p>development shall be accompanied with a design statement demonstrating compliance with the design guidance contained in this Development Plan.</p>		
<p>5. Housing</p>	<p>HS POL 1: To encourage and foster the creation of attractive mixed use sustainable communities which contain a variety of housing types and tenures with supporting community facilities, public realm and residential amenities.</p>	<p>New housing has the potential to have impacts on surface water quality during construction and new developments should only be permitted where it can be clearly demonstrated that they can be serviced and that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect Natura 2000 Sites and their respective Qualifying Interests.</p>	<p>The inclusion of HS POL 14: “Development proposed as a result of Housing policies will be screened for the need to undertake Appropriate Assessment” is acknowledged.</p>

<p>6. Community Facilities, Recreation and Open Space</p>	<p>SOC POL 10: To ensure that adequate lands are zoned and serviced to meet the educational requirements of Kells. The Councils support the concept of multi campus educational facilities.</p> <p>SOC OBJ 6: To develop the lands in Council ownership at the Tower of Lloyd for passive and active recreation purposes whilst acknowledging that the topography does not lend itself to be developed for sports playing pitches. This shall also require the investigation and provision (subject to finances permitting) for the extension of the existing wastewater collection and treatment infrastructure along the Oldcastle Road to the People's Park area.</p> <p>SOC OBJ 7: To develop a walking trail from the Tower of Lloyd via Clavin's Bridge along the Blackwater to Mabes Bridge.</p>	<p>Such development could have additional impacts with regard to water abstraction from Lough Bane.</p> <p>Such development could have alone or in-combination effects on the water quality of the River Blackwater.</p>	<p>The inclusion of SOC POL 10: "Any land development proposed as a result of Social policies will be screened for the need to undertake Appropriate Assessment" is acknowledged.</p> <p>The inclusion of SOC OBJ 8: To develop river corridors as natural amenity corridors, connecting the different parts of the town and linking up with established amenity areas whilst ensuring that the qualifying interests of the Natura 2000 sites are protected is acknowledged.</p> <p>The inclusion of GI OBJ 2: To encourage, pursuant to Article 10 of the Habitats Directive, the management of features of the landscape, such as traditional field boundaries, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species is acknowledged.</p>
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<p>7. Infrastructure</p>	<p>INF POL 1 a): To continue the development and upgrading of the water supply system serving Kells to ensure that an adequate, sustainable and economic supply of safe and secure piped water of suitable quality is available for the sustainable development of Kells as finances permit. The Planning Authority shall ensure that adequate and appropriate water supply is in place prior to the granting of future development in the plan area.</p> <p>b) To promote and require the use of water conservation techniques, where practicable, in new developments within the town so as to provide for the sustainable investment and continued availability of water supply for the ongoing population and business needs of the town.</p> <p>INF POL 2: To continue the development and upgrading of the waste water system serving Kells to ensure that an adequate treatment capacity is available for the sustainable</p>	<p>New developments should only be permitted where it can be clearly demonstrated that they can be serviced and that there is adequate capacity in the wastewater disposal infrastructure in accordance with applicable requirements and standards, including urban wastewater treatment disposal standards, in order to protect Natura 2000 Sites and their respective Qualifying Interests.</p> <p>Maintenance works with regard to water courses having biological or hydrological connectivity with the River Blackwater need to be assessed with regard to potential direct and indirect impacts.</p>	<p>The inclusion of INF POL 3: “Any development proposed as a result of Infrastructure policies will be screened for the need to undertake Appropriate Assessment according to Article 6(3) of the E.C. Habitats Directive” is acknowledged.</p> <p>The inclusion of INF POL 4: To protect, maintain and improve the natural character of all watercourses, tributaries and streams within the Plan area is acknowledged.</p> <p>The inclusion of INF POL 6: To ensure that all new developments should incorporate Sustainable Urban Drainage Systems (SUDS) in accordance with the recommendations of the Greater Dublin Strategic Drainage Study (GSDSDS) and sufficient storm water attenuation will be required for all such developments to ensure that the rate of run-off equates to predevelopment greenfield run off rates.is acknowledged.</p> <p>The inclusion of INF POL 7: To ensure that the</p>
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<p>7. Infrastructure (cont)</p>	<p>development of Kells as finances permit. The Planning Authority shall ensure that adequate and appropriate wastewater treatment capacity is in place prior to the granting of future development in the plan area.</p> <p>INF POL 5: All developments in the Newrath Stream catchment shall comply with the recommendations of the Greater Dublin Strategic Drainage Study (GDSDS). Surface water drainage infrastructure shall be provided by the developer/s as the initial phase of development in this area, to facilitate orderly development and to ensure that the 'developed state' is properly served. Developers shall submit maintenance and management plans for their surface water drainage proposals as part of relevant planning applications.</p> <p>INF OBJ 2: To facilitate the implementation of the recommendations contained in the Kells Stormwater Drainage Study as provided for in</p>	<p>potential of flood risk in the identified flood risk areas associated with existing development in the general Headfort Road area (downstream of the preferred town centre expansion area) are not exacerbated by any new surface water drainage works required pursuant to the recommendations of the Kells Stormwater Drainage Study is acknowledged.</p> <p>The inclusion of INF POL 8: To protect groundwater resources having regard to the County Meath Groundwater Protection Plan is acknowledged.</p> <p>The inclusion of INF OBJ 3: To ensure through the implementation of the River Basin Management Plans and their associated programmes of measures, and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters within the development plan envelop and beyond. The implementation of this development plan shall not conflict with the aims and objectives of the Water Framework Directive is acknowledged.</p>
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<p>7. Infrastructure (cont)</p>	<p>the adopted Section 49 Supplementary Contributions Scheme to facilitate the permitted mixed use town centre development in the Backlands.</p> <p>INF POL 12: To encourage the development of waste infrastructure and associated developments in appropriate locations, as deemed necessary in accordance with the requirements of the Regional Waste Management Plan.</p>		<p>The inclusion of INF POL 9: In assessing planning applications for development, the Councils will consider the impact on the quality and quantity of ground water and will have regard to the recommended approach 'Groundwater Protection Schemes' (and the Response Matrices) published by the Department of the Environment, Heritage and Local Government, the Environmental Protection Agency and the Geological Survey of Ireland is acknowledged.</p> <p>The inclusion of INF POL 15: "Any waste infrastructure proposed will be screened for the need to undertake Appropriate Assessment according to Article 6(3) of the E.C. Habitats Directive" is acknowledged.</p> <p>The inclusion of INF POL 20: To have regard to the recommendations of the Eastern Catchment Flood Risk Assessment and Management Study when finalised and approved is acknowledged.</p>
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7. Infrastructure (cont)			The inclusion of INF POL 21: To protect water courses, banks and bankside vegetation from interference by inappropriate bridging, draining, culverting or other works which would be detrimental to fisheries, biodiversity and the qualifying interests of Natura 2000 sites, is acknowledged.
8. Traffic and Transportation	TRAN OBJ 5: To provide, in co-operation with other agencies, bodies and developers/landowners, an integrated network of designated walking and cycling routes to provide safe, convenient and pleasant routes between the town's main residential areas, schools, the town centre and business park areas.	New cycle routes adjacent to the River Blackwater have the potential to have alone or in-combination effects on qualifying habitats and species of the Natura 2000 sites for which the river is designated.	The inclusion of TRAN OBJ 6: "Any proposed new cycle paths in the vicinity of the River Blackwater will be screened for the need to undertake Appropriate Assessment according to Article 6(3) of the E.C. Habitats Directive" is acknowledged.
9. Telecommunications & Energy	A Key Aim for Telecommunications & Energy in Kells is "to promote energy conservation through appropriate land use and building standards and to reduce the demand for energy and fossil fuels".		The inclusion of TE POL 10: To generally avoid the location of overhead lines in Natura 2000 sites unless it can be proven that they will not affect the integrity of the site in view of its conservation objectives i.e. by carrying out an appropriate assessment in accordance with Article 6(3) of the E.C. Habitats Directive, is acknowledged.

9. Telecommunications & Energy (cont)			<p>The inclusion of TE OBJ 1: To ensure that all plans and projects associated with the generation or supply of energy or telecommunication networks will be subject to an Appropriate Assessment Screening and those plans or projects which could, either individually or in-combination with other plans and projects, have a significant effect on a Natura 2000 site (or sites) undergo Appropriate Assessment, is acknowledged.</p>
10. Heritage & Environment	<p>This Chapter contains a range of mitigation measures designed to protect sites of biodiversity importance including Natura 2000 sites.</p>		<p>The following policies and objectives are acknowledged:</p> <p>HER OBJ 1: To implement the County Heritage Plan and the County Biodiversity Action Plan, and any revisions thereof, in partnership with all relevant stakeholders and the community.</p> <p>HER POL 1: To protect and enhance the quality of the natural and built heritage of Kells, to safeguard it as a resource in its own right and ensure that future generations can understand and appreciate their heritage.</p>

<p>10. Heritage & Environment (cont)</p>			<p>HER POL 2: To interpret and promote the importance and cultural significance of natural and built environment and its potential in the promotion of tourism and enhancing the image of Kells as a place to live and visit.</p> <p>HER POL 3 a):To protect and enhance the quality of the natural heritage of Kells and to safeguard it as a resource in its own right and ensure that future generations can understand and appreciate their heritage.</p> <p>b): To promote best practice in the control of invasive species in the carrying out of development.</p> <p>HER POL 4: To protect, interpret and promote the natural heritage of Kells and its potential in the promotion of tourism and enhancing its image as a place to live and visit.</p> <p>HER OBJ 3: All plans and projects which would be likely (either individually or in combination with</p>
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<p>10. Heritage & Environment (cont)</p>		<p>other plans or projects) to give rise to significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites having regard to their conservation objectives, shall not be permitted on the basis of this Plan unless imperative reasons overriding public interest can be established and there are no feasible alternative solutions.</p> <p>HER OBJ 4: To provide protection to all legally protected plant and animal species.</p> <p>HER OBJ 5: It is an objective of the plan to protect, and where possible, minimise the impact of new development on habitats of biodiversity value that are features of the town's ecological network. These features include tree lines, groups of trees and veteran trees, old walls, parkland, hedgerows, intertidal areas, rivers, streams and wetlands.</p> <p>HER OBJ 6: In association with HER OBJ 4 - 7, the Planning Authority will;</p>
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<p>10. Heritage & Environment (cont)</p>			<ul style="list-style-type: none"> - Carry out screening to determine the potential for all proposed plans and projects authorised by the Councils to impact (directly or through indirect cumulative impact) on Natura 2000 sites. - Carry out appropriate level of ecological/environmental assessment for all proposed plans and projects to ensure the implementation of the policies set out above. <p>HER OBJ 7: The Planning Authority will consult with the prescribed bodies and appropriate government agencies, when considering, undertaking or authorising developments or other activities which are likely to affect protected sites or species.</p> <p>HER OBJ 8: To co-operate with statutory authorities and others in support of measures taken to manage designated nature conservation sites and protected species in order to achieve their conservation objectives.</p>
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<p>10. Heritage & Environment (cont)</p>	<p>Tree Protection</p>		<p>HER POL 5 (i): To preserve and enhance the general level of tree cover in the town; to ensure that development proposals do not compromise important trees and include an appropriate level of new tree planting, and where appropriate and feasible to make use of tree preservation orders to protect important trees or groups of trees which may be at risk.</p> <p>HER POL 5 (ii)) It is also a policy, where practicable, to protect mature tree/groups of mature trees and mature hedgerows identified in the Green Infrastructure Strategy map that are not formally subject to Tree Protection Preservation Orders in development management proposals.</p>
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3.4. Interaction with other Plans

The E.C. Habitats Directive and the Irish Habitats Regulations 2011 require that the impacts on Natura 2000 sites be assessed from the plan or project in question and also in combination with other plans and projects that could affect the same Natura 2000 sites.

The screening process identified the plans that could act in combination with the Draft Development Plan to pose likely significant effects on Natura 2000 sites in its administrative area and its environs. This Section identifies if the Plans considered have undergone appropriate assessment themselves as it is assumed that if a Plan has been adopted following AA then it cannot pose likely significant adverse effects on Natura 2000 sites.

Since Local Area Plans in County Meath will be amended following the adoption of the Draft County Development Plan, Local Plans will all undergo their own appropriate assessment where necessary and will take into account the cumulative effects at this scale, particularly of projects which can act in-combination and identified at a local scale. The amendments/variations to these Plans will be in accordance with the Policies and Objectives that are described in the County Development Plan. Therefore it is assumed that the amendments/variations themselves will not pose likely significant effects to the Natura 2000 sites. Local Area Plans in County Meath are therefore not predicted to pose cumulative adverse impacts, provided they are in compliance with the County Development Plan.

The cumulative/in-combination impact assessment next focuses on the other County Development Plans that had the highest potential to affect the same Natura 2000 sites that could be affected by the Draft Kells Development Plan. Other higher-level plans that could promote infrastructure are integrated within the Draft County Development Plan and have been assessed as such.

Meath County Development Plan 2013-2019

Potential impacts on the Lough Bane and Lough Glass SAC and the River Boyne and Blackwater SAC and SPA are addressed in the Meath County Development Plan. The County Development Plan does have undergone an appropriate assessment under Article 6(3) of the E.C. Habitats Directive. No cumulative impacts are predicted as there are no specific policies promoting development in the Draft Meath County Development Plan.

Westmeath County Development Plan 2008-2014

Lough Bane and Lough Glass cSAC and the River Boyne and Blackwater cSAC and SPA are shared by both Meath and Westmeath counties. The County Development Plan does not seem to have undergone an appropriate assessment under Article 6(3) of the E.C. Habitats Directive. However, review of the Draft Westmeath County Development Plan 2014-2020 has commenced and it will undergo AA. Examples of issues which shall have to be considered in the course of the Appropriate Assessment include:

- Policies and objectives to provide access to lakes. These may have potential to impact on the nature conservation objectives of the lakes [in Co. Westmeath].
- Policies and objectives to provide for increase in population and commercial development. These may have potential to impact on lakes/ivers and other natural habitats with a water requirement. These impacts may arise from reducing quantities, through increased abstraction and potential impacts on water quality through increased waste water treatment and disposal.
- Objectives for any major infrastructural development which could have the potential for a direct or indirect impact.

Cavan County Development Plan 2008-2014

The River Boyne and Blackwater SAC and SPA are shared by Meath and Cavan. The most recent County Development Plan does not appear to have undergone an appropriate assessment under Article 6(3) of the E.C. Habitats Directive.

There are no specific concerns regarding threats to the Natura 2000 sites but there are references to promotion of access and amenities related to rivers and lakes but there are also protective policies in place to prevent adverse impacts. As a result there are no predicted cumulative impacts from the implementation of this Plan.

Louth County Development Plan 2009-2015

The River Boyne and Blackwater cSAC and SPA are shared by Louth and Meath. Policies have been assessed as part of a comprehensive appropriate assessment and changes made to protect these specific sites. As a result there are no predicted cumulative impacts from the implementation of this Plan.

Eastern River Basin District Management Plan (2008)

A review of the Article 6 Assessment indicated that the Measures proposed within the Plan are consistent with the mitigation policies within the Draft Meath County Development Plan and therefore the Kells Development Plan. Key issues such as buffers strips alongside rivers, control of invasive species, upgrade and capacity of wastewater treatment plants lend support for the Policies in the Plan.

3.5. Summary of Policies protecting individual Natura 2000 sites.

A summary of the Policies and Objectives which act cumulatively to protect the individual Natura 2000 sites is presented in Table 7 below. This list does not cover all of the Policies or Objectives of a protective or mitigation nature but identifies those that address specific sensitivities of the sites.

Table 7. Policies protecting individual Natura 2000 sites.

Site	Sensitivity/Threats	Mitigation – Policy/Objective
Lough Bane and Lough Glass SAC	Water quality Invasive species Water abstraction	Core Strategy POL 16; ECON POL 12; HS POL 14; SOC POL 10; INF POL 1a,b; INF POL 3; HER OBJ 1; HER POL 1; HER POL 2; HER POL 3a,b; HER POL 4; HER OBJ 4; HER OBJ 5; HER POL 5
River Boyne and River Blackwater SAC	Direct and indirect impacts on alluvial forests Disturbance of otter holts Disturbance of Lamprey spawning beds	Core Strategy POL 16; Core Strategy OBJ 1; ECON POL 12; TOUR POL 10; HS POL 14; SOC POL 10; SOC OBJ 9; INF POL 3; INF POL 3; INF POL 4; INF POL 6; INF POL 7; INF POL 8; INF OBJ 1; INF OBJ 3; INF POL 9; INF POL 15; INF POL 20; INF POL 21; TRAN OBJ 6; TE POL 10; TE OBJ 1; HER OBJ 1; HER OBJ 2; HER OBJ 3; HER POL 1; HER POL 2; HER POL 3a,b; HER POL 4; HER OBJ 4; HER OBJ 5; HER POL 5; HER OBJ 6(i)(ii)
River Boyne and River Blackwater SPA	Disturbance from recreation/development Water quality	Core Strategy POL 16; Core Strategy OBJ 1; ECON POL 12; TOUR POL 10; HS POL 14; SOC POL 10; SOC OBJ 9; INF POL 3; INF POL 4; INF POL 6; INF POL 7; INF POL 8; INF OBJ 1; INF OBJ 3; INF POL 8; INF POL 9; INF POL 15; INF POL 20; TRAN OBJ 6; TE POL 10; TE OBJ 1; HER OBJ 1; HER OBJ 2; HER OBJ 3; HER POL 1; HER POL 2; HER POL 3a,b; HER POL 4; HER OBJ 4; HER OBJ 5; HER POL 5; HER OBJ 6(i)(ii)

3.6. Responsibilities for implementing mitigation policies

The responsibility for implementing the Kells Development Plan lies solely with the Planning Authorities through the Planning consent process. Applicants who intend to develop within the Kells Development Plan Administrative Area are obliged to ensure that their application is consistent with the Policies and Objectives within the Development Plan. Applicants are also strongly advised to address the recommendations provided in Section 3.8 of this Natura Impact Report when carrying out screening for AA and AA of plans and projects proposed under the Kells Development Plan.

Applicants must provide information to allow the Planning Authorities to screen the application and decide if Stage 2 is required.

3.7. Monitoring the Implementation of Policies

Whilst there is no legal requirement to monitor the outputs of the AA process, there is an obligation to monitor the implementation of the Development Plan through the E.C. SEA Directive as implemented in Ireland. Contingency measures may have to be applied if there is evidence that Policies or Objectives cannot be implemented successfully.

3.8. Recommendations regarding Appropriate Assessments of Future Plans and Projects

The AA process has informed the preparation of the Kells Development Plan so that it can be implemented successfully without having adverse effects on the integrity of Natura 2000 sites. However many of the mitigation policies rely upon subsequent screening for AA or Stage 2 of future Plans of variations thereof and projects.

In order to provide clarity to potential applicants and to inform the screening and AA of variations to Local Area Plans, Table 8 provides an indication of the scope of the information that should be provided to the Planning Authorities to allow them to (a) screen the application for the requirement to undertake AA and (b) carry out the AA on the basis of information provided to them in the form of a Natura Impact Statement (for projects) or Natura Impact Report (for Plans).

Table 8. Recommended Information to be provided when addressing potential developments affecting Natura 2000 sites.

Site	Sensitivity/Threats	Screening for AA	AA Data
Lough Bane and Lough Glass SAC	Water quality Invasive species Water abstraction	<ul style="list-style-type: none"> Potential for abstraction/discharge/run-off from/to the SAC direct/indirect. 	<ul style="list-style-type: none"> Nature of surface water interaction especially changes to nutrients and pH, potential impact and how it can be mitigated.
River Boyne and River Blackwater SAC	Direct and indirect impacts on alluvial forests Disturbance of otter holts Disturbance of Lamprey spawning beds	<ul style="list-style-type: none"> Location relative to known alluvial woodland. Potential for disturbance of otters (survey may be able to inform judgments). Potential for in-stream works. 	<ul style="list-style-type: none"> Extent of impact on habitats Location and activity of otters Known data on salmon/lamprey or habitat-based interpolations. Surveys required if in-stream works in spawning areas. Nature of faunal impacts and how they can be mitigated.
River Boyne and River Blackwater SPA	Disturbance from recreation/development Water quality	<ul style="list-style-type: none"> Location of proposed development relative to known Kingfisher territories and nesting sites. Potential for activities causing disturbance. Potential for habitat loss. 	<ul style="list-style-type: none"> Extent (spatial and temporal) of disturbance (may require survey). Extent of impact on habitats and how it can be mitigated. Extent to which impacts can be mitigated.

3.9. Conclusion of Stage 2 : Appropriate Assessment

This Natura Impact Report records the decisions that were taken during the preparation of the Kells Development Plan 2013-2019. It also includes amendments to the Plan following resolution of Elected Members and the Managers Report. It determines that, assuming the successful implementation of the Policies and Objectives listed in the Plan, there will be no likely significant effects on Natura 2000 sites in

the Administrative Area of the Plan in isolation or in combination with other Plans and Projects acting in the same area.

The process of appropriate assessment will continue as required throughout the review period of the Plan. It will be necessary to screen and potentially analyze any amendments to Policies and Objectives as a result of the subsequent stages in the Plan-preparation and to make recommendations if these amendments may lead to likely significant effects on Natura 2000 sites.

4. References

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European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

European Commission Environment DG (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43EEC. European Commission, Brussels.

European Commission (2007) Guidance document on Article 6(4) of the 'Habitats' Directive '92/43/EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interests, compensatory measures, overall coherence and opinion of the Commission. European Commission, Brussels.

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NPWS (2008) The Status of EU Protected Habitats and Species in Ireland. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

NPWS (2011) Conservation objectives for Killyconny Bog (Cloghbally) SAC [000006]. Generic Version 3.0. Department of Arts, Heritage & the Gaeltacht 18th July 2011.

NPWS (2011) Conservation objectives for Lough Bane and Lough Glass SAC [002120]. Generic Version 3.0. Department of Arts, Heritage & the Gaeltacht 18th July 2011.

NPWS (2011) Conservation objectives for River Boyne and River Blackwater SAC [002299]. Generic Version 3.0. Department of Arts, Heritage & the Gaeltacht 18th July 2011.

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Appendix A

National Parks and Wildlife Service Site Synopses

SITE SYNOPSIS

SITE NAME : KILLYCONNY BOG (CLOGHBALLY) SAC

SITE CODE : 000006

Killyconny Bog is situated approximately half way between Virginia and Kells on the Cavan/Meath border and some 8km from each. It is underlain by Lower Palaeozoic hailes and consists of two small basins which have coalesced over a low drumlin ridge.

There are few raised bogs in the area and Killyconny Bog seems to be one of the best developed. Though some marginal drainage and cutting has taken place the central part of the bog is relatively intact.

Much of the bog is very wet and there are many areas of pool and hummock formation. The pools support the moss *Sphagnum cuspidatum*, and a good growth of algae in summer. Wet areas about the pools support other *Sphagnum* mosses such as *S. magellanicum*, while *S. papillosum*, *S. fuscum*, *S. capillifolium* and *Hypnum cupressiforme* are important components of hummocks. Vascular plants are also found on the bog: Bog Cotton (*Eriophorum angustifolium* and *E. vaginatum*), the heathers (*Calluna vulgaris* and *Erica tetralix*), Bog Asphodel (*Narthecium ossifragum*) and White Beak-sedge (*Rhynchospora alba*). Also occurring on the site is Bog Rosemary (*Andromeda polifolia*) which is found almost exclusively on raised bogs and which is rare in N.E. Ireland.

While the surface of the bog is generally homogeneous some higher areas with dense tussocks of Bog Cotton (*Eriophorum vaginatum*) are found; these provide shelter for Hares. There are also lines of water movement, shown by the occurrence of Common Sedge (*Carex nigra*) and Soft Rush (*Juncus effusus*). Bird species found on the bog include Meadow Pipit and Curlew, and sometimes also Kestrel and Long-eared Owl which hunt over it for beetles, Pygmy Shrews and Frogs.

8.1.1997

SITE SYNOPSIS**SITE NAME: LOUGH BANE AND LOUGH GLASS****SITE CODE: 002120**

This site is located on the Meath/Westmeath border, about 10 km south of Oldcastle. It comprises three lakes situated in a shallow valley. Lough Bane is by far the largest of the group, with the much smaller Lough Glass occurring immediately to the east and Lough Glass North to the north-west. The lakes occur at the headwaters of the River Deel, with the main outflow at the south-east end of Lough Bane. The outflow is not very substantial and partly overgrown with vegetation. The connection between Lough Glass and Lough Bane has now been severed and the flow from Glass is diverted to the south-west. The water level has dropped over the years and has exposed soft marl along parts of the shore.

Lough Bane is a good example of a hard water marl lake with well developed stonewort (*Chara* spp.) communities. This is an important habitat listed on Annex I of the E.U. Habitats Directive. Sampling of the aquatic flora has shown the presence in Lough Bane of at least four species of Charophyte, i.e. *Chara rudis* (dominant in deep water), *C. curta* (shallow water at north shore), *C. globularis* and *C. contraria* (both mid-south shore).

Much of the shoreline of the lakes has a fringe of wetland vegetation, mostly Common Reed (*Phragmites australis*) and Common Club-rush (*Scirpus lacustris*), but also some Water Horsetail (*Equisetum fluviatile*) and Bottle Sedge (*Carex rostrata*). At the east and west ends of Lough Bane the swamp vegetation is particularly well developed and there is also fen vegetation. Species include Jointed Rush (*Juncus articulatus*), Water-cress (*Nasturtium officinale*), Meadowsweet (*Filipendula ulmaria*), Devils'-bit Scabious (*Succisa pratensis*), Meadow Thistle (*Cirsium dissectum*), Marsh Bedstraw (*Galium palustre*) and Grass-of-parnassus (*Parnassia palustris*).

Mixed woodland occurs along parts of the south and north shores. Species present include Beech (*Fagus sylvatica*), Oak (*Quercus* sp.), Holly (*Ilex aquifolium*), Scots Pine (*Pinus sylvestris*) and European Larch (*Larix decidua*). In some areas Hazel (*Corylus avellana*) becomes dominant, along with other shrubby species such as Hawthorn (*Crataegus monogyna*).

Dry calcareous grassland (mostly unimproved) is found in a few areas, notably at Noggin Hill. Species present here include Primrose (*Primula vulgaris*), Fairy Flax (*Linum catharticum*), Lady's Bedstraw (*Galium verum*), Ribwort Plantain (*Plantago lanceolata*) and the grasses *Briza media* and *Cynosurus cristatus*. The lake has Brown Trout and is an important angling lake. An important population of White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the E.U. Habitats Directive, was known from these lakes, but it was wiped out by a fungal plague (*Aphanomyces astaci*) in the 1980s. Crayfish have successfully been reintroduced to other lakes in the area and National Parks and Wildlife intend to reintroduce them to Lough Bane. The lakes and fringing wetlands also support a varied avifauna including Little Grebe, Cormorant, Lapwing, Curlew and Snipe. Despite being surrounded by mostly improved pasture, the quality of the water appears good and Lough Bane has been classified as a very oligotrophic system. However, as it is a small waterbody and situated in a valley, it is vulnerable to water pollution. A further threat comes from afforestation within the catchment – should there be an increase in the areas under commercial forestry, the quality of the water could be affected.

Overall, this is a fine example of a hard water marl lake system with good *Chara* communities. Such systems are becoming scarce in Europe.

31.10.00

SITE SYNOPSIS**SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SAC****SITE CODE: 002299**

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site. Towns both small and large, include Slane, Navan, Kells, Trim, Athboy and Ballivor.

The site is a candidate SAC selected for alkaline fen and alluvial woodlands, 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 – Atlantic Salmon, Otter and River Lamprey.

The main areas of alkaline fen are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*) and this last species also extends shorewards where a dense stand of Great Fen Sedge or Saw Sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex* spp., *Molinia caerulea*) or one dominated by the Black Bogrush (*Schoenus nigricans*). An alternative direction for the aquatic/terrestrial transition to take is through a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum* spp.). Diversity of plant and animal life is high in the fen and the flora, includes many rarities. The plants of interest include Narrow-leaved Marsh Orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic Stoneworts (*Chara* spp.) which are characteristic of calcareous wetlands. The rare plant, Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs around Newtown Lough. This species is listed in the Red Data Book and is protected under the Flora Protection Order, 1999, and this site is its only occurrence in Co. Meath. Wet woodland fringes many stretches of the Boyne. The Boyne River Islands are a small chain of three islands situated 2.5 km west of Drogheda. The islands were formed by the build up of alluvial sediment in this part of the river where water movement is sluggish. All of the islands are covered by dense thickets of wet, Willow (*Salix* spp.) woodland, with the following species occurring: Osier (*S. viminalis*), Crack Willow (*S. fragilis*), White Willow (*S. alba*), Purple Willow (*Salix purpurea*) and Grey Willow (*S. cinerea*). A small area of Alder (*Alnus glutinosa*) woodland is found on soft ground at the edge of the canal in the north-western section of the islands. Along other stretches of the rivers of the site Grey Willow scrub and pockets of wet woodland dominated by Alder have become established, particularly at the river edge of mature deciduous woodland. Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*) are common in the latter and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Angelica (*Angelica sylvestris*), Yellow Iris, Horsetail (*Equisetum* spp.) and occasional tussocks of Greater Tussocksedge (*Carex paniculata*).

The dominant habitat along the edges of the river is freshwater marsh - the following plant species occur commonly here: Yellow Flag (*Iris pseudacorus*), Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinacea*), Marsh Bedstraw (*Galium palustre*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas of the marsh Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species

mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic is from a site in Co. Monaghan. The secondary habitat associated with the marsh is wet grassland and species such as Tall Fescue (*Festuca arundinacea*), Silverweed (*Potentilla anserina*), Creeping Buttercup (*Ranunculus repens*), Meadowsweet (*Filipendula ulmaria*) and Meadow Vetchling (*Lathyrus pratensis*) are well represented. Strawberry Clover (*Trifolium fragiferum*), a plant generally restricted to coastal locations in Ireland, has been recorded from wet grassland vegetation at Trim. At Rossnaree river bank on the River Boyne, is Round-Fruited Rush (*Juncus compressus*) found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland. Along much of the Boyne and along tributary stretches are areas of mature deciduous woodland on the steeper slopes above the floodplain marsh or wet woodland vegetation. Many of these are planted in origin. However the steeper areas of King Williams Glen and Townley Hall wood have been left unmanaged and now have a more natural character. East of Curley Hole the woodland has a natural appearance with few conifers. Broad-leaved species include Oak (*Quercus* spp.), Ash (*Fraxinus excelsior*), Willows, Hazel (*Corylus avellana*), Sycamore (*Acer pseudoplatanus*), Holly (*Ilex aquifolium*), Horse chestnut (*Aesculus* sp.) and the shrubs Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Elder (*Sambucus nigra*).

South-west of Slane and in Dowth, the addition of some more exotic tree species such as Wych Elm (*Ulmus glabra*), Beech (*Fagus sylvatica*), and occasionally Lime (*Tilia cordata*), are seen. Coniferous trees, Larch (*Larix* sp.) and Scots Pine (*Pinus sylvestris*) also occur. The woodland ground flora includes Barren Strawberry (*Potentilla sterilis*), Enchanter's Nightshade (*Circaea lutetiana*) and Ground-ivy (*Glechoma hederacea*), along with a range of ferns. Variation occurs in the composition of the canopy, for example, in wet patches alongside the river, White Willow and Alder form the canopy.

Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reedswamp, weedy wasteground areas, scrub, hedge, drainage ditches and canal. In the vicinity of Lough Shesk, the dry slopes of the morainic hummocks support grassland vegetation which, in some places, is partially colonised by Gorse (*Ulex europaeus*) scrub. Those grasslands which remain unimproved for pasture are species-rich with Common Knapweed (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*) and Ribwort Plantain (*Plantago lanceolata*) commonly present. Fringing the canal alongside the Boyne south-west of Slane, are Reed Sweet-grass (*Glyceria maxima*), Great Willowherb (*Epilobium hirsutum*) and Meadowsweet.

The Boyne and its tributaries is one of Ireland's premier game fisheries and it offers a wide range of angling from fishing for spring salmon and grilse to seatrout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds. Although this species is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. Atlantic Salmon run the Boyne almost every month of the year. The Boyne is most important as it represents an eastern river which holds large three-sea-winter fish from 20 –30 lb. These fish generally arrive in February with smaller spring fish (10 lb) arriving in April/May. The grilse come in July, water permitting. The river gets a further run of fish in late August and this run would appear to last well after the fishing season. The salmon fishing season lasts from 1st March to 30th September.

The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 70's. Salmon stocks have not recovered to the numbers pre drainage. The Deel, Riverstown, Stoneyford and Tremblestown Rivers are all spring fed with a continuous high volume of water. They are difficult to fish in that some are overgrown while others have been affected by drainage with the resulting high banks.

The site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive, namely River Lamprey (*Lampetra fluviatilis*) which is present in the lower reaches of the Boyne River while the Otter (*Lutra lutra*) can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act.

Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Parts of these areas are within the cSAC site. Known sites are at Newgrange (c. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys. The birds use a range of feeding sites but roosting sites are not well known. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

Intensive agriculture is the main landuse along the site. Much of the grassland is in very large fields and is improved. Silage harvesting is carried out. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the lakes. In the more extensive agricultural areas sheep grazing is carried out. Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many cases in leaving very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the EU Freshwater Fish Directive.

The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as examples of other important habitats. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

6.10.2006

SITE SYNOPSIS

SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SPA

SITE CODE: 004232

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

25.11.2010