

Waterways Corridor Study

2005



A study of the area surrounding
Upper Shannon Navigation, Boyle River Navigation to Roosky, including L. Allen, L. Key and the Carnadoe Waters

Produced by
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INTRODUCTION



SECTION ONE

INTRODUCTION

The greatest waterway in these islands, the River Shannon attracts thousands of visitors every year. Some are almost permanent inhabitants, others occasional guests, but everyone falls under its spell, determined to return and savour once more its undeniable mystique.

Extract from 'By Shannon Shores' - Ruth Delany, 1987

1.1 Background

1.1.1 The Heritage Council commissioned its first Waterways Corridor Study in 2001 to recognise and seek ways to realise the potential of the waterways as a heritage, amenity and tourism resource along a stretch of the Lower Shannon taking in part of the Grand Canal. Following the successful completion of this Pilot Study the Heritage Council in partnership with Waterways Ireland and relevant local authorities commissioned two further studies in 2003. These studies examined two different areas of the waterways; from Roosky to Lanesborough, down the Royal Canal from Tarmonbarry to Thomastown and an area of the Longford Branch of the Royal Canal; and from Lanesborough to Shannonbridge including all of Lough Ree and the River Suck.

1.1.2 This Waterways Corridor Study is the fourth study on the Shannon Navigation. The study recognises and seeks ways to realise the potential of the waterways within a framework of conservation along the Upper Shannon Navigation upstream from Roosky including the Carnadoe Waters, Boyle River Navigation, Lough Allen and Lough Key and up to the 16th lock of the Shannon-Erne Waterway in Leitrim Village. The study team comprises of Colin Buchanan & Partners (CBP) in association with co-consultants John Cronin & Associates and Dr. Niamh Roche.

1.2 Project Brief

1.2.1 The overall aim of the study is to:

- Identify ways to manage the waterways corridor environment to the benefit of all, i.e. heritage, land and water-based users; and to
- Improve understanding of an area, and by this understanding ensure retention of the distinctiveness of a place, while allowing for development and evolution of use for the future.

1.2.2 The study seeks to identify distinctive aspects of the waterways corridor and to assess their significance. Recommendations for the retention and enhancement of significant aspects of the waterways are drawn up along with policies for appropriately designed and located waterway regeneration projects. Pragmatic actions are required that can be realised over a 10 year timescale and in this regard responsibility for the implementation of such actions is identified. Thus, the final report will identify policies and actions that can be linked to existing initiatives within the Waterways Corridor or can be implemented independently by bodies such as local authorities and community organisations.

1.2.3 The implementation of the Plan is critical and it is intended that this study becomes a pro-active document, guiding future statutory plans and the activities of other bodies involved in the day-to-day management and operation of the waterways. The significance attached to a place is something that lives in the local culture and society, as much as being defined by a professional opinion. In this regard extensive public consultation has been undertaken as part of the study. Thus, some level of responsibility in implementing the Plan must rest with the community.

1.3 Approach and Methodology

1.3.1 This study was advanced through a series of stages, each forming an independent unit within the overall body of the project and enabling the logical progression of the study from inception through to completion.

1.3.2 The purpose of the first stage was to gain a thorough understanding of the Shannon waterways systems and their wider zone of influence through desktop research, consultation and both land and water-based field surveys.

1.3.3 The purpose of the second stage was to assimilate the data gathered in Stage 1 with a view to arriving at a fuller understanding of the history, heritage and dynamics that influence the corridor. Building on the research undertaken in the first stage and involving further public consultation, a corridor was defined and a notional line drawn on a map. This is described in section 4.

1.3.4 Taking the corridor as five distinct units: Lough Allen; Drumshanbo - Cootehall; Lough Key; Carrick-on-Shannon – Roosky; and Lough Boderg – Grange Lough – Carnadoe Waters the heritage has been assessed and a Statement of Significance drawn. This led to identifying a vision for the Corridor. The final stage involved discussing the vision for the waterway at public consultation events and building up policies and actions that can link in with existing initiatives within the Waterways Corridor, or alternatively that can be taken forward by the appropriate authorities.

1.4 Why do we need a study?

1.4.1 The Shannon navigation and our waterways are a national asset which needs to be protected and nurtured for future generations also need to be maintained as a real living, working environment. As the economy prospers; as more boats are registered on the waterways; as tax incentives drive development; and as new roads are constructed opening up new lands for development and making the waterways accessible to weekend users, there is a need to manage our national asset and ensure its long-term survival as a significant national recreational and educational resource.

1.4.2 The challenge is to balance the demands arising from immediate economic growth with the need to manage the waterways for all users, within a long-term framework of conservation. A Waterways Corridor Study is a study that recognises and seeks ways to realise the potential of the waterways as a heritage, amenity and tourism resource within a framework of conservation, whilst educating the public on the value of the waterways as a natural resource.

1.5 How to Use this Document

1.5.1 Section One sets out the project brief and the overall approach to this study.

1.5.2 Section Two sets out the management structure for the waterways identifying and defining individual roles and responsibilities. An overview of the policy and planning contexts is provided but is explained in greater detail in the Planning and Socio-economic context report that forms Appendix One of the electronic appendices.

1.5.3 The approach to and extent of public consultation undertaken throughout the study is detailed in Section Three. An overview of the main issues arising from the public consultation events is detailed along with an explanatory section on how to deal with these issues.

1.5.4 Definition of the corridor and an illustration of the corridor area are set out in Section Four. This section also

provides a descriptive summary of the entire study area from its past to this present day, detailing the key points in relation to built and natural heritage. The built heritage as it falls within the study area is explained in greater detail in the Archaeological, Built and Industrial Heritage context report, whilst the Natural Heritage context report provides greater detail on wider ecological issues. Both these detailed reports form Appendix Two and Three of the electronic appendices.

1.5.5 Section Five sets out a thorough statement of significance for the waterway and discussion of vulnerabilities/threats to that significance. This is further expanded upon through an examination of the economic value of the waterways and the exploration of how economic aspects can be included in any future waterways corridor studies.

1.5.6 A vision for the waterway corridor is established in Section Six. In an attempt to realise this vision a number of pragmatic policies and actions are recommended, to be implemented by various bodies, organisations and community groups over a specific timeframe.

1.5.7 The final section undertakes a Strategic Environmental Assessment on the study and evaluates the environmental quality and consequences of policies and recommended actions, ensuring full integration of relevant biophysical, social, economic and political considerations.



Lough Key



Lough Allen



Carrigeen Cut



Carrigeen Cut

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PROTECTION AND MANAGEMENT OF INLAND WATERWAYS



SECTION TWO

PROTECTION AND MANAGEMENT OF INLAND WATERWAYS

2.1 Management of the Waterways

2.1.1 A number of statutory bodies have a remit for protection and/or management of the inland waterways and all too often there is public confusion and ambiguity over the defined role and function of various bodies and organisations. In order to clarify the defined management structure for the waterways and to facilitate a clear understanding of the policies and recommendations arising from this study, it is necessary to list the varying statutory bodies with a measure of jurisdiction over the waterway corridor environment.

In addition there are many non government organisations and clubs on the waterways such the Inland Waterways Association of Ireland (IWAI) that promotes the use, maintenance & development of inland waterways



Carnadoe Bridge

Body / Organisation	Function / Responsibility
Department of Environment, Heritage and Local Government	Responsibility for the protection, conservation, management and presentation of Ireland's natural and built heritage under national and European law.
Department of Community, Rural and Gaeltacht Affairs	The North/South Co-operation Division (NSCD) was established in the Department in January 2001, to discharge the Department's responsibilities for its two North/South Implementation Bodies, namely Waterways Ireland (in relation to waterways within its remit) and An Foras Teanga. A key responsibility of the Division is to manage the Department's role as co-sponsor, along with the Department of Culture, Arts and Leisure in the North, of Waterways Ireland. The division strives to build and maintain strong relationships with Waterways Ireland, whilst monitoring its progress and providing support.
Heritage Council	Seeks to protect and enhance the richness, quality and diversity of national heritage. Through the Inland Waterways standing committee it proposes policy on inland waterways heritage to government. Promotes best practice in enhancement and development of inland waterways.
Local Government (County Councils)	Implements the policy objectives of the Department of Environment, Heritage and Local Government at local level. Responsibility for the landward activities on/near the waterways. Governs all development that occurs within the waterways corridor.
Waterways Ireland	Promotes and markets the waterways to encourage commercial tourism as well as private use and encourages greater sustainable recreational use. Manages, maintains, develops and restores the inland navigable waterway system within its remit. Controls water levels in the riverine section of the Shannon in liaison with the ESB.
Electricity Supply Board (ESB)	Controls water levels in the three lakes (Allen, Ree and Derg) that are vested in the State, in order to generate electricity in liaison with the Waterways Ireland. Manages and preserves the Shannon Fisheries under the Shannon Fisheries Acts 1935 and 1938.
Central Fisheries Board	Established in 1980 under the Fisheries Act, it leases the waters from the ESB. Promotes, supports and facilitates development and improvement of inland fisheries
Shannon Regional Fisheries Board	Presides over the Inland Fisheries of the Shannon catchment. Responsibility for the conservation and development and management of fish species. In addition there are many non government organisations and clubs on the waterways such as the Inland Waterway Association of Ireland (IWAI) that promotes the use and maintenance of the inland waterways.

2.1.2 **Waterways Ireland** was established in 1999 as the North/South Implementation Body responsible for the management, maintenance, development and restoration of approximately 1,000 km of the inland navigable¹ system, including the Shannon navigation principally for recreational uses. Whilst the organisation has come under several different names and authorities over the past decades, the powers conferred upon them date back to the Act for the Improvement of the Navigation of the River Shannon, 1839, which transferred powers to the Shannon Commissioners to ascertain and carry out necessary works for the improvement of the inland navigation. The subsequent sequence of transfer of power has occurred through the Shannon Navigation Act, 1990; Heritage (Transfer of Departmental Administration and Ministerial Functions) Order, 1996 (S.I. No. 62 of 1996); Heritage (Transfer of Departmental Administration and Ministerial Functions) Order, 1996 (S.I. No. 332 of 1996); Arts, Culture and the Gaeltacht (Alteration of Name of Department and Title of Minister) Order, 1997 (S.I. No. 306 of 1997); Minister for Arts, Heritage, Gaeltacht and the Islands (Powers and Functions) Act, 1998; and the British-Irish Agreement Act, 1999.

2.1.3 The **Central Fisheries Board** and its seven regional boards were established by the Fisheries Act 1980. The main objectives of the 1980 Act are the more effective conservation, development and management of every aspect of Ireland's inland fishery resource. The ESB have leased the Shannon fisheries to the Central Fisheries Board who in turn have delegated responsibility for management of the resource and promotion of the waterway for angling to the Shannon Regional Fisheries Board. The responsibilities of the Shannon Regional Fisheries Board are to protect, develop and research the fishery resource through administering fishery laws, issuing licences and participating in the development by promoting angling festivals, the provision of fishing stands and other fishing facilities.

2.1.4 The **Heritage Service of the Department of Environment, Heritage and Local Government** is divided into three main operational areas; Education and Visitor Services, the National Monuments and Architectural Protection Division (NMAPD) and the National Parks and Wildlife Service (NPWS). The Heritage Service is responsible under both

national and European law for the protection, conservation, management and preservation of Ireland's natural and built heritage and to this end a number of plans for heritage and biodiversity have been prepared.

2.1.5 The **Heritage Council** was established as a statutory body under the Heritage Act 1995. Its role is to propose policies and priorities for the identification, protection, preservation and enhancement of the national heritage. National Heritage is defined as including monuments, archaeological objects, heritage objects such as art and industrial works, documents and genealogical records, architectural heritage, flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, geology, heritage gardens, parks and inland waterways. The Heritage Council has a particular responsibility to promote interest, education, knowledge and pride in the national heritage. The Council has eight committees which report to the Council; these are; Archaeology, Architecture, Wildlife, Inland Waterways, Marine and Coastal, Museums & Archives, Education and Promotion and Finance.

¹ The navigation channel (as defined by the 1841 survey of the River Shannon) was, through the Act for Improvement of the Navigation of the River Shannon, 17th August 1839, made the responsibility of the "Commissioners for the Execution of this Act". The Act further states that "...Works which shall be vested in the said Commissioners ...for the Improvement of any of the Rivers aforesaid ... and also of all such Canals, Locks, Harbours, Wharfs, Landing Places, Piers, Quays and other Matters..., shall from the passing of this Act ... be vested exclusively in the Commissioners of this Act...The said Commissioners shall ... fix and determine the Limits of the said River Shannon..., within which all the Powers and Authorities by this Act given to the Commissioners for the Care and Conservancy of the said Rivers shall and may be exercised..." The 1841 maps indicate a line that is "described by the edge of the Waters of the Shannon when they are at their Ordinary Summer level that is to say 7 Feet on the Upper Sill of Hamiltons Lock". Thus, the jurisdiction of the permanent river channel (as defined on the 1841 maps), has become that of Waterways Ireland, essentially the 'descendents' of the Commissioners. The 1839 Act was subsequently reinforced by the Shannon Navigation Act, 1990.



Castle Island, Lough Key



Rockingham Estate, Lough Key



Strokestown House

2. 2 Policy Context

2.2.1 There are a number of recent policy documents that afford protection to Ireland's Inland Waterways. To fully understand the context of this study and the factors influencing policy decisions, it is necessary to examine the overall hierarchy of policy guidance through European, national, regional and local levels. Several documents have been referred to in order to gain a thorough understanding of the wider policy context within which this study falls. Further relevant documents that should be considered for the sustainable development of the waterway corridor are detailed in Appendix One.

2.2.2 The [National Heritage Plan 2002](#) prepared by the Heritage Service of the Department of Environment, Heritage and Local Government recognises that the conservation of heritage is an integral part of the development of the waterways system. The Plan states that the development of a programme for the conservation and enhancement of the inland waterways requires the creation of a record of all its heritage elements, including architecture, wildlife, and underwater and industrial archaeology, to allow a plan for their future management to be put in place. Similarly, an information and education programme for the waterways can only be effectively developed on the basis of a record of its heritage and its historical context. Therefore it is a priority of the Department of Environment, Heritage and Local Government to undertake a full inventory of protected structures and recorded monuments throughout the country. Whilst such an extensive study on our built heritage is outside the remit of this study, the consultant team are undertaking a cursory study of these areas and will highlight significant gaps in knowledge.

2.2.3 Ireland's [National Biodiversity Plan 2002](#) was prepared in response to the obligation contained in Article 6 of the Convention on Biological Diversity. The objectives of the convention are:

- The conservation of biological diversity;
- The sustainable use of its components; and
- The fair and equitable sharing of benefits arising from the use of genetic resources.

The success of implementing the National Biodiversity Plan lies with ensuring all sectors take responsibility to promote biological diversity. At Government level, this will be achieved by all Government Departments ensuring that "their policies and actions do not damage biodiversity and that they take a proactive role in enhancing biodiversity." Each Department and relevant state agency is obliged to devise its own Biodiversity Action Plan / Sectoral Action Plan in consultation with stakeholders and in accordance with agreed guidelines. To this end, Waterways Ireland are undertaking to prepare their own Biodiversity Plan.

2.2.4 In preparing a framework for development, County Councils are required to have regard to national policy produced by the Department of Environment, Heritage and Local Government. The [National Spatial Strategy \(NSS\)](#) is a 20-year framework designed to deliver more balanced social, economic and physical development between the regions. The Corridor area falls within two regions, the Border Region (Leitrim) and the West Region (Roscommon). Carrick-on-Shannon is identified as a county town performing regionally strategic residential, employment, administrative and other service functions. Boyle presents opportunities for development and expansion through effective promotion and marketing in association with the larger towns in the area. Strokestown is identified as having a weak urban structure with substantial urban strengthening opportunities. This spatial structure will influence the socio-economic analysis of the study and influence the direction of the study in relation to tourism and critical mass. The NSS also seeks to strengthen rural communities through diversification of the local economy – developing tourism, enterprise and local services. The potential of the waterways for tourism and recreational activity is specifically referred to, citing opportunities to develop tourism possibilities by linking waterways and creating tourism circuits linking urban settlements and waterways.

2.2.5 In 1999 the Heritage Council published a Policy Paper on the [Future of Ireland's Inland Waterways](#). Consultation for this document highlighted the importance of a strategic plan for the waterways and their corridors. Furthermore emphasis was placed on the importance of heritage aspects, both built and natural, of the waterways in light of their role as

recreational and tourist amenities. It is these issues in particular that are being addressed by the Waterways Corridor Study of the Upper Shannon Navigation - Boyle River Navigation to Roosky including L. Allen, Lough Key and the Carnadoe Waters. The overall aim of the policy paper is that the inland waterways and their corridors should be developed in a holistic way, conserving where possible their built and archaeological heritage features and protecting their unique ecological systems, to enhance the enjoyment and appreciation of that heritage now and for future generations. The Policy Paper covers a broad ambit of topic areas from resource management, development control and heritage conservation through to user management and opportunities for development.

2.2.6 The [Rural Renewal Tax Incentive Scheme](#) will continue to operate in the Upper Shannon area until June 2006. This scheme is currently under review by the Department of Finance and the Revenue Commissioners with a thorough evaluation of the effect of all tax incentive reliefs and exemptions being undertaken. The Scheme offers tax relief of 50% of the build cost of a new residential property and 100% of the refurbishment cost of an existing residential property. In terms of commercial and industrial properties the Scheme offers up to 100% rebate of construction or refurbishment costs to owner-occupiers or lessors, subject to certain conditions. The purpose of the Rural Renewal Scheme is to increase population in rural areas and whether it has successfully achieved or is near achieving its primary purpose is not clearly known as there is little quantitative information available at local or regional level. There has, however, been a notable increase in development pressure in parts of the study area, most notably in the Shannon towns and villages of Roosky, Carrick-on-Shannon, Boyle, Leitrim village, Dromod and to a lesser degree Drumshanbo and it can only be assumed that this development pressure is attributable to the Rural Renewal Scheme.

2.2.7 A Directive establishing a new framework for Community action in the field of water policy was agreed by the European Parliament and Council in September 2000. The Directive, generally known as the [Water Framework Directive \(WFD\)](#), rationalises and updates existing water legislation and provides for water management in Europe on the basis of River Basin Districts (RBDs). The Directive's fundamental

objective is the maintenance of “high status” of waters where it exists, prevention of any deterioration in the existing status of waters, and the achievement of at least “good status” for all waters by 2015. Water management by river basin as opposed to administrative or political boundaries is enshrined in the Directive and river basin management plans will be finalised and published for each RBD by June 2009. The management plan is a detailed account of how the objectives set for the river basin (ecological status, quantitative status, chemical status and protected area objectives) are to be reached within a specific time-scale. The plan will include the river basin’s characteristics, a review of the impact of human activity on the status of waters in the basin, an estimate of the effect of existing legislation and the remaining ‘gap’ to meeting these objectives; and a set of measures designed to fill the deficit. As a prelude to the full implementation of the WFD, that is development and adoption of a Shannon River Basin Management Plan, DoEHLG with National Development Plan funding has established a Shannon River Basin Management Project, for delivering the objectives of the WFD within the Shannon River Basin District until December 2006. It is considered that the issue of water quality within the River Shannon will be dealt with comprehensively under the WFD and that this study will support and contribute to the research of RBD plans.



Flora and Fauna near Clarendon Lock



Carrick-on-Shannon



New Marina Development at Lough Key



Lough Boderg



Shores of R. Shannon before Carrick-on-Shannon



Construction near Leitrim Village

2.3 Planning Context

2.3.1 Under the Planning and Development Act, 2000, local authorities are required to prepare Development Plans and Local Area Plans (where necessary) for their functional area. The Act specifies mandatory objectives for inclusion in Development Plans and Local Area Plans and these include conservation and protection of the environment; preservation of the character of the landscape; the preservation, improvement and extension of amenities and recreational amenities; and the integration of the planning and sustainable development of the area with the social, community and cultural requirements of the area and its population. Further to that, local authorities may include objectives for the purpose of preserving any existing public rights of way, including along lakeshores and riverbanks. A detailed review of all plans is contained in Appendix I to this document. A review of the planning context provides an overview of current policies and thinking relating to the protection and enhancement of the waterways and informs the overall study.

2.3.2 Both Leitrim County Council and Roscommon County Council have prepared [County Development Plans](#) under the 2000 Act and include policies for protecting inland waterways from 'inappropriate or unsustainable development'. It is a policy of both plans to improve access to the County's watercourses and it is a specific policy of the Leitrim County Development Plan to ensure that access to good fishing waters is available to locals and visitors and that the resource is properly managed. The Roscommon Development Plan includes a policy to ensure the nonproliferation of private, individual jetties and moorings along the Shannon, requiring that marinas normally be required to locate in, or close to, existing centres.

2.3.3 The two Councils also include policies to restrict development in the vicinity of the inland waterways so as to protect views and the recreational and ecological integrity of the waterway. Leitrim designates the area around the waterways as Areas of High Visual Amenity where restrictive settlement policy prevails and there are also a number of protected views and prospects. Roscommon has identified two areas of high amenity value around the mountainous areas of Lough Allen

and Arigna and the Carnadoe Waters, and seeks to ensure that development proposals in the area of the Shannon are generally located within existing centres and to prohibit development proposals where it would be detrimental to visual or environmental amenity. Both County Councils recognise the largely untapped tourism potential of the river and its lakes and include policies to promote the area through the undertaking of tourism proposals.

2.3.4 While the urban area straddles the Shannon, with substantial development on both sides of the river, the administrative area to which the [Carrick-on-Shannon Development Plan](#) relates is that part of the town located on the east bank of the Shannon, situated in County Leitrim. Designated as a regionally strategic town in the Regional Planning Guidelines, this Plan seeks to assist in the realisation of this potential by setting out a framework for its future development and to turn the town to face the river. It is acknowledged in the Plan that the N4 lacks visual contact with the River Shannon but that excellent opportunities exist to develop walks along the riverbank and open up visual and physical access to the river. It is a specific objective of the Plan to commission an urban design study to examine the feasibility of redeveloping the riverside lands and quay area within the town so as to maximise the potential of the river for the town as an amenity, with a specific desire to reinstate the old quay wall opposite the Landmark Hotel. A Leisure/Recreation Strategy proposes that the amenity lands between the existing by-pass and the river will evolve as a low-intensity eco-park with a pedestrian walkway and some fishing stands.

2.3.5 Adopted by Roscommon County Council as part of the County Development Plan 2002, the [Lough Key Study](#) is primarily concerned with landuse and the control of development around the lake and protecting the visual quality of the lakes environment. The Plan strategy is based on the concentration of residential and other development into development nodes, intended to reinforce and enhance existing communities and relieve pressure for development in more environmentally sensitive areas. Two nodes have been identified - Boyle town and Cootehall. The remaining area surrounding Lough Key has been broken into different zones with different degrees of sensitivity and development is controlled

accordingly.

2.3.6 The [Roosky Local Area Plan 2004 – 2009](#) has been prepared for that area that falls within the administrative area of Roscommon County Council and is primarily concerned with providing for the sustainable development of the village as a residential, tourist and employment centre. The potential for development of Roosky will largely be concentrated on the western part of the village and provision is made in the landuse zoning matrix for a housing associated marina development on Lough Bofin. Reference is made in the Plan to the original navigation through Roosky and states that the original weir, lock and road bridge has architectural and cultural heritage merit. The Plan acknowledges that there is potential to develop a service industry based on passing trade and wintering/mooring of boats from the River Shannon and has zoned an area of land to the south of the river as River Related Activity.

2.3.7 The [Boyle Town Development Plan 2002](#) acknowledges the canal as providing an attractive and sustainable environment at an important entry point to the town from the waterways network. It is stated in the Plan that the Council will seek the preparation of a Local Area Plan for the harbour area and adjoining lands and all future development will be required to accord with the Plan. The location of Boyle adjacent to Lough Key Forest Park provides great opportunities to attract tourists to the town and will encourage the establishment of facilities in the town that complements the recreational and tourism uses offered at Lough Key. The Council also seeks to develop riverside amenities and walkways along the River Boyle.

2.3.8 In line with the NSS the [Strokestown Local Area Plan 2004](#) identifies Strokestown as a rural town with strong potential for diversification. This process can be supported through the provision of services and encouraging investment in tourism supports such as restaurant facilities and visitor accommodation that harness in a sustainable way the potential of important local resources such as the natural and cultural heritage, attractive landscapes and inland waterways. The Plan states that new investment priorities should be directed into Strokestown to enable the town to develop as a heritage centre. A Geo-Tourism project entitled 'Walking in Time

– Linking the Natural and Cultural Landscape’ is earmarked for Strokestown. Although the Plan does not specifically refer to linkages with and access to the Shannon it does seek to promote tourism within the region and build on its popularity as a fishing destination.

2.3.9 The aforementioned plans provide the planning context for the waterways and highlights the different approaches undertaken by each local authority in preserving and protecting the waterways. Each local authority has a different approach resulting in different policies and it is considered that this study can provide a co-ordinated framework for the effective management of the waterways, leading to more unified policies and objectives in respective plans.



Lough Key



Carrick on Shannon



Leitrim Village



Carrick on Shannon



Roosky



Leitrim Village



Boyle

03

OUTCOME OF CONSULTATIONS



SECTION THREE

OUTCOME OF CONSULTATIONS

3.1 User Groups

3.1.1 The identification of different user groups and uses on and close to the waterways was necessary to afford an understanding of the key stakeholders in the waterways. These user groups and uses informed the consultation process and ensured that all key individuals, groups, associations and bodies were effectively consulted during the process.

3.1.2 A general assumption is that water based activities generate the only users on the waterways. Whilst activities such as angling, cruising, sailing, canoeing, powerboating, and other water sports are the main waterway users, other activities such as walking, cycling, horse riding, appreciation of the local environment and heritage such as bird watching and the Summer Schools also benefit from and use the waterways.

3.1.3 At the end of 2004 a total of 5,217 boats were registered on the Shannon system (including the Shannon Erne) with Waterways Ireland. Whilst many of these boats are privately owned, a number of the registered boats are hire cruisers, operating from various locations around the Shannon system. The figure of 5,217 boats is continuously growing from 3,876 boats in 2000 to 4,479 boats in 2002 and reflects a growing interest in boating nationwide. To gain some appreciation of boat traffic within the study area, figures are drawn from Waterways Ireland's lockkeepers monthly records, demonstrating the number of lock passages throughout the Shannon navigation. What these figures do not portray is the number of users who cruise the study area without passing through the locks. There are six locks within the study area and all locks portray various levels of usage as follows:

3.1.4 Over the past three years there has been an average of around 44% of the boat users on the Shannon moving into or out of the study area. This data is further broken into private and hire boats and from the records it is concluded that hire boats account for 75% of boat traffic and that private boats account for 25%. This figure could reflect the volume

Lock	2002	2003	2004
Roosky Lock	9,507	9,564	8,568
Albert Lock	11,259	11,216	10,596
Clarendon Lock	7,773	8,050	6,867
Battlebridge	2,096	2,148	1,782
Drumleague	2,026	2,081	1,725
Drumshanbo Lock	1,091	1,110	911
Total lock passages	76,962	76,172	69,610

of hire boats on the Shannon system but may also only be reflective of the fact that hire boats undertake longer passages and use the locks more frequently than private boaters who do not move far from their cruising base.

3.1.5 There are five boat rental companies registered with the Irish Boat Rental Association (IBRA) within the study area. The two biggest boat rental operators, Carrick Craft and Emerald Star Line, with fleets in excess of two hundred boats each, have their main bases in Carrick-on-Shannon and operate across the entire navigation system. Tara Cruisers with a fleet of twenty one cruisers is located in Lough Key, whilst three day-boat rental operators are located in Leitrim village, Dromod and Lough Key. The Moonriver boat located in Carrick-on-Shannon operates passenger day trips and cruises on the Shannon during the summer months, as does Lough Key Boats, a ten seat power boat. These boat rental companies are significant stakeholders in the waterways corridor and it is essential that the waterways are conserved and protected to ensure the continuation of a vibrant and genuine market place for the boat rental companies.

3.1.6 Other water users include the Carrick-on-Shannon Rowing Club who run a yearly regatta in the town of Carrick-on-Shannon. Longford Sub Aqua Club and Lough Ree Sub Aqua Club although not located within the study area, frequently dive the waters. There are no facilities for sailing within the study area although it is considered that Lough Bofin and Bodergh are suitable sailing grounds. These users have concerns in relation to the speed of motorized craft on the river and the

disregard that users have to the 5mph speed Bye-Laws.

3.1.7 Swimming, particularly around the lakes is widespread during the summer months. Popular public bathing locations are found at Lough Key, south west corner of Oakport Lake the western bank of the river at Carrick-on-Shannon and on the Carnadoe Waters. Corry Strand was a popular place for swimming and life-saving classes, but has been lost as a recreational facility as a result of high water levels on the lake. Continued enjoyment of the waterway for bathing is dependent on water quality.

3.1.8 The Upper Shannon Catchment including the Boyle River is probably the richest coarse angling water in Ireland and contains some valuable salmonid sections. Lough Allen and the inner lakes, particularly the Carnadoe Waters hold tench along with rudd, bream and perch in the reeded waters, whilst pike stocks in Lough Key have increased in recent years as a result of a vigorous restocking programme under the Boyle & District Angling Club. Angling is one of the most popular sports along the waterway, from both the water and the shore and is relatively well-developed. Fishing has traditionally generated a significant volume of commerce in settlements adjacent to the waterways, in places like Roosky, Carrick-on-Shannon and Strokestown.

3.1.9 The waterway provides an important habitat for birdlife, particularly the Callows, Lough Allen, and the Carnadoe Waters. These are popular areas for bird watching, although this is relatively informal, and could be promoted by provision of low-impact, ecologically sensitive hides for bird-watchers. The boardwalk on the eastern bank of the river at Carrick-on-Shannon, downstream of the bridge and opposite the Landmark Hotel was a popular spot for bird watching and for undertaking other ecological and educational activities. However, it has fallen into a state of disrepair and is no longer accessible. The refurbishment of the boardwalk is due to be undertaken later this year, thereby providing and maintaining access to an ecological sensitive area.

3.1.10 Wildfowling is also a popular sport, particularly around Lough Key, although much of the park on the southern side of the lake is a Wildlife Sanctuary. The Wildlife Act 1976,

Chapter IV sets out the requirements for issuing hunting permits. Regional Game Councils through their local gun clubs regulate game shooting, with the umbrella organisation, the National Association of Regional Game Councils (NARGC), regulating hunting so that it does not impact on wildfowl breeding seasons. Like Angling Associations, Game Councils are concerned about protection of wildlife habitat, including water quality.

3.1.11 Although there are several designated walkways throughout the study area including the Miners Way and Leitrim Way, it is not possible to walk along the banks of the Shannon and enjoy this significant recreational resource on foot. Consideration should be given to physically link the walking routes with the waterways, through the provision of additional signage and information boards at key locations around the waterways. The Beara Breifne Route, a designated greenway marking the marching path of O'Sullivan Beare as far as Leitrim village is presently being developed and will provide a significant amenity resource in the area.

3.1.12 Apart from the Beara Breifne Route, which is yet to be fully developed, cycling is generally not promoted along the waterways, although there are bicycle hire facilities in Carrick-on-Shannon and Drumshanbo. However, there is potential to develop designated cycle routes, or greenways that can be used by both walkers and cyclists as part of a future development strategy, particularly along sections of the disused Cavan-Leitrim Rail Line and Tarrant's Canal. Tarrant's Canal was intended to provide access to Lough Allen and the Arigna coalfields in 1817 to the west of the River Shannon. However, it was abandoned in favour of constructing a canal to the east (see S.4.2.21). Similarly, whilst there are opportunities for horse trekking in various locations along the waterway, this is an activity that is underdeveloped but is not encouraged by Waterways Ireland.



Dromod Railway



Signage near Leitrim Village



Boyle Abbey



Drumleague Lock



Waterways Ireland Inspectors



Drumaharlow

3.2 Stakeholder Involvement

3.2.1 Critical to the success of any plan, strategy or report is support from the wider community. The Steering Group for this Corridor Study comprises representatives from the Heritage Council, Waterways Ireland, Roscommon and Leitrim County Councils, all of whom have a direct interest in the study area. Regular meetings between the consultant team and the steering group have ensured that the group was informed at all key stages in the study.

3.2.2 Initial contact was made with key stakeholders via a letter, sent to some 67 different national, regional and local organisations and individuals within the study area, setting out a brief introduction to the study and inviting comments on issues of significance within the study area. Consultees were offered the opportunity of responding by post, telephone or arranging a meeting. Several follow-up phone calls were made thus ensuring a good response. During the preparation of the study a total of 38 responses were obtained by letter, fax, telephone, interviews and meetings.

3.2.3 The consultant team has been conscious of ensuring key stakeholder involvement throughout the evolution of the study. Meetings have been held with relevant personnel from each of the two County Councils, Heritage Council members and Waterways Ireland to gain a more thorough understanding of key issues and projects within the study area. Meetings were also held with the Inland Waterways Association of Ireland (IWAI); Roscommon County Enterprise Board; Regional staff of the National Parks and Wildlife Service (NPWS); personnel from the Shannon River Basin Management Project; Central Fisheries Board; Shannon Regional Fisheries Board; Irish Peatland Conservation Council; Geological Survey of Ireland; Breifne Upland Project; and Western Development Tourism Programme amongst others.

PUBLIC VIEWS / COMMENTS ARISING FROM PUBLIC CONSULTATION

3.3.2 The issues listed in the table below are reflective of varied discussions at the public consultation evenings and reflect the diversity of opinion in the Leitrim / Roscommon area. They are not necessarily reflective of the consultant's views. It is intended that these issues be addressed through pragmatic policies and actions that can be taken forward by relevant parties and interest groups. However, in some instances the issues raised cannot be dealt with in detail having regard to the specific aims of the study. A 'consultant's response' is given to each and every issue raised detailing how the issue is dealt with in the study and if not dealt with, the reason why.

3.3.3 Further specific details of the 'relevant objective / action' are contained in Section Six of this report and appropriate cross-referencing should be undertaken.



Distant view of Lough Key



Jamestown Marina



Lough Key Visitor Centre



Lough Allen

Table 3.2.1

SUMMARY OF ISSUES RAISED DURING PUBLIC CONSULTATION

1.	Fish Stocks	Fish stocks are very low and this has had a negative impact on the tourism industry. No one appears to be researching the problem and establishing why stocks are so low.
2.	Mink	There is a serious issue with mink on the waterways and they are having a serious effect on fish stocks and wildlife. No one is controlling or accepting responsibility for the damage they are causing.
3.	Fishing Controls	No one is controlling or enforcing the fishing laws in Ireland and fish stocks are depleting as a result. The approach to fishing in Ireland should be one of preservation and conservation.
4.	Water Quality	Water quality needs to be addressed and is currently very poor. Poor water quality is leading to changing ecosystems and substantial weed kill.
5.	Monitoring of Water Quality	The waters are not adequately monitored with the EPA only monitoring at certain locations.
6.	Water Levels	The water levels for the last two seasons have been very low, obstructing navigation of the Shannon system, yet substantial summer flooding has occurred in places like Carrick-on-Shannon in recent times.
7.	Zebra Mussels	The impact of the zebra mussel is still not fully understood and is still of major concern.
8.	Forestry	Conifer plantations as well as having a negative visual impact, can negatively impact on water quality.
9.	REPS	REPS require that land be fenced off and this is preventing access to the river for fishermen and other water users.
10.	Holding Tanks	It is a requirement by law for every boat to have a holding tank but this regulation is not enforced and many boats do not have them.
11.	Pump Out Facilities	Not enough are provided and a lot of the time they are not working.
12.	High Speed Craft	High speed motor cruisers and speed boats, along with jet-skis are contributing to the erosion of the river bank and are negatively impacting on wildlife, flora and fauna.
13.	Enforcement	There are not enough Inspectors on the navigation to enforce rules and regulations. Speed is a major concern.
14.	Water Activities	There is a general lack of access facilities to the lake for the public and a lack of swimming facilities. There are also no facilities for sailing.
15.	Development	The rate of development of one-off housing in the countryside and the development of large housing estates in small villages is of concern.
16.	Floodplain	Building in the floodplain is a major concern as is building on the shores of the river and preventing access to the waterways.
17.	Enforcement of Unauthorised Development	County Councils need to undertake enforcement procedures particularly against those who have carried out unauthorised developments on the riverside.

Table 3.2.1

SUMMARY OF ISSUES RAISED DURING PUBLIC CONSULTATION

18.	General Facilities	The tourist would like to see small mooring facilities accommodating 1 – 5 boats in quiet locations away from noisy villages and towns. The facility at Acres Lake is commended
19.	Maintenance of Facilities	Waterways Ireland or the County Council should maintain the jetties. They should not be allowed fall into a state of disrepair similar to the one in Kilglass.
20.	Facilities in Roosky	Amongst other things shower and toilet facilities are badly needed, similar to those in Dromod Harbour and a sewerage facility is required.
21.	Facilities in Carrick-on-Shannon	Amongst other things, a lack of public mooring facilities in Carrick-on-Shannon and the town is being by-passed as a result.
22.	Facilities on Lough Key	Amongst other things, island jetties are required on Lough Key and negotiations should be entered into with the private owners of the islands to facilitate access.
23.	Facilities on Lough Allen	There are little facilities on Lough Allen, Corry Strand was a beautiful beach used for swimming and life-saving classes and this has been lost as a result of high water levels on the lake.
24.	Education and Training	The public and the younger generation need to be educated about the river and need to be engaged in river activities to heighten their awareness.
25.	Information	There is a general lack of information on the waterways. Harbours need to be provided with information signs.
26.	Boyle Mooring Facility	The Boyle mooring facility is seldom used and its visual appearance is very poor.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Fish Stocks

The water on the Shannon appears to be clean but fish stocks are very low. This has had a substantial negative impact on the tourist market as fishermen are no longer coming to places like Roosky and Carrick-on-Shannon. No one is researching the problem and establishing why there is so little fish. A lack of reed growth associated with high water levels is affecting spawning in Lough Allen.

The Central Fisheries Board has conducted two studies within the present corridor area to determine whether there is any basis to the perceived decline in fish stocks. The first study was conducted in 2003 between Roosky and Drumsna. A report on the study was published in 2004 (Caffrey 2004). The areas upstream and downstream of the Masonite plant were particularly targeted to determine whether the factory had had any impact on the fisheries. Fish were caught using gill and fyke nets at numerous locations including Drumsna, Lough Tap, Lough Boderg, Lough Scannel, Lough Bofin and upstream of Roosky (Caffrey 2004).

The study confirmed the presence of large and healthy fish stocks throughout the area surveyed. Also, the community structure and relative abundance of fish in the surveyed section closely corresponded with that which could be expected in a natural coarse fish river or lake complex and showed no evidence of adverse effects of pollution. The report surmised that a decline in angler catches could be explained, at least in part, by fish moving from intensively fished areas to locations less accessible to anglers. Such movements of fish populations have been recorded downstream on the Shannon at Tarmonbarry (Caffrey 2004).

An additional study has been carried out in 2004, upstream, to north of Carrick-on-Shannon. The results have not yet been published but initial findings have also confirmed the presence of a healthy, sustainable coarse fishery in this area (Joe Caffrey pers. comm.).

Recommended Objective No. 13

Ensure that research undertaken on fish stocks by the Central Fisheries Board is effectively communicated to relevant personnel including the fishing clubs, Failte Ireland and tourist agencies.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Mink

There is a serious issue with mink on the waterways. The invasive species are killing all around them and this is having a serious effect on fish stocks and wildlife. No one is accepting responsibility for the mink or controlling their numbers. Local gun clubs try to cull the numbers but the effect that this has is minimal. Need to look to areas like Scotland to see how they control the species with the use of floating traps.

According to Hayden and Harrington (2000) the impact of mink naturalisation in Ireland has not been as catastrophic as was first feared. The main diet of mink is fish and birds. However, the main problem with mink is that they kill for the sake of killing. There are, however, reports of declining water bird numbers in areas recently colonised by mink. Given the nature of the mink's territoriality, it seems unlikely that large numbers of the animal would be present over long periods and it is also likely that, following initial introduction to an area, numbers would stabilise over time. Research at a number of waterways throughout the country in the early 1990s indicated that populations at many areas were in a state of dynamic equilibrium (i.e. stable but with seasonal fluctuations) and were not numerous (highest average density 1.37 individuals per kilometre of river). It is likely that most Irish prey populations such as frogs, fish, rats etc. are well able to sustain mink predation levels. However, prey populations most likely to be negatively affected by mink include birds that nest on the ground such as rails (moorhens and coots).

Recommended Objective No. 32

The recommended action seeks to ensure that a national policy is put in place to control the growth of this invasive predator and protect fish stocks, bird life and other wildlife.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Fishing Controls

Nobody is controlling or enforcing the fishing laws in Ireland and stocks in our waterways are depleting as a result, as people fish and take what they want. A catch and release policy should be implemented on Lough Key and other areas of the waterways. The Boyle & District Angling Club have 12 water keepers appointed from club members in an attempt to regulate fishing on Lough Key. Their approach is one of preservation and conservation and this should be promoted and enforced. A pilot project on a strict no kill policy could be undertaken on Lough Key for a five year period in support of the regeneration of depleted fish stock on the lake. Fishing Clubs should be given powers to police the water and enforce the legislation.

The Central Fisheries Board promotes preservation and conservation of fish stocks on the Shannon and are charged with ensuring the observance of the Fishery Acts, Bye-Laws and Orders. The Inland Fisheries Bye Laws 1997-2004 are the regulatory mechanism controlling the act of fishing within the study area. The Boards' strategies and operations are both preventative and reactive in nature and include the following:

1. The creation of a deterrent by ensuring the maximum visible presence in waters where the threat of illegal activity is greatest;
2. Prosecution of offenders and confiscation of illegal nets, equipment, tackle and catch.

The Shannon Regional Fisheries Board with an office located in Dromod regularly enforces these bye-laws, providing a 24 hour answering service which is regularly monitored and acted upon.

Recommended Objective No.13

The recommended action seeks to explore the possibility of undertaking a strict no kill policy in certain areas such as Lough Key. The concept of water keepers is also promoted and the action encourages greater communication and co-operation between the water keepers on Lough Key, Shannon Regional Fisheries Board and the Gardai.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Water Quality

Farmers have been blamed in the past for using too much fertiliser on the land resulting in the seepage of phosphorous and nitrates into the water. Industry is now being blamed, discharging inappropriate chemicals into the water resulting in substantial fish and swan kills. If we don't have good water quality then we don't have a valuable water system. pH levels are fluctuating and the clearer water is leading to changing ecosystems with substantial weed kill.

The Water Framework Directive (WFD) is an operational tool for water protection setting the objectives for water quality for the first quarter of this century and drawing attention to the Nitrates Directive. The WFD aims to co-ordinate the application of other measures designed to tackle particular pollution problems. A key example is the Nitrates Directive, which is specifically designed to control pollution due to agriculture. The Nitrates Directive should therefore be seen in the context of the requirements of the WFD.

Water management by river basin as opposed to administrative or political boundaries is enshrined in the Directive and the Shannon River Basin Management Project is preparing a river basin management plan, to be finalised by June 2009.

Recommended Objective No. 8

Supports the objectives of the Water Framework Directive which seeks to reduce and eradicate the disposal of effluent from boat users.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Monitoring of Water Quality

The waterways are not adequately monitored with the EPA only monitoring at certain locations where the water quality is known to be good. Furthermore, the water is only monitored for certain chemicals and pollutants.

Statutory responsibility for water management and protection rests primarily with local authorities. The Local Government (Water Pollution) Acts 1977 and 1990 constitute the main national legislation in this regard.

The Environmental Protection Agency (EPA) undertakes the National Rivers Monitoring Programme under Section 65 of the Environmental Protection Agency Act 1992. In addition to separate ecological and physico-chemical monitoring the national monitoring programme may also be broken down based on the purpose of the monitoring:

- Surveillance Monitoring (including trend monitoring)
- Operational Monitoring (including monitoring of protected areas)
- Investigative monitoring (implemented locally when required)
- Programmes to fill specific national and international monitoring programme needs.

Thus, different forms and types of monitoring are undertaken depending on the situation.

Also, one of the key roles of the Central Fisheries Board is the ongoing monitoring of water quality, whilst the WFD also requires programmes for monitoring in order to determine a coherent and comprehensive overview of water status within River Basin Districts

Recommended Objective No. 8

Supports the objectives of the Water Framework Directive. Monitoring of water quality extends over and beyond the scope of this study as the WFD requires programmes for monitoring in order to determine a coherent and comprehensive overview of water status within River Basin Districts.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Water Levels

The water levels for the last two seasons have been very low, obstructing navigation of the Shannon system, yet substantial summer flooding has occurred in places like Carrick-on-Shannon in recent times.

The ESB determines the level of water in Lough Allen through management of sluices at Bellantra. Waterways Ireland manages the sluices at Jamestown, Roosky and Tarmonbarry. The legislation regulating the operations of the ESB on the Shannon is contained in the Electricity (Supply) Acts 1927 – 1988. The ESB has stated that in order to maintain the channel downstream of the sluices in good order and have a fair flow in the river, the level downstream of the sluices should not be allowed to drop below 46.40m O.D., but it may not be possible to maintain this level during drought periods. Optimisation of storage from Lough Allen is no longer a factor of importance to ESB in the generation of power at Ardnacrusha. However, some water which has built up in Lough Allen during the winter may be released during the summer. As a result of discussions with the ESB, farmers and community interests the ESB has undertaken to endeavour to maintain the level of Lough Allen within the range of 47.55m O.D. to 48.16m O.D. between mid June and the end of August. To achieve this it is desirable that the level in the lake is above 48.16m O.D. during May and early June as the minimum required to be discharged at Bellantra of $5.0\text{m}^3/\text{s}$ exceeds the average summer inflow to the lake. The maximum normal operating level of the lake is at or about 49.68m O.D.

Recommended Objective 10

That the ESB and Waterways Ireland continue to liaise on the subject of water levels to facilitate safe navigation during all months of the year, whilst ensuring that the ecological integrity of the river is maintained.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Zebra Mussels

The impact of the zebra mussel is still not fully understood. It is cleaning the water but is causing major problems blocking pipes and outlets. There is no evidence to date of zebra mussels on Lough Allen, which is probably due to the low pH level of the water as a result of a lack of calcium.

Within the study area, zebra mussels had spread as far north as Lough Key by 1997, into Acres Lake by 1998 and the mouth of Lough Allen soon afterwards.

Zebra mussels are thumbnail-sized shellfish that form dense clusters which attach to hard surfaces, such as underwater rocks, boats and pipes. They live in freshwater and also the upper reaches of tidal estuaries, but they cannot live in seawater.

Zebra mussels are filter feeders. Each one can filter up to one litre of water a day. They remove the phytoplankton and plankton from the water. What they do not use, they reject as pseudo-faeces, which covers the bottom of the lake or river. This depletes the lower end of the food chain, thus depleting the food chain for larger organisms, which may include game fish. Zebra mussels have the ability to reject and spit out blue-green algae which flourish in the absence of other algae. The increased clarity of the water results in extensive weed growth, and a resultant diminution in recreational value. They are very fertile and spread rapidly, with each female releasing about one million eggs, while each male provides up to 300 million sperm. They are highly adaptable, can survive in many conditions, and have few known predators. Unlike chemical pollution, from which lakes can recover once the influx of nitrates and phosphates is stopped, the ecological changes wrought by zebra mussels are irreversible.

Recommended Objective No.32

Continue to undertake research to examine methods of controlling this invasive species.

Galway County Council with funding from the Heritage Council are currently spearheading a public awareness initiative in relation to the zebra mussel and the necessity of cleaning boats coming from other lake and river systems e.g. the Shannon, in an attempt to protect the waters of the Corrib from infestation. Such a similar initiative should be considered by the Local Authorities of Leitrim and Roscommon in association with the Fisheries Board and Angling and boating organisations.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Forestry

Conifer plantations as well as having a negative visual impact, can negatively impact on water quality.

Forest operations, such as ground preparation and drainage, vegetation management, the construction of roads and bridges, fertiliser application and forest harvesting, may adversely impact on water quality. Eutrophication, acidification and sedimentation can affect the biology, chemistry and hydrology of aquatic ecosystems. Guidelines to address these threats have been prepared by the Forest Service including the Code of Best Forest Practice and Forestry and Water Quality Guidelines.

The Forest Service has a policy of consultation with Regional Fisheries Boards and Local Authorities on forestry applications in areas where there is a perceived risk of acidification. Planting is not permitted in SACs and SPAs and approval for planting in pNHAs is dependent on formal consultation between the Forest Service and the National Parks and Wildlife Service.

Recommended Objective No.9

Support 'Sustainable Forest Management' activities. County Councils and the Fisheries Board to continue to identify sensitive catchment areas.

Recommended Objective No.9**Buffer Zone Management.**

To undertake further research and consider the introduction of buffer strips and liming to ameliorate acidification in forested catchments on sensitive geologies. Buffer zone widths should vary in certain locations to avoid straight edges for landscaping purposes.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

REPS

REPS require that land be fenced off and this is preventing access to the river for fishermen and other water users. It is also impacting on the flora and fauna of the river as animals such as the whooper swan is prevented from moving inland to the floodplain. The materials used for fencing also impacts on the water quality of the river.

REPS is the Rural Environment Protection Scheme and is designed to reward farmers for carrying out farming activities in an environmentally friendly manner. Measure 3 of REPS relates to the protection of watercourses, waterbodies and wells and it is a requirement that fences are erected around water bodies and that they must be a minimum of 1.5 meters from the top of the bank of the watercourse. In addition all farm boundaries must be stock-proofed.

REPS has had the effect of restricting access along the banks of the river, as previously open fields running down to the river now have their field boundaries stock-proofed. There are facilities within the REPS whereby the Planners acting on behalf of the farmer can make a case for a relaxation in the standards having regard to such issues as access and walkways. However, this is not the norm as current practice follows the requirements of the various Measures.

Recommended Objective No.14

Opportunities for opening up public access to points along the shoreline, to facilitate walking and horse-riding should be considered along with issues such as public safety and insurance. These issues should also be considered within the context of REPS.

A flexible approach should be taken to the erection of fencing along watercourses and lake shores to facilitate both users and wildlife

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Holding Tanks

It is a requirement by law for every boat to have a holding tank but this regulation is not enforced and many boats do not have them. For those boats that do have them, the pump out facilities do not generally work. In any case, special detergent must be put into the holding tanks to control odours and it is likely that these detergents would have more of an effect on water quality than the effluent itself.

Under the Shannon Navigation Bye-laws 1992 S.I. No. 80 of 1992 all boats must have holding tanks. Waterways Ireland is responsible for monitoring boats with holding tanks and is in the process of recruiting additional inspectorate staff on the waterways to ensure compliance with bye-laws and to undertake such monitoring of boats.

Recommended Objective No.8

Facilities, working practices and licensing conditions be put in place to reduce and eradicate the disposal effluent from boat users.

Pump Out Facilities

Not enough are provided and a lot of the time they are not working. The pump out station in Boyle works and is in the control of Waterways Ireland. The other pump-out facilities are in the control of the County Councils and do not work. A card operating system is not suitable in any case and it would appear that the stations are ceasing to work as a result of a lack of use.

There are five pump out stations in the study area including one at Dromod, two in Carrick-on-Shannon, one in Boyle and one in Leitrim Village. The pump out stations in Boyle and Leitrim Village are controlled and managed by Waterways Ireland. The remaining pump out facilities are provided and managed by the Environment Section of Leitrim County Council, but are not maintained on a regular basis due to the lack of use of the systems by the public.

Waterways Ireland is in the process of producing a policy document on on-shore services required and to be provided and this will be undertaken in consultation with stakeholders.

Recommended Objective No.8

Facilities, working practices and licensing conditions be put in place to reduce and eradicate the quantity of effluent from boat users.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

High Speed Craft

High speed motor cruisers and speed boats, along with jet-skis are contributing to the erosion of the river bank and are negatively impacting on wildlife, flora and fauna. Although there is enough space on the river system for all users, areas for specific users such as jet skis need to be defined and enforced.

There is a need to ensure that all users of the waterways can function in harmony and that one user group does not operate to the detriment of others. A balance needs to be sought between different water based and land based recreational activities and the local environment. The following speed restrictions are in place:

- A vessel or boat shall not be navigated at such a speed or in such a manner as to cause or be likely to cause injury or damage to persons or to other vessels or boats or any other property.
- A vessel or boat shall not be navigated at a speed in excess of 5mph when within 200 metres of a bridge, quay, jetty or wharf, when in a harbour or canal or when passing within 100 metres of a moored vessel or boat.
- Vessels navigating the Shannon Erne Waterway should observe the general 5mph speed limit which applies along the Waterway. This is necessary in order to prevent damage to the banks caused by excessive wash from vessels.

The Dept of the Marine's Final Report of the Action Group on Small Powered Recreational Craft was published in 2000 and it recommended that local bodies (including Waterways Ireland) should introduce zoning as the primary policy response to fast craft concerns.

Gardai currently have the power to prosecute those who do not comply with the speed restrictions. However their ability to undertake speed detection is limited due to resources.

Recommended Objective No. 11

A good practice guide on water based activities should be established and a study on the impact of various craft and speeds on local wildlife and habitats, including underwater archaeology should be undertaken.

Propose amendments to the existing Shannon Navigation Bye-Laws, changing numerical speed limits to No Wake Zones. There is a need to monitor compliance with the speed laws and to undertake enforcement where necessary.

Promotes an extensive programme of education.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Enforcement

There are not enough Inspectors on the navigation to enforce rules and regulations. Speed is a major concern.

There are three Inspectors of Navigation on the Shannon, policing the waters and ensuring compliance with bye-laws. Waterways Ireland is in the process of recruiting additional inspectorate staff on the waterways. The Gardai, are also automatically empowered to act as authorised officers, to prevent criminality and to enforce bye-laws and they now have a high powered speed boat to facilitate them in their duties.

The Dept of the Marine's Final Report of the Action Group on Small Powered Recreational Craft, published in 2000 stated that statutory and other bodies may appoint authorised officers to implement regulations. A set of generic guidelines for local bodies has been drawn up covering use, speed, times of operation and noise. On-the-spot fines may also be introduced. Certain local authorities have already introduced bye-laws to control the use of jet-skis but have not appointed dedicated authorised officers to oversee the implementation of the bye-laws. Rather they are implemented in-house through the Environment Department.

Recommended Objective No.12

Local authorities in association with Waterways Ireland should have the sole responsibility for the management and implementation of regulatory measures that they might introduce locally.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Water Activities

There are no facilities for sailing within the study area and Lough Boderg and Bofin could be excellent locations for dinghy sailing. There is a general lack of access facilities to the lake for the public and a lack of swimming facilities. Rowing is well established in Carrick-on-Shannon with canoeing a popular activity on Lough Allen as a result of the Activity Centre.

There is a need to link local communities with the water and promote the waterways as a location for all water based activities including sailing, swimming and rowing.

Existing access points to the waterways need to be maintained and the area examined for new access opportunities, particularly as private development occurs along the Shannon shore. Both Roscommon and Leitrim County Councils include objectives in their Development Plans to improve access to the waterways (Section 6.10 of the Roscommon County Development Plan and the Carrick-on-Shannon Local Area Plan)

Recommended Objective No.26

Encourage links with water safety programmes and educational forums.

Recommended Objective No.15 and 16

Enhance access to the banks of the river for land based users.

Development

The rate of development of one-off housing in the countryside and the development of large housing estates in small villages is of concern. Nobody appears to be examining the capacity of these villages to accommodate the level of development. Villages are developing into towns overnight and there are serious concerns in relation to proposals for development in Cootehall.

Local Area Plans / village envelopes must be prepared to encourage consolidated development within existing settlements, similar to those prepared by Roscommon County Council.

The capacity of villages to accommodate substantial development must be examined in proportion to their existing population and Design Statements for Housing Estates must be prepared and enforced.

Cootehall is identified as a growth centre in the Lough Key Plan and a broad development zone has been identified. Regard must be had to the context and character of Cootehall when assessing development proposals along with the need to protect key village features.

Recommended Objective No.1

Identification of a Waterway Corridor Zone in Development Plans with suitable policies and actions to effectively control and regulate development.

Recommended Objective No.2

Maintain and preserve the aesthetic quality of the environment surrounding the waterways, including the urban environment of small villages and rural clusters in line with Strategic Environmental Assessment (SEA).

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Floodplain

Building on the floodplain is a major concern as is building on the shores of the river and preventing access to the waterways.

The Office of Public Works (OPW) has recently completed a report on flooding in the Shannon. There is a need to define floodplain boundaries and to ensure that these areas are designated for protection thus introducing effective controls and preventing development on the floodplain. Floodplains act as natural reservoirs for flood water and should remain as natural storage mechanisms and not be seen as development land, thus preventing flooding further downstream.

Recommended Action No.5

Protection of the floodplain

Enforcement of Unauthorised Development

County Councils need to undertake enforcement procedures particularly against those who have carried out unauthorised developments on the riverside.

Enforcement laws were introduced and must be enforced under Part VIII of the Planning and Development Act 2000. Both Roscommon and Leitrim County Council have the power to undertake enforcement action under this legislation against unauthorised development where development occurs without the benefit of planning permission.

As part of the survey work undertaken for this study a map has been prepared identifying various mooring locations for boats, whether it's a facility for one, five or more boats (See Mooring Facilities Map). Both Roscommon and Leitrim County Council in association with Waterways Ireland should investigate the status of these mooring points and undertake enforcement action if necessary.

Recommended Objective No.6

Protect the shoreline of the waterways from proliferation of private jetties and harbours.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

General Facilities

The tourist would like to see small mooring facilities accommodation 1 – 5 boats in quiet locations away from noisy villages and towns. The provision of laundry facilities should be considered in all harbours similar to those on the Shannon-erne system. As well as providing an important facility it would also keep tourists in any one given area longer.

The facility at Acres Lake is commended and it should be used as a model for the provision of services at other locations throughout the waterways.

Maintenance of Facilities

Waterways Ireland or the County Council should maintain the jetties. They should not be allowed fall into a state of disrepair similar to the one in Kilglass.

It is considered that suitable safe landing facilities linked with existing settlements or services such as a pub or identified walking route and accompanied by appropriate signage can greatly enhance appreciation of the waterways environment. Waterways Ireland's Plan for Capital Works includes a programme for isolated floating jetties and opportunities for the installation of isolated floating jetties on the Carnadoe Waters should be explored.

The on-shore facilities at Acres Lake were undertaken by a local Community Organisation. Community groups should be encouraged to work in association with Waterways Ireland to provide much needed complimentary local and visitor facilities.

Waterways Ireland engages an active maintenance programme and seeks to maintain all mooring points in their control in good working order.

Recommended Objective No.15

Enhance access to the shores of the lakes and the river bank

Recommended Objective No.14

Ensure that all organisations and bodies work in harmony and maintain access to the waterways.

Recommended Objective No.19

Ensure that all facilities are maintained in a workable and orderly manner.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Facilities in Roosky

Shower and toilet facilities are badly needed, similar to those in Dromod Harbour and a sewerage facility is required. Additional mooring facilities are required on the upstream bank of the river in Roosky for when the lock is closed. Moorings south of the lock don't have land access. There is no slipway for launching boats in Roosky and the one in Dromod is in a bad location and is frequently obstructed by boats moored in the harbour.

The provision of sewerage facilities are the responsibility of Roscommon and Leitrim County Council. As stated in the Roosky Local Area Plan, a new sewage treatment works has been commissioned for Roosky.

The main issue in Roosky is arriving upstream of the bridge and arranging to have the bridge lifted. This can be problematic as the mooring facilities have no contact with the shore and the telephone in some instances does not work. There are mooring facilities downstream of Roosky but these can only accommodate two boats. Furthermore it is acknowledged that additional slipways are required within the study area to provide effective access to the waterways. An area of land south of the village adjacent to the river has been zoned in the Roosky Local Area Plan for the provision of on-shore facilities such as boat maintenance, marina construction and services.

Recommended Objective No.19

Consider the provision of additional facilities, including mooring facilities upstream of the lock, slipways and new toilet facilities in Roosky and more jetty space above the bridge.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Facilities in Carrick-on-Shannon

Lack of public mooring facilities in Carrick-on-Shannon and the town is being by-passed as a result. It is desirable that the last green area on the river, located in Co. Roscommon is preserved and it is considered an unsuitable location for a Waterways Ireland headquarters. The riverside walk in front of the Landmark Hotel needs to be opened up again to the public as a valuable amenity contribution to the area.

Waterways Ireland is considering the potential of developing additional mooring facilities downstream of the bridge in Carrick-on-Shannon. Furthermore, Waterways Ireland is seeking a new regional headquarters building in the town and have considered a number of suitable sites. The development of a new regional headquarters building will be subject to public consultation and the planning process.

It is acknowledged that the riverside boardwalk in front of the Landmark Hotel is a valuable resource, in terms of ecology, education and recreation. The Carrick-on-Shannon Local Area Plan states that it is an objective to reinstate the old quay wall in front of the Landmark Hotel as the location offers opportunities for developing linkages between the river and the town centre. The refurbishment of the boardwalk is due to be undertaken later this year, thereby providing and maintaining access to an ecological sensitive area.

Recommended Objective No.16

That a Riverfront Strategy be prepared for Carrick-on-Shannon

To support and encourage the refurbishment of the boardwalk in front of the Landmark Hotel.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Facilities on Lough Key

Island jetties are required on Lough Key and negotiations should be entered into with the private owners of the islands to facilitate access. Drummans Island should be made more accessible and could be opened up for fishing through the provision of vehicular access to part of it. McDermott's Castle on Castle Island is in a poor state of disrepair and the island is currently for sale. It is important that these islands remain accessible to the public. Much of Lough Key on the southern side of the lake is a Wildlife Sanctuary and this should be extended to encompass the entire area.

The Lough Key Plan prepared by Roscommon County Council sets out clear objectives for the future development of Lough Key and the surrounding area.

The historic and natural importance of the islands on Lough Key and their potential as an educational resource must be recognised whilst protecting them from inappropriate development. Consideration should be given to the preparation of Management Plans for the islands addressing issues such as access and the protection of archaeological monuments.

Vehicular access to Drumman's Island should not be considered as this is an additional proposed Natural Heritage Area. Along the shores of Lough Key. The Forest Park is a public park of some 230 hectares owned and managed by Coillte, approximately 60% of the park is forested, of which approximately 70% is broad leaf forest. Consideration should be given to the designation of the entire park as a Wildlife Sanctuary.

Recommended Objective No.17 and No.31

Recognise the historic importance of the islands within Lough Key and instigate the preparation of Conservation Management Plans.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Facilities on Lough Allen

There are little facilities on Lough Allen, Corry Strand was a beautiful beach used for swimming and life-saving classes and this has been lost as a result of high water levels on the lake.

Lough Allen remains relatively underused compared to the remainder of the Shannon Navigation. In 2003 only 1,110 boats passed through the lock at Drumshanbo compared to 9,564 through Roosky Lock and 11,216 through Albert Lock. Lack of interest in Lough Allen could be attributed to the lack of mooring facilities as the lake has only two mooring jetties located at Cleighran More and Spencer Harbour and neither of these is located in close proximity to villages. A small pier, suitable only for lake boats is located at Cormongan.

Waterways Ireland is currently exploring the possibility of extending the navigation to Annagh Upper with linkages to the village of Dowra.

Corry Strand was one of the few accessible amenity areas on Lough Allen and it is important that existing swimming access areas are maintained on Lough Allen and the wider Shannon.

Recommended Objective No.18

Consideration should be given to increasing the attractiveness of Lough Allen as a place to navigate and visit, in conjunction with the provision of additional facilities.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Education & Training

The public and the younger generation need to be educated about the river and need to engage in river activities to heighten their awareness.

Communities need to be linked with the waterways via water safety courses to encourage safe swimming and safe waterway activities. Training associated with the waterways for approximately 70 local children in Carrick-on-Shannon is provided on a voluntary basis, through the Inland Waterways Association of Ireland (IWA) Cubs Scheme in an attempt to heighten awareness and increase local knowledge. This educational forum should be replicated in other locations around the Shannon and supported by Waterways Ireland and the County Councils.

Information

There is a general lack of information on the waterways. Harbours need to be provided with information signs containing telephone numbers etc. There is a general lack of understanding on the functions of individual authorities and their role in the waterways and who to contact in time of emergency.

Waterways Ireland is appointing a signage design contract to provide uniform signage and information board's at all mooring facilities in the control of Waterways Ireland. The signage design manual has recently been finalised and information signs will be provided as part of the rollout of signage which is due to start in 2005.

It is acknowledged that there is general confusion and a lack of understanding vis a vis the management of the waterways. Section 2 of this study has endeavoured to outline the function and responsibility of the main bodies associated with the waterways.

Recommended Objective No.26

Encourage links with water safety programmes and waterways educational forums.

Recommended Objective No.28

An information booklet on the responsibilities of different organisations should be published for distribution to all those with registered vessels on the waterways, gun clubs, fishing clubs and other organisations.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Ecology

Ecology is the basis of the waterways and a clear understanding of the ecosystem is required before any serious recommendations can be made in terms of development.

One of the overall aims of this study is to provide a clearer understanding of the ecological merit of the waterways and to identify shortcomings and gaps in information. There is an overall need to ensure the strategic development of the waterways whilst protecting the natural heritage of the resource.

For certain size developments or proposed developments in environmentally sensitive areas, local authorities may require an Environmental Impact Assessment under Part X of the Planning & Development Act 2000 and this assessment would include a detailed ecological study of the area.

For strategic local, regional and national development plans affecting the waterways there will be a need to undertake a Strategic Environmental Assessment (SEA) to assess the environmental quality and consequences of such plans and to integrate relevant biophysical, economic, social and political considerations.

Recommended Objective No's. 28, 30 and 31

Seeks to ensure that there is adequate ecological information available within the study area.

PUBLIC OPINION / PERCEPTION

CONSULTANTS' RESPONSE

RELEVANT OBJECTIVE / ACTION

Boyle Mooring Facility

The Boyle mooring facility is seldom used and its visual appearance is very poor. The facility should have been extended into Boyle town. An information point should be provided at this location attracting and encouraging people into the town.

Boyle harbour is located less than a mile from the town centre with a designated walkway connecting the mooring facility to the main public road.

Recommended Objective No.25

The general recommendation is to fund and provide detailed information boards located at public harbours and access points throughout the waterways corridor.

04

DEFINING THE WATERWAY CORRIDOR



SECTION FOUR

DEFINING THE WATERWAY CORRIDOR

4.1 Approach

4.1.1 The approach and methodology adopted for the corridor definition is based on that developed by Cunnane Stratton Reynolds in the Pilot Study and by Colin Buchanan & Partners in their previous study of the waterways from Lanesborough to Shannonbridge including Lough Ree. The rivers and lakes are natural features of the landscape and defining the corridor requires a combination of disciplines taking into consideration landscape character, built and natural heritage and patterns of ownership and settlement.

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

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

4.1.3 In general, the primary waterway corridor boundary of the river's and lakes area of influence is drawn along the crest of the nearest raised topographical feature. However,

because there are instances where the land is low-lying, and there are distinctive ecological, archaeological or architectural features, these are taken in their entirety and included within the primary zone of influence.

4.1.4 Desktop study of the relevant maps and aerial photography of the area combined with visual survey and analysis have been used to gain an understanding of the landscape and visual aspects and then used to define the area of influence. To facilitate research and gain a thorough understanding of the study area the consultant team undertook a reconnaissance survey from the water courtesy of Waterways Ireland in August and Carrick Craft during a week in the middle of October. For this survey, Ordnance Survey Ireland maps at 1:50,000 (no's 26 and 33) were used and a series of illustrations that show the underlying landform and the significant tree cover along the River Shannon from Lough Allen to Leitrim, west to Lough Key along the Boyle River and south to Roosky, including the Carnadoe Waters, were produced.

4.1.5 The River Waterway Corridor is a zone defined as the area between the high-water marks of the river.

It incorporates the permanent natural and constructed channel and the river's floodplain or callows and any built infrastructure within these components, e.g. locks, bridges and power lines. This consideration of landscape and visual aspects is used to define the boundary of the area of influence. The River Shannon is a major waterway, the longest in Ireland and is supported by numerous tributary rivers and streams. In the main it flows through low-lying flat terrain. Therefore it is impracticable to take the river's area of influence as the whole river basin or catchment area. For this study, as far as possible, the outer boundary of the river's area of influence is drawn along the crest of the nearest raised topographical feature.

4.1.6 Where possible terrain surrounding the waterways has also been surveyed by foot. Due to limited access to large portions of the waterway, much of the land adjoining the river and the lakes could not be surveyed. However, particular attention was paid to the non-navigable section of the River Shannon from Drumshanbo to Battlebridge and from Jamestown to Drumsna and to the public access points throughout the entire corridor, including all major settlements.

4.1.7 An understanding of economic activities and socio-economic developments along the waterways is necessary to achieve a comprehensive understanding of the potential of the waterways to contribute to surrounding settlements and the tourism market. There are many villages / towns sitting on the waterways and directly linked with the waterways, whilst others are located some distance away from the physical water, but yet have strong economic links with the resource. An assessment of the main villages/towns in the study area has been undertaken in an attempt to ascertain their contribution to the tourism market and their ability to enhance the overall benefit of the waterways to the region. This assessment will also contribute to the definition of the actual corridor for the study area.

4.1.8 Due to the extent of the study area and to facilitate ease of presentation it was decided to break the study area into five manageable components, as shown on Map 1. The study area was broken up having regard to the topographical nature of the landscape; socio-economic influences of villages/towns; existing development strategies and public perception of areas. The five areas are defined as follows:

1. Lough Allen, including Dowra, Drumkeeran and Drumshanbo; 2A
2. From Drumshanbo to Carrick-on-Shannon and upstream of the Boyle River to and including Cootehall; 2B
3. Lough Key including Boyle and Knockvicar; 2C
4. Carrick-on-Shannon to Roosky, including Jamestown, Drumsna and Dromod; 2D and
5. From Lough Boderg to the Carnadoe Waters including Strokestown 2E

4.1.9 The following section describes, illustrates and assesses the extent of the corridor area with respect to landscape, socio-economic factors, built and natural heritage.

INSERT A3 LANDSCAPE CHARACTER MAP OF STUDY AREA
IDENTIFYING FIVE REPRESENTATIVE AREAS (Map 1)

INSERT A3 OF MAP 2 (A)
Lough Allen – Drum-
shanbo Corridor (Area I)

4.2 Lough Allen – Drumshanbo (Area I)

Primary and Secondary Corridor Approach

4.2.1 The defined waterway corridor for Area I is identified on Map 2a. The approach to Lough Allen is slightly different to the rest of the study area given its character and context as a large lake with relatively steep sided slopes rising from its shores. Uniquely, a primary and secondary corridor area has been defined around the lake. The primary corridor follows Tarrant's Canal at the south western tip of Lough Allen extending along the R280 on the western shore. Encompassing the villages of Drumkeeran and Dowra to the north of Lough Allen, the primary corridor follows the Leitrim Way walk along the eastern side of the lake. Each of the specialist teams have looked at this area in detail recording the presence of archaeological monuments and ecological designations in detail. The secondary corridor primarily relates to the visual zone of influence from the lake and is necessary as it reflects a wider area that impacts on the waterway, whilst having regard to ecological and archaeological designations.

4.2.2 The area required two specific zonings having regard to the extent of the area and the practicalities associated with implementing specific policies / recommendations over an extensive area. However, it is important that the primary and secondary corridor are considered in an integrated manner, as the visual area of influence affecting Lough Allen, as identified on Map 2a.

Landscape and Visual Corridor

4.2.3 Lough Allen, situated on the upper reaches of the Shannon system, is one of the larger water bodies to be found along the length of the River Shannon, measuring approximately 11km north to south and 4km east west at the widest point. From the northeast the Black River and the Owennayle River feed into the River Shannon flowing through the village of Dowra before emptying into the lake. The source from the Cuilcagh Mountains of the Shannon is to be found at 'The

Shannon Pot' some 12km to the northeast. From the north-west the lake is fed by the Diffagher River and on the eastern side the Yellow River flows in from the hills.

4.2.4 The character of the landscape around the lake is highly distinctive in this part of Ireland. This is due to the impressive terrain of hill/mountain country that surrounds and encloses the lake. Views from the water are contained within the impressive backdrop of hills that surround the lake to the north, east and west. The lower slopes of the hills show a patchwork of fields, hedgerows and woodlands whereas the upper slopes are more barren showing the reddish brown hues of heather and grasses with interspersed blocks of coniferous forest plantation. The roads around the lake provide intermittent views of the water and access to the shore is somewhat limited. Features of interest and facilities include the ruined church at Tarmon, Spencer Harbour, Cleighran More jetty the Scardan waterfall on the northeastern slope of the Corry Mountain and the recreational area at Corry Strand on the northern shore of the lake.

4.2.5 To the north of the lake high ground known as Boleybrack rises to an elevation of 449m above sea level. To the east the large bulk of Slieve Anierin rises to 585m. This extensive landform is part of the Cuilcagh Mountains dominating the eastern side of the lake. The valley of the Yellow River cuts into the mountain in the area of Ballinagleragh and at the northern end the high ground terminates at 'The Playbank' (elevation 543m) above the village of Dowra. This hill has a distinctive scarp edge on the northern side.

4.2.6 On the western side of the lake Seltannasaggart or Corry Mountain and further south Kilronan Mountain rise to 426m and 335m respectively. Both mountains have wind farms placed along their summits. The Kilronan Mountain has a long history of coal mining, extensively worked in the past with extraction only ceasing in the last decade. Recently, however the 'Agrina Mining Experience', a significant tourist attraction, has been opened at the old mine head, providing a fascinating insight into the history of the centuries of coal extraction from the mountain. From this place the visitor is afforded a splendid panoramic view over the length of Lough Allen with Slieve Anierin as a backdrop. Below Kilronan Mountain a large

commercial plant for coal close to the small village of Arigna is a dominant feature in the landscape. Presently there is no formal connection between the waterways and the significant 'Arigna Mining Experience' tourist attraction, with the exception of an irregular and adhoc bus service from Drumshanbo.

4.2.7 Along the eastern shore the R207 runs between Dowra and Drumshanbo with only sections of the road providing views of the water. Higher up the slope the Kingfisher Cycle Trail runs parallel to the road. This lane undulates across the lower slopes of Slieve Anierin again offering intermittent viewing points over the lake. Again there are no physical connections between the cycle trail and walking routes of Slieve Anierin, and the waterways.

4.2.9 Towards its southern end the lake narrows around the wooded promontory of Inisfale Island, with navigation confined to a narrow channel. The extensive hotel and leisure complex development at Corrachuill, Drumshanbo dominates the eastern shore. There are plans to provide limited mooring facilities for boats, thereby enhancing access to Lough Allen and significantly improving the locational choice for over-night berthing on the lake.



Lough Allen

Settlement and Economic Corridor

4.2.10 **Dowra** located on the border of Counties Leitrim and Cavan is a very rural village with few services and a weak urban form, lying on the Leitrim – Cavan border. The population of Dowra has fallen in recent years from 165 in 1996 to 152 in 2002. The village which is nestled in a valley a short distance from the northern shores of Lough Allen has been described as a classic example of a village with a very harmonious relationship with its landscape and surroundings. An Taisce sees an opportunity to develop Dowra as “a model village” and aims to work with local people in suggesting a plan for the area. There are no structures or buildings located in the village that are listed for protection in the County Development Plan. Some 4.5km south of Dowra, adjacent to the north-eastern shores of Lough Allen are the remains of a post-medieval creamery at Ballenagleragh and a corn mill, associated stores and a mill race at Drumristin. Little remains of the creamery, although the gate piers are of note. While the mill is much dilapidated, its original layout is apparent amongst the wooded overgrowth

4.2.11 From Dowra there is a 4.8 km stretch of an

ancient frontier earthwork running roughly southwest from the village to the lake, a linear earthwork known as the Black Pig’s Dyke. Dowra has no physical connection with the waterways but Waterways Ireland is currently exploring the possibility of making the River Shannon navigable to within less than a mile of Dowra Village allowing cruiser traffic to travel as far as Annagh Upper. Linkage with the water could provide Dowra with the stimulation it requires to secure development and the critical mass to provide additional services.

4.2.12 The road to **Drumkeeran**, “the ridge of the quicken tree”, skirts the winding shores of Lough Allen and fine views of the northern end of Lough Allen can be enjoyed from the top of the village where the road bends towards Drumshanbo. Drumkeeran is an average sized village lying between Lough Allen and the smaller but attractive Bellavel Lough. The population of the village increased by 7.2% from 488 persons in 1996 to 523 persons in 2002. The form and scale of the village is attractive with a defined streetscape, whilst a good range of services and facilities are on offer. There are no buildings or structures in Drumkeeran listed for protection in the County Development Plan. There have been a number of recent planning applications for development in Drumkeeran, primarily

relating to residential development and it is important that the future scale and form of the village is protected with sensitive design and appropriately located development.

4.2.13 Although the village has no direct linkages with the waterways, with Spencer Harbour the closest mooring point, Drumkeeran is the only substantial village serving Lough Allen, when boats leave Drumshanbo.

4.2.14 **Arigna** is situated in a picturesque valley in the hill country of North Roscommon and until its recent close-down, Ireland’s only remaining operating coal-mining centre. The Elizabethan planter, Charles Coote, built iron works at Arigna and Creevelea. Both were destroyed during the 1641 Rebellion, however they were subsequently rebuilt only to close in 1690 when the timber supply from the surrounding forests was exhausted. An elongated dispersed settlement, the population of the village declined between 1996 and 2002 from 29 people to 15 people. Arigna Church dominates the approaches to the village and a long, winding and wandering tour route, the Arigna Scenic Drive is clearly signposted. There are no protected structures within the environs of Arigna that are listed in the County Development Plan to date.



Spencer Harbour Lough Allen

4.2.15 The recent opening of Arigna Mining Experience has resulted in renewed interest in the area and is already a significant tourist attraction in Leitrim and Roscommon. It is well signposted from the R280, with little links to the waterways. The only alternative to accessing the tourist attraction by private car is the shuttle bus from Drumshanbo which operates irregular hours and is not well publicised. A walking route which leaves Arigna via the old railway track to Mount Allen following the Arigna River to the Old French Road which leads in turn onto the main road into Drumshanbo is also not well publicised. Alternative modes of transport to the private car must be promoted and explored to facilitate access to significant tourist attractions for visitors from the waterways.

4.2.16 Nestling beneath the Slieve Anierin and Arigna mountains, **Drumshanbo** is situated at the southern end of Lough Allen and is primarily known and marketed as an angling resort. The village is just a short walk from the mooring point at Acres Lake or from the lock at the entry to Lough Allen. With only a decrease in population of -1.7% in the last intercensal period, the population of Drumshanbo stood at 623 people in 2002. A heritage centre in the market house reflects the area's special links with narrow-gauge steam trains, coal mining, and also features local folklore and is a significant tourist attraction. There is one protected structure, a "Wesleyan"

church, located within Drumshanbo that is listed in the County Development Plan, while the NIAH have recorded several structures/buildings, most of which are connected with the Cavan and Leitrim Railway, town houses and the water navigation. The Blackrock new lock (built in the 1820s) is the entrance from Lough Allen Canal into Lough Allen with an associated single arched road bridge and former lodge. Traces of the Cavan and Leitrim Railway remain in the town in the form of a goods store and station house, both of which are presently in dis-use. A free-standing, cast-iron water tower is located nearby, which was manufactured c. 1887 by the 'Atlas Foundry, Belfast'. Also located within the town environs are the scant remains of a corn mill towards the rear of the 'Mill Race' pub where the mill race itself is still visible.

4.2.17 An annual festival, An Tostal, with emphasis on Irish music, singing and dancing is held in Drumshanbo each year and provides an alternative to the waterways visitor. Contributing to the development of Drumshanbo as a lakeshore town. A recent development on the shores of Lough Allen provide the town with a hotel and spa, holiday homes and an eighteen hole golf course. The proposal also includes the development of a marina which will contribute to the provision of mooring facilities on Lough Allen. Permission has also been granted for 30 houses and a 50 berth marina at Derrintober, whilst other

substantial residential development has been granted to the west and north of the village at Corrachuill and Carricknabrack.



Works at Arigna



View of Lough Allen from Arigna Mining Experience

4.2.18 The dropping of water levels at Lough Allen has uncovered some interesting areas where crannógs had been sited off the east shore, as well as other indications of early habitation. Evidence of Mesolithic human settlement within the waterways corridor is provided by artefactual finds that have been discovered in a water-based context on the shores of Lough Allen. At the north end of the lake there is a prehistoric ditch, known as the Black Pig's Dyke, extending from the village of Dowra towards the lake, which is thought to be part of an early man-made frontier which defended the kingdom of Ulster. A number of early church ruins, including one on the island of Inishmagrath and two others along the west shore, at Conagh and Tarmon indicate the importance of the lake in ancient time.

4.2.19 In terms of archaeology, this area is covered by RMP map sheets Leitrim: 18, 20 and 23. Inclusive of the aforementioned sites, there are twenty-eight recorded archaeological sites located in Area 1 that are representative of settlement in the area since Neolithic up to post-medieval times (court tomb / standing stone / crannóg / churches (4) / earthwork / rectangular enclosure / moated site / castle / ringforts (3) / cashel / enclosures (3) / holy well / massrock / ironworking (2) / sweat houses (5)). In addition, a number of chert implements dating from the Mesolithic have been found on the shores of Lough Allen as well as a series of Bronze Age artefacts. Such early settlement evidence is indicative of the importance of the waterways corridor as a means of navigation through what would have been a heavily forested and hostile environment.

4.2.20 Industrial development in this area is centred on the iron and coal working within the area of Arigna. There are various coalfields around Ireland- including Ballycastle, Coalisland, Castlecomer, and even the Kish Bank in Dublin Bay. Most are small and the coal was often of poor quality, and though they were mined on and off over the centuries, it was usually easier to use local wood or turf as a fuel or even to import coal from abroad (Mulvihill 2002). However, the Arigna coalfield near Lough Allen was worked until 1990, making it the last large-scale coal mine in Ireland. The best deposits are found to the west of the lake, on either side of the Arigna river between counties Leitrim and Roscommon, although it is still only of

fair quality since it produces nearly 40% ash.

However there is also evidence of isolated iron-workings at Druminalass on the eastern shores of Lough Allen and at Gubb on the northern shores of Spencer Harbour on the west side of the lake, dating to the eighteenth and nineteenth centuries respectively. Also within Area 1 are a series of corn mills that were indicated on the revised 1910 edition OS maps such as those at Drumristin on the north-eastern shores of Lough Allen, Knockadryan located west of Arigna and Carricknabrack outside Drumshanbo. This is reflective of the significant role that cereals played in the local economy at the time.

4.2.21 The completion of the Royal Canal to the upper Shannon in 1817 brought an impetus to improve this part of the Shannon navigation. Access to Lough Allen and the Arigna coalfields was essential in economic terms and an original scheme to make a lateral canal to the west of the river Shannon, Tarrant's Canal, was abandoned in favour of constructing a canal to the east of the river all the way from Battlebridge to Lough Allen, passing through Acres Lake en route. Work was completed on the canal and opened to traffic in 1820. However, the anticipated coal trade did not materialise and the completion of a railway with a tramway extension to the mining area further diminished trade. As such, the Shannon Commissioners showed a limited interest in the Lough Allen canal when the plans to improve the navigation in the 1830s were being drawn up. They did recommend a number of improvements: replacing the old roadbridge at Battlebridge with a new bridge to be sited downstream of the entrance to the canal; lengthening the locks to accommodate boats from the Royal Canal and making a second lock just beyond the harbour to increase the depth of the canal and deepening and widening the canal for its entire length. In addition they suggested widening Tarrant's old cut and constructing a weir at Ballantra to hold Lough Allen at a fixed level. The only work carried out was some underpinning of the locks to allow the canal to take deeper draft boats, and some dredging in the canal, while Tarrant's cut was widened to divert more of the Arigna waters directly into Lough Allen. It was not until further steps were taken to control the Shannon waters following disastrous flooding in the 1860s that sluices were eventually fitted

at Ballantra, designed to raise the lake 1.5m above its normal summer level. Today little remains of Tarrant's Canal, with only overgrown steep banks evident, linking into the Arigna River. The Miners Way walk, however, does extend over part of the canal.

4.2.22 When the hydro-electric works were carried out in the 1920s, traffic on the canal had virtually ceased and so it was decided to use Lough Allen as a reservoir with sluices to control it at Ballantra (Delany 2000). This resulted in great fluctuations in levels making it impossible to continue using the canal; the last boat passed through in 1932. The canal was re-opened to Acres Lake in 1978 but could not be extended into Lough Allen because of these fluctuations. Power from the Shannon scheme now forms a very small part of the national grid and so the ESB agreed to keep Lough Allen at a more constant level and the canal was re-opened into Lough Allen in 1996. Since the level of the lake varies, a two way lock was constructed where the canal joins the lake.

4.2.23 Cavan & Leitrim Railway was incorporated in 1883 under the Tramways Act of that year, under the title of 'Cavan & Leitrim & Roscommon Light Railway and Tramway Company Limited'. It opened its main line, situated around the edge of the central plain of Ireland and bounded to the north by the Iron Mountain range. A branch to Arigna and its coalfields opened in 1888, and a 5.6 km extension to the coal mines was constructed in 1920 under the title of Arigna Valley Railway. A 0.9m narrow gauge railway line, its route distance (excluding the Arigna extension) was 48.5 miles, serving Ballinamore, Belturbet, Arigna, Mohill and Dromod. Eventually the line closed in 1961. Today, one can walk along part of the old railway line to the sluice in Drumshanbo.

4.2.24 In 1992 the Irish Narrow Gauge Trust revived the narrow-gauge station at Dromod with material from their collection. Almost a kilometre of track has been restored and visitors can take trips up and down the line with plans to restore the line for 8km to the town of Mohill.

Ecological Corridor

4.2.25 Small sections of Lough Allen's shoreline or islands are included in the Lough Allen South End and Parts proposed Natural Heritage Area (pNHA) conservation designation. Kilgarriff Marsh is an additional pNHA conservation designation close to the northern shore of Lough Allen along with Owen-gar Wood which is a wooded glen near Drumkeeran is also a pNHA.

4.2.26 Lough Allen is categorised as an oligotrophic lake which means that it has low nutrient inputs and relatively acidic waters. A generally rocky shoreline, with intermittent peat, mud and sandy shoreline areas, Lough Allen lacks the large areas of reed swamp that are found in other lakes lower in the Shannon catchment. This may be due to a combination of factors such as its low nutrient status, fluctuating water levels and/or its relatively steep shoreline. The non-native, invasive, zebra mussel has only been recorded from the southern end of Lough Allen.

4.2.27 A number of sites along the shoreline of Lough Allen and further inland, have been identified as of ecological interest. These sites support a number of interesting and important

habitats and a number of rare and protected plants and animals.

Kilgarriff Marsh/Rossmore/Mahanagh - Partly included in Kilgarriff Marsh pNHA this area includes a variety of habitat types including wet grassland, poor fen and flush, quaking mire and transition bog and wet heath (with *Erica tetralix*). Freshwater crayfish and otter, both Annex II species, have recently been confirmed from the area. The protected orchid – Irish lady's tresses has been recorded from the shoreline of Kilgarriff Lake, the shoreline of Lough Allen at Dead Man's Point and two locations at Rossmore. The rare plant – blue-eyed grass – has been recorded from Rossmore. Quaking mire and transition bog and wet heath are both habitats listed in Annex I of the EU Habitats Directive. Mahanagh Lough, a small narrow lake to the north of Rossmore has well developed reed beds that grade into wet grassland dominated by rushes, scrub and wet willow-alder-ash woodland. The reed beds are in contrast to much of Lough Allen's shoreline which does not have extensive reed-bed systems. It is therefore of local importance as a refuge for wetland birds and over wintering wildfowl. At Kiltyfeenaghty Glebe, on low-lying land south of Mahanagh Lough, wet willow-alder-ash woodland is also present. Species include birch, willow, yellow flag, bramble,

sedges, lesser celandine, wavy bittercress, common polypody. Inishmagrath Island is included in the Kilgarriff Marsh pNHA designation. The Annex I Greenland white-fronted goose has been recorded from Inishmagrath Island.

Lough Allen South End and Parts (Fahy, Cornashamsoge, Gubcormongan and Mahanagh) - This is a proposed Natural Heritage Area that has been designated as good examples of Lough Allen shoreline vegetation and woodland. At Fahy and Cornashamsoge wet marginal woodland is situated on a rocky shoreline. At Gubcormongan a relatively large area of semi-natural woodland with the rare black poplar is present. There is some swamp woodland on sandy soil. In addition to the wooded areas, a limestone exposure at Mahanagh is included in the designation. This habitat includes the Annex I habitat calcareous grassland with some blackthorn scrub.

4.2.28 The remaining sites around Lough Allen are described following in an anti-clockwise direction around the shore from Rossmore/Kilgarriff.

Corry - Marginal wet willow-ash-alder woodland with black poplar.



View of Lough Allen from Scarden Waterfall

Cavan - Marginal wet willow-ash-alder woodland with black poplar.

Derrinvoney Lower - This is a foraging site for Greenland white-fronted goose (Annex I species under the EU Birds Directive). The strip of marginal, wet woodland along the lake shore is also a site for black poplar.

Derrinvoney Upper - Small strip of semi-natural, alder dominated woodland along a river valley.

Owengar Wood - Owengar Wood pNHA (north west Lough Allen) is categorised as wet pedunculate-oak-ash woodland. The canopy is dominated by alder and with some beech and grey willow. The shrub layer includes hazel and hawthorn and the field layer contains various ferns, lesser celandine, wood sorrel, primrose, wood sanicle and goldilocks buttercup.

Drummanfaughnan - Small broadleaf woodland on a ridge beside the R280 just south of Drumkeeran. The woodland has abundant ash and birch with some exotics. Understorey species include alder and hazel with bramble and furze.

Drummans Upper/Gubb - Narrow strip of marginal wet woodland. Black poplar has been recorded at Gubb. Kingfisher (Annex I) has been recorded at this area.

Cartronbeg - Strip of semi-natural wet willow-ash-alder woodland lining the lake shore.

Srabangan - Strip of semi-natural wet willow-ash-alder woodland lining the lake shore. Black poplar also present.

Mountallen - The protected orchid species Irish lady's tresses occurs along the lake shoreline here. The cutover bog at Mountallen has been used as a feeding site by the Annex I species, Greenland white-fronted goose, in the past. Mountallen is a winter feeding site for Annex I species hen harrier and a large number of the Amber Listed curlew. This area is undergoing conservation management at present.

Derrygallion Bog - An extensive area of cutaway bog north of Mount Allen Bridge. The bog consists of a central raised mound of peat surrounded by a series of smaller mounds and flushed, waterlogged depressions left after turf cutting. The depressions are very wet and are dominated by large hummocks of Sphagna with purple moor grass and bog cottons. Bog myrtle and cranberry are abundant. Cross leaved heath and ling heather are occasional. Other species present include bog rosemary, bog asphodel, milkwort, tormentil and mosses. The central raised peat mound has been burned recently and 75% vegetation cover remains. Even though the peat has been compacted it has retained some wetness. On the central mound purple moor grass is dominant. Ling heather is

abundant but not conspicuous. Bog asphodel and bog myrtle are also common. The bog is surrounded by encroaching birch scrub. Despite draining and turf cutting, it is fairly extensive.

Inisfale Island, Bellantra and Holly Island - Semi-natural wet willow-ash-alder woodland occurs along Inisfale peninsula and much of this woodland is flooded in winter. Strips of this vegetation type occur at Bellantra, another site for black poplar, and Holly Island.

Bodorragha Bog - An extensive cutover raised bog surrounded by birch scrub and there is conifer plantation on the south eastern edge of the bog.

Derrintober - A site along the shoreline for Irish lady's tresses, a protected orchid.

Cleighran More - A strip of wet willow-ash-alder woodland with black poplar, alder, hazel, ash, hawthorn, water horse-tail, meadowsweet, herb robert, creeping cinquefoil, primrose, broadleaved willowherb, blackthorn, angelica, tufted hairgrass, holly, wild strawberry, germander speedwell and a number of other wet woodland species.

Derrynahona - Foraging areas for Greenland white-fronted geese have been recorded close to the lake at Derrynahona.



Lough Allen

INSERT A3 OF MAP 2 (B)
Drumshanbo to Cootehall Corridor (Area 2)

4.3 Drumshanbo - Carrick-On-Shannon - Cootehall (Area 2)

Corridor Approach

4.3.1 The defined waterway corridor for Area 2 is identified on Map 2b and is tight on the eastern bank of the river running downstream through Leitrim Village, before changing direction at the confluence of the Boyle River and running upstream as far as Cootehall, reflecting the passage boaters undertake to Lough Key from the River Shannon as opposed to the flow of the river. The corridor extends along the western bank to encompass the non-navigable part of the River Shannon between Battlebridge and Drumshanbo.

Landscape and Visual Corridor

4.3.2 South of Drumshanbo the River Shannon and canal both run south through an area of wooded hills towards Leitrim. The Kingfisher Cycle Route follows the lane alongside the canal for much of the journey between Drumshanbo and Leitrim. The canal provides a narrow and tree lined navigation south through three locks. At one point the canal opens up into Acres Lake, which provides a pleasant setting with a back-

drop of forest on the west side and housing set among trees on the east side. An excellent recreational facility developed by the Drumshanbo Community Group has been provided adjacent to the moorings on the lake, providing an important family recreational area. The main views from the canal are contained by the extensive bank side growth of alder, willow and rowan trees. There are some limited views to the west towards wooded hills. The river and canal merge after Battlebridge lock at Drumhierny, where there are glimpsed views of the new marina on the River Shannon.

4.3.3 From here the waterway runs south through wooded areas to its confluence with the Shannon – Erne Waterway on which the village of Leitrim is set, where a large amount of residential and marina development is underway. All this work is highly visible from both the river and canal. Beyond Leitrim village the corridor widens out to reflect the open fields and the area visible from the river, before narrowing again to take account of reed beds and limited views

4.3.4 The distinctive shape of the hills known as Sheemore to the east and Slieve Anierin to the north can clearly be seen, as one approaches the confluence of the Shannon and the Boyle River. A narrow channel extends for 1 kilometre before opening up into Drumharlow. Drumharlow is the ‘known’ name used to describe the area referenced to in the Ord-

nance Survey Maps as Lough Eidin. Drumharlow is a deeply indented water body, with its shape made up of coves and bays interspersed by wooded headlands. Between these headlands the visual horizon extends to low ridges about a kilometre to the north and south. A feature of the lake is Inishatirra, an island located at the eastern end of the lake.

4.3.5 From Drumharlow the river meanders past the golf course and up to the bridge and moorings at the village of Cootehall, which can be seen from the river against a backdrop of low hills. The visual containment is confined to a narrow corridor by the terrain and vegetation along the banks.



Acres Lake

Settlement and Economic Corridor

4.3.6 **Leitrim Village** is the gateway to the Shannon-Erne Waterway and boasts a new floating dock type jetty with excellent facilities for the cruising traffic which pass through. It is well kept village with an excellent reputation in the Tidy Towns competition, with bars, limited restaurants and local shopping provision. The population increased from 587 people in 1996 to 618 people in 2002 resulting in an overall increase of 5.3%.

4.3.7 Close to the village is the last remaining wall of O'Rourke's Castle. O'Sullivan Beare and his followers sought refuge here in January 1603, after their long march from Glengarriff, Co. Kerry. There are no buildings listed as protected structures in the County Development Plan to date.

4.3.8 The village has come under significant development pressure with the opening of the Shannon-Erne Waterway and the sewerage system is now at capacity. There is significant development underway in the village at present with two new marinas, office facilities and apartments granted in 2002 and there is an extant permission for the construction of a hotel, apartments and another marina. A recent planning permission lodged in 2004 for the construction of 40 houses and a 41 berth marina is currently under consideration by the Planning Authority. A study examining the carrying capacity of the village and the adjoining river system should be undertaken to ascertain its capacity to accommodate further development, having regard to the once 'sleepy little hamlet'.

4.3.9 **Cootehall** is an attractive village situated at the bridge over the Boyle River located to the east of Lough Key. In recent years it has come under significant pressure for development, which is likely to intensify once the new sewage treatment works has been constructed. The village has a specific development strategy outlined in the Lough Key Plan, identified as a development node, along with Boyle town. It is considered in the Plan that concentration of development in the village will allow for the possibility of critical mass to develop, providing shops, pubs and restaurants.

4.3.10 Cootehall Castle, near the bridge, was originally a large quadrilateral enclosure with high walls and towers at

each corner. It was attacked and burned by insurgents in 1798. Some remains of the towers are extant together with some of the castle buildings which were later converted into a farmhouse. An eight-arch bridge that crossed the river at this point was replaced by the Shannon Commissioners in the 1840s by a triple arch stone bridge. Cootehall has also a literary connection. It was here that the Irish novelist John McGahern spent his youth and he used the police station here as the setting for his first novel *The Barracks* (1963). In the novel he depicts the atmosphere of the village during the 1940s which traces the terminal illness and death of the sergeant's wife and her loneliness even though she is surrounded by people.

There are four structures/buildings that are listed for protection in the environs of Cootehall as listed in the County Development Plan - St. Michael's Roman Catholic church (built 1846), Oakport House (built c. 1820) and entrance arch located in nearby Oakport demesne and the cylindrical tower and house.

4.3.11 There is a large residential scheme proposed on the triangular green space in the centre of the village and this is currently at further information stage with Roscommon County Council, whilst a new marina development along the existing quay walls downstream of the bridge has been granted permission. Notwithstanding the specific development strategy outlined in the Lough Key Plan, regard must be had to the context and character of Cootehall when assessing development proposals along with the need to protect key village features, such as village greens. Cootehall acts as a gateway to Lough Key at the beginning of a beautiful stretch of water to the lake. The views and prospects of the river from the road should be protected in any future development of the village. The village has excellent potential to further develop its links and can provide a limited alternative to development in the adjoining countryside.



Drumshanbo Town



Leitrim



Cootehall

4.3.12 Covered by RMP map sheets Roscommon: 2, 4 and 7 and Leitrim: 27 there are seventy-eight recorded archaeological sites located within Area 2, dating from the Neolithic period up to post-medieval times, including an unclassified megalithic tomb / enclosures (9) / castles (3) / ringforts (37) / sweat houses (5) / earthworks (6) / a bridge site / canal features (3) / a possible road / a moated site / crannógs (3) / churches (3) / cashels (4) / ecclesiastical remains (2) / an altar / and a graveyard.

4.3.13 The settlement evidence dates largely from the medieval period, and also has a defensive nature in the form of castles, ringforts and a moated site suggesting that Area 2 (particularly those lands located around Hartley, Port and Cleaheen) was utilised as both a politically and economically viable region for local inhabitants who exercised deliberate control of the resources that the waterways corridor provided. Furthermore, they are indicative that certain shallow places along the watercourse were important fording places in the past. This is evident up to the late medieval period with the formation of Cootehall as a village along the Boyle Water by the Coote family who had been granted extensive lands in this area in the seventeenth century.

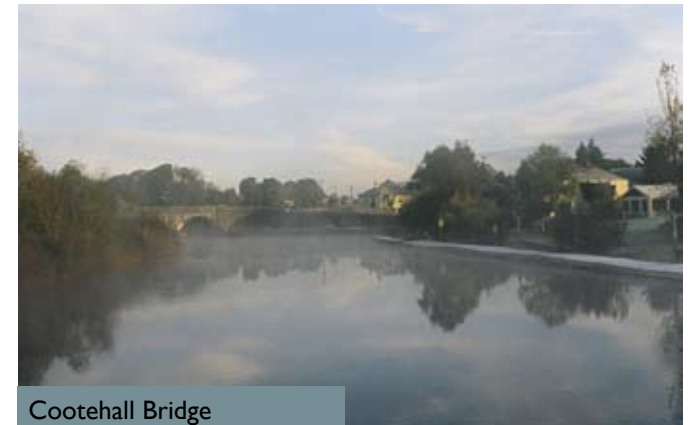
4.3.14 The deck of the old Drumheriff Bridge over the River Shannon located between Drumshanbo and Battlebridge on a county road, has been described as that which conforms very closely with the construction one would expect to find on one of the twelfth century Shannon ces droichets, mentioned so frequently in the Annals. Given the plentiful supply of oak, both bog and fallen trees and the native skill in wickerwork this construction type is quite likely. Overall, the evidence from the records of this bridge is important because of the insight it gives into the traditional early form of Irish bridge on large rivers during the late Christian period.

4.3.15 Apparently a mill existed adjacent to Battlebridge in the 1830s but there is no visible trace of this or the millrace that passed through the small arch of the bridge. The embrasures of the bridge at Battlebridge are an indication of its antiquity which pre-dates the Shannon Commissioner's works. Although its place name suggests a battle took place here, none of note has been traced. However, a few skirmishes did

take place here and also a number of places upstream when General Humbert's forces pushed east after their victory at Castlebar during the Rebellion in 1798.

4.3.16 Although it gives its name to the county, Leitrim is only a village. This short stretch of the tributary of the River Shannon up to Leitrim village was artificially straightened in the 1840s as part of the Ballinamore and Ballyconnell Canal works. A castle once existed near the bridge. The castle, undoubtedly a tower house, was built in 1540 by Brian Ballach O'Rourke (AFM, vol. 5, 1458-9), and it was destroyed in 1580 by Brian of the Ramparts O'Rourke to prevent it falling to Sir Nicholas Maulby. Sir Nicholas rebuilt and garrisoned it, but the castle was immediately besieged by O'Rourke and abandoned by its garrison shortly afterwards (AFM, vol. 5, 1742-3). In January 1603, after the defeat of Kinsale, O'Sullivan Beare rested at Leitrim castle after their long march from Glengarriff, Co. Kerry. Brian Oge O'Rourke, who was the last leader to remain in rebellion, was finally besieged at Leitrim castle. In April Brian Oge fled to Rosa-larla friary in Galway, where he died in January 1604 (Mac an Ghalloglaigh 1971, 238). A length of mortared uncoarsed limestone masonry survives with two small openings which may be part of the bawn wall.

4.3.17 Hartley bridge is located downstream, south of Leitrim village, where the navigation passes awkwardly through a channel near the east bank. This bridge is of cultural heritage importance since it is a very early example of the use of reinforced concrete, dating back to 1912-15. A rail type section, called a 'moss bar' was used as reinforcement, the parapets act as beams, spanning between the supports, and the bridge was constructed to extend out over the floodplain on the west side. Consultation with the Road Design office in Leitrim County Council has confirmed that there are proposals in place to remove Hartley bridge following an assessment on its condition. Presently there are weight restrictions on the bridge and its access alignment is poor. The supporting structures underneath are in a bad state of repair and assessment of this erosion has led to the conclusion that it cannot be retained as a functioning structure. The bridge is not a protected structure, however, due to its cultural heritage significance it is important that the bridge is adequately recorded and photographed prior to its removal.



Cootehall Bridge



Golf Course



Hartley Bridge

4.3.18 On the west shore of Tumna there is the small ruined church and graveyard of St Eidin's. Once through the Tumna shallows the navigation opens out into the broad waters of Drumharlow. There are two examples of moated sites located within the study area with one of them located on Inishtirra Island in Drumharlow Lake. There are a number of country houses located in this area (such as Kilmore house, Oakport House and Woodbrook House), a trend that also continues into the scenic area of Lough Key in Area 3. On the south shore at the upper end of Drumharlow Lake is Woodbrook House, which was immortalised in David Thomson's classic book, *Woodbrook*, in which he describes and evokes Anglo-Irish life from the ten years he spent here in the 1930s as tutor to Major Kirkwood's daughter, Pheobe. The book interweaves nineteenth and early twentieth century political and social Irish history together with the authors developing love for his pupil. In an epilogue he relates returning to Woodbrook in 1968, to find that the Kirkwoods had sold off part of the estate to the local golf club, the wings of the house had been demolished, and a local family, the Maxwells, who had formerly worked on the estate, had bought what remained and lived in a few rooms at the back of the house. Woodbrook House was sold in 1970 to John Malone.

4.3.19 In the 1840s the Shannon Commissioners replaced the old eight-arch bridge at Cootehall with the present three-arch structure. It was originally planned to site the new bridge further downstream nearer the little lake, with an opening span in the centre arch and to realign the road but, a much heavier expenditure than anticipated further downstream forced them to severely curtail their north Shannon plans and thus the bridge was erected on the same site as the old one.



Cootehall



Houses at Clooneigh



Drumharlow



Cootehall



Boyle River



Cootehall

Ecological Corridor

4.3.20 Between Drumshanbo and Carrick-on-Shannon the Shannon meanders through relatively flat land with occasional small, cutover bogs. The floodplain area is not extensive although there are areas of wet grassland and callows (on the northern shore of Drumharlow, for example). Part of the Shannon is canalised between Drumshanbo and Leitrim Village. The main conservation designated area within this section is Drumharlow Lough (within the Boyle River Catchment) the shoreline of which is entirely included as a pNHA. Additionally, some areas of cutover raised bog and Hughestown Wood are included in the designation. Part of the floodplain on the River Shannon is also included in the same designation, north of Carrick-on-Shannon town.

4.3.21 The eleven identified sites in this section of the study area are described in the following order: from North to South to the Boyle River, Drumharlow and Boyle River sites, then Shannon sites from Boyle River to Carrick-on-Shannon. It should be noted that the favoured route for the proposed N4 Carrick-on-Shannon Bypass is intended to go through the pNHA designation at Corryolus.

Acres Lake - A small lake connected via canal to Lough Allen (north) and the Shannon (south). The lake is fringed by common reed and bulrush but the reedbeds are not exten-

sive. There is a zonation of vegetation from reedbeds to wet grassland. Wet grassland dominated by purple moor grass is situated on the eastern shore and fields dominated by soft rush along other shores. Six whooper swans (Annex I of EU Birds Directive) and two mute swans were recorded here in February 2002. The first Irish record for the freshwater snail *Viviparus* was from here and the lake is considered to have high education value.

Dromore/Dereenasoo Bog Complex - This is an extensive cutaway bog complex divided by a small road. The complex extends to the Feorish River (to the west) and is divided into two distinct peat masses connected by a small area of damaged bog. Dereenasoo bog is north of the road, Dromore to the south. Dromore bog is relatively small and is bordered by birch woodland to the south west and coniferous forestry to the south. It is still reasonably wet, with good vegetation cover. Ling heather, bog cotton and purple moor grass provide most vegetation cover, although certain areas are solely dominated by purple moor grass. There are some hummocks and hollows but these are not very pronounced. Other species include bog rosemary, bog asphodel, cross-leaved heath, bog myrtle, carnation sedge, deergrass and white beaked sedge. Dereenasoo Bog is more extensive. In the main peat area *Sphagna* are abundant and there are well developed hummocks, hollows and lawns. Ericoids, bog cottons and *Sphagna* provide the dominant plant cover. Ling heather, cross-leaved heath, bog rosemary and a number of *Sphagna* spp. have been recorded.

Drumhierney Wood - This is a proposed Natural Heritage Area with oak-ash-hazel woodland. The canopy is dominated by pedunculate oak. Beech, sycamore, wych elm and sessile oak are also present. The shrub layer includes hazel, blackthorn and young ash. The field layer is relatively diverse and includes wood sedge, broad buckler fern, male fern, primrose and herb bennett.

Lough Drumharlow - Drumharlow is categorised as a mesotrophic lake. The entire lake is included in the Lough Drumharlow proposed Natural Heritage Area. This designation also includes parts of the Shannon upstream of Drumharlow. Vegetation within the designation includes callows (wet grassland and marsh mosaics) and cutover raised bog. The designation also includes feeding areas for Greenland white-fronted goose (Annex I EU Birds Directive). Included within the designation are Lough Naseer, Shannon floodplain areas at Caldragh, Corryolus (fen peat is the underlying substrate in both areas) and Annaghbeg. The main Drumharlow floodplain area is at Cleaheen (south of the road). A large area of raised bog, partly cutaway, is included at Derreenannagh, and semi-natural woodland at Hughestown. The rare plant bird's nest orchid has been recorded from Hughestown Wood along with a rare fungus *Paradiacheopsis rigida*. A diverse list of plant species is present in the callows. Floodplain vegetation at Cleaheen includes purple moor grass, marsh pennywort, devil's bit scabious, water mint, star sedge, bottle sedge, tufted hair grass, angelica, marsh bedstraw and yellow flag. At Derreenannagh Bog a possible



Drumharlow

nesting pair of the Annex I bird species, hen harrier, has been recorded. If nesting, the pair are likely to use young conifer plantation which is not included in the pNHA designation. In addition, the Annex I bird species, merlin, has been recorded from the bog. Lough Drumharlow is an I-WeBS count site. Species that have been recorded there include teal, wigeon, cormorant, great crested grebe, little grebe, mute and whooper swans (Annex I of EU Birds Directive), heron and curlew. Large numbers of golden eye have been recorded here (winter 1998-99), although numbers have not been known to exceed national or international thresholds.

The Drumharlow flock of Greenland white-fronted geese has undergone serious decline in the past 10 years. The decline may be attributable to a number of factors including problems at summer breeding sites in Greenland, over-hunting of the bird in Iceland, and/or habitat loss in traditional wintering areas in Ireland. At Drumharlow, there may be an underlying trend towards abandonment of marginal floodplain areas. This leads to the development of tall grasses and, eventually, succession to scrub. If floodplain areas are not grazed or mowed they will cease to be of use to the Greenland white-fronted goose which prefers open ground to forage.

Carrigeen - Additional Greenland white-fronted goose grazing site that is not included in the pNHA designation. The area includes a mosaic of wet grassland, marsh and cutover raised bog habitats.

Dergrow - Additional feeding site of Greenland white-fronted goose that is not included in the pNHA designation.

Cloongownagh - Additional floodplain area on south side of N4 where large numbers of whooper swans (Annex I of EU Birds Directive) have been observed in winter (97 observed February 2002, does not exceed national or international thresholds).

Cloonybrien - Limestone exposure at water level along the Boyle River.

Cootehall Lough - Floodplain area, situated directly south of Cootehall Bridge, with extensive reed-bed and swamp vegetation.

Cloonmaan/Cloonskeveen (Shannon) - Additional Shannon floodplain areas with rough pasture/wet grassland/

marsh vegetation. The N4 Carrick-on-Shannon Bypass, favoured route, may cut through this floodplain area.

Carrickslavan (east of Leitrim village) - Adjacent to study area this small turlough that does not fully drain in summer. The scarce emerald damselfly is a rare damselfly species that has been recorded here.



Cootehall

INSERT A3 OF MAP 2 (c)
Cootehall to Lough Key (Area 3)

4.4 Lough Key to Cootehall (Area 3)

Corridor Approach

4.4.1 The defined waterway corridor for Area 3 is identified on Map 2c going upstream from Cootehall to Lough Key, including Knockvicar and the town of Boyle. The corridor extends significantly beyond the settlement of Knockvicar, protecting Lough Key and its surrounding area as a key strategic resource in North Roscommon.

Landscape and Visual Corridor

4.4.2 Leaving Cootehall the river opens out into Oakport Lough where views of approximately 1 to 2 km are afforded to the north and to the south. Visually the course of the river to Knockvicar is contained on the southern side by thick vegetation. On the opposite, northern bank low hills contain the immediate horizon within half a kilometre of the river. However there are glimpses of the mountains around Lough Allen to the north.

4.4.3 At Knockvicar a three arch stone road bridge crosses the river adjacent to a quayside and this bridge was also replaced by the Shannon Commissioners. Just downstream of Knockvicar new extended marina facilities have recently been constructed and planning permission exists for 13 no. holiday residential units. Here the water narrows to a channel a few hundred metres wide enclosed to the north by a low ridge and by dense woodland along the shore on the southern side terminating at Clarendon Lock. Both the weir and the Lock

(1848) provide a picturesque setting enclosed by woods.

4.4.4 Past Clarendon Lock the watercourse broadens out into Lough Key with a marina on the north-eastern shore of this arm of the lake. Lough Key provides a beautiful and picturesque setting. The lake forms the most westerly water body of this branch of the Shannon system; it is approximately 3km from east to west and 2 to 3km north to south. The lake surface is studded by a number of wooded islands, of which some are Iron Age Crannógs. The most distinctive of these islands is Castle Island with its ivy-clad ruin visible above the trees.

4.4.5 Along the southern shore of the lake an extensive Forest Park is to be found. This forest area is generally low lying and undulating and thickly clad with woods. The original approach to the Rockingham Estate is marked by an elaborate and distinctive gateway and main gatehouse. The forest area contains camping areas, walks and trails as well as a parking area and boat mooring quay set around a visitor centre at Rockingham Demesne. Here the ruins of the old church contrast with the visitor centre a low timber building with a glazed cafeteria facing the water. There is a large parking area, seating areas and quayside facilities for boats. The area here is somewhat blighted by the large mass concrete Moylurg viewing tower that dominates the adjacent hill, which was the site of the former Rockingham House.

4.4.6 There are extensive plans to undertake significant tourism and recreational facilities in Lough Key. Coillte have proposals to develop Lough Key as an activity/adventure centre aimed at children and teenagers, with an emphasis on education and increasing environmental awareness. Activities pro-

posed include orienteering, pony trekking, rock climbing on the observation tower and a 'tree-top' walk. A planning application was recently lodged with Roscommon County Council by Canadian developers, proposing a £100 million eco-tourism development on newly acquired land surrounding the existing Forest Park, including a five star hotel, golf course, forest chalets, restaurants and bars.

4.4.7 To the south west of the lake the profile of the town of Boyle can be seen, where new harbour facilities are situated at the head of the canal adjacent to the Boyle River. The land around the town is a low-lying flood plain with wooded slopes to the north.

4.4.8 The land rises towards the Curlew Mountains (250m) on the west side of the lake. The wooded slopes provide excellent scenic enclosure from this direction. The N4 to Sligo passes close to the lake and from it the 'Arigna Scenic Drive' follows the western shore providing excellent panoramic views back over the water.

4.4.9 Along the northern shore wooded slopes rise up elevating the ground and enclosing the lake in that direction. The road to Knockvicar offers intermittent panoramic views over the lake, whilst looking to the north the visual horizon is contained by wooded hills some 2km distant.



Lough Key, Rockingham Estate

Settlement and Economic Corridor

4.4.9 **Boyle** is the principal town in north Roscommon lying at the foot of the Curlew Mountains. Boyle has not enjoyed the prosperity and growth that other towns of similar size have experienced in recent years, falling in population from 2222 in 1996, to 2205 in 2002. The town has recently benefited from an upgrade in the sewage treatment plant and the construction of a by-pass road removing Dublin-Sligo through traffic and creating a more attractive environment in which to live. Boyle is earmarked as a development node in the Lough Key Plan, relieving development pressure from the countryside.

4.4.10 Boyle has many historical buildings and archaeological sites, which are of national importance, with Boyle Abbey one of the best-preserved historical sites in Ireland. The ruins of Boyle Abbey retain the classic lay-out of a Cistercian monastery. The church took many years to build and displays a changing architectural style: Romanesque evolving into Gothic, spanning approximately the first sixty years of the monastery's existence. The abbey was one of the largest and wealthiest in Connaught and it took a leading role on the Irish side when a split developed in the Cistercian order in Ireland in the early thirteenth century by opposing the growing determination

of the Anglo-Normans, and it was plundered by the latter in 1235. King House, the original early eighteenth century residence of the King family, later Earls of Kingston, is situated within the town of Boyle itself rather than within a demesne. It is a large 'U' shaped mansion, two-storey over basement, with a partly gabled attic, probably designed by William Halfpenny, an assistant of Sir Edward Lovett Pearce; and built for Sir Henry King, 3rd Bt, MP, who died in 1739. There are several other buildings of note within the environs of Boyle and in total there are thirty protected structures listed in the County Development Plan, as well as a further twenty-two which are sited on the Rockingham estate in Lough Key Forest Park.

4.4.11 A sign-posted walking tour of the town leads to all its major locations. The Shannon navigation system was recently extended close to the town, linking the town with the waterways and it has been reflected that bars, restaurants and shops have benefited economically from the linkage. It has been further reflected, however, that there is general confusion upon mooring in Boyle Harbour as to the location of the town and possible transport. An information panel needs to be provided at the mooring facility on the Boyle River to entice people into the town.



Lough Key



Lough Key



Lough Key

Cultural and Historic Corridor

4.4.12 Covered by RMP map sheet Roscommon: 6 there are one hundred and one recorded archaeological monuments located within Area 3 dating possibly as far back as the Bronze Age up to Post Medieval times. These sites include cashels (2) / a children's burial ground / ecclesiastical remains (4) / abbeys (2) / churches (4) / stone sculpture / oratory / possible promontory fort / enclosures (31) / ringforts (13) / mound / building / weir / holy wells (3) / house site (2) / dwelling / earthworks (7) / deer park / souterrain / possible road / crannógs (9) / fulacht fiadh / field banks (3) / castle / tower / burial ground / nunnery tradition / historic town (Boyle) / possible barrow / deserted settlement / and a bridge. It is notable that in this area a distinct religious tradition was set up in the early medieval period in the form of ecclesiastical remains and abbeys mostly on Lough Key itself. The area was also densely populated at this time, especially within the portion of Rockingham since the majority of enclosures are located there as well as crannógs on the shores of the lake.

4.4.13 Knockvicar bridge, the same design as Cootehall, was to be moved a short distance downstream to permit realigning a new road but, as at Cootehall, the cheaper option of erecting a new bridge on the old site was adopted. There was a mill on the west side of the bridge in existence at this time and the old millrace can be traced in the grounds of the millhouse above the bridge. At Clarendon lock the Commissioners constructed a lock, naming it after the Lord Lieutenant of the time, and beside the lock they built an open weir. New gates were installed in 1958 and a new quay stretches up towards Lough Key.

4.4.14 There are a number of country houses including Errironagh House, Riversdale House and Rockingham Demesne lying within this section of the study area, with the latter administered by the Forest and Wildlife Service as a forest park. Rockingham house was badly damaged by fire in 1957 and subsequently demolished and the entire estate was bought by the government two years later to become one of Ireland's first forest parks. Cloontykilla Castle, an early 19th century ruinous hunting lodge of Rockingham Estate is located on the southern shore of the lake.

Other interesting features are the estate church, the farm buildings, an ice house, a wishing chair and 'The Temple', a gazebo down on the lakeshore. There are two canals spanned by the ornamental bridges, a bog garden and, away to the north-east, another canal with a lock which was used to bring down turf from the neighbouring bog.

4.4.15 Lough Key is an interesting lake with several small islands and extensive archaeological remains of medieval date. Evidence of Mesolithic human settlement within the waterways corridor is provided by artefactual finds that have been discovered in a water-based context on the shores of Lough Key. On MacDermot's Rock (Castle Island), during the eighteenth century, Lord Lorton built a type of folly castle using parts of the old castle which were still standing. Francis Grose included a drawing of the Rock made in 1792 in his *Antiquities of Ireland* which gives an impression of how it looked before the new castle was built. The entire island is shown as a fortified structure with massive walls built right out to the shoreline and with the ruins of the castle within. Lord Lorton's new castle was lavishly furnished and used as a guest house but it, too, was badly damaged by fire and never restored.

4.4.16 Trinity Island had been given by the MacDermot's to the White Canons of St Francis, Premonstratensian Canons, in the thirteenth century. They remained on the island until the suppression of the monasteries in the early 1600s and it was here that the *Annals of Loch Cé* were written which have left us such a wealth of information about the family. The original book is in the library of Trinity College Dublin and the annals trace the history of the area and of the abbey. Excavations have taken place on Church Island and Trinity Island on Lough Key with a bid to initiate a programme of conservation works.

4.4.17 The Shannon Commissioners removed the bends on the Boyle River and dredged up to Boathouse Ford, which is c. 3km from the town of Boyle, but they did not attempt to extend the navigation any further because there is a rise of c. 10m from here to the bridge at Boyle. In this area the river is in fact a mill race and the slope provided a force of water sufficient to power four turbines in the bed of the river, two of which powered the mills which ground grains, and the oth-

er two each powering a 60 horsepower DC generator. Along with two single-cylinder Blackstone diesel generators, the river generators supplied power and lighting to the mills and to homes from 1901 until 1966, when government electricity was provided.

4.4.18 The Shannon Commissioners constructed a road along the river which is a more direct route into Boyle than the old road across Drum Bridge. There are the well known and extensive ruins of a Cistercian Abbey, founded in 1161 on the site of an earlier religious settlement. Although it survived the dissolution of the monasteries in the reign of Henry VIII, it did not escape in the reign of Elizabeth I and the lands finally came into the possession of the King family. The abbey buildings were subsequently used as a military barracks by Cromwellian soldiers.

4.4.19 A five-span masonry arch bridge spans the Boyle water at the entrance to the former Cistercian Abbey. It is an important bridge from a historical point of view since it seems never to have been widened or reconstructed. It is built in the Irish Romanesque style and there are two other bridges in the town, New Bridge bridge and Town Bridge, both built in the nineteenth century. The most notable feature is the massive triangular upriver cutwaters which extend upward to road level and are coped with stone slabs laid flat. There are none on the downriver face. The bridge marks a transition from the traditional Irish to Anglo-Norman forms of construction. Most importantly it is one of the very few early survivors with some (circular) segmental arches.

Ecological Corridor

4.4.20 Lough Key is a large mesotrophic lake on the Boyle River system. A number of islands and small stretches of Lough Key's shoreline (Drum Bridge, Drumman's Island, Hogs Island, Corrigeenroe Marsh, Tawnytaskin Wood) including marsh, fen and woodland vegetation are included in pNHA designations. Fin Lough is an additional pNHA which is situated south of Knockvicar. The pNHAs are described in an anti-clockwise direction around the lake shore from Corrigeenroe Marsh in the north-west corner.

Corrigeenroe Marsh pNHA - This area is described as 'A series of marsh communities ranging from Reeds swamp to wet meadows and swamp woodland. Some quaking areas are present. The species-rich fens and lake edge communities include elongated sedge *Carex elongata*'. Elongated sedge is listed in the Red Data Book. Transition mire and quaking bog are listed in Annex I of the EU Habitats Directive, along with rich fen and flush. It is not entirely clear whether the habitats described conform to the EU criteria.

Weir at Knockvicar to Oakport - Fringe of wet woodland with ash, alder, hazel, grey willow. Common reed and water horsetail are present in fringes along woodland. In drier areas away from shoreline beech, sycamore and horsechestnut are present. Other species include guelder rose and hart's tongue fern.

Oakport Lake - This is a small lake to the west of Cootehall with occasional reedbeds and fringing wet woodland of willow and alder. Bewick swans (Annex I on the EU Birds Directive) have been recorded from here. Important buffer zone for nearby pNHA, Lough Drumharlow.

Hog's Island - This is a wooded island off the western shore of Lough Key. Ash is the dominant canopy former. Other canopy species include sycamore and beech. The field layer includes ivy, cow parsley, bluebell and hogweed. The presence of goats may be detrimental to natural regeneration of tree and shrub species on the island. Several species of warbler and other songbirds nest on the island.

Tawnytaskin Wood - This is a semi-natural woodland with pedunculate oak, ash, grey willow and beech. Sessile oak and downy birch are also present. Shrub species include hazel and spindle. Areas of wet woodland (willow-ash-alder) can be found around the lake shore. In and around these areas is a diverse field layer with herb bennett, marsh bedstraw, hedge woundwort, remote sedge and sanicle. Some reed beds and marsh are included in the designation.

Drum Bridge - This site is situated in a shallow inlet of Lough Key. It includes a low lying marshy area partly derived from cutover bog but it mainly occurs on mineral soil. In deep water in the inlet there is common club-rush and common reed with great water dock and other species. The rare plant species, common meadow-rue, has been recorded here, along with the rare sedge – elongated sedge. Along the margins, rushes, marsh horsetail and marsh willowherb are present. Additional species on the site include marsh bedstraw, fen bedstraw, long-stalked yellow-sedge, marsh cinquefoil and marsh pennywort.

Drumman's Island - This is an additional proposed Natural Heritage Area along the shores of Lough Key. It includes some semi-natural oak-ash-hazel woodland along with some conifer and non-native broadleaved woodland areas. Pedunculate oak and ash are the main canopy species. Sycamore is also present. The shrub layer includes hazel, holly and hawthorn. The non-native, invasive shrub, cherry laurel is also present in parts of the site. A number of field layer species are present and include bluebells, wood sorrel, enchanter's nightshade, male fern, broad buckler fern and dog violet. The rare and Red Data Listed bird's nest orchid has been recorded from the wood, along with the uncommon shrub species – buckthorn. Reed beds with common reed are situated along parts of the site.

Fin Lough - This proposed Natural Heritage Area is located east of Lough Key, close to the R285 road. It is a shallow lake that is surrounded by extensive reed beds and fen. Common reed is the main species present in reed beds. Fen areas are dominated by black bog-rush and various sedges. Bog bean, marsh cinquefoil, gipsywort and common cotton grass are among the other species present, particularly in wet areas. In dry areas purple moor grass and silverweed may be found, along with yellow rattle. The site is important for nesting wild-

fowl and reed buntings. It is also used as a coarse fishery.

4.4.21 There are an additional nine undesignated, areas of interest at Lough Key as follows:

Lough Key Islands - Ash, Bingham, Bullock, Castle, Church, Green, Hermit, Lahan's, Orchard, Sally, Stag, and Trinity Islands all appear to have good quality broadleaved woodland habitat. In some cases, non-native conifers and broadleaves such as beech are also evident. However these islands require further detailed survey to evaluate conservation interest.

Tinnarinnow Peninsula - An area with semi-natural woodland canopy of ash and oak. Wet willow-ash-alder woodland is present along the shoreline with a canopy of birch, alder and willows.

Erris Bay - Erris Bay is an extensive wetland area of rushes and reeds with copses of birch, willow and alder. Common reed, common club rush, water horsetail and bur-reed are among the species present.

Lough Key Forest Park - This area was formerly Rockingham Desmesne and it presently includes extensive non-native conifer woodland and mixed broadleaved woodland. A number of bat species have been recorded from this park including brown long-eared, soprano pipistrelle, Leisler's, Natterer's and Daubenton's. A number of specimen trees including a horse chestnut, monterey pine, western red cedar, grand fir and two European larch from Rockingham Demesne are included in the Tree Register of Ireland.

Lough Keel - A small circular lake with a fringe of reed beds that grade into rushy fields.

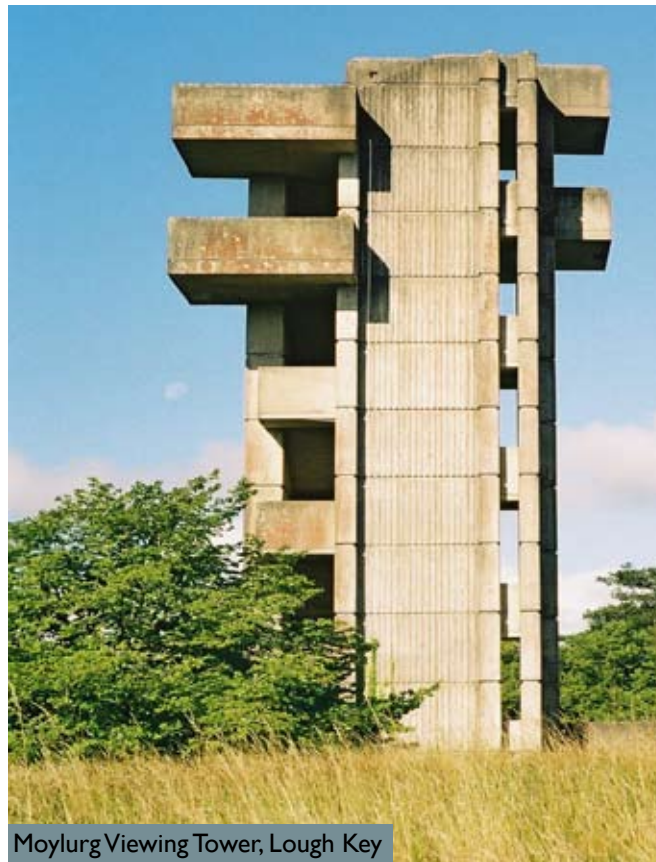
Ballyardan - A small, narrow area of broadleaf woodland with ash, hawthorn and blackthorn. Beech is also present. This woodland is situated along the R285 road from Boyle to Keadew.

Black Lake - This is a small circular lake completely surrounded by coniferous plantation in Rockingham Demesne. The lake shows zonation from emergent aquatics such as horsetails, to

a fringe of large sedges (*Carex paniculata*) with bulrush and reeds, and finally to a small area of wet woodland with birch, willow and alder around the lake.

Poteen Hill Bog - This is a cutover raised bog that is surrounded by conifer plantation. It is a nature reserve. There has been some encroachment of birch and rhododendron onto the bog margins, where the peat has dried out. The hummock and hollow structure is not well developed. The lichen, *Cladonia impexa*, is abundant. Bog cottons, ling heather, cross-leaved heath, deer grass, bog and carnation sedge are present on the north side of the road. South of the road the bog is slightly wetter, with a similar species complement to the other half, with white beaked sedge also present.

Drumcormick Peninsula - This peninsula is situated on the north eastern shore of Lough Key. It is dominated by broadleaf woodland of ash and oak. Birch is present in the understorey. There is also wet woodland fringing the lake which includes alder, willows and birch.



Moylurg Viewing Tower, Lough Key



Boyle Harbour



Visitor Centre



Lough Key

INSERT A3 OF MAP 2 (d)
Carrick-on-Shannon – Roosky (Area 4)

4.5 Carrick-on-Shannon – Roosky (Area 4)

Corridor Approach

4.5.1 The defined waterway corridor for Area 4 is identified on Map 2d running downstream from Carrick-on-Shannon, including Jamestown and Drumsna and the non-navigable River Shannon 'loop' that links both settlements. Moving along the Jamestown Canal and through Albert Lock, the corridor extends into Lough Boderg and Lough Bofin, encompassing the village of Dromod before terminating at Roosky village.

Landscape and Visual Corridor

4.5.2 Carrick-on-Shannon is the largest town along this part of the river, with a long stone bridge carrying the N4 over the river. There are extensive boating facilities and mostly private moorings along the eastern bank to the north of the bridge. The offices and maintenance facilities of the two main holiday boat hire companies, Carrick Craft and Emerald Star Line are situated here. Large blocks of recent residential development dominate the opposite bank on the Roscommon side.

4.5.3 From the town the river meanders to the east through Lough Corry. Here the Iron Age earthwork known as 'An Dun' follows the southern shore of the river towards Jamestown. The land here is relatively flat and views are contained within a kilometre of the river by woods and hedgerows. Navigation is terminated before Jamestown Bridge where river traffic turns east into the Jamestown Canal.

4.5.4 The canal provides a link extending over 2km to the east, crossed by two stone road bridges and providing a lock and separate moorings at the eastern end. This cuts off approximately 7km of the river that loops around Drumsna. The banks of the narrow canal are heavily tree lined with exposed rock from the cutting of the canal visible near the western end. Generally bank side trees confine views, but there are sections where limited views to the south are achieved over

the recently constructed linear Jamestown marina.

4.5.5 The end of the canal opens out into Lough Nanoge. Upstream towards Drumsna the visual horizon is contained by woodlands and by a series of low hills on the east side. A long stone bridge and quayside facilities dominates the approach to Drumsna, whilst the newly constructed sewerage treatment facility visually dominates the eastern bank. The visual landscape is very much dominated by the large Masonite industrial plant and associated power cables, rising up over the trees at Darryoughter. The appearance of this works is highly intrusive on the rural setting.

4.5.6 Further south a steel girder bridge carries the rail line over the river just before it opens into Lough Tap. The river then narrows again to its normal width for a kilometre to the south. A line of cables crosses the river from east to west before the waterway opens out into Lough Boderg. This water body is approximately 3.5km long from north to south and just over a kilometre at its widest point. Generally views are confined to the nearest ridge or at the shoreline by woodlands. There are a number of individual houses that overlook the water from prominent positions intruding on the landscape. To the south there are middle distant views of Mullaghmacormick a forest-clad hill some 2km away that rises to over 120m.

4.5.7 At the southeast end of the lake, Derrycarne Narrow on the eastern side, opens into the wooded shores of Lough Bofin. The northern section of the lake is entirely surrounded by wooded areas, which limits views to the shoreline. On the eastern bank the land terminates in a wooded headland, separating Lough Bofin from Lough Scannal and known as Inchmurrin or Rabbit Island.

4.5.8 Lough Scannal is a large spur of water approximately 2km long that points north. Within the lake views are contained to the east and west by tree cover. The view to the north extends about a kilometre over fields and hedgerows to the hamlet of Fearnaght where a substantial commercial feeds building is visible.

4.5.9 Back in Lough Bofin the view to the west and south

is of a low flat shoreline with the forested hills by Kilglass visible in the distance. Along the southern shore isolated dwellings are visible along with recent housing in the west part of Roosky. Along the eastern shore views are mainly contained by the wooded shoreline, with a large unsightly residential development adjacent to the harbour at Dromod impacting on the shoreline. This development is highly visible from the water with its scale not in keeping with the picturesque rural lakeside setting.

4.5.10 The Shannon re-emerges as a river and flows south past Pigeon Island for 2km to the village Roosky where quayside-mooring facilities are located. The Carnadoe Waters are referred to in Section 4.6.



Carrick on Shannon

Settlement and Economic Corridor

4.5.11 Carrick-on-Shannon straddling the counties Leitrim and Roscommon lies alongside the River Shannon. The town experienced dramatic population growth over the last inter-censal period, recording growth of almost 25%, the highest growth rate of any town in the country. In 2002 the town recorded a population of greater than 2,000 persons for the first time since 1981. Although not quantifiable, it is considered that the Rural Renewal Scheme and the expansion of MBNA have contributed to growth in the town. MBNA is the single biggest employer in the town, whilst the IDA holds 15 acres at Keenaghan and has already constructed a 25,000sqft advance building on the site.

4.5.12 The town is identified in the National Spatial Strategy as performing regionally strategic residential, employment, administrative and other service functions. Carrick-on-Shannon is identified in the Leitrim County Development Plan 2003 as one of two principal engines for future economic development in the northwest region'. As such the town has major potential to develop, acting as a catalyst for the economic and social regeneration of County Leitrim.

4.5.13 Substantial residential development has occurred on the western bank of the river in Co. Roscommon with associated marina facilities, whilst planning permissions have been granted for two marinas, a business technology park, hotel and substantial residential development at Townparks. Carrick-on-Shannon has experienced unprecedented residential development in recent years and this is more than likely attributable to the incentives available under the Rural Renewal Scheme.

4.5.14 Carrick-on-Shannon is a thriving centre, well served with amenities and utilising the great potential of the Shannon. In recent years the profile of the tourism industry has been greatly raised with the development of river related tourism holidays, principally cruising and angling. The expansion in the number of quality hotel rooms, conference and meeting facilities in the town has enhanced the attractiveness of the town as a tourism destination. There are activities in the area for all

ages including golf, tennis, swimming, canoeing, rowing, water-skiing, sailing, boating and guided walks. The Old Barrel Store Arts and Crafts Co-operative, formed in 1987 by artists and crafts people living in Carrick and the surrounding area for the display, promotion and sale of their work, is also a significant attraction. Excellent opportunities exist to develop walks along the riverbank and open up visual and physical access to the river. Potential also exists to redevelop the riverside lands and quay area within the town so as to maximise the potential of the river for the town as an amenity.

4.5.15 There are several interesting buildings located within the town. In the late twentieth century an old jail complex was removed to make way for a marina, however an eighteenth century former court house remains. St Mary's Catholic Church was designed by William Hague in 1879 and completed 50 years later by his pupil T.F. McNamara, who added a tower and installed stained glass over the high altar (Williams 1994). The original high altar was dismantled in 1979, parts of it distributed to a new tabernacle in the chapel on the right and to a new baptismal font in the chapel on the left. The construction of Costello Chapel, a small stone roofed oratory, was commissioned by a local shop keeper, Edward Costello, who lost his wife in 1877. Originally a Methodist chapel, it was completed in 1879 although no architect is recorded. Hatley Manor, a town palazzo is entered by a forecourt off the main street, and was built by a branch of the St George family in the 1830s. There are some twenty-six structures/buildings in total that are listed for protection in Carrick-on-Shannon as referenced in the Leitrim Development Plan.

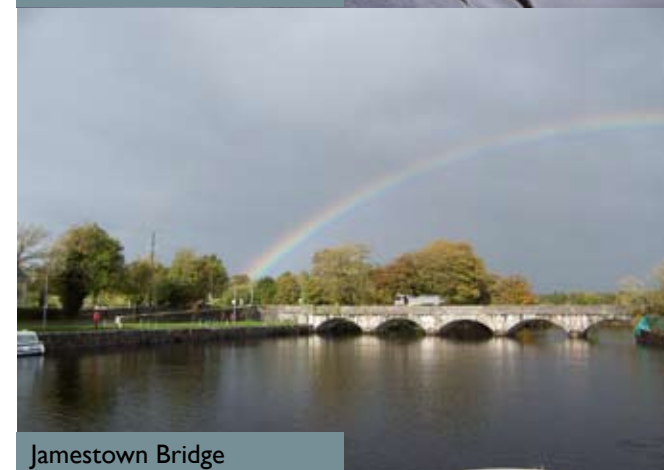
4.5.16 Located less than 5km from Carrick-on-Shannon, the Jacobite town of Jamestown is one of the most historic spots in County Leitrim. It was recognised as an important strategic site for a fortified town and in 1623, Sir Charles Coote surrounded the town with walls and erected a castle on the banks of the Shannon, which, in 1645 was besieged and taken by the Earl of Carlingford. Little remains of the castle however there are some ruins of a church and graveyard just beyond the north gate. The ruins of a monastery can still be seen in the present graveyard in the village. The Roman Catholic church in Jamestown is the only building listed as a protected structure in the County Development Plan.



Carrick on Shannon



Carrick on Shannon



Jamestown Bridge

4.5.17 **Jamestown** provides an ideal location for fishing and is a pleasant mooring spot for boating with a grass area beside the quay. The village is just short walk from the quay where basic supplies and facilities are available. There is no public sewerage system in Jamestown at present although it is included in a Programme of Works for DoEHLG approval. A lack of sewerage facilities in the past may have protected the village from development. The attractiveness of the village and the availability of services may contribute to increased development pressure in the future.

4.5.18 There is no statutory Local Area Plan (LAP) for Jamestown, although a non-statutory Urban Framework Plan has been prepared for the village with particular emphasis on the architectural treatment of the village. It is imperative that the architectural merit of the village is protected when considering any future development and in this regard the preparation of a Village Design Statement should be considered.

4.5.19 The main Dublin to Sligo road once ran through this village of **Drumsna** and the neighbouring village of Jamestown, and even then the village managed to retain its old fashioned 'country village' character. The population of the village grew by 21% between 1996 and 2002 to a population of 173 persons.

4.5.20 Drumsna is situated on the loop of the Shannon, which was by-passed by the Jamestown Canal. The river is still, however, navigable as far as Drumsna bridge, which was one of the few bridges not to be replaced by the Shannon Commissioners in the nineteenth century. A pleasant little village situated on a hill overlooking the Shannon it has many historical associations. The Roman Catholic Church at Drumsna, dating to 1845, is listed as a protected structure in the county development plan. In addition, both the Roman Catholic and the Church of Ireland churches at Annaduff are listed as protected structures.

4.5.21 There are a few shops and pubs in the village and users of the waterways have the benefit of mooring within the village on the quayside wall, close to all necessary amenities. The village has excellent potential for limited future development, having regard to the character of the area and should be

co-ordinated by means of a Village Design Statement or LAP.

4.5.22 Divided by the N4, the population of **Dromod** increased substantially by 20.5% in the last intercensal period, increasing from 424 in 1996 to 511 persons in 2002. The village had the greatest population increase in the Mohill rural area and is testimony to its attractiveness as a place to live. Even today there is significant pressure for residential development on the shores of Bofin and Boderg outside the visible village boundary.

4.5.23 Substantial residential and waterside development has been permitted and is under construction outside the visible village boundary to the south. The development includes an aparthotel, gym, 9-hole golf course and substantial residential development and fronts the waterways immediately downstream of the public harbour. The development is very visible from Lough Bofin and does not integrate well into the landscape.

4.5.24 Dromod has significant potential to further develop its tourism market and to develop its residential and commercial base in a cohesive and integrated manner. The village does not have a specific LAP to guide and co-ordinate future development and consideration should be given to the preparation of some form of plan / development boundary to ensure the integrity of the village is protected.

4.5.25 In 1994 Dromod won the Irish Tourist Board County Award Competition for its valuable contribution to Irish Tourism, and its work towards improving the environment. The village has a modern harbour at a particularly pretty tree-lined section of the river and services include a Post Office, shops, pubs and a restaurant. In 1994 the people of Dromod commenced a comprehensive programme to enhance the area in order to make it a more pleasant place to visit and live. The programme includes the restoration of old buildings and natural amenities, landscaping and construction of stonewalls to improve the village. There is an established horse jumping and pony trekking centre in Dromod, located approximately 3.2km from the marina and a shuttle service is operated free of charge. The restoration of the old Cavan and Leitrim narrow gauge railway is a major venture in the area. The steam

engines are back in use and many of the old buildings such as the Stone Water Tower and Engine shed have been carefully restored.

4.5.26 Originating with the establishment of iron ore smelting works, which were carried on successfully until the supply of fuel failed in 1798, the old harbour at Dromod was built by the Directors General of Inland Navigation in 1829 at a cost of £139. The Board of Works lowered the walls of the old harbour to accommodate modern cruisers and a new harbour has now been constructed here to cater for the increasing traffic. There are no buildings in Dromod listed for protection in the county development plan to date.

4.5.27 **Roosky** meaning 'marshy place' is a pleasant village straddling the Shannon, where the counties of Leitrim, Longford and Roscommon meet. Traditionally suffering from population decline, the population of Roosky actually increased by 13.4% between 1996 and 2002 to a population of 508 people. However, total population has still not reached the 1986 population figure of 541 or of 1,016 in 1961 when the population of Roosky peaked. The partial closure, as a result of fire, of the village's largest employer, a Glanbia meat processing factory in May 2002 does nothing to improve population levels as staff numbers decreased from 450 to a current level of 95 in the cannery operation.

4.5.28 The urban form of the village on the Roscommon side (western side) is currently very dispersed. However, the Roosky LAP does state that the potential for future development in the village will largely be concentrated on the western side, adjoining Lough Bofin and this should contribute to greater infill development. A 'River Activity Zone' has been designated on the southern banks of the Shannon, whilst housing and associated marina development has been zoned on the shores of Lough Bofin. Development is currently underway on the housing and marina development zoning consisting of 44 no. houses and a 68 berth marina.

4.5.29 There is a diverse range of buildings and features in Roosky all of which contribute to its built heritage. Mount Carmel Church is dominant in the streetscape at the west end of the village, while the bridge which dates back to 1845 is a

striking feature at the east end of the village. In between are many buildings, commercial, recreational and residential which contribute to the village's attractive streetscape. These include the 'Cloudland Ballroom' which represents an era in Irish social history as well as being a distinct building in the village. The Water Tower is another unusual feature in the village, while the Garda Station along Main Street is part of an attractive terrace, which retains its traditional sash windows. The former Mount Carmel Guesthouse adjacent to the bridge is a period dwelling with many fine features such as its elevated chimney stack. A number of houses in the village also retain their original features such as sash windows. There are no structures in Roosky included on the Record of Protected Structures to date.

4.5.30 The waterways tourism product and the benefits derived locally from the navigation are restricted by limited mooring in the village and north of the bridge. Other factors include the out-of-use toilet and shower facility on the west quay and lack of lighting. On the east bank right at the bridge, there is a hotel called the Shannon Key West Hotel, with 40 bedrooms. Despite the fact that Roosky is a small village, it is an important centre providing easy access to the waterways, but requiring additional facilities.



Lough Boderg



Rabbit Island, Lough Bofin



Lough Boderg



Lough Boderg

Cultural and Historic Corridor

4.5.31 Covered by RMP map sheets Roscommon: 11, 12, 18 and 24 and Leitrim: 31, 32, 35 and 37, there are ninety-three recorded archaeological sites located within this section of the study area, consisting of bridge sites (2) / ringforts (36) / rectangular enclosures (2) / enclosures (16) / crannógs (4) / earthworks (11) / linear earthworks (4) / churches (5) / graveyard / castle site / mound (2) / bullaun / cairn / fortified house site / historic towns (Carrick-on-Shannon & Jamestown) / and fulachta fiadh (4). Similar to Areas 2 and 3, this portion of the waterways corridor was also heavily settled during the medieval period as indicated by the high number of surviving earth-built site types such as ringforts, enclosures and earthworks, particularly in areas surrounding Corry.

4.4.32 In the 1830s, when Rhodes was surveying the river for the Shannon Commission, Carrick was a town of some 2000 inhabitants. The commissioners decided to replace the old bridge constructed by the local landlord, Sir George in 1718 and it was blown up in 1845. The original plans envisaged an opening arch in the new bridge however no opening spans were made upstream of the Jamestown Canal because of financial constraints. Despite this, fine quay walls were built and the old harbour above the bridge was enlarged.

4.5.33 The railway line follows the river closely from Carrick-on-Shannon to Lough Bofin crossing it just below the Jamestown Canal, although it is only visible from the river from time to time. This was the Midland Great Western Railway, with its line to Sligo, passing through Carrick-on-Shannon in 1862.

4.5.33 The Shannon Commissioners found that they had to replace the bridge at Jamestown and it subsequently suffered damage in the 1920s when one of the arches was blown up. Approaching from upstream the arch that was substituted is still clearly visible being of a lighter colour than the rest of the bridge. The weir located here was built by the Commissioners who first had to remove old mill works previously situated there before building their open weir wall. However these works failed to curtail flooding problems and sluice gates were eventually fitted in the 1880s so that the flow could be

regulated.

4.5.34 In the time of James I, Jamestown was made an important stronghold using the natural defences afforded by the river and Sir Charles Coote built a castle within the walls in the 1620s and there are fragmentary remains of this castle by the river. Jamestown had also been the site of an ancient Franciscan friary; a chapel lay inside the walled area but the old graveyard and church, still visible today, were outside the walls. In prehistoric times the loop of the Shannon offered a good strategic site protected on three sides by the fast flowing river. An earthwork rampart, known as the 'Dún' or 'Doon', it was constructed to defend the landward approach. This was a great bank 5m high and 30m wide at the base which was extended from the high ground by Jamestown bridge, crossing to meet the river at the a bend downstream of Drumsna. Parts of the Dún can still be traced in this area by walking back towards the main road from Corlara Bridge, a bridge located approximately halfway along the Jamestown Canal.

4.5.35 The early navigation engineers took the obvious course of making a canal to by-pass the rapids in the river, parallel to the old Doon but some distance beyond it. This canal was completed in the 1770s; it was S-shaped with a lock about halfway between Corlara bridge and the present lock (Albert lock). There was a fall of 5ft 3in at the lock, which was 66 ft 6in long and 14ft 3 in wide, about half the size of the present lock. Eventually the gates were replaced, the lock was raised 9 inches and the banks of the canal strengthened. The Shannon Commissioners decided to enlarge and straighten the canal when they commenced the major works in the 1840s; by this time the techniques of blasting through hard rock had been greatly improved. The site of the new lock was moved further down the canal and is now known as Albert lock.

4.5.36 The river winds up past Annaduff Church, a nineteenth century Church of Ireland church with a backdrop of trees built on the site of the eighth century Annaduff abbey; the ruins of which are on the site of an earlier ecclesiastical settlement. In this area there were also mills associated with Drumcree and the Cavan and Leitrim railway line also serviced the town of Mohill located c. 8km east of Drumsna. The landscape is now dominated by the unattractive building which

is the Masonite factory.

4.5.37 The harbour at Dromod was constructed in 1829, whilst the early Shannon navigation passed down a canal and through a lock to the west of the river at Roosky. This canal and lock were built in the 1760s and, unlike all the other early locks, this one was never rebuilt or altered. The stonework is in surprisingly good repair and the only obvious difference in construction was the use of smaller and more irregular sized stones. The early lockhouse, which was sited along the canal nearer the village, was removed. The canal re-entered the river at the back of the small island a short distance upstream of the bridge. The present lock, the weir and the road bridge were all built by the Shannon Commissioners in the 1840s but the original opening span had to be replaced in recent years by a lifting bridge.

Ecological Corridor

4.5.38 There are some floodplain areas in this section of the study area which are characterised by callows vegetation although these are not as extensive as the callows further south at Lough Ree or the River Suck. Part of the Shannon is canalised at Jamestown. Extensive areas of reed bed are found in places. Loughs Boderg and Bofin are included in a pNHA designation.

4.5.39 Sites are described in geographical order from Carrick-on-Shannon to Roosky. South from Carrick-on-Shannon the river meanders around low-lying hills and drumlins. The river widens at a number of points to form lake habitats – Lough Corry, Lough Tap, Loughs Boderg and Bofin. Well-developed reed bed vegetation along this stretch of the Shannon means that there is an increased abundance and diversity of wildfowl here compared with more northerly parts of the river.

Carrick-on-Shannon - The Shannon River bank at Carrick, in the area located close to the Landmark Hotel has well developed fringe vegetation with common reed, alder and willow woodland. The wetland is bordered by amenity grassland along the roadside which has abundant horsetails. There was formerly a boardwalk on the area that is currently damaged and unsafe to use. The rare plant, summer snowflake, has been recorded from this area.

Cortober and Cordrehid - Wet, rush dominated grassland on the flood plain of the Killukin River close to its inflow with the Shannon. A hen harrier was sighted here in February 2002. Occasional willow scrub is also present.

Inishmucker - Low lying area south of Carrick-on-Shannon underlain by fen peat. Typical callows, wet grassland and marsh present with some alder carr woodland.

Rinnacurreen/Cloonfeacle - Low lying area south of Inishmucker. This site includes a small mesotrophic lake that is incorporated into the Shannon floodlands in winter. Grasslands are mown for hay and some are grazed. Some areas are not managed for agriculture and depending on hydrology have

swamp or alder carr vegetation present. Typical species found in wet grassland and marsh include common valerian, meadowsweet, purple moor grass, tufted vetch, devil's bit scabious, angelica, purple loosestrife, yellow flag, lesser spearwort, marsh marigold, marsh lousewort, sneezewort, jointed rush, meadow vetchling, marsh pennywort, tall fescue, water mint and reed sweet grass. In alder (fen) carr the following species have been recorded: alder, grey willow, eared willow, remote sedge, yellow flag, meadowsweet, tufted hairgrass, marsh bedstraw, hawthorn, water mint, royal fern, lady fern, marsh horsetail, soft rush and various bryophytes provides cover for wildfowl. An I-WeBS count is carried out here. Among the bird species that have been recorded are pochard, tufted duck, golden eye, mute swan, whooper swan (Annex I on EU Birds Directive), teal and wigeon. The floodplain here extends west of the Lough into Cartron Townland and includes some alder and willow carr and wet grassland.

Lough Corry - This wide bend in the River Shannon includes some reed bed vegetation which provides cover for wildfowl. An I-WeBS count is carried out here. Among the bird species that have been recorded are pochard, tufted duck, golden eye, mute swan, whooper swan (Annex I on EU Birds Directive), teal and wigeon.

The floodplain here extends west of the Lough into Cartron Townland and includes some alder and willow carr and wet grassland.

Coraughrim - A low-lying floodplain area of the Shannon. Substrate here is fen peat. Wet rushy grassland vegetation is present, along with some willow and alder scrub.

The Doon at Corgullion/Cuiltyconway - Low-lying floodplain area with wet grassland and some alder scrub.

Jamestown Canal - The canal at Jamestown is lined with semi-natural woodland. Species include ash, alder, hawthorn, meadowsweet, gipsywort, blackthorn, hemp agrimony, furze, grey willow spindle. At the bridge there is a small example of calcareous grassland with knapweed and quaking moor grass.

Charlestown - The large wooded demesne at Charlestown

is mainly composed of conifer plantation. A strip of semi-natural wet willow-ash-alder woodland runs along the river bank and this is of some conservation interest.

Gortconnellan - This is a small lake adjacent to the study area that is situated across the N4 from the Shannon. This is an important I-WeBS count site and a number of bird species have been recorded here. These include great crested grebe, whooper swan (Annex I of EU Birds Directive), cormorant, heron, mute swan, teal, mallard, wigeon, goldeneye, moor hen and lesser black-backed gull.

Drumsna - Directly south east of Drumsna village there is a low-lying area of Shannon floodplain with rush dominated fields.

Lackagh - Small area of birch woodland on a former cutover bog.

Cloonteam - Area of wet grassland, low-lying and occasionally flooded by the Shannon. Also a strip of wet alder woodland is situated north of Lough Nanoge, along the river.

Gortinty Lough - This small lake is directly beside the N4 and the Masonite factory at Derryoughter. There are some reedbeds along the southern and western shores. An I-WeBS count is carried out here and very large numbers of the Annex I (Birds Directive) listed golden plover, have been recorded. Wildfowl species that have been recorded here include little grebe, great crested grebe, snipe, tufted duck, goldeneye, moor hen, lapwing, mute swan, whooper swan (Annex I of EU Birds Directive), knot, wigeon and mallard. Bats recorded in flight at Gortinty Lough include common and soprano pipistrelles, Leisler's bats and Daubenton's bats.

Lough Tap - Small numbers of the Annex I listed whooper swan have been observed here. There are extensive areas of reed bed.

Loughs Boderg and Bofin - These two interconnected, mesotrophic lakes are considered to be little more than widened stretches of the Shannon. They include extensive areas of reed bed and swamp vegetation in sheltered bays, that provide

good cover for a variety of bird species. There are narrow areas of wet woodland around the lake shore with alder, ash and willows. Within the wet woodland strips around the lakes, plants that have been recorded include grass of parnassus and yellow sedge. The rare plant, floating water plantain, was formerly recorded from around Inchmurrin Island but its present status is unknown. Dry woodland areas, above the floodplain, are typically categorised as oak-ash-hazel (e.g. Derrygrasten/Derrycarne Wood – only part of which (Inchmurrin Island) is included in the pNHA designation). Ash is often the dominant canopy species with occasional pedunculate oak. Species in the ground flora may include the scarce parasitic plant – toothwort and the relatively rare, pale sedge. Spindle tree, guelder rose and buckthorn (a scarce shrub species) are also present. The rare plant, marsh stitchwort, has been reported here also.

The stony lakeshore of Loughs Boderg and Bofin support a typical 'Shannon Flora' with abundant submerged shoreweed, yellow sedge, purple loosetrife, lesser spearwort and water hemlock among the stones. A small patch of the rare plant, water germander, is present on the shore of Lough Boderg. The Annex I listed Greenland White-fronted Goose frequents a number of fields around this site but not all of the known feeding sites are included in the proposed NHA. The rare beetle *Helophorus griseus* was recorded from Lough Bofin during an Environmental Impact Assessment in association with a proposed marina and housing development at Roosky.

A number of I-WeBS counts are carried out at Loughs Boderg and Bofin. A variety of wildfowl occur here including great crested grebe, little grebe, mute swan, grey heron, wigeon, lapwing, cormorant, teal, tufted duck, mallard, goldeneye, whooper swan (Annex I of EU Birds Directive), kingfisher (Annex I of EU Birds Directive) and moorhen. The Red-Listed bird, the common scoter, has been recorded at Lough Scannal. Large numbers of wildfowl are supported in this lake complex and highest numbers of wigeon, teal and great crested grebe were noted from Loughs Scannal and Bofin compared with I-WeBS counts from other parts of the present study area. The water chemistry of Loughs Boderg and Bofin could potentially support the freshwater crayfish but this species has not been recorded from the area.

Derrywillow - A known Greenland white-fronted goose feeding site that is not included in the Boderg/Bofin pNHA.

Derrycarne North and South - The woods were surveyed in 2004 as part of the Native Woodland Survey, Derrycarne South is of high conservation value with oak-ash-hazel wood, wet willow-ash-alder woodland and some mixed conifer/broadleaved wood. Derrycarne North is composed of oak-ash-hazel woodland. At west Derrycarne, there is a Greenland white-fronted goose feeding site that is not included in the pNHA designation.

Doora (partly excluded from pNHA) - Low-lying, wet area of floodplain with rush dominated grassland.

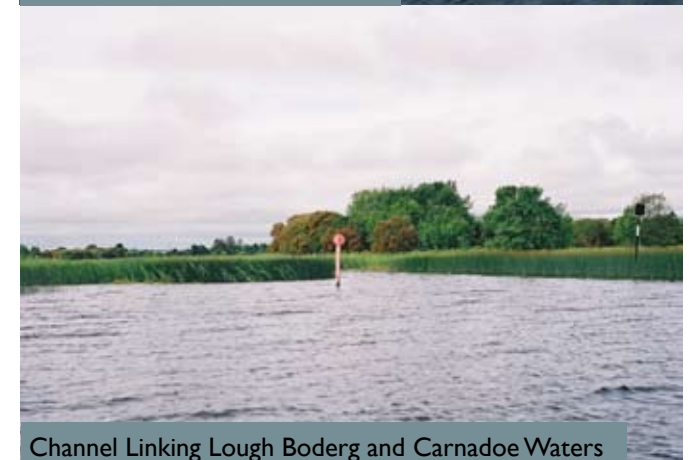
Roosky - Just north of Roosky Village, in Derryonogh townland, parts of the lake floodplain are proposed for housing developments. Some of the areas included were submerged in winter 2000 and winter 2002.



Railway Bridge north of Lough Tap



Lough Bofin



Channel Linking Lough Boderg and Carnadoe Waters

INSERT A3 OF MAP 2 (e)
Grange Lough and Kilglass Lough (Area 5)

4.6 Lough Boderg to Carnadoe Waters (Area 5)

Corridor Approach

4.6.1 The defined waterway corridor for Area 5 is identified on Map 2e including the Carnadoe Waters. Although Strokestown is not included within the boundaries of the physical corridor, it has clear associations with the waterways providing valuable social and economic services to the waterways, including accommodation. For this reason, it is included in the overall analysis of the study area and in the socio-economic framework as identified in Map 3.

Landscape and Visual Corridor

4.6.2 On the western side of Lough Boderg a narrow opening through the reed around Coarse Island provides access through to the Carnadoe Waters. The narrow waterway first passes up stream under the Carnadoe Bridge and past the adjacent private marina. The houses of Carnadoe are visible along with a fine example of an integrated but visible holiday development. Passing Rat Island and the heavy wooded hill at Milltown the waterway passes through two small lakes before entering Kilglass Lough through the man made Carrigeen Cut. This canal is approximately 1km long and its banks are lined with reeds, whilst the rural landscape is dotted with the occasional bungalow.

4.6.3 Kilglass Lough is dominated by a long wooded ridge (153m) that runs approximately north / south. To the south are far distant views to high ground near Strokestown. To the west there are long distant views towards Greywood Hill (126m) some 6km away. The lake itself contains two crannógs, with the Mountain River (Scramoge River) flowing into the western spur of the lake.

4.6.4 Back near the Carrigeen Cut a narrow channel meanders through reed beds into Grange Lough. This is a long narrow lake approximately 4km long and 0.5km wide to the

west of Kilglass Lough. Along the western shore hedgerows and the slope confine the visual horizon to within a few hundred metres of the shore. New marina facilities are being constructed along the shore, with a large agricultural type shed dominating the shoreline, and no attempt made at integrating the development into the landscape.

4.6.5 The Finlough River flows into the southern end of the lake under the Bellanagrange Bridge, where there is a small harbour associated with the Silver Eel public house. Distant views reveal high ground with coniferous plantation and a quarried hill to the south. The long spur of ground that separates Grange Lough from Kilglass Lough is low and flat. Open fields are interspersed with some hedgerows and scattered dwellings.

Settlement and Economic Corridor

4.6.6 Strokestown, one of the few planned towns in the county, is noted for its wide streets but is probably best known as the home of the Famine Museum, which is located in the stable yards of Strokestown Park House. Strokestown is identified as having a weak urban structure with substantial urban strengthening opportunities in the National Spatial Strategy. The population in Strokestown increased by 3 persons (0.3%) between 1991 and 1996 and demonstrated a marked increase of 130 persons or (14.9%) between 1996-2002 to 943 persons.



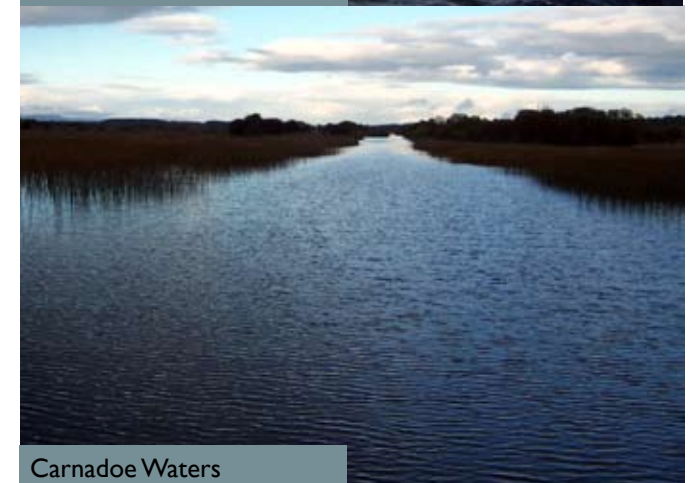
Carnadoe Waters



Woods at Milltown



Carnadoe Waters



Carnadoe Waters

4.6.7 There is a diverse range of buildings and features in Strokestown all of which make a positive contribution to the built heritage of the town. The Market House on Church Street is one of the oldest buildings in the town and close by are two bank houses, one of which is still in use as a bank. The Court House, though neglected is another important building in the town. An Architectural Conservation Area (ACA) has been designated for Bawn Street, which incorporates the buildings at the apex of Elphin and Church Street. The work of esteemed architects Richard Castles and J Lynne has influenced its development within the planned estate town. There are seven structures/buildings located within the town that are listed as protected structures in Roscommon County Development Plan which include St John's Church; four town houses (Dower House, Hartland House, House with cut stone doorway and Elphin Street, McHugh's), Strokestown Park House Gates and Ancillary Structures; and a mausoleum.

4.6.8 Strokestown has the potential to complement Roosky in the provision of tourist facilities and to facilitate residential development to relieve the pressure for one-off housing around the highly pressurised Carnadoe Waters. The Local Area Plan for the town will facilitate development whilst preserving the established and built heritage of the town. Strokestown has a compact retail and commercial base and provides neighbourhood scale retail facilities and local retail services to a relatively local catchment.

4.6.9 Although Strokestown is located approximately 5km from the actual waterways, the town has strong links with fishing on the lake, providing accommodation facilities and services. The Shannon Regional Fisheries Board promotes 14 lakes surrounding Strokestown, describing the Carnadoe Waters as part of the Strokestown Lakes. It is considered that this association could be further enhanced and that the significant built heritage of the town and its tourism potential could be further promoted in association with the waterways. Linkages need to be formed with the lake and this could be achieved with an information panel at Grange displaying taxi numbers.

Cultural and Historic Corridor

4.6.10 Covered by RMP map sheets Roscommon: 17, 23 and 29, there are fifty-five recorded archaeological sites located within Area 5, consisting of ringforts (29) / cross-inscribed stone / crannóg (6) / enclosure (2) / earthwork (9) / holy well / castle site / mansion (2) / church / stone head / mausoleum / and a burial ground. These sites are indicative of a high population within the area during medieval times particularly in the area surrounding Muckanagh which has a high number of ringforts, as well as the shores of Carnadoe Waters which has a large number of crannógs.



Carnadoe Waters



View South from Grange Lough

4.6.11 The Shannon Commissioners opened up the Carnadoe waters, replacing the bridge at Carnadoe with a higher navigable arch and constructing a quay. At Grange there was formerly a busy station with goods for the town of Strokestown, but little remains there today. For many years it was not possible to get into Kilglass Lough because the Carrigeen Cut had silted up at the entrance. This was an artificial cut made by the Shannon Commissioners who closed off the original channel from Kilglass Lough which had formerly discharged into Grange Lough.

4.6.12 At Ballykilcline a series of excavations had taken place during the late 1990s which uncovered the remains of a nineteenth century tenant village. Strokestown, located 5km from Grange Quay, was constructed in the latter half of the eighteenth century by the local landlords, the Pakenham-Mahon family and the town was largely facilitated by its close proximity to the Carnadoe Waters. Several artefacts have been discovered from the context or surrounds of crannógs including a stone anchor/net sinker in Carnadoe Waters.



Crannog Kilglass Lough



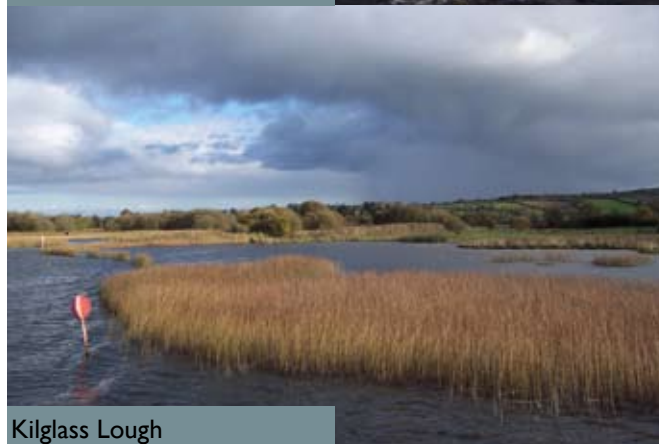
Kilglass Lough



Carrigeen Cut



View from Grange Lough



Kilglass Lough



Kilglass Lough

Ecological Corridor

4.6.13 This section includes a series of relatively small but deep lakes that are fed by a number of small rivers and streams including the Mountain/Scramoge, Owenur and Finlough Rivers. Water from these lakes flows into the Shannon at Lough Boderg, 6km west of Dromod. The entire lake series is included in a large proposed Natural Heritage Area designation and large areas of reed bed, swamp and marsh vegetation lines the shoreline of these lakes. The lakes are situated on a geological fault-line, hence their relative depth compared with nearby Loughs Boderg and Bofin.

Kilglass Lough – This lake is very calcareous and has a partly sandy shoreline. Fields surrounding the Carnadoe Waters have been used by feeding Greenland white-fronted geese (Annex I species of EU Birds Directive), although the flock to which these particular geese belong is thought to be in decline and now mainly feeds on the Rinn River (outside the present study area). Among the reed swamp vegetation the following species are present common reed, bulrush, meadowsweet, common valerian, bog bean, hoary willowherb, grey willow (in the shallows), marsh ragwort, bindweed, yellow flag and water mint. Marsh and wet grassland areas have abundant giant tussock sedge. Some of the vegetation is known to occur on peat (probably fen peat). High densities of waterfowl are regularly counted at the Carnadoe Waters as part of the I-WeBS surveys and species present include mute swan, wigeon, teal, tufted duck, goldeneye, lapwing, golden plover (an Annex I species of the EU Birds Directive), coot, moor hen, cormorant, curlew, pochard, great crested grebe, mallard, little grebe and whooper swan (Annex I of EU Birds Directive). Particularly high numbers of pochard, tufted duck and coot have been counted here, compared with other I-WeBS sites on the Upper Shannon. There is an exceptional abundance of the invertebrate *Corixa fallenoides* a type of Water Boatman peculiar to Central and Western Ireland, and the likelihood of other invertebrates of restricted distribution. The Carnadoe Waters have been described as the 'Lungs of the system' with reference to their capacity to absorb the winter Shannon floods.

Gillstown Bridge / Corgowan / Drumagissaun/ Clooneen - Floodplain of the Mountain /Scramoge River, includes wet rushy grassland and some small areas of willow scrub. This area includes a feeding site for the Annex I listed Greenland white-fronted goose.



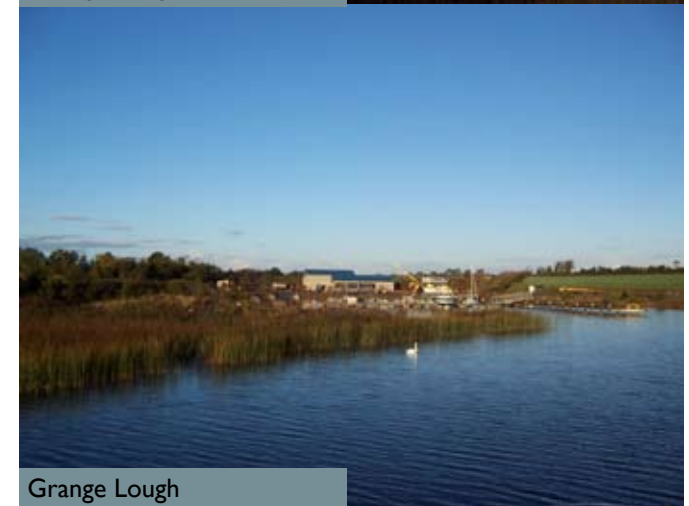
Grange Lough



Grange Lough



Grange Lough



Grange Lough

05

ROBUSTNESS AND SENSITIVITY



SECTION FIVE

ROBUSTNESS AND SENSITIVITY

5.1 Statement of Heritage Significance

5.1.1 This Statement of Significance sets out the nature of significance of the entire waterway corridor extending from Lough Allen to Roosky, including Lough Key and the Carnadoe Waters. This relies on an understanding of the physical attributes, uses, relationships and associations of the area from past remains up to and including the present. It attempts to quantify the importance of heritage within the waterway corridor.

Due to the wealth and range of associative, cultural, aesthetic, environmental, amenity and economic values that the waterway possesses, it is considered to be of immense local, regional and national significance.

Aesthetic Significance

5.1.2 As one of the largest inland water bodies within Ireland, the size, scale and inherent natural beauty of the lakes and rivers and their surrounds combine to create a magnificent place of local, regional and national significance. The rural setting of much of the waterway is of high aesthetic significance and allows the modern visitor to contemplate the past, particularly around the lakes, including Lough Allen, Acres Lake, Lough Key and the Carnadoe Waters.

Archaeological Value

5.1.3 A landward approach to the waterway corridor is of visual and amenity significance and for many archaeological sites studied for this project it is critical to providing a visual backdrop thus creating a unique sense of place. All archaeological sites located within the immediate environs (500m) of the waterway corridor, although some may be in derelict condition, are of architectural, historic and social significance.

They are important visitor attractions in their own right and consequently are of significance to the respective local communities.

5.1.4 The significance of the archaeological remains of the waterway corridor and the tangible evidence of social, economic and technological development since prehistoric times (including the canals, navigation and related infrastructure) is apparent and made vivid by its continued usage to the present day. Although specific elements of the cultural heritage of the waterway corridor are of special interest it has an intrinsic value as a diachronic landscape i.e. an area containing clusters of archaeological sites documenting different periods throughout history. Development of the waterway landscape since prehistoric times can be traced by means of the archaeological evidence from prehistoric, to medieval and post-medieval times thus providing a sense of continuity and stability attested to the never-ending presence of the waterway itself.

5.1.5 The waterway includes a series of sites which have been deemed protected structures in terms of their national and regional importance by local government authorities. In total a significantly high number (111) have been accorded this status, and this together with the sheer volume of archaeological (368) and industrial (76, twelve of which are also RMPs) sites located on the banks of the waterway serves as testimony to the utilisation extent of the river since prehistoric times.

5.1.6 The waterways corridor includes four national monument sites in state ownership or in guardianship within the study area including Boyle Cistercian Abbey; Abbey of the Blessed Trinity, Trinity Island; Inchmacnerin Abbey, Church Island and McDermot's Castle, Castle Island. Seven archaeological sites which have been deemed protected structures in terms of their national and regional importance by local government authorities including:

- Castle, Remains of tower at Carrick-on-Shannon built c. 1611
- MacDermot's Castle, Ruin of 3-storey gothic folly castle c. 1810 incorporating fabric of original medieval castle on

site (Roscommon)

- Monastic Church, Trinity Island, Lough Key, Founded 1260; rebuilt c. 1460; abandoned 17th century (Roscommon)
- Boyle Cistercian Abbey
- Chapel, Rockingham, Ruined single-cell, single-storey chapel b. 1833 with belltower over pedimented entrance (Roscommon)
- St George's Church of Ireland church, Townparks, Carrick-on-Shannon, built 1829
- Costello Chapel, Townparks, Carrick-on-Shannon, memorial chapel built 1877

5.1.7 Although not a significantly high number have been accorded this status, the sheer volume of archaeological sites (368) located along the banks of the waterway serves as testimony to the extent of utilisation of the waterway since prehistoric times.

Some of the archaeological sites studied for this project may have no direct relevance to the waterway and vice versa. However, the waterway affords the opportunity for the interpretation and appreciation of these often remote sites. The status and value of such sites is thus enhanced, as is the value of the waterway as an amenity route.

Architectural Significance

5.1.8 Previous to the plantation of the waterway environs during English colonization of Ireland, the socio-economic environment was comprised of a series of Gaelic lordships. As such, the subsequent reallocation of tower houses and castles contributed to the early development of towns and defence measures. Such measures brought with it the important strategic value of securing the waterway as a gateway to these territories. These developments influenced the contemporary history of the waterway and the evolution of settlement patterns in its adjoining countryside, towns and villages.

5.1.9 Individual elements within church and graveyard sites as well as monastic settlements within the environs of the waterway corridor; generally ranging from architectural features to individual gravestones are of cultural significance in their own right. Such aspects serve as inherently attractive features, particularly abbey ruins on Church Island and Trinity Island in Lough Key and Boyle Abbey. Also of significance are the many sites of industrial interest associated with industry, navigation, road and rail. Of particular note is the Cavan - Leitrim Railway and the Arigna coalfield site.

Natural Significance

5.1.10 Of the 25 rural habitat types that occur in the study area, 12 potentially correspond to Annex I habitats (under the EU Habitats Directive). In order to qualify for SAC designation Annex I habitats must conform to certain criteria regarding quality, species complement and ecological processes. For example, within Ireland, some oligotrophic lakes correspond to the Annex I habitat 'Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) (3110)' or 'Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoeto-Nanojuncetea* (3130)' and are of sufficient quality and interest to require designation as SACs. The Annex I habitats are highlighted in italics in the following table. Where a habitat is denoted with an * this indicates that certain types of the habitat are prioritised for protection under the Directive (priority habitats).

ANNEX I	
Habitat Type	Code
Oligotrophic lake	FL2
Mesotrophic lake	FL4
Eutrophic lake	FL5
Eroding / upland rivers	FW1
Depositing /lowland river	FW2
Canal	FW3
Drainage ditches	FW4
Reed and large sedge swamp	FS1
Improved agricultural grassland	GA1
Dry calcareous and neutral grassland	GS1(*)
Wet grassland	GS4
Marsh	GMI
Wet heath	HH3
Cutover bog	PB4
Rich fen and flush	PF1 (*)
Poor fen and flush	PF2
Transition mire and quaking bog	PF3
Oak-ash-hazel woodland	WN2
Wet pedunculate oak-ash woodland	WN4 (*)
Wet willow-ash-alder woodland	WN6
Bog woodland	WN7 (*)
(Mixed) Broadleaf woodland	WD1
Conifer plantation	WD4
Scrub	WS1
Hedgerows	WLI



Rockingham Estate



Roosky Bridge

Geological Significance

5.1.11 The landscape through which the Shannon flows reflects the underlying geology: this is predominantly carboniferous limestone (formed 350 million years ago), overlaid by varying thickness of glacial drift deposited during the Ice Age (which commenced two million years ago). Diversity in the landscape is provided by the small areas of higher ground formed from younger rocks on top of the limestone, such as the hills surrounding Lough Allen, or of older rocks of shale and sandstone, projecting through the limestone as a result of folding. Any other diversity in the landscape is the legacy of the last glaciation (100,000—10,000 years ago): the drumlins of South Leitrim which were probably formed through chemical solution of the underlying limestone and denudation by ice and running water. The landscape is therefore, of significant geological significance.

Historic Value

5.1.12 There is evidence of prehistoric activity in the environs of the waterway. The area shows evidence of ritual and religious veneration stretching back to the Neolithic period and was therefore an important geographical landmark prior to the coming of Christianity to this area of Ireland. Substantial evidence for the Mesolithic period has been found within the vicinity of the waterways corridor extending from Lough Allen to the north of Jamestown, including the discovery of Bann flakes, chert flakes, waste flakes and cores.

5.1.13 The study area encompasses several ecclesiastical centres including Church Island, Lough Key where the Annals of Lough Cé were written, Trinity Island and Tumna on the shores of Drumharlow. Furthermore, there are a series of church sites dating to this period throughout the study area such as Anaduff, Tarmon and Inishmacgrath Island. An impressive density of architectural and artefactual remains make the waterway corridor a brilliant record of Irish religiosity.

5.1.14 The surviving fabric of many structures and features located along the waterways reflects the fundamental changes and developments in Irish architectural history. A five span

masonry arch bridge spanning the Boyle water at the entrance to the former Cistercian Abbey is important from a historical perspective as it has never been widened or reconstructed. There are, however, no registered historic monuments within the study area.

5.1.15 Major industrial ironworks occurred in the area surrounding Lough Allen, particularly at Drumshanbo, Druminalass on the eastern shores of Lough Allen and at Gubb near Spencer Harbour on the western shores of Lough Allen. The last large-scale coal mine in Ireland was operated from the Arigna coalfield near Lough Allen until 1990 and provides a wealth of information on the historical evolution of mining in Ireland

Contribution to Townscape

5.1.16 Gaelic Lordships and the development of tower houses and castles have all influenced the contemporary history of the waterway corridor and the evolution of settlement patterns in its adjoining countryside, towns and villages. The waterway corridor plays an important role within the adjacent townscape settings by creating a sense of natural beauty, openness and a slow moving pace of life.

5.1.17 While much of the evidence has been uncovered, more undoubtedly remains to be explored. In particular, the towns that developed along the waterway retain a significant amount of dwellings, urban plan and original buildings that can be considered as cultural amenities as well as a source for academic study in a wide range of areas including social history, industrial archaeology, architecture and urban design.

5.1.18 In total there are 111 structures listed for protection within the study area as noted in the current Leitrim and Roscommon County Development Plans, with most of these structures contained within the urban areas of towns and villages.

Scientific Value

5.1.19 The creative and technical architectural accomplish-

ments of many of the buildings and structures (including those associated with navigation such as locks, weirs, bridges etc) adjacent to the waterway corridor (particularly within the river corridors) serve to enhance an idea of survival and authenticity of the very fabric of past Irish society.

Social Value

5.1.20 The study area encompasses a large proportion of the River Shannon, which has a catchment area of over 15,000 square kilometers, representing a fifth of the whole area of Ireland. It has many myths and legends attached to it and is a major source of national identity in Ireland. At the north end



Boyle Abbey



Strokestown House

of Lough Allen there is a prehistoric ditch, known as Black Pig's Dyke, extending from the village of Dowra towards the lake, so named after a folk tale about a magical black pig which when chased across several counties rooted up large tracts of land. It has been claimed by earlier writers to have been a single defensive earthwork stretching from Bundoran in the west to Dundalk in the east.

5.1.21 The significance of the waterway is clear in terms of its geographical location as the main navigable route through the centre of Ireland from northern to southern regions. The social-geographical status of the waterway during medieval times is attested to by the siting of several ecclesiastical sites in proximity to the valuable resources of travel and communication which it provides. The social values of local communities are enhanced by the presence of the waterway and its inextricable links to the past, thus creating a symbolic focus for identity.

Educational Value

5.1.22 The museum and archive collections directly linked to the waterway and its associated townlands (e.g. King House (Boyle), Strokestown Park House, Boyle Cistercian Abbey, Lough Key Forest Park, Drumshanbo Visitors Centre, Arigna Mining Experience, Cavan and Leitrim Railway (Dromod)) create a medium to inform about the past and also to serve as an educational resource.

5.1.23 This is significant within the realms of tourism, education and presentation. It contributes to our understanding of the past and the present and acts as a focal point for educational, leisure and pleasure activities.

Public Value

5.1.24 The waterway has acted as a significant sustainable resource for its adjacent communities. The navigable features were originally developed as economic development activities creating valuable financial resources through navigation related tourism

5.1.25 Today the waterways provide a high quality recreational, historical and cultural environment whilst significantly contributing to the economic tourism base.

5.2 Threats to Heritage Significance

5.2.1 Areas and sites of heritage significance (as identified through 5.1) are vulnerable to the loss and degradation of those attributes which make them special. Threats include destruction or demolition; inappropriate use, development or redevelopment; and neglect. Such threats are exacerbated by a general lack of public awareness of the area or sites' role in characterising the region's natural and cultural heritage and shedding light on its environmental, social and economic development.

Archaeology

5.2.2 It is the policy of all local authorities within the study area to conserve sites of important cultural heritage significance and as such these sites are listed in their respective county development plans. However as a result of desk and field-based study conducted for this report, it is noted that some sites of cultural heritage merit are not included in the Records of Protected Structures (RPS). Roosky Old Lock and Bridge were built in the 1760s and were not replaced by the Shannon Commissioners during their refurbishment works of the nineteenth century. Although the early lock house was removed it is important that these features of industrial and built heritage merit be included in the RPS. Similarly, the bridge at Drumsna, unlike most of the other Shannon bridges, was not replaced by the Shannon Commissioners and this should also be listed as a protected structure. The brick chimney at Spencer Harbour is an impressive industrial archaeological site and should be afforded protection via the county Record of Protected Structures (RPS).



Lough Key Forest Park

5.2.3 Access to the sites within the waterway corridor needs to be facilitated and yet approached with care to avoid damage to sites and monuments. To date there is good promotion of well known and extant heritage sites throughout Ireland through channels such as the Record of Monuments and Places (RMP), brochures and publications. However there are only four National Monuments within the study area, all of which are in Co. Roscommon and all of which are in State Guardianship (Boyle Cistercian Abbey; Abbey of the Blessed Trinity, Trinity Island; Inchmacnerin Abbey, Church Island and MacDermot's Castle, Castle Island). Guardianship of a National Monument permits access by the public to such sites with prior consent of the landowner. In addition known sites listed and protected on both the RMP and RPS are only accessible with permission of the landowner. Incentives should be provided to landowners to provide access to these sites through educational and monetary measures while the Local Authorities should be given a more pro-active role by the governing bodies to deal with issues of local interest.

5.2.4 Upon investigating the Recorded Monuments and Places for this project it was discovered that many of these features have been destroyed without any visible surface trace remaining or are in a poor state of preservation. Furthermore, a large proportion of archaeological sites and monuments that were originally listed in the Sites and Monuments Record (SMR) are withdrawn from the more recent Record of Monuments & Places (RMP) as they are not deemed of archaeological significance. A system for monitoring these monuments located along the waterway should be established, following the recommendations set out by the Heritage Council. A full photographic survey of these monuments is an element that is currently largely missing in the DoEHLG archives and should be included in any future survey visits. With respect to the waterway, the environmental setting of these monuments should also be recorded in detail in order to indicate whether this has an effect on the rate of destruction of monuments within the corridor.

5.2.5 Lack of public awareness and out-of-date information contained within the County Archeological Inventories and Surveys are two of the biggest threats to archaeology as they hinder effective protection and monitoring of archaeological

sites and monuments. Lesser known sites are particularly vulnerable in this regard as all too often they remain anonymous in the consciousness of local communities.

5.2.6 Any future development of accessibility to the islands of Lough Allen and Lough Key should be welcomed however an awareness of archaeology and its delicate nature should be made known to those who wish to gain access to archaeological sites. This could be achieved by the provision of appropriate signage or information boards. Suitable landing facilities should be made available, provided they do not have an impact (visual or other) on the monument.

Underwater Archaeology

5.2.7 Intense utilisation of the River Shannon and its lakes since prehistoric times is evidenced by the archaeological record from a land-based perspective in the form of various areas of human settlement and also by the water-based record of archaeological features and finds. Although the waterway contains a large amount of known archaeological sites, it is very likely that it still contains a significant amount of potential underwater archaeology.

5.2.8 Many areas within the waterway corridor offer the potential to reveal underwater archaeology, and perhaps, because it is so poorly recorded, the threats are many and various. In particular underwater archaeology is vulnerable to disturbance, damage or destruction through dredging or drainage works when new harbours, marinas or jetties are constructed. It is noted that dredging works on the Shannon waterways in the past have produced significant quantities of artefactual material, some of which was found at fording points, which is now housed in the National Museum of Ireland.

5.2.9 The speed of boats and their consequent wake, can potentially impact on underwater archaeology in the form of exposing and dislodging logboats or artefacts which may have been buried in situ, or it could accelerate erosion on vulnerable materials and structures such as quays or landing slips associated with defensive sites on the lake.

Industrial Heritage

5.2.10 Most of the significant industrial heritage sites within the study area which are still in use - notably the waterways structures, road and railway bridges - have been sympathetically upgraded to take account of modern usage requirements; those attributes which make them special are still clearly evident. The fact that they remain in use, even though many are over 150 years old, is testimony to their robust design and quality of construction.

5.2.11 In contrast, it is proposed to remove some structures such as Hartley Bridge, which is of significant cultural and industrial heritage, following an assessment on its condition. It is claimed that the supporting structures underneath are in a bad state of repair and assessment of this erosion has led to the conclusion that it cannot be retained as a functioning structure. Industrial sites are particularly vulnerable to loss due to the difficulty of adapting them to new uses.

5.2.12 It is important to realise that defunct industrial sites can have a future and the public need to be educated in this regard. The railway centre at Dromod hosts a wide range of vintage steam engines and other items of vehicular transport while the station itself has been conserved and restored. However there are currently proposals by Coras Iompair Eireann to demolish the Goods Sheds associated with the Midland Great Western Railway at Dromod which may also apply to the signal cabin located there. As such it is recommended that all buildings associated with the railways at Dromod and including the railway station at Mohill be listed under the RPS in order to provide statutory protection to these structures of important industrial and built heritage merit.

5.2.13 There is a lack of protection afforded to many of the industrial sites throughout the study area with some sites of cultural heritage merit not included in the Records of Protected Structures. Roosky Old Lock and Bridge were built in the 1760s and were not replaced by the Shannon Commissioners during their refurbishment works of the nineteenth century. Although the early lock house was removed it is important that these features of industrial and built heritage merit be

included in the RPS. Similarly, the bridge at Drumsna, unlike most of the other Shannon bridges, was not replaced by the Shannon Commissioners and this should also be listed as a protected structure. The brick chimney at Spencer Harbour is an impressive industrial archaeological site and should be afforded protection via the county RPS

5.2.14 In many instances, defunct sites lie neglected and a significant number of mills have already disappeared for this reason. The surviving ones are difficult to adapt to new uses due to their inaccessible location, derelict state and/or function-specific design. Moreover, most owners of these sites can ill-afford to preserve them as archaeological monuments, a situation which is exacerbated by the lack of any financial return.

Built Heritage

5.2.15 Many of the buildings within the waterways corridor that have played a role in the history of settlement within the area are in a poor state of preservation and are vulnerable to further decay and dereliction. Furthermore, for many, they are poorly presented and not well documented. In most cases the Records of Protected Structures within County and Town development plans do not sufficiently reflect the wealth of built heritage within the area.

5.2.16 Partial remains of the town walls in Jamestown survive, one of the few examples remaining in Ireland. However the small village we see today provides little sense of its unique history to the public. This is as a result of a lack of awareness and information.

5.2.17 There is a lack of information, research and knowledge regarding all fourteen urban settlements that have been examined for this study, of what exactly was happening in the Early Medieval period in each area. Although there are recorded early medieval settlements in surrounding regions of these urban areas in the form of ringforts and enclosures, there are few readily available early medieval references to what may have existed at these important centres in terms of locally-

based leading Gaelic septs and the use thereof of the adjacent waterway.

Landscape

5.2.18 The landscape of the study area is very much a product of human intervention over the centuries and is in a constant state of flux. However the greatest threat to the landscape in terms of visual impact and fragmentation is development pressure for construction of single rural houses and the location of these in relation to the waterway. Whereas in the past people looked to using natural shelter when locating a house, the building materials of today allow us to construct a dwelling virtually anywhere. One-off housing, including holiday housing is having a substantial impact on the waterways landscape and needs to be effectively controlled and monitored to ensure its preservation and protection.

5.2.19 Significant urban development on the shores of the river in Carrick-on-Shannon is putting increasing pressure on its sensitive waterside environment and is limiting natural public access to the river. The lakeshore, in particular the smaller settlements such as Leitrim Village and Dromod, are vulnerable to development both in terms of an increase in the number of harbours and marinas and in the highly visible dwellings. The carrying capacity of individual settlements must be assessed to determine the level of development it can accommodate and this should be undertaken for sensitive settlements such as Cootehall and Knockvicar.

Natural Heritage

5.2.20 Natural heritage within sensitive environments such as the waterway is particularly vulnerable to loss or damage due to human activity. In spite of the nature conservation designations within the survey area, a number of threats to natural heritage have been identified.

5.2.21 To date there has been a lack of systematic, field-based ecological survey of the study area – in particular from

Lough Boderg north to Lough Allen. Since there has been a lack of systematic survey it follows that there is insufficient knowledge of the important sites of natural heritage within the study area and, possibly, insufficient conservation designations protecting areas of importance. The location of fen peat areas within the Shannon floodplain has been mapped for Co. Leitrim and grassland/marsh and woodland habitats present on this substrate are diverse and worthy of further examination with a view to possible designation. Designation of conservation sites has been piecemeal – particularly around Loughs Key and Allen where very small sections of the lake shores and / or islands are designated. The presence of the rare black poplar and additional sites for the rare orchid – Irish lady's tresses may warrant additional site designations around Lough Allen. At Lough Key there are a number of woodland areas that could be investigated further with a view to potential designation – particularly on the islands and lakeshore.

5.2.22 The volume and speed of boat traffic within the waterway, particularly high-speed craft such as jet-skis and fast displacement cruisers results in large boat wash and wake and can be highly damaging to wildlife especially during the breeding season.

5.2.23 The greatest threat to water quality is artificial enrichment from both diffuse and point sources - agricultural run-off and municipal wastewater respectively. Pollution can also be derived from boats, through a lack of use of holding tanks and pump out facilities.

5.2.24 Zebra mussel (*Dreissena Polymorpha*) is the only bivalve of fresh water systems that causes fouling of boat hulls and the clogging of water pipes. This invasive species was first found in 1997 by researchers working with the ESB in Lough Derg. Its principal mode of transport is via ships' ballast water. Zebra mussels can be expected to virtually eliminate the existing populations of swan mussels in lakes they colonise. When zebra mussels occur in large numbers they can dramatically alter lake ecosystem processes causing a shift of energy flow from pelagic to benthic ecosystem compartments. Lakes tend to contain denser populations of zebra mussels than flowing waters such as the river corridor. Within the study area, zebra

mussels had spread as far north as Lough Key by 1997, into Acres Lake by 1998 and the mouth of Lough Allen soon afterwards.

5.2.25 Intensification of agriculture and abandonment of traditional floodplain meadows and pastures may result in reduction in conservation value, along with habitat succession from semi-natural grassland to scrub/woodland. Furthermore, there is the potential loss of traditional Greenland white-fronted goose feeding grounds in areas where agricultural grassland has been abandoned.

5.2.26 Numerous jetty and small marina developments were noted by the study team. The continued construction of small, unplanned developments causes habitat fragmentation, potentially increases pollution and results in possible loss of spawning grounds.

5.2.27 Development on the floodplain has been noted in areas surrounding Carrick-on-Shannon and Roosky. The floodplain generally supports semi-natural wet grassland, marsh and swamp habitats and development on the floodplain results in loss of these habitats, along with increased flooding pressure further downstream.

06

ACHIEVING THE VISION



SECTION SIX

ACHIEVING THE VISION

6.1 A Vision for the Waterway

A vision for the waterways has evolved over the course of the study, particularly informed by public opinion.

'To conserve and manage the waterway corridor in the heart of Ireland and to promote its awareness as a resource of national and international heritage significance, whilst recognising its function as part of a wider navigation system and as a living working environment which contributes to the social and economic status of the region'.

6.2 Policy Areas

The policies set out below range from corridor wide to very localised policies and are applicable for a ten year period. There are ten overall strategic aims detailed in the following sections. These aims are far reaching but provide the overall context for the specific objectives that follow. Each of the thirty seven objectives contains a recommended action or several actions with a suggested timescale for achieving the action. Timescales are indicated according to the following terms and apply over a ten year period :

Short-Term: Between 1 – 3 years

Medium-Term: Between 4 – 6 years

Long-Term: Between 7 – 10 years

Where it is felt necessary to add to the understanding of the policy, an explanation has been provided.

Table 6.1 Summary of Strategic Aims and Policies

Strategic Aim 6.2.1	Ensure the protection of the waterways from inappropriate development and promote the integrated management of the waterways
Objective No. 1	Recognise the Shannon as a national asset and to continue to manage this attractive area as a place in which to live and work having regard to the need to preserve the waterways and its wider landscape for future generations.
Objective No. 2	Maintain and preserve the aesthetic value of the waterways and its shoreline from the impacts of dispersed and highly visible inappropriate development and discourage speculative development.
Objective No. 3	Support the growth and development of local communities within the waterways corridor whilst maintaining their distinctive character.
Objective No. 4	Support, control and monitor the impact of the Rural Renewal Tax Incentive Scheme on the landscape and heritage resources of the area prior to the implementation of a new scheme.
Objective No. 5	Protect the floodplains of the River Shannon from inappropriate development whilst allowing landowners to continue existing agricultural activities and providing access for land based users of the waterway.
Objective No. 6	Protect the shoreline of the study area, from proliferation of private jetties and harbours and ensure that authorised jetties and harbours are of adequate quality and design.
Strategic Aim 6.2.2	Assess the carrying capacity of the waterways to accommodate further boating activity.
Objective No. 7	Develop and manage the growth of recreational boating on the Upper Shannon in a sustainable manner whilst ensuring that public access is provided and maintained to the waterways for recreational purposes.
Strategic Aim 6.2.3	Ensure the protection of water quality and the effective management of the navigable system
Objective No. 8	Protect and enhance water quality throughout the waterways corridor.
Objective No. 9	Protect the water quality and the zone of visual influence from inappropriate conifer plantations and forestry.
Objective No. 10	Maintain and enhance the navigation system of the waterways
Strategic Aim 6.2.4	Ensure the safety and enjoyment of all water based and land based users of the waterways whilst protecting the natural and built environment.
Objective No. 11	Seek a balance between differing water based and land-based recreational activities whilst ensuring the protection of the natural and built environment.
Objective No. 12	Ensure that the waterways are effectively policed and that bye-laws are enforced.

Objective No. 13	Preserve and conserve the fish stocks in the study area and in certain areas such as Lough Key.
Strategic Aim 6.2.5	Promote access to and enjoyment of the waterways
Objective No. 14	Maintain and ensure that both formal and informal access to the waterways is provided for the benefit of all.
Objective No. 15	Enhance public access to the shores of the lakes and the river bank.
Objective No. 16	Strengthen the relationship between Carrick-on-Shannon and the River Shannon
Objective No. 17	Recognise the historic and natural importance of the islands within Lough Key and Drumharlow and Inisfale Island on Lough Allen and their potential as an educational resource whilst protecting them from inappropriate development
Objective No. 18	Enhance public access to Lough Allen and encourage a greater use of this significant natural amenity.
Strategic Aim 6.2.6	Continue to provide and maintain additional facilities within the waterways corridor
Objective No. 19	Maintain and provide additional facilities and services within the Waterways Corridor as resources permit.
Strategic Aim 6.2.7	Strengthen tourism linkages / clustering within the waterways corridor and link land based activities with the waterways
Objective No. 20	Link the waterways with a number of dedicated walking and cycling routes and historical trails
Objective No. 21	Strengthen the relationship and link the Arigna Mining Experience with the waterways.
Objective No. 22	Strengthen the relationship and links with the waterways and the Cavan and Leitrim Railway.
Objective No. 23	Create linkages between the waterways and significant landscape, ecological and archaeological features.
Objective No. 24	Create linkages between the waterways and significant literary connections within the waterways corridor area.
Objective No. 25	Create linkages between the waterways and existing services and facilities.
Strategic Aim 6.2.8	Continue to promote the waterways and educate the public on the benefits and value of the waterways, including cultural, historic and ecological value.
Objective No. 26	Enable access to the waterway for swimming and encourage links with water safety programmes and waterways educational forums.
Objective No. 27	Raise the profile of natural and cultural heritage by making information available on the heritage of the waterways corridor.
Objective No. 28	Create an awareness of the social, religious and political climate of the area.
Objective No. 29	Raise the profile of cultural heritage in the study area.

Strategic Aim 6.2.9

Ensure the assimilation of adequate ecological information on important sites for natural heritage and the protection of the ecological integrity of the waterways

Objective No. 30

Ensure there is adequate ecological information available on sensitive sites in the study area.

Objective No. 31

Protect designated areas and prevent piecemeal designations

Objective No. 32

Control the growth and spread of invasive species on the waterways and to maintain the integrity of the wider ecological network

Objective No.33

Protect traditional floodplain meadows.

Strategic Aim 6.2.10

Ensure the availability of information on cultural and built heritage within the waterways and ensure the adequate protection of archaeological and built heritage.

Objective No. 34

Formulate a consistent basis of approach throughout the waterway corridor regarding conservation of the archaeological resource

Objective No. 35

Ensure there is adequate protection for sites of cultural and built heritage.

Objective No. 37

Recognise the economic value of the waterways corridor and its contribution to the local, regional and national economy.

Objective No. 36

Recognise the historic and strategic defence importance of Jamestown.

STRATEGIC AIM

6.2.1 Ensure the protection of the waterways from inappropriate development and promote the integrated management of the waterways

Objective No.1	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Recognise the Shannon as a national asset and to continue to manage this attractive area as a place in which to live and work having regard to the need to preserve the waterways and its wider landscape for future generations.</p>	<p>Identify a Waterway Corridor Zone in Development Plans with suitable policies and actions to effectively control and regulate development. Development in the zone, including commercial, agricultural and industrial development, shall only be permitted if it can be demonstrated that it will not adversely impact on the visual and amenity value of the waterways and its water quality, by means of appropriate studies, such as landscape visual impact assessments, ecological assessments and site suitability assessment for the effective treatment and disposal of wastewater.</p>	<p>Variation of County Development Plans in the short-term</p>	<p>Leitrim County Council; Roscommon County Council;</p> <p>Border Regional Authority; Western Regional Authority; Waterways Ireland</p>	<p>Level of houses granted planning permission within the corridor zone.</p>

Explanation:

The Shannon and wider landscape corridor has experienced significant development over many years and this is seen not only in the towns and villages surrounding the Shannon but in the rural hinterland also. As roads to the region improve, such as the N4, the area will continue to be an attractive area in which to live and work, or to visit. New developments need to be carefully considered on the basis of agreed policies, between both local authorities managing the area. Future development must be well designed and carefully sited to integrate into the landscape. In the past, badly designed and poorly located new buildings have damaged the distinctive character and landscape of the Shannon. Strong planning policies are needed to control and guide new development and protect the Shannon, making it a better place to live in and to visit. At the same time, development must be allowed to meet the needs of local people and the local economy. The Leitrim County Development Plan goes some way towards fulfilling this policy with the designation of an area around Lough Allen and the river as an Area of High Visual Amenity. Policy in the Roscommon County Development Plan which seeks to establish a sustainable and planning strategy for the future development of the waterways in conjunction with adjacent local authorities should be implemented and enforced through the establishment of a water corridor zone, with uniform planning policies.

Objective No.2	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Maintain and preserve the aesthetic value of the waterways and its shoreline from the impacts of dispersed and highly visible inappropriate development and discourage speculative development.</p>	<p>That design guidelines for the siting and design of rural buildings in visible landscapes be prepared, similar to those prepared by Leitrim County Council.</p>	<p>Short-Term</p>	<p>Roscommon County Council</p>	<p>Adoption of design guidelines and their implementation.</p>

Objective No.3	Recommended Action	Timescale	Responsible Bodies	Monitoring
Support the growth and development of local communities within the waterway corridor whilst maintaining their distinctive character.	Prepare local area plans / village design statements to encourage consolidated and appropriate development within existing settlements, particularly in Cootehall and Knockvicar. These local area plans should focus on the carrying capacity of villages to accommodate development and on appropriate design standards for rural villages.	Short Term to Medium	Leitrim County Council Roscommon County Council	Number of Local Area Plans / Village Design Statements prepared by County Council.
	Instigate the preparation of a Waterways Corridor Local Area Plan addressing settlements along the corridor and issues of design, managed growth and associated infrastructure whilst having regard to the proposed Socio-Economic Framework outlined in Section 6.3 of this study	Short Term to Medium	Leitrim County Council	Status of Local Area Plan and has preparation begun.
	Prepare a combined Local Area Plan for Dowra to direct investment and regeneration in the village having regard to the possibility of strengthening links with Lough Allen.	Short Term to Medium	Leitrim County Council and Cavan County Council	Status of Local Area Plan and has preparation begun.
	Prepare a detailed Local Area Plan for Cootehall, having regard to the sensitive nature of the village and associated development pressures, with particular emphasis on preserving the form, layout, function and character of the village.	Short-Term	Roscommon County Council	Status of Local Area Plan and has preparation begun.

Explanation:

Given the number of small settlements within the waterways corridor and the importance of protecting the character and form of these villages, to ensure quality of life and enhance the waterways as a resource of national and international significance, the preparation of a Waterways Corridor Local Area Plan should be considered by Leitrim County Council, including the villages of Drumkeeran, Leitrim Village, Jamestown, Drumsna, Dromod and Roosky. An Integrated Area Plan is currently being prepared by Leitrim County Council for Drumshanbo. Roscommon County Council has a number of Local Area Plans prepared for its towns and villages, including Boyle, Lough Key and Cootehall, Roosky and Strokestown.

Objective No.4	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Support, control and monitor the impact of the Rural Renewal Tax Incentive Scheme on the landscape and heritage resources of the area prior to the implementation of a new scheme.</p>	<p>Adapt recording methods and statistical collation on planning applications and building control to facilitate the collation and analysis of detailed information on the scheme.</p> <p>Support the recent review and evaluation of the scheme undertaken by the Department of Finance and the Revenue Commissioners and ensure the effective monitoring of the impacts of any future scheme from here on in.</p>	<p>Immediately</p>	<p>Planning Authorities; Regional Authorities; DoEHLG</p>	<p>Establishment of base-line data and producing statistics on numbers of units constructed purely as a result of the scheme.</p>

Explanation:

The Rural Renewal Tax Incentive Scheme will continue to operate in the Upper Shannon area until June 2006, with a requirement that applications for development be lodged and validated by the Planning Authority by 31st December 2004. The Scheme offers tax relief of 50% of the build cost of a new residential property and 100% of the refurbishment cost of an existing residential property. In terms of commercial and industrial properties the Scheme offers up to 100% rebate of construction or refurbishment costs to owner-occupiers or lessors, subject to certain conditions. The purpose of the Rural Renewal Scheme is to increase population in rural areas and certainly the Scheme's 'Section 23-type' tax relief has resulted in a recognisable increase in development pressure in parts of the study area, most notably in the Shannon towns and villages of Roosky, Carrick-on-Shannon, Boyle, Leitrim village, Dromod and to a lesser degree Drumshanbo. This scheme is currently under review by the Department of Finance and the Revenue Commissioners with a thorough evaluation of the effect of all tax incentive reliefs and exemptions being undertaken. The real impact of the scheme is not known as there is little quantitative information available at local or regional level. A comprehensive assessment of the impacts on the geographic, socio-economic, heritage and environmental resources of the area needs to be undertaken in the review. Consideration should also be given to the mandatory preparation of Local Area Plans for specific areas to accommodate increased development pressure in a holistic and integrated manner. The difficulty in monitoring the scheme is that the area straddles two different Regional Authorities and many different local authority areas, so responsibility for monitoring does not rest with any one group / organisation.

Objective No.5	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Protect the floodplains of the River Shannon from inappropriate development whilst allowing landowners to continue existing agricultural activities and providing access for land based users of the waterway.</p>	<p>Have regard to the report recently prepared on flooding in the Shannon by the OPW and to continue the on-going study in the floodplains so that floodplain boundaries can be defined and the area designated for protection from an ecological and development viewpoint.</p>	Short-Term	DoEHLG; Leitrim and Roscommon County Councils; OPW	Establishing, mapping and designating the floodplain area; and adopting the designation into relevant Development Plans; Increase in SAC, NHA, SPA designations
	<p>Feasibility studies should be undertaken on the possibility of protecting parts of the floodplain that are not included in any conservation designation but which may have areas of sufficient interest to warrant designation including:</p> <ul style="list-style-type: none"> • Flood zones of Lough Allen • Cloongownagh (additional floodplain area of Drumharlow) • Inishmucker/Rinnacurreen/Cloonfeacle (Shannon floodplain areas on fen peat south of Carrick-on-Shannon) • Coraughrim • The Doon at Corgullion/Cuiltyconway • GillstownBridge/Corgowan/Drumagissau Clooneen (Floodplain of the Mountain/Scramoge River) 	Short-Term	DoEHLG; National Parks and Wildlife Service	Increase in SAC, NHA, SPA designations
	<p>Under Article 3 of the Ramsar Convention, signatories (of which Ireland is one) are obliged to include wetland conservation considerations in national land-use planning and to promote as far as possible the wise use of wetlands. Floodplains act as natural reservoirs for flood water and should remain as natural storage mechanisms and not be seen as development land, thus preventing flooding further downstream.</p>	Short-Term	DoEHLG and Local Authorities	Level of development on the floodplain

Explanation:

The identification of the Shannon floodplain within some of the study area was carried out in one instance by the OPW. Floodplain maps from January 2000 were used to determine the extent of flooding at that time. Additional flooded areas were roughly mapped by Browne Dunne Roche (2002) in February 2000. However, neither sources of information reflect the greatest extent of possible flooding within the study area. In addition, continued building and development within floodplain areas means that flooding regimes further downstream may be less predictable.

Objective No.6	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Protect the shoreline of the study area, from proliferation of private jetties and harbours and ensure that authorised jetties and harbours are of adequate quality and design.</p>	<p>That resources are dedicated to enforcement of unlicensed private jetties and harbours and that the Services and Facilities Map prepared as part of this study is used to assess the number of harbours and mooring facilities with planning permission.</p>	Short-Term	Roscommon County Council; Leitrim County Council and Waterways Ireland	<p>Number of warning and enforcement notices issued.</p> <p>Number of retention applications received for harbours and jetties.</p>
	<p>That greater correspondence is undertaken with planning authorities before private encroachment licences are issued and that the procedure associated with felling licenses is considered as an appropriate procedure for the issuing of encroachment licences.</p>	Short-Term	Waterways Ireland; Local Authorities; DOEHLG;	<p>Number of encroachment licences issued, where planning permission has not been granted.</p>
	<p>That an information pack be prepared for distribution with encroachment licences highlighting the need for planning permission before a harbour can be constructed.</p>	Short-Term	Waterways Ireland	<p>Preparation of information pack and number of packs distributed.</p> <p>Number of harbours constructed with an encroachment licence but no planning permission.</p>
	<p>Ensure that quality of design and the quality of materials proposed are major considerations in assessing all proposals for marina developments / mooring facilities and ensure that adequate landscaping measures are proposed and implemented on site.</p>	Short-Term	Waterways Ireland and County Councils	<p>Level of improvement in design quality and finishes proposed and implemented.</p>

Explanation:

The proliferation of jetties and mooring buoys within the study area is recorded on the Services and Facilities Map. As well as being visually intrusive, the increasing number of private jetties and water-related shoreline development causes fragmentation of wildlife habitat. Planning permission must be sought for creation of jetties that encroach on the navigation channel. However, all too frequently these are unlawfully constructed. Furthermore, although the County Development Plans all contain policies to prevent proliferation of private jetties, there is a lack of enforcement of these policies. The character of the study area, but particularly the lakes are vulnerable to inappropriate development. Currently there is little communication between Waterways Ireland and Local Authorities. This results in encroachment licences being assessed with regard only being had to the physical impact of the development on the navigation, whilst local authorities assess the wider impact on the waterways and general locality. Quality of design and appropriate siting and location are critical issues in determining the suitability of the landscape to accommodate such a proposal.

STRATEGIC AIM

6.2.2 Assess the carrying capacity of the waterway to accommodate further boating activity.

Objective No.7	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Develop and manage the growth of recreational boating on the Upper Shannon in a sustainable manner whilst ensuring that public access is provided and maintained to the waterways for recreational purposes.</p>	<p>Undertake an assessment on the carrying capacity of the Upper Shannon to accommodate additional recreational boat users and to assess the impact of boating on sensitive habitats.</p>	<p>Medium -Term</p>	<p>Waterways Ireland; Heritage Council</p>	<p>Status of feasibility study and whether it has commenced.</p>

Explanation:

The busy, water-based tourist industry is of major economic importance in the Upper Shannon, although no study has been done on the capacity of the study area to accommodate further boating activity. Boating numbers on the Shannon have increased substantially over the years and the current figure of 5,217 registered boats is continuously growing from 3,876 boats in 2000 to 4,479 boats in 2002. This reflects a growing interest in boating nationwide. Waterways Ireland reports that recreational use of the navigation is only 10 – 15% of predicted capacity. However, no assessment has been carried out to date on the impacts of boating on sensitive habitats such as reed-beds. Boats with shallow hulls and different hull forms and other features to prevent unnecessary ecological damage are used in sensitive and protected waterways in the UK (e.g. see www.broads-authority.gov.uk) and could be phased in here if necessary.

STRATEGIC AIM**6.2.3 Ensure the protection of water quality and the effective management of the navigable system**

Objective No.8	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Protect and enhance water quality throughout the waterway corridor</p> <p>Explanation:</p>	<p>Put measures in place, as required by the Water Framework Directive and the Shannon River Basin Management Project, to prevent artificial enrichment from both diffuse and point sources (agricultural run-off and municipal wastewater respectively).</p>	Short – Medium Term	EPA, CFB DoEHLG, Local Authorities and Landowners	Quality of the water and test results from the EPA and CFB.
	<p>That, in line with the Shannon Navigation bye-laws, facilities, working practices and licensing conditions be put in place to reduce and eradicate the disposal of effluent from boat users. That all new and existing marinas and harbours be required to provide modern, functioning pump out facilities and that existing facilities be maintained in a functioning state and inspected regularly.</p>	Short – Medium Term	Waterways Ireland; Leitrim County Council and Roscommon County Council	Number of pump out facilities provided and number of boats with holding tanks.
	<p>That an independent agency is engaged to monitor the working condition of the existing pump-outs and that regular reports are produced relating to the condition and effectiveness of the pump-out facilities.</p>	Short – Medium Term	Waterways Ireland; Central Fisheries Board and County Councils	Status of reports and working condition of pump out facilities

The water quality of the Shannon is critical to its value as a habitat and as a recreational and tourism resource. Statutory responsibility for water management and protection rests primarily with local authorities. The Local Government (Water Pollution) Acts 1977 and 1990 constitute the main national legislation in this regard. The Environmental Protection Agency (EPA) and Central Fisheries Board (CFB) are responsible for monitoring the water quality on the Shannon system. There has been growing concern over the deterioration of water quality throughout the study area and its impacts on fish stock in particular. This issue will largely be addressed through the Water Framework Directive and the Shannon River Basin Management Plan, although a number of actions instigated from this study could improve the existing situation.

Both Roscommon and Leitrim County Council will need to invest in upgrading existing wastewater treatment plants and maintaining 'pump out' facilities. There are five pump out stations in the study area including one at Dromod, two in Carrick-on-Shannon, one in Boyle and one in Leitrim Village. The pump out facilities in Boyle and Leitrim Village are managed and maintained by Waterways Ireland and the remaining three are managed by Leitrim County Council. The three pump out facilities managed by Leitrim County Council are under the control of the Environment Section of the County Council but are not regularly maintained. There is no one specific maintenance section with responsibility for their upkeep.

Objective No.9	Recommended Action	Timescale	Responsible Bodies	Monitoring
Protect the water quality and the zone of visual influence from inappropriate conifer plantations and forestry.	Need to identify sensitive catchment areas around the waterways where forestry activities will be limited.	Short – Medium Term	Leitrim County Council, Roscommon County Council and the SRFB.	Number of areas around waterways identified as being sensitive.
	To undertake further research and consider the introduction of buffer strips and liming to ameliorate acidification in forested catchments on sensitive geologies. Buffer zone widths should vary in certain locations to avoid straight edges for landscaping purposes.	Short – Medium Term	Forest Service and National Parks and Wildlife Service	Status of research, has it commenced and are the results being implemented.

Explanation:

Forest operations, such as ground preparation and drainage, vegetation management, the construction of roads and bridges, fertiliser application and forest harvesting, may adversely impact on water quality. Eutrophication, acidification and sedimentation can affect the biology, chemistry and hydrology of aquatic ecosystems. The Forest Service has a policy of consultation with Regional Fisheries Boards and Local Authorities on forestry applications in areas where there is a perceived risk of acidification. Planting is not permitted in SACs and SPAs and approval for planting in pNHAs is dependent on formal consultation between the Forest Service and the Heritage Service. Additional sensitive catchment areas should be identified around the waterways, including issues such as visual impacts and landscape vulnerability and no planting should be permitted in these areas without prior consultation with the local authority. 'Sustainable Forest Management' activities should be supported and engaged by all those involved.

Objective No.10	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Maintain and enhance the navigation system of the waterway.</p>	<p>That the Shannon River Basin Management Plan acknowledges the need for a limited amount of dredging, whilst having regard to the wider ecological network.</p> <p>That the ESB and Waterways Ireland continue to liaise on the subject of water levels to facilitate safe navigation during all months of the year, whilst ensuring that the ecological integrity of the river is maintained.</p>	<p>Short – Medium Term</p> <p>Short – Medium Term</p>	<p>Shannon River Basin Project; Waterways Ireland</p> <p>ESB and Waterways Ireland</p>	<p>Acknowledge the need for limited dredging in the Shannon River Basin Management Plan</p> <p>Record of water levels and analysis over time.</p>

Explanation:

Although the use of the navigation system itself is a natural dredging mechanism, certain stretches of the river leading to the Carnadoe Waters could potentially require dredging in the future. It is important that the Shannon River Basin Management Plan acknowledges the need for a limited amount of dredging, whilst having regard to the wider ecological network.

The ESB determines the level of water in Lough Allen through management of sluices at Bellantra. Waterways Ireland manages the sluices at Jamestown, Roosky and Tarmonbarry. According to the ESB in order to maintain the channel downstream of the sluices in good order and have a fair flow in the river, the level downstream of the sluices should not be allowed to drop below 46.40m O.D., but it may not be possible to maintain this level during drought periods. To achieve this it is desirable that the level in Lough Allen is above 48.16m O.D. during May and early June as the minimum required to be discharged at Bellantra of 5.0m³/S exceeds the average summer inflow to the lake.

Objective No.12	Recommended Action	Timescale	Responsible Bodies	Monitoring
Ensure that the waterways are effectively policed and that bye-laws are enforced	Local authorities, in association with Waterways Ireland, should ensure that the regulatory measures related to the safe operation of vessels on the waterways are adequately policed.	2005	Department of Marine; Waterways Ireland; Roscommon and Leitrim County Council	Number of authorised officers policing the waterways

Explanation:

There are three Inspectors of Navigation on the Shannon, policing the waters and ensuring compliance with bye-laws. The Gardaí, are also automatically empowered to act as authorised officers, to prevent criminality and to control speed and they now have a high powered speed boat to facilitate them in their duties. However, given the expanse of the waterways such resources are not adequate to enforce the activities of boat users on the waterways. Consideration should be given to the Dept. of the Marine's Final Report of the Action Group on Small Powered Recreational Craft, published in 2000 where it states that statutory and other bodies may appoint authorised officers to implement regulations.

Objective No.13	Recommended Action	Timescale	Responsible Bodies	Monitoring
Preserve and conserve the fish stocks in the study area and in certain areas such as Lough Key	Explore the possibility of undertaking a strict no kill policy in certain areas such as Lough Key, over a certain timeframe.	Short–Term	Shannon Regional Fisheries Board; Fishing Clubs and Gardai	Status of policy and has it been implemented. Fish stock numbers.
	Promote the concept of water keepers such as those on Lough Key and encourage greater co-operation and communication between the water keepers, Shannon Regional Fisheries Board and the Gardai.	Short – Medium Term	Shannon Regional Fisheries Board; Fishing Clubs and Gardai	Number of water keepers on the Shannon.
	Ensure that research undertaken on fish stocks by the Central Fisheries Board is effectively communicated to relevant personnel including the fishing clubs, Failte Ireland and tourist agencies.	Short – Long Term	Central Fisheries Board	Availability of Information.

Explanation:

There is a general assumption by the public that there is little control or enforcement of fishing laws in Ireland and stocks in our waterways are depleting as a result, as people fish and take what they want. A catch and release policy, as is implemented in other countries, provides an opportunity to facilitate the stocking and regeneration of fish stocks. The Boyle & District Angling Club have restocked Lough Key and are of the opinion that a catch and release policy for a certain period of time would facilitate fish restocking and an increase in fish numbers. The Boyle & District Angling Club have 12 water keepers appointed from club members in an attempt to regulate fishing on Lough Key but they have limited powers. This concept, however, could be further developed.

STRATEGIC AIM**6.2.5 Promote access to and enjoyment of the waterways**

Objective No.14	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Maintain and ensure that both formal and informal access to the waterways is provided for the benefit of all.</p>	<p>Explore possibilities for amending the standards relating to the protection of watercourses and waterbodies and the erection of fencing in the REPS, so that informal access can be maintained and provided along the river bank and the lakeshores.</p>	<p>Short–Term</p>	<p>Waterways Ireland, Local Authorities; Department of Agriculture and Food; Heritage Council</p>	<p>Length of shoreline / river bank over time where access is maintained.</p>

Explanation:

REPS is the Rural Environment Protection Scheme and is designed to reward farmers for carrying out farming activities in an environmentally friendly manner. Measure 3 of REPS relates to the protection of watercourses, waterbodies and wells and it is a requirement that fences are erected around water bodies and that they must be a minimum of 1.5 metres from the top of the bank of the watercourse. In addition all farm boundaries must be stock-proofed. REPS has had the effect of restricting access along the banks of the river, as previously open fields running down to the river now have their field boundaries stock-proofed, which can impact on the flora and fauna of the river as animals such as whopper swan are prevented from moving inland to the floodplain. There are facilities within the REPS whereby the Planners acting on behalf of the farmer can make a case for a relaxation in the standards having regard to such issues as access and walkways. However, this is not the norm as current practice follows the requirements of the various Measures.

Objective No.15	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Enhance public access to the shores of the lakes and the river bank.</p>	<p>Examine opportunities to open up access to the shoreline for walking, horse-riding and cycling and explore issues of insurance and public safety, similar to the Kingfisher Cycle Route which follows the lane alongside the canal for much of the journey between Drumshanbo and Leitrim.</p>	<p>Medium Term</p>	<p>Local Landowners; County Councils; Waterways Ireland; DOEHLG; National Waymarked Ways Advisory Committee of the Irish Sports Council</p>	<p>Number of additional access points provided for along the lake-shore. Number of landowners prepared to enter into dialogue on issue.</p>
	<p>Examine opportunities for the installation of isolated floating jetties on the Carnadoe Waters.</p>	<p>Short Term</p>	<p>Waterways Ireland</p>	<p>Number of additional mooring/berthing facilities provided over time.</p>
	<p>Explore the possibility of creating signed access along the banks of the River Shannon and the River Boyle.</p>	<p>Medium Term</p>	<p>Local Landowners; County Councils; Waterways Ireland; DOEHLG; National Waymarked Ways Advisory Committee of the Irish Sports Council;</p>	<p>Number of additional directional signs erected highlighting access to the River Shannon and Boyle River.</p>

Explanation:

Both Roscommon and Leitrim County Councils include objectives to improve access to the waterways, however constraints exist due to fragmentation of land ownership along the shores of the lakes and the river. Furthermore, in some locations it may be appropriate to limit access to protect sensitive habitats and cultural heritage. For the most part, it is considered that suitable safe landing facilities, linked with existing settlements or services such as a pub or identified walking route that are accompanied by appropriate signage can greatly enhance the appreciation of the waterways environment.

Objective No.16	Recommended Action	Timescale	Responsible Bodies	Monitoring
Strengthen the relationship between Carrick-on-Shannon and the River Shannon	Instigate the preparation of a Riverfront Strategy to include guidelines for design and height of buildings fronting the river, maintenance of protected structures and built heritage, open space and access along the banks of the river for pedestrians and water users.	Short– Medium Term	Leitrim County Council and Roscommon County Council	Number of permissions granted for development and which make provision for public access along the banks of the river.
	Consider the provision of additional public mooring facilities in Carrick-on-Shannon.	Short–Term	Waterways Ireland	Number of additional public berths in the town
	Support the reinstatement of the riverside boardwalk in front of the Landmark Hotel as a valuable tourist and educational facility.	Short–Term	Leitrim County Council Irish Sports Council;	Condition of the boardwalk.

Explanation:

The Leitrim County Development Plan details a specific waterfront strategy with urban design guidelines and it is a specific objective of the Plan to examine the feasibility of redeveloping the riverside lands and quay area. Such a strategy should be prepared jointly by both Roscommon and Leitrim County Council, to ensure an integrated approach and that access to and open space around the river is maintained. Waterways Ireland is considering the potential of developing additional mooring facilities downstream of the bridge in Carrick-on-Shannon. Furthermore, Waterways Ireland is seeking a new regional headquarters building in the town and is currently seeking a number of suitable sites. The development of a new headquarters building will be subject to public consultation and the planning process. It is acknowledged that the riverside boardwalk in front of the Landmark Hotel is a valuable resource, in terms of ecology, education and recreation. The Carrick-on-Shannon Local Area Plan states that it is an objective to reinstate the old quay wall opposite the Landmark Hotel as the location offers opportunities for developing linkages between the river and the town centre. The boardwalk could be reinstated as part of the overall objective.

Objective No.18	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Enhance public access to Lough Allen and encourage a greater use of this significant natural amenity.</p>	<p>Continue to explore the possibility of linking the navigation to the village of Dowra, and other areas / settlements within Lough Allen.</p>	<p>Short – Long Term</p>	<p>Waterways Ireland and local communities.</p>	<p>Number of additional access points on Lough Allen over time.</p>
	<p>Explore the possibility of extending the marked navigable channels within Lough Allen, particularly on the eastern shore along with the production of comprehensive charts for the lake.</p>	<p>Short– Long Term</p>	<p>Waterways Ireland</p>	<p>Status of updated charts and additional navigable areas.</p>
	<p>Consider developing additional swimming areas / recreational areas on Lough Allen as an alternative to Corry Strand.</p>	<p>Medium Term</p>	<p>Leitrim County Council and Waterways Ireland</p>	<p>Number of additional recreational areas on Lough Allen</p>

Explanation:

Lough Allen remains relatively underused compared to the remainder of the Shannon Navigation. In 2003 only 802 boats passed through the lock at Drumshanbo compared to 9,564 through Roosky Lock and 11,216 through Albert Lock. Lack of interest in Lough Allen could be attributed to the lack of mooring facilities as the lake has only two mooring jetties located at Cleighran More and Spencer Harbour and neither of these is located in close proximity to villages. A small pier, suitable only for lakeboats is located at Cormongan. Waterways Ireland is currently exploring the possibility of extending the navigation to Annagh Upper with linkages to the village of Dowra. Corry Strand was one of the few accessible amenity areas on Lough Allen and it is important that existing swimming access areas are maintained on Lough Allen and the wider Shannon.

STRATEGIC AIM

6.2.6 Continue to provide and maintain additional facilities within the waterway corridor

Objective No.19	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Maintain and provide additional facilities and services within the Waterways Corridor as resources permit.</p>	<p>Provide additional angling stands on the Carnadoe Waters and upstream of the bridge at Carrick-on-Shannon.</p>	<p>Short - Term</p>	<p>Shannon Regional Fisheries Board; Waterways Ireland</p>	<p>Level of new infrastructure being provided on the banks of the river.</p>
	<p>Consider the provision of additional facilities, including mooring facilities upstream of the lock; additional landing stages above the bridge; slipways and new toilet facilities in Roosky.</p>	<p>Medium Term</p>	<p>Waterways Ireland and Leitrim and Roscommon County Councils.</p>	<p>Additional facilities provided in the village over time.</p>
	<p>Ensure the sensitive design and appropriate use of materials in developing future mooring facilities.</p>	<p>Short – Long Term</p>	<p>Waterways Ireland</p>	<p>Examination of materials being used in mooring facilities.</p>
	<p>Ensure that all facilities, including mooring facilities; fishing stands; public recreational areas and pump-out facilities are maintained in a workable and orderly manner.</p>	<p>Short – Long Term</p>	<p>Waterways Ireland; County Councils;</p>	<p>Condition of facilities over-time.</p>

STRATEGIC AIM

6.2.7 Strengthen tourism linkages / clustering within the waterways corridor and link land based activities with the waterways

Objective No.20	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Link the waterways with a number of dedicated walking and cycling routes and historical trails.</p>	<p>Provide additional signage and information boards at strategic locations around the waterways, highlighting the presence of dedicated walking and cycling routes.</p>	<p>Short - Term</p>	<p>Waterways Ireland; DOEHLG; National Waymarked Ways Advisory Committee of the Irish Sports Council;</p>	<p>Number of additional signs over time.</p>
	<p>Explore the possibility of creating a direct link from the Leitrim Way at the base of Slieve Anierin on the eastern shore of Lough Allen, possibly at Cleighran More where mooring facilities have recently been provided.</p>	<p>Short – Medium Term</p>	<p>Waterways Ireland; DOEHLG; National Waymarked Ways Advisory Committee of the Irish Sports Council; and Western Development Commission</p>	<p>Establishment of Working Group and monitor progress.</p>

Explanation:

There are several designated walkways throughout the study area including the Miners Way, Leitrim Way and the O'Sullivan Beara Way as far as Leitrim village. The Beara Breifne Way also facilitates cycling. A strong connection should be made linking the waterways with these historical trails, providing for linked recreational pursuits. This could be provided for by means of additional signage and information boards at key locations around the waterways and in some instances routes such as Leitrim Way could be physically linked with the water. The National Waymarked Ways Committee currently inspects the walkways yearly and farmers land is covered by the public liability insurance of the relevant local authority.

Objective No.2 I	Recommended Action	Timescale	Responsible Bodies	Monitoring
Strengthen the relationship and link the Arigna Mining Experience with the waterways.	Provide specific information in Acres Lake and operate a regular bus / taxi service to the attraction from Drumshanbo, whilst providing directional walking signs from Drumshanbo along the R280 to the Old French Road.	Short-Term	Western Development Commission; Waterways Ireland; National Waymarked Ways Advisory Committee of the Irish Sports Council.	Frequency of bus service to the attraction and number of signs promoting the walking route from Drumshanbo.
	Identify a signed greenway route along or adjacent to the unnavigable section of the River Shannon west of Drumshanbo, linking in with the Tarrant's Canal to join the Miners Way Walking route.	Short – Medium Term	Western Development Commission; Waterways Ireland; National Waymarked Ways Advisory Committee of the Irish Sports Council.	Assess progress of development signed greenway route.

Explanation:

The Arigna Mining Experience is a significant tourist attraction in Leitrim and Roscommon and is well signposted from the R280, with little links to the waterways. The only alternative to accessing the tourist attraction by private car is the shuttle bus from Drumshanbo which operates irregular hours and is not well publicised. A walking route which leaves Arigna via the old railway track to Mount Allen following the Arigna River to the Old French Road which leads in turn onto the main road into Drumshanbo is also not well publicised. Alternative modes of transport to the private car must be promoted and explored to facilitate access to significant tourist attractions for visitors from the waterways.

Objective No.22	Recommended Action	Timescale	Responsible Bodies	Monitoring
Strengthen the relationship and links with the waterways and the Cavan and Leitrim Railway.	Continue to explore the possibility of restoring the track of the Cavan and Leitrim Railway to the town of Mohill and linkages with the waterways.	Short – Medium Term	Irish Narrow Gauge Trust; Leitrim County Council; and Waterways Ireland	Length of track restored; Establish a specific committee
	Provide specific information in Dromod Harbour on the attraction and means of access to the station.	Short-Term	Irish Narrow Gauge Trust; Leitrim County Council; and Waterways Ireland	Provision of information sign at the harbour
	All buildings associated with the railways at Dromod and including the railway station at Mohill should be listed under the RPS.	Short-Term	Leitrim County Council	Increase in numbers of Protected Structures.

Explanation:

Dromod as well as being a harbour on the Shannon also has two railway stations, one on the Iarnród Éireann Dublin-Sligo mainline and one, beside it, on the narrow-gauge Cavan and Leitrim Railway (CLR). The CLR ran from Dromod on the Shannon, to Ballinamore on the Shannon-Erne Waterway and a second line, the Tramway, ran west to Drumshanbo and Arigna with later, an extension to take coal from the mines. In 1992 the Irish Narrow Gauge Trust revived the narrow-gauge station at Dromod with material from their collection. Nearly a kilometre of track has been restored and visitors can take trips up and down the line. There are plans to restore the line for 8km to the town Mohill. Potential exists to link both rail and waterway assets, providing a trip that involves a train journey to Mohill and a boat journey from Mohill back to Dromod via the Rinn River or by taxi.

Objective No.23	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Create linkages between the waterways and significant landscape, ecological and archaeological features.</p>	<p>Develop a number of scenic driving and cycling routes around the waterways corridor, supplemented with easily discernible published mapping highlighting a number of routes and providing details on all features that the route has to offer.</p>	<p>Medium – Long Term</p>	<p>Local Authorities; Local Tourism Agencies; Chamber of Commerce; LEADER</p>	<p>Number of scenic drives developed and marketed.</p>

Explanation:

There is a range of dramatic landscape scenery and both natural and cultural heritage aspects to be visited within the waterways corridor and this could be more effectively undertaken by car and bicycle. For example a scenic route could be developed around the R280 extending from Spencer Harbour on the western shores of Lough Allen to Mountallen Bridge offering spectacular views of Lough Allen itself as well as the distant Slieve Anierin mountains on the eastern side. This route also passes a brick chimney at Spencer Harbour, the location of a post medieval ironworks/brickworks/pottery works industry. With the large extant brick chimney and associated outbuildings as a visual backdrop, the harbour itself is excellently maintained, surrounded with mature woodland, picnic areas, a jetty, and impressive views of Corry Island and the Slieve Anierin Mountains. Immediately south of Spencer Harbour along the R280, are two waterfalls on the foothills of Corry Mountain, as well as the ancient abbey of Tarmon, with a large proportion of the church and enclosing wall still extant. In addition there are a range of archaeological monuments since prehistoric times located adjacent to this route such as a standing stone, ringforts, sweat houses etc.

Objective No.24	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Create linkages between the waterways and significant literary connections within the waterways corridor area.</p>	<p>Develop a literary trail within the waterways corridor which would not only create an appreciation and understanding of the landscape of the waterway but also a sense of interlinking the urban settlements of the area.</p>	<p>Medium – Long Term</p>	<p>Local Authorities; Local Tourism Agencies; Chamber of Commerce; LEADER</p>	<p>Status of literary trails and have they been established.</p>

Explanation:

The region of the Upper Shannon and its lakes which comprise the waterways corridor is unique for its rural landscape and rolling terrain. Relatively untouched, it has been the subject of several distinguished authors, whose works date to the nineteenth century, including McGahern, Thompson and Trollope. An awareness of the literary facets unique to the waterways corridor could be created by introducing a literary trail which would create not only an appreciation and understanding of the landscape of the waterway but also a sense of interlinking the urban settlements of the region as well as highlighting its built heritage in the form of the country houses and small villages in which the novels were set.

Objective No.25	Recommended Action	Timescale	Responsible Bodies	Monitoring
Create linkages between the waterways and existing services and facilities.	Provide standardised signage at all public harbours and mooring facilities, including information relating to taxi services; medical services etc.; tourist attractions etc.	Short-Term	Waterways Ireland	Number of signs erected over time.
	An information booklet on the responsibilities of different organisations should be published for distribution to all those with registered vessels on the waterways, gun clubs, fishing clubs and other organisations.	Short-Term	Department of the Marine; Waterways Ireland; and Central Fisheries Board	Status of booklets and number distributed over time.

Explanation:

Waterways Ireland is currently in the process of appointing a signage design contract to provide uniform signage and information boards at all mooring facilities in the control of Waterways Ireland by 2005.

STRATEGIC AIM**6.2.8 Continue to promote the waterways and educate the public on the benefits and value of the waterways, including cultural, historic and ecological value.**

Objective No.26	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Enable access to the waterway for swimming and encourage links with water safety programmes and waterways educational forums.</p>	<p>Maintain existing swimming access areas, develop new areas along the Shannon and link local communities with water safety courses to encourage safe swimming in the waterway.</p>	<p>Short – Long Term</p>	<p>Waterways Ireland; Local Authorities; IWA; Irish Water Safety (IWS)</p>	<p>Number of participants on water safety courses. Number of additional swimming areas.</p>

Objective No.27	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Raise the profile of natural and cultural heritage by making information available on the heritage of the waterway corridor.</p>	<p>Fund and provide detailed visitor information boards located at the public harbours and access points throughout the waterway corridor including Drumshanbo. These should include information on all heritage issues including potential for underwater archaeology.</p>	<p>Short-Term</p>	<p>Local Authorities; Local Tourism Agencies; Local Chamber of Commerce; LEADER; Waterways Ireland;</p>	<p>Number of visitor boards erected on site.</p>
	<p>That detailed information on the heritage of the waterways be made available in the form of leaflets from the tourist information centres throughout the corridor; the lock stations; cruiser hire operators and council offices.</p>	<p>Short-Term</p>	<p>Local Authorities; Local Tourism Agencies; Local Chamber of Commerce; LEADER;</p>	<p>Number of leaflets made available and number of different locations</p>

Objective No.28	Recommended Action	Timescale	Responsible Bodies	Monitoring
Create an awareness of the social, religious and political climate of the area.	Examine the feasibility of providing an overview of the content or a replica of the Annals of Lough Cé at King House in Boyle.	Medium – Long Term	Local Authorities; Local Tourism Agencies; LEADER; Waterways Ireland;	Evaluation of findings of the feasibility of undertaking such work

Explanation:

None of the ecclesiastical settlements located along the waterway corridor have had a significant tradition of people/pilgrims visiting these sites. It is known that the establishment of these religious centres was linked to the natural presence of the waters. As such, efforts should be made not only in making provisions for a place for prayer, but also a place of educational value and a platform for meditation and quiet contemplation. The Annals of Loch Cé were written on Church Island, Lough Key from 1014 to 1590 and this factor could be instrumental in creating an awareness of the social, religious and political climate of the era by providing an overview of its content and/or a replica of the Annals to be housed in the area. Providing a replica of the Annals on Church Island itself would be highly desirable, however access to the island may be problematic and be financially restrictive. Thus, consideration should be given to housing a copy of the Annals at King House in Boyle for public view.

Objective No.29	Recommended Action	Timescale	Responsible Bodies	Monitoring
Raise the profile of cultural heritage in the study area.	Make available to the public, information from all excavations within the study area.	Short – Long Term	DoEHLG	Number of excavations published or made available to the public.

Explanation:

Little is known of the conservation works carried out at Trinity Island and Church Island on Lough Key following excavation programmes. These were important late medieval ecclesiastical centres and it is paramount that information regarding their past be made easily accessible to all, thus providing an impetus for creating awareness and educational benefit to the local communities and the tourist industry.

STRATEGIC AIM

6.2.10 Ensure the assimilation of adequate ecological information on important sites for natural heritage and the protection of the ecological integrity of the waterways

Objective No.30	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Ensure there is adequate ecological information available on sensitive sites in the study area.</p>	<p>Undertake further systematic, field based ecological survey of the study area, in particular from Lough Allen to Lough Boderg.</p> <p>Re-survey and possibly up-grade some designated sites from NHA to SAC.</p>	<p>Short – Medium Term</p> <p>Short – Medium Term</p>	<p>DoEHLG - National Parks and Wildlife Service</p> <p>DoEHLG - National Parks and Wildlife Service</p>	<p>Number of additional conservation designations.</p> <p>Number of designations updated.</p>

Explanation:

To date there has been a lack of systematic, field-based ecological survey of the study area – in particular from Lough Boderg north to Lough Allen. Since there has been a lack of systematic survey it follows that there is insufficient knowledge of the important sites for natural heritage within the study area and, possibly, insufficient conservation designations protecting areas of importance. The location of fen peat areas within the Shannon floodplain has been mapped for Co. Leitrim and grassland/marsh and woodland habitats present on this substrate are diverse and worthy of further examination with a view to possible designation.

There may be a requirement for re-survey and possibly upgrading of some designated sites from NHA to SAC. This assertion is based, in some cases, simply on the information provided in NPWS site files which lists as present habitats that correspond to those listed on Annex I of the Habitats Directive (e.g. fen habitat at Fin Lough). New information which has recently come to light regarding Annex I habitats at Kilgarraiff, underlines this requirement.

Objective No.31	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Protect designated areas and prevent piecemeal designations</p>	<p>Undertake more comprehensive designations, particularly around Lough Key and Lough Allen, where very small sections of the lake shores and islands are designated.</p>	<p>Short – Medium Term</p>	<p>DoEHLG - National Parks and Wildlife Service</p>	<p>Number of additional conservation designations.</p>

Explanation:

Designation of conservation sites has been piecemeal – particularly around Loughs Key and Allen where very small sections of the lake shores and / or islands are designated. The presence of the rare black poplar and additional sites for the rare orchid – Irish lady's tresses may warrant additional site designations around Lough Allen. At Lough Key there are a number of woodland areas that could be investigated further with a view to potential designation – particularly on the islands and lakeshore.

Objective No.32	Recommended Action	Timescale	Responsible Bodies	Monitoring
Control the growth and spread of invasive species on the waterways and to maintain the integrity of the wider ecological network	Continue to undertake research to examine methods of controlling the spread and impact of zebra mussels.	Short – Long Term	National Parks and Wildlife Service; Heritage Council; Waterways Ireland	Number of locations where zebra mussel have been located and rate of growth
	Undertake a public awareness initiative in association with relative bodies, in relation to the zebra mussel in an attempt to control the spread of zebra mussels and further protect the waters of the Shannon, particularly Lough Allen.	Short – Term	Roscommon and Leitrim County Councils; Regional Fisheries Board, Boating and Fishing Organisations	Level of public awareness
	To undertake and implement a national policy of controlling the growth and restricting the activities of mink to ensure the preservation of fish stocks and wildlife.	Short – Medium Term	Central Fisheries Board; National Association of Regional Game Councils	Increase or decrease in mink numbers.

Explanation:

Galway County Council are currently spearheading a public awareness campaign, the 'Western Region Zebra Mussel Control Initiative' to protect the Corrib from infestation and such a similar initiative should be considered by the Local Authorities of Leitrim and Roscommon in association with the Fisheries Board and Angling and boating organisations.

Objective No.33	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Protect traditional floodplain meadows.</p> <p>Explanation:</p>	<p>Undertake a study to determine the effects of intensification of agriculture and the abandonment of traditional floodplain meadows.</p>	<p>Short-Term</p>	<p>DoEHLG - National Parks and Wildlife Service</p>	<p>Status of study and has it commenced</p>

Intensification of agriculture and abandonment of traditional floodplain meadows and pastures may result in reduction in conservation value, along with habitat succession from semi-natural grassland to scrub/woodland. This issue requires further study to determine the extent of abandonment. There is also a potential loss of traditional Greenland white-fronted goose feeding grounds in areas where agricultural grassland has been abandoned.

STRATEGIC AIM

6.2.11 Ensure the availability of information on cultural and built heritage within the waterways and ensure the adequate protection of archaeological and built heritage

Objective No.34	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Formulate a consistent basis of approach throughout the waterway corridor regarding conservation of the archaeological resource</p>	<p>That the future conservation and development of the archaeological resource within the study area be guided by the principles of the Australia ICOMOS charter for the conservation of places of cultural significance (the Burra Charter) as per revised version 1988. Conservation plans should be prepared for sites/structures prior to any reuse/development.</p>	Short – Long Term	Landowners; Local Authorities; Waterways Ireland; DoEHLG and OPW	Condition of monuments on land in ownership of Council and other landowners. Number of Conservation Plans prepared
	<p>That sites/structures be cared for via a planned maintenance and repair programme based on sound knowledge of the place and its building materials, regular inspection, preventative maintenance and repair.</p>	Short – Long Term	Local Authorities; Landowners; DoEHLG and OPW	Condition of monuments on land in ownership of Council and other landowners.
	<p>That adequate access is provided to known sites listed and protected on both the RMP and RPS within the waterways corridor and that a pilot study be undertaken in the environs of Lough Key which hosts a range of sites and structures of cultural heritage significance, addressing issues such as accessibility and signage.</p>	Medium Term	Local Authorities; Landowners; DoEHLG and OPW	Number of sites and monuments with public access.
	<p>That more consideration and research is afforded to and undertaken on underwater archaeology in the corridor area and that detailed investigations are undertaken prior to considering / facilitating access or development works within the defined corridor area.</p>	Short – Long Term	Underwater Archaeological Unit; Waterways Ireland; and County Councils	Availability of new research and number of new licenses granted to undertake investigations.

Explanation:

There is good promotion of well known and extant heritage sites throughout Ireland through channels such as the Record of Monuments and Places (RMP), brochures and publications. However there are only four National Monuments within the study area, all of which are in Co. Roscommon and all of which are in State Guardianship (Boyle Cistercian Abbey; Abbey of the Blessed Trinity, Trinity Island; Inchmacnerin Abbey, Church Island and MacDermot's Castle, Castle Island). Guardianship of a National Monument permits access by the public to such sites with prior consent of the landowner. In addition known sites listed and protected on both the RMP and Record of Protected Structures (RPS) are only accessible with permission of the landowner. Incentives should be provided to landowners to provide access to these sites through educational and monetary measures while the Local Authorities should be given a more pro-active role by the governing bodies, the DoEHLG and OPW, to deal with issues of local interest.

Objective No.35	Recommended Action	Timescale	Responsible Bodies	Monitoring
Ensure there is adequate protection for sites of cultural and built heritage.	Update current lists of protected structures adjacent to the waterway corridor to afford greater statutory protection to built and cultural heritage. Refer to the extensive lists of sites and structures within Appendix 2 to this report and update Local Authority records accordingly by means of a variation.	Short - Term	Leitrim and Roscommon County Councils	Increase in the number of protected structures in each county
	Update the RPS and the RMP in relation to industrial heritage sites as detailed in Appendix 2 as of the 76 industrial sites identified only 12 are protected under the RMP and 6 are listed as protected structures.	Short-Term	Leitrim and Roscommon County Councils, DoEHLG and OPW	Number of additional protected structures and number of additions to the record of monuments and places nationally.
	Undertake a detailed study on the heritage of the canal system within Rockingham Demesne and assess their significance in terms of protection and explore the possibility of facilitating access for small non-motorised craft.	Medium Term	Roscommon County Council and Coillte with assistance from the Heritage Council	Status of detailed study on canal system.
	Undertake further underwater investigation to facilitate future research and enhance educational value, particularly where works to the navigable corridor are proposed	Immediate	Underwayer Archaeological Unit and County Councils	Availability of new research and information.

Explanation:

It is the policy of both local authorities within the study area to conserve sites of special heritage significance and these are listed in their respective County Development Plans and Local Area Plans. As a result of the fieldwork for this project, it is evident that there are significant gaps within these lists. Field surveys for archaeological sites and monuments and for built structures are out-of-date. In some instances features have been destroyed or are in a poor state of preservation. In other cases newly identified sites of special merit are not included within the lists. In general, the Record of Monuments and Places (RMP) is appropriate for buried sites of archaeological interest and those upstanding sites which are unlikely to be reused or which should be preserved in their existing state. The Record of Protected Structures is more suited to those sites which are still in use, or which have the potential for reuse. Where a site has an 'archaeological' and 'architectural' dimension, both types of protection may be appropriate. Whilst statutory protection cannot guarantee a site's future well-being or prevent unauthorised destruction, it at least improves the chances of future development proposals giving cognisance to features of a site which are of special character.

Objective No.36	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Recognise the historic and strategic defence importance of Jamestown.</p>	<p>Prepare a Conservation Plan for the village and provide a detailed information board on its heritage significance.</p> <p>A walking route should be earmarked for Jamestown, incorporating many aspects of its heritage including the North Gate and walls; the Doon; Jamestown Bridge and canal; the church and graveyard (possible friary), the Union Workhouse and the post medieval streetscape.</p>	<p>Short – Medium Term</p>	<p>Leitrim County Council; with assistance from the Heritage Council</p>	<p>Status of conservation plan and whether it has been prepared.</p>

Explanation:

Jamestown is an urban centre that was recognised in the early post medieval period as a place of strategic defence importance. Even in prehistoric times the area was protected by man-made defences known as 'The Doon'. As such, the town was incorporated in 1651 and fortified by means of town walls. Partial remains of the town walls survive, one of the few examples remaining in Ireland. However the small village we see today provides little sense of its unique history to the public.

In relation to highlighting important cultural heritage within a village, including the proposed village walkway, examples could be taken from the village of Drumkeeran. Drumkeeran village is to be commended for its programme of regeneration in terms of infrastructure (street and road surfacing), restoration (streetscape, town houses) and creating an awareness of its cultural identity (Drumkeeran Heritage Centre/Coffee Shop), and should be utilised as a template for future regeneration works within the urban settlements of the study area.

Objective No.37	Recommended Action	Timescale	Responsible Bodies	Monitoring
<p>Recognise the economic value of the waterways corridor and its contribution to the local, regional and national economy.</p>	<p>Conduct an environmental economic analysis of the waterways to ensure the resource is not being undervalued in terms of its natural, architectural, archaeological and built heritage, thus ensuring adequate management of this finite resource</p>	<p>Short – Medium Term</p>	<p>Waterways Ireland, DoEHLG, Local Authorities, Heritage Council</p>	<p>Status of study</p>

Explanation:

The heritage value of the waterways corridor to the local and wider economy is something that needs to be assessed. A detailed economic assessment should be undertaken, including an assessment of the local economic impact gained by the area from its heritage attributes; the use value of the heritage of the area and the existence or non-use value of heritage or aspects of heritage.

6.3 Socio-economic Framework

6.3.1 Arising from the delineation of a waterways corridor for the study area and an analysis of the settlement structure and pattern of key towns and villages within the corridor, having regard to national, regional and local guidelines in the form of development plans and local area plans, a socio-economic framework for the study area has been developed. The concept behind the socio-economic framework is outlined in Map format. (MAP 3)

6.3.2 The approach is based on a concept of tourist branding and 'urban competitiveness'. Urban competitiveness is the ability of an urban area or the conglomeration of a number of settlements, to attract and maintain market share in an activity, such as the tourism market, whilst maintaining stable or increasing standards of living for those who participate in it. Competitiveness is different from competition. Competition can be a zero-sum game, in which, if one area/settlement wins, another loses. By contrast areas and a number of settlements can all increase their competitiveness at the same time, so that all areas/settlements and the national economy can simultaneously grow and benefit.

6.3.3 Not all villages and towns can provide the same level of tourist facilities / services but all have an important role to play in the provision of services by reason of their geographic location on the waterway; attractiveness of built form; built heritage offer; specific tourist attractions; potential for additional tourist attractions; services, facilities and other local amenities. To ensure coherent residential and commercial development and provision of services throughout the study area and to encourage the development of tourism clusters, based on existing attractions and facilities by appropriate linking and packaging, a hierarchical and spatial approach has been developed to ensure that the village and towns surrounding the waterways develops in a complementary manner, to the benefit of the waterways and the wider geographic area.

6.3.4 **Carrick-on-Shannon** is identified as the driver of the region and has the ability to accommodate significant development and support services, whilst having regard to the sensitive riverbank. There is a specific need for a riverfront

strategy to ensure sensitive design and development, whilst protecting the amenity for public use. It is particularly important to secure a riverfront strategy to ensure co-ordinated development, whilst protecting the amenities of the area, particularly having regard to developments in the past on the river and which do not provide or maintain public access. **Boyle** town is identified as a secondary regional centre and can complement the services provided in Carrick-on-Shannon. Boyle has the potential to develop as a significant cultural heritage destination due to its richness of archaeological and built heritage features.

6.3.5 **Drumshanbo, Mohill and Strokestown** have the ability to accommodate a certain level of service provision and capitalise on its tourism base. **Drumshanbo** is primarily known and marketed as an angling resort, but has the ability to capitalise on its festivals including, An Tostal, with emphasis on Irish music, singing and dancing and the Joe Mooney Summer School, a traditional music and dance summer school, thereby providing an alternative to the waterways visitor. The town of **Mohill** can further promote its industrial heritage links with the Cavan-Leitrim railway line and continue to seek linkage with the village of Dromod. **Strokestown** has the potential to complement Roosky in the provision of tourist facilities and to facilitate residential development to relieve the pressure for one-off housing around the highly pressurised Carnadoe Lake.

6.3.6 **Dowra, Drumkeeran, Leitrim Village, Cootehall, Dromod and Roosky** have all been classified as developing villages. Like the village of Roosky, these villages require specific Local Area Plans with specific design standards to ensure that future growth occurs in a strategic and integrated manner and that the character of the village is maintained whilst facilitating limited growth. The carrying capacity of the village must be ascertained at the outset and its ability to accommodate development established to ensure that the built heritage, form and context of the village is maintained. These villages will only contribute to 'urban competitiveness' and 'tourism clusters' if their built form and character is protected from insensitive development.

6.3.7 The small villages of **Arigna, Jamestown and**

Drumsna have been identified as sensitive villages, having regard to their existing size, special archaeological and architectural merit (Jamestown) and visual vulnerability (Arigna). These villages require immediate attention if their contribution to the tourism cluster is to be recognised, as all three villages have special characteristics. Arigna has strong industrial heritage links and this has already been capitalised upon with the opening of the successful Arigna Mining Experience. The Jacobite town of Jamestown is one of the most historic spots in County Leitrim and should be appropriately promoted, whilst Drumsna can facilitate limited growth. Consideration should be given to the preparation of Village Design Statements (VDS) to ensure sensitive and appropriate limited development in these villages.

6.3.8 The success of tourism clustering is dependent on maintaining quality of life in terms of social, cultural and environmental quality. Services are required to maintain a social quality of life and in turn services require critical mass to remain competitive, whilst capitalising on the asset of the waterways as a significant tourist resource. Cultural and environmental qualities are dependent on the development of the study area in a sensitive and sustainable manner. In this regard, there is a need to ensure that the integrity of the built heritage, form and context of the towns and villages around the waterways is respected and maintained, whilst accommodating future growth and development. Of equal importance is the countryside surrounding the waterways and the need for preservation and conservation from inappropriate development.

6.3.9 The heritage value of the waterways corridor to the local and wider economy is something that needs to be assessed and is an identified information gap in this study. In economic terms heritage has two main types of value including use value and existence value, where the person values the existence of the heritage feature irrespective of whether they have visited or intend to visit. The value of heritage can be affected by many influences, some of them external and unrelated to the product itself. Although not quantified in monetary terms in this study, inappropriate development in the form of housing on sensitive landscapes and the provision of adhoc mooring facilities does impact negatively on the

integrity of the waterways corridor as it can result in piecemeal nature designations and visual intrusion. To assess the real impact of inappropriate development and uses within the waterways corridor and its effect on the tourism branding and marketing that this area strives to achieve, a detailed economic assessment should be undertaken, including an assessment of the local economic impact gained by the area from its heritage attributes; the use value of the heritage of the area and the existence or non-use value of heritage or aspects of heritage.

6.4 Implementation and Monitoring

The Challenge

6.4.1 This study proposes many recommendations and actions over a ten year period in an attempt to manage the waterways corridor environment to the benefit of all. The study puts forward many ideas and proposals. However, arising out of the public consultation events there is some concern amongst the public that the proposals in this document will not be implemented.

6.4.2 The challenge for this study lies in the fact that unlike Development Plans and Local Area Plans, this study is not a statutory document and legally its recommendations do not have to be acted upon. Furthermore, a number of statutory bodies have a remit for protection and/or management of the inland waterways and all too often there is public confusion and ambiguity over the defined role and function of various bodies and organisations.

6.4.3 The benefits of this study will only be achieved if its recommendations are translated into action. There will be a need to monitor the study and assess the policies and actions in an ever changing economy and environment. As a result it will be necessary to review and possibly update this plan after a period of five years.

How will the Recommendations of this Study be Implemented?

6.4.4 The Regional Authorities and Roscommon and Leitrim County Council are responsible for controlling development within the waterways corridor and the standards for facilitating development within the waterways are outlined in Regional Plans at a regional, strategic level and Development Plans at county level. Both Leitrim and Roscommon County Councils have recently adopted new Development Plans for their respective counties. It is anticipated that a number of the recommendations in this study will be given statutory effect by incorporating the recommendations into the Development

Plan either through the formal variation process or through the preparation of new Plans when required under S.9 of the Planning & Development Act 2000.

6.4.5 Regional Authorities can also play a role in ensuring that a number of recommendations are implemented. The Border Regional Authority covers County Leitrim and the Western Regional Authority covers County Roscommon. Although Regional Guidelines for the areas have been adopted by both Regional Authorities, this study and its recommendations can be given statutory effect by incorporating elements into future Regional Guidelines.

6.4.6 However, Roscommon and Leitrim County Council and the Regional Authorities are not the only agencies / bodies with responsibility for the waterways. Waterways Ireland is responsible for the management, maintenance, development and restoration of the inland navigable system in the study area and as such can implement and take on board a number of actions/recommendations. The majority of the recommended actions identify the agencies responsible for undertaking specific recommendations. Such recommendations can be incorporated by specific agencies into capital works programmes, business plans, yearly action plans and implemented on the ground. Plans and strategies prepared by other agencies, public bodies and organisations must ensure that their policies and objectives relevant to the waterways, embrace and are consistent with the recommendations of the Waterways Corridor Study.

6.4.7 This document operates as a blueprint for not only local authorities, semi-states bodies and other organisations, but also for the community at large. There are many voluntary organisations and committees such as Tidy Town Committees and Residents Groups that can embrace the recommendations and actions of this study and implement them on the ground. The implementation of the policies and objectives of this study will need to be continuously monitored and assessed.

Community Participation

6.4.8 Public confidence in the control and management of the waterways and its surrounding environment relies heavily on the involvement of community participation and in transparency of the system itself. There is an overall lack of communication between public and regulatory bodies and the people who live work and enjoy the waterways. Public and regulatory bodies are not fully informed of public opinion and the public are not adequately informed about the roles and actions of the regulatory bodies. As a result, the local community do not feel actively involved in how the area is managed and developed and this can lead to public criticism. There is a need for regulatory bodies to collectively address a situation along with input from the public.

6.4.9 The community were engaged in the preparation of this study and their involvement is clearly illustrated in Section 3 of the study. Four community consultation events were held in Roosky, Carrick-on-Shannon, Boyle and Drumshanbo and the interest in the waterways was reflected in the number of people who turned up to the events. It is necessary to continue to promote community participation in all aspects of the development and management of the waterways.

6.4.10 It is necessary that local authorities, Waterways Ireland, the Heritage Council and other bodies work in partnership with public agencies and the private and voluntary sectors to secure the effective implementation of this study.

Monitoring

6.4.11 There is a need to identify the extent to which the study is being implemented and the effectiveness of its recommendations, particularly in relation to sustainability. In addition, the assumptions and forecasts, which underpin the study, will require continued assessment to detect any fundamental changes which impact upon the recommendations of the study.

6.4.12 Due to the extent of the study area and sheer volume of heritage items of significance, the team has been unable to identify specific baseline sites. The following paragraphs set out suggested indicators, targets and methods for monitoring change. Some of these have been taken from the indicators suggested by the Heritage Council for appraisals.

6.4.13 Over time, the study will need to be updated as a result of changing assumptions, forecasts or changes in legislation and this process will be informed by the monitoring outlined below. Any review or update will be made when appropriate, but will be undertaken within a 10 year period.

Indicator	Target/Method
Number of monuments in the RMP/ other monuments, the fabric or setting of which has been damaged or diminished by development granted planning permission	Reduce the number affected annually
Number of grants/refusals of planning permission for development that may have had an affect on the fabric or setting of a monument or an Area of Archaeological Potential or a site in the RMP.	Check trends, monitor permission for mitigation and check proportion of refusals to see if more consents are being given
Number of monuments, or cases in Areas of Archaeological Potential in the RMP, which have been recorded or otherwise subject to physical/geophysical exploration/excavation as a result of an application for planning permission.	Check trends in areas of development pressure, the number should be increasing to protect the resource
Condition of monuments on land in ownership/control of local authority.	Improve condition of these monuments on an annual basis
Number of archaeological objects and heritage objects catalogued/registered/described/classified and under local authority safekeeping.	Trend of increasing numbers over time or 20% increase per 5 year period

Indicator	Target
Number of heritage sites open to, or accessible by the public with meaningful interpretation of their value/importance/interest.	Trend of increasing number over time.
Number of structures included in RPS.	Increase in number of structures afforded statutory protection over period of time.
Number of structures within RPS damaged or demolished as a result of development.	No demolition of protected structures. Greater number restored/reused.
Number or area in hectares, or proportion of the designated area (NHA, SAC or SPA) damaged or lost as a result of development.	No reduction in the area and a possible increase to include floodplain areas.
Changes in the area of Annex I habitats as a result of development.	Habitats should show favourable conservation status as defined in the EU Habitats Directive.
Five year mean populations of Annex I bird species including Greenland white-fronted goose, whooper swan, Berwick's swan, golden plover, kingfisher, merlin, peregrine falcon and hen harrier.	Populations should show favourable conservation status as defined in EU Habitats Directive.
Changes in the water quality, illustrating both increases and decreases in quality.	Water quality should meet with relevant EU and National water quality standards.
Percentage of farms (expressed as a % of total farmland) within the area participating in the Rural Environment Protection Scheme (REPS).	Increase in the area of land managed under the scheme.
Percentage of farms (expressed as a % of total farmland) within the area participating in the Corncrake Protection Scheme.	Increase in the area of land managed under the scheme.
Area in hectares of hay meadows.	Increase in the area of land managed as hay meadows.

07

STRATEGIC ENVIRONMENTAL ASSESSMENT



SECTION SEVEN

STRATEGIC ENVIRONMENTAL ASSESSMENT

7.1 Introduction

7.1.1 'SEA is a systematic, on-going process for evaluating, at the earliest appropriate stage of publicly accountable decision making, the environmental quality and consequences, of alternative visions and development intentions incorporated in policy, planning or programme initiatives, ensuring full integration of relevant biophysical, economic, social and political considerations' (Partidario, 1998).

7.1.2 Experience of SEA in Ireland is quite limited with assessment of Development Plans so far tending to focus only on heritage aspects rather than the environment as a whole. The Planning Act indicates that the Minister may make special provisions as to how the requirement is to be complied with, but to date, no guidelines have been issued.

7.1.3 Annex II of the SEA Directive sets out the criteria which must be taken into account in determining whether or not significant effects on the environment would be likely to arise from a study such as this. The criteria is broken into the

- Characteristics of the Plan; and
- Characteristics of the effects and of the area likely to be affected.

To ensure transparency in the SEA process and to demonstrate how the conclusion was reached that SEA is not required for this study, it is necessary to provide a screening statement, in accordance with the Annex II criteria.

7.2.7 The scope of this study ensures that the distinctive aspects of the waterways corridor are identified and their significance assessed and following on from this assessment, policies for the retention and enhancement of its significance are

evolved. This approach identifies constraint areas and establishes a waterways corridor zone and is valid and consistent with SEA methodology as it involves common elements, such as;

Scoping the study area – identifying key environmental issues
Specifying environmental aims and objectives

Selecting the best option in terms of environmental sustainability

Defining areas where possible limited development should take place.

The SEA process, therefore lies at the very heart of this Waterways Corridor Study and the SEA approach was an integral element in the formulation of policies and recommendations from the outset.

7.2 Screening Statement

7.2.1 The SEA Directive applies to plans whose formal preparation or review commences after the 21st July 2004. This study commenced on the 21st June 2004 with an Inception Meeting and baseline research was undertaken thereafter. Notwithstanding the formal date introducing the SEA to the preparation of plans and documents in Ireland, it is necessary to ensure that the requirements of the SEA Directive and the 'Assessment of Effects of Certain Plans / Programmes on the Environment – (Draft) Guidelines for Regional Authorities and Planning Authorities' are adhered to.

7.2.2 This screening statement outlines the results of the screening process, as required by Article 3(5) of the Directive and includes the reasons for not requiring an environmental assessment.

Purpose of the Study

7.2.3 The Waterways Corridor Study recognises and seeks

ways to realise the potential of the waterways as a heritage, amenity and tourism resource within a framework of conservation. The overall aim of the study is to:

- Identify ways to manage the waterways corridor environment to the benefit of all, i.e. heritage, land and water-based users; and to
- Improve understanding of an area and by this understanding ensure retention of the distinctiveness of a place, while allowing for development and evolution of use for the future.

7.2.4 The study is non-statutory but seeks to guide future statutory plans and the activities of other bodies involved in the day-to-day management and operation of the waterways. The significance attached to a place is something that lives in the local culture and society as much as being defined by a professional opinion and thus some level of responsibility in implementing the Plan will also rest with the community.

Screening Results

7.2.5 The Waterways Corridor Study does not fall within any of the eleven sectors quoted in the SEA Directive and will not significantly affect a Natura 2000 site. At the initial stages of the screening process it was not entirely sure whether the plan would or would not provide a framework for development consent and whether it would give guidance for the consent of development projects. However, a detailed look at the non-statutory significance of the study confirmed that the study will not identify measures or circumstances under which development will be allowed. It would be necessary to transpose elements of the study into a statutory local authority / regional authority plan for the document to give guidance for the consent of development projects.

7.2.6 As part of the screening process environmental authorities must be consulted and letters were sent to the Environmental Protection Agency (EPA); Department of Environment, Heritage and Local Government (DOEHLG) and Department of Communications, Marine and Natural Resources on the 16th July 2004, along with Leitrim and Ros-

common County Councils seeking views/opinions on the screening process and whether, in their opinion, a formal SEA was required for this study. No formal written response was received from any of the consultees, although a phone call was received from the EPA and it was verbally agreed that a formal SEA was not required.

Conclusion

7.2.7 The Waterways Corridor Study has been screened out by the pre-screening check and no further consideration of its possible impacts is required under the formal SEA process.

7.3 Statement on the Likely Impact on the Environment of Implementing the Policies of this Plan

7.3.1 The Planning and Development Act 2000 requires all statutory plans to contain 'information on the likely significant effects on the environment of implementing the plan'. Although this study is not a statutory plan, it has been agreed to fulfil this requirement.

7.3.2 The following Statement on the Likely Significant Effects on the Environment of Implementing the Waterways Corridor Study is based on methodologies developed for Heritage Appraisals, but is expanded to include social, economic and environmental aims. The process of carrying out the appraisal is systematic, with each step in the process documented and results recorded in a series of matrices.

7.3.3 The environmental aims against which the study is to be assessed are stated as follows:

NATURAL ENVIRONMENT

LQ	Landscape Quality
AQ	Air Quality
WQ	Ground Water and Surface Water Quality
NAT	Conservation of Natural Environment
CULT	Conservation of Cultural and Built Heritage

RESOURCES

RES	Consumption of Renewable & Non-Renewables
EE	Encouragement of energy efficiency & sustainable use of services & infrastructure

EMPLOYMENT AND SOCIAL

EMP	Supporting Employment
TRAN	Encouraging sustainable forms of transport
AM	Open space, Recreation and Amenity
COM	Community welfare and Well-Being

KEY	
√	POSITIVE
∞	NEUTRAL
X	NEGATIVE
X / √	NEGATIVE AND POSITIVE
?	UNCERTAIN

		STRATEGIC ENVIRONMENTAL AIM										
		NATURAL ENVIRONMENT					RESOURCES		EMPLOYMENT AND SOCIAL			
		LQ	AQ	WQ	NAT	CULT	RES	EE	EMP	TRAN	AM	COM
Strategic Aim 6.2.1	Ensure the protection of the waterway from inappropriate development and promote the integrated management of the waterway.	√	∞	√	√	√	√	√	?		√	X / √
Strategic Aim 6.2.2	Assess the carrying capacity of the waterway to accommodate further boating activity.	∞	∞	√	√	√	√	√	∞	∞	√	√
Strategic Aim 6.2.3	Ensure the protection of water quality and the effective management of the navigable system.	∞	∞	√	√	∞	√	∞	∞	√	√	√
Strategic Aim 6.2.4	Ensure the safety and enjoyment of all water based and land based users of the waterway whilst protecting the natural and built environment.	∞	∞	∞	√	√	√	∞	?	∞	√	√
Strategic Aim 6.2.5	Promote access to and enjoyment of the waterway.	?	∞	?	X / √	X / √	X / √	∞	?	∞	√	√
Strategic Aim 6.2.6	Continue to provide and maintain additional facilities within the waterway corridor.	X / √	∞	X / √	X / √	X / √	X / √	∞	∞	∞	√	√

		STRATEGIC ENVIRONMENTAL AIM										
		NATURAL ENVIRONMENT					RESOURCES		EMPLOYMENT AND SOCIAL			
		LQ	AQ	WQ	NAT	CULT	RES	EE	EMP	TRAN	AM	COM
Strategic Aim 6.2.7	Strengthen tourism linkages / clustering within the waterways corridor and link land based activities with the waterway.	∞	∞	∞	∞	X / √	∞	∞	√	∞	√	√
Strategic Aim 6.2.8	Continue to promote the waterway and educate the public on the benefits and value of the waterway, including cultural, historic and ecological value.	√	∞	√	√	√	√	√	∞	∞	√	√
Strategic Aim 6.2.9	Ensure the assimilation of adequate ecological information on important sites for natural heritage and the protection of the ecological integrity of the waterway.	√	∞	√	√	√	√	∞	∞	∞	√	√
Strategic Aim 6.2.10	Ensure the availability of information on cultural and built heritage within the waterway and ensure the adequate protection of archaeological and built heritage.	√	∞	∞	√	√	√	∞	∞	∞	√	√

The above table demonstrates that the likely effects for all of the strategic objectives contained within the Waterways Corridor Study are considered to be general positive or neutral.

Appendices



APPENDIX A

LIST OF WRITTEN SUBMISSIONS RECEIVED

Brendan Leahy	Chief Executive	Irish Tourist Industry Confederation
Derek Dann	Executive Secretary	Irish Boat Rental Association
Seamus Duignan	Park Manager	Lough Key Forest Park, Coillte
Peter Wrafter	Asst. CEO	Roscommon County Enterprise Board Ltd.
Paschal Mooney	Senator	Drumshanbo
Matt Nolan	Inspector	Shannon Regional Fisheries Board
Margaret Nugent	Hon. Sec.	Roosky Residents Association
Paul Gibbons		Leitrim Village
Christine Raab-Heine	Director	CLEAN
Peter Stockwell		Fisherman, Liverpool
Yvonne Doolan		Department of Environment Heritage and Local Government

APPENDIX B

LIST OF VERBAL CONSULTEES

Jack O'Keefe
 Kevin Currid
 Arigna Miners Way & Historical Trail Committee
 Joe Lowe
 Gerry Murtagh
 Joe Gillespie
 John Langworth
 Des Gillett
 Pdraig McDonnell
 Fergus Lynch
 Catherine Morgan
 Donal Conlon
 Joanne Hayes
 Alan Hill
 Enda Thompson
 Bernadette Ni Cathain
 Tom Maher
 Boyle & District Angling Club
 Dr Caroline Shiel
 Dr Tina Aughney
 Stephen Heery
 Dr Roger Goodwillie
 Dr Naomi Kingston
 John Matthews
 Dr Eleanor Mayes
 Dr Jim Martin
 Dept. of Agriculture
 Paul Garland
 Peter Rafter
 Caroline Hurley
 Fiona Dunne
 Joe Caffrey
 Regional Staff

ESB
 Lough Allen Adventure

 Leitrim County Enterprise Board
 Moonriver Pleasure Cruiser
 Waterways Ireland
 Waterways Ireland
 Tara Cruisers
 Bord Failte Eireann
 Shannon Regional Fisheries Board
 Shannon Regional Fisheries Board
 Marina Owner Carnadoe Bridge
 Breifne Tourism Company
 Western Development Tourism Programme
 Shannon River Basin Project
 Ecologist with Shannon River Basin Project
 Hollywell B&B Carrick-on-Shannon

 Bat Records, Leitrim
 Bat records Lough Key, Aquatic invertebrates Lough Bofin
 General Ecology
 Botany
 Research Branch, NPW
 National Parks and Wildlife
 Kilgarriff/Annagh Upper Area of Lough Allen
 BEC Consultants re: National Native Woodland Survey
 Mink farm licences
 Inland Water Association of Ireland (IWAI)
 Roscommon County Enterprise Board
 Irish Peatland Conservation Council
 Geological Survey of Ireland
 Central Fisheries Board
 National Parks and Wildlife Service

In addition all those who attended the public consultation events at Roosky, Carrick-on-Shannon, Boyle and Drumshanbo.

APPENDIX C

LIST OF ABBREVIATIONS

NATURAL ENVIRONMENT

LQ	Landscape Quality
AQ	Air Quality
WQ	Ground Water and Surface Water Quality
NAT	Conservation of Natural Environment
CULT	Conservation of Cultural and Built Heritage

RESOURCES

RES	Consumption of Renewable & Non-Renewables
EE	Encouragement of energy efficiency & sustainable use of services & infrastructure

EMPLOYMENT AND SOCIAL

EMP	Supporting Employment
TRAN	Encouraging sustainable forms of transport
AM	Open space, Recreation and Amenity
COM	Community welfare and Well-Being
RBD	River Basin District
NIAH	National Inventory on Architectural Heritage
LAP	Local Area Plan
RPS	Record of Protected Structures
RMP	Recorded Monuments and Places