

**NATURA IMPACT STATEMENT
CREGGAN
LOCAL AREA PLAN**

**Stage 1 Screening and
Stage 2 Appropriate Assessment**

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Prepared by Natura Environmental Consultants

For further information contact:

T: 00 353 1 4880500. **E:** info@natura.ie **W:** www.natura.ie



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1 INTRODUCTION

1.1 BACKGROUND

NATURA Environmental Consultants Ltd. was commissioned by Westmeath County Council to prepare a Appropriate Assessment (AA) otherwise known as an 'Appropriate Assessment' for the proposed Creggan Local Area Plan (LAP). Westmeath County Council has prepared the LAP and as required by legislation, outlined below, must carry out a staged Appropriate Assessment.

Appropriate Assessment is a requirement of Article 6(3) and 6(4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, also known as the Habitats Directive. This states:

6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The statutory agency responsible for Natura 2000 sites is the National Parks and Wildlife Service of the Department of Environment, Heritage and Local Government. The European Court of Justice has recently (December 13 2007) issued a judgment in a legal case against Ireland that found that Ireland has failed in its statutory duty to confer adequate protection on designated areas. Following on from this the Circular Letter 1/08 & NPWS 1/08 on Appropriate Assessment of Land Use Plans (from the Department of the Environment, Heritage and Local Government) states that all plans and projects will be subject to critical assessment to ensure that they comply with all relevant legislation. In December 2009 "Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government" was published. This guidance document was prepared jointly by the NPWS and Planning Divisions of DEHLG, with input from local authorities,

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process.

1. Firstly, a plan should aim to **avoid** any negative impacts on Natura 2000 sites by identifying possible impacts early in plan making, and writing the plan in order to avoid such impacts.
2. Secondly, **mitigation measures** should be applied during the AA process to the point where no adverse impacts on the site(s) remain.
3. Under a worst-case scenario, a plan may have to undergo an assessment of alternative solutions. Under this stage of the assessment, **compensatory measures** are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan is required for imperative reasons of overriding public interest (the 'IROPI test'). European case law highlights that consideration must be given to alternatives outside the plan boundary area in carrying out the IROPI test. It is a rigorous test which plans are generally considered unlikely to pass.

1.2 REGULATORY CONTEXT

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) formed a basis for the designation of Special Areas of Conservation (SACs). Similarly, Special Protection Areas are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). Collectively, SACs and SPAs are referred to as Natura 2000 sites. In general terms, they are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community. Under Article 6(3) of the Habitats Directive an Appropriate Assessment must be undertaken for any plan or program that is likely to have a significant effect on the conservation objectives of a Natura 2000 site. An Appropriate Assessment is an evaluation of the potential impacts of a plan on the conservation objectives of a Natura 2000 site, and the development, where necessary, of mitigation or avoidance measures to preclude negative effects.

2 METHODOLOGY

2.1 INTRODUCTION

The four stages of the Appropriate Assessment process are set out in Table 2.1.

The aim of the screening process (Stage 1) is to determine whether or not an AA is required. The aim of the AA (Stage 2) is to: identify potential impacts of the plan on its own or in combination with other plans or projects; identify policy and objectives that will avoid and mitigate any negative impacts on Natura 2000 sites; and avoid the need to progress to Stages 3 and 4. Stage 2 Appropriate Assessment results in the production of a Natura Impact Statement, which documents the findings of the assessment.

Plan adoption may only proceed if the Plan will not affect the integrity of a Natura 2000 site. Progression to the third stage would result in changes to the plan in its current form, and would require the implementation of compensatory measures for impacts on Natura 2000 sites. If the recommendations of Stage 2 are incorporated into the proposed plan, then Stages 3 and 4, relating to alternative solutions and compensatory measures, will not be required.

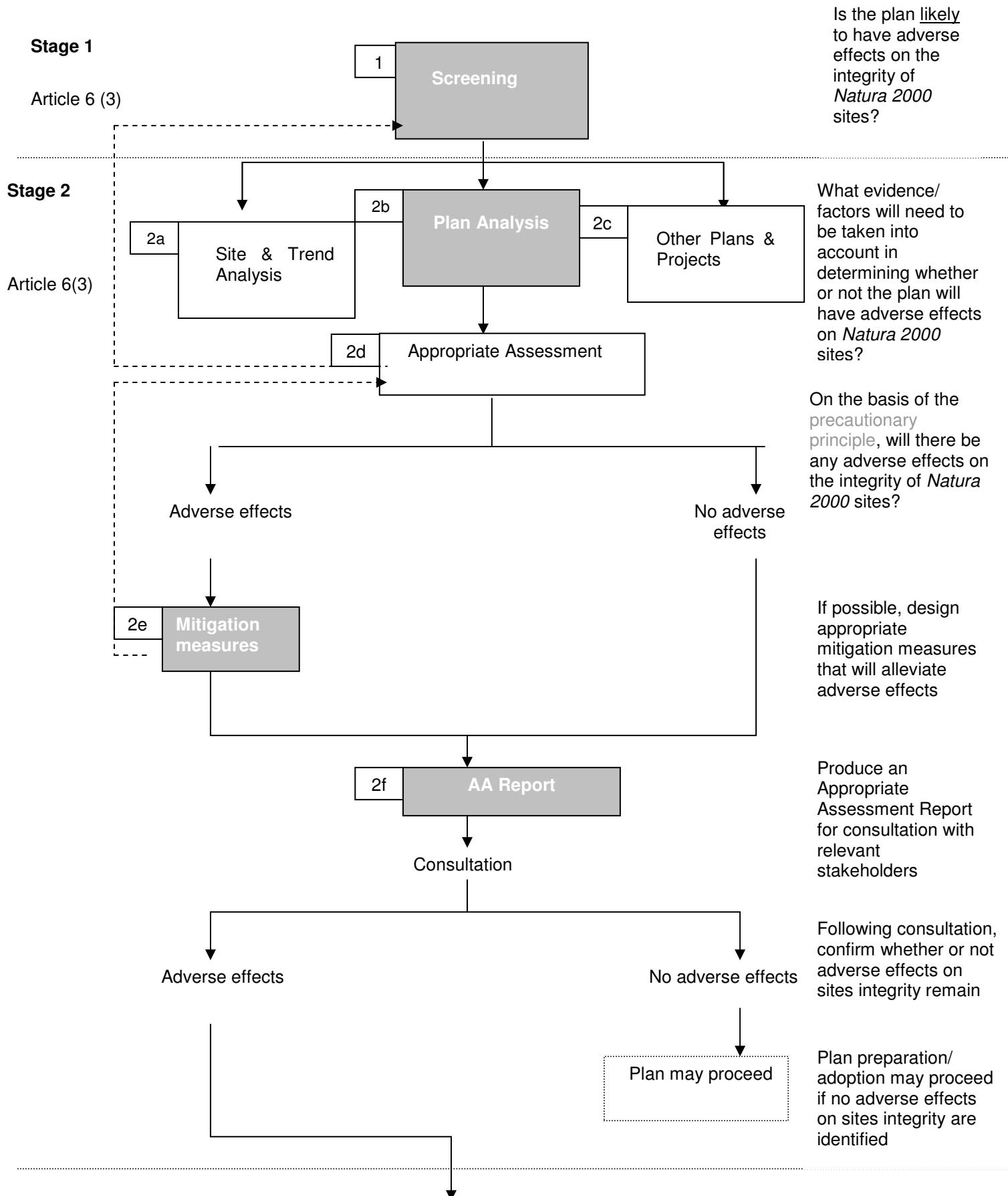
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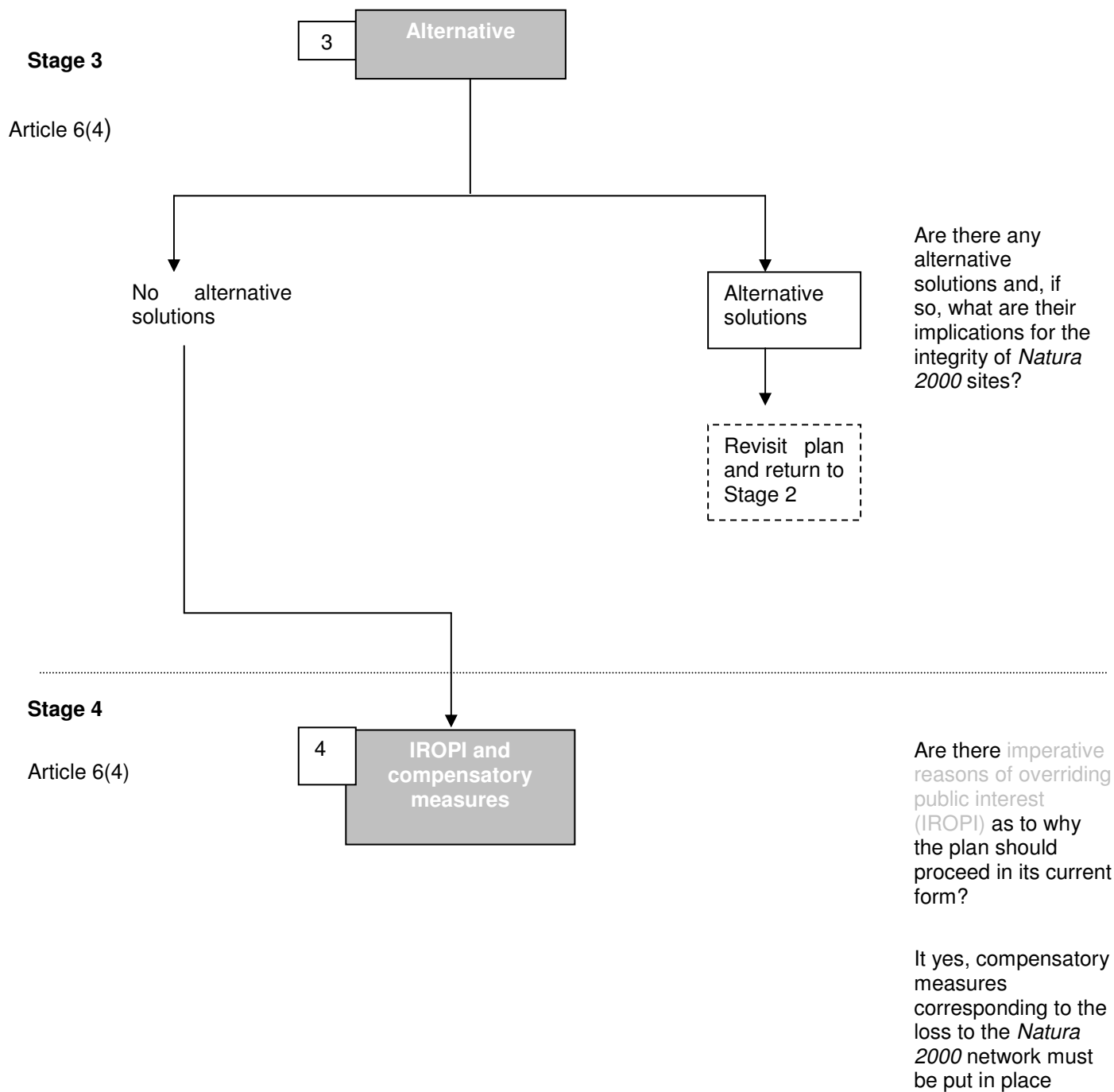
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (2009)
- Managing Natura 2000 Sites - The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2000).
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites - Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission (2001).
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC - Clarification of the Concepts of: Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission. European Commission (2007).
- Appropriate Assessment of Plans. Authors: Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (September 2006).
- Workshop material on the *Habitats Directive Assessment of Plans*, by Riki Therivel, Levett-Therivel Sustainability Consultants on behalf of the Heritage Council in February 2009

2.2 DESK REVIEW AND CONSULTATIONS

Desk top research and a literature review were carried out and key references are given in section 6 of this report. This assessment takes into account consultation with the NPWS and the DoEHLG, regarding the methodology. Information on Natura 2000 Sites was accessed from Site Synopses available on <http://www.npws.ie/en/ProtectedSites/>. Information on qualifying interests and conservation objectives was accessed through NPWS research staff.

Figure 2.1: Summary of Appropriate Assessment Process:





Source: *Appropriate Assessment of Plans*, September 2006, Authors: Scott Wilson, Levett – Therivell Sustainability Consultants, Trewick Environment Consultants and Land Use Consultants, p10

2.3 STAGE 1 – SCREENING PROCESS

Screening requires a review of all Natura 2000 sites that could potentially be subject to impacts. It involves identifying whether sites should be included in Stage 2 of the AA. Guidelines recommend a buffer zone of 15km from the plan boundary in compiling the list of sites potentially affected by the proposed plan. Details of the Natura 2000 sites located within 15km of the Local Area Plan for Creggan (LAPC) area are shown in Table 3.1.

Each Natura 2000 site has been reviewed to establish whether or not the plan is likely to have a significant effect on the integrity of the site as defined by its structure and function and its conservation objectives. The qualifying interests of each Natura 2000 site was identified and listed in each site description. The threats to individual qualifying interests and the site as a whole were assessed with reference to the sensitivities of each site and factors that influence the sites conservation status.

The potential threats are summarised into the following categories for screening process:

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.
- Indirect and secondary impacts do not have a straight-line route between cause and effect and it is potentially more challenging to ensure that all the possible indirect impacts of the plan – in combination with other plans and projects – have been established. These can arise when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact, which results in increased movement of vectors (humans, fauna, surface water), and consequently the transfer of alien species from one area to another.
- Disturbance to fauna can arise directly through the loss of habitat (e.g. bat roosts) or indirectly through noise, vibration and increased activity associated with construction and operation.

Table 3.2 and 3.3 sets out the final screened list of sites, which includes those sites within or adjacent to the plan's boundary that have clear links to development within its boundary. It also includes sites that could potentially be impacted by the LAP but require further investigation. These sites are carried forward to Stage 2 Appropriate Assessment to assess whether there will be a significant negative effect on the structure and function of the Natura 2000 site and consequently, on its conservation objectives.

3 STAGE 1 – SCREENING

3.1 BRIEF DESCRIPTION OF THE PLAN

The 'Local Area Plan' study area identified in the draft County Development Plan 2008 – 2014 within the Athlone Environs area comprises lands within the following townlands; Garrycastle, Creggan Lower, Creggan Upper, Bunnahinly, Cloonbonny and Kilmacuagh (Castlemaine). The study area is located to the east of Athlone Town, approx. 2km from the town centre. It is bisected by the route of the current N6 and the line of the Old Dublin Road to the Town Centre, that combine to form a southeast/northwest corridor through the study area and link the lands to both the town centre and the national road network. Land use within the study area comprises significant areas of undeveloped agricultural along with land utilised for employment, research, residential and educational purposes.

The LAP lands were zoned primarily as Light Industrial/Technological in the County Development Plan 2002 with areas of Residential, Industrial & Educational, Industrial/Commercial and Education/Science/Technology Business Park. The Westmeath County Development Plan, 2008-2014 and the Athlone Town Development Plan, 2008-2014, include as an objective, the preparation of a Local Area Plan (LAP) for lands at Creggan, in the eastern environs of Athlone Town Centre. The preparation of the Creggan LAP is to be considered in the wider regional and national framework of the Midlands Gateway, of which the Creggan lands have been identified as a 'developing area'. The Creggan LAP thus aims to promote the development of the Creggan lands, in conjunction with adjoining Athlone town, and provide for the level of enterprise and commerce, commensurate with the status of Athlone as a 'Linked Gateway', in accordance with the National Spatial Strategy designation for this town. The detailed planning context is set outlined in more detail in section 2.1 of the LAP.

It is estimated that employment of between 14,300-18,500 people would be created in the area if the plan is developed to completion.

The plan proposes a linear green corridor along the entirety of the Crosswood Bog cSAC. Similarly an open space buffer is designated along the western corridor of the plan area, in order to safeguard both the amenity and localised views of the Shannon Callows.

3.2 BRIEF DESCRIPTION OF THE NATURA 2000 SITES

All sites within 15km of the LAPC boundary were identified in accordance with guidelines. These sites are listed in Table 3.1 and a brief description of the qualifying interests and sensitivities of the sites is given below. The information is taken from the NPWS Protected Site Synopses available on: <http://www.npws.ie/en/ProtectedSites/>.

Table 3.1: Natura 2000 sites located within 15km of Creggan Local Area Plan Boundary

Site Code	Site Name	Location in relation to Creggan LAP boundary
000216	River Shannon Callows cSAC	To the south-west of the LAP boundary
000440	Lough Ree cSAC	To the north-west of the LAP boundary
000575	Ferbane Bog cSAC	To the south-east of the LAP boundary
000576	Fin Lough (Offaly) cSAC	To the south of the LAP boundary.
000580	Mongan Bog cSAC	To the south of the LAP boundary.
000611	Lough Funshinagh cSAC	To the north-west of the LAP boundary.
001625	Castlesampson Esker cSAC	To the south-west of the LAP boundary.
001776	Pilgrim's Road Esker cSAC	To the south of the LAP boundary.
002336	Carn Park Bog cSAC	To the north-east of the LAP boundary.
002337	Crosswood Bog cSAC	Immediately east of the LAP boundary.
002339	Ballynamona Bog And Corkip Lough cSAC	West of the LAP boundary.
004017	Mongan Bog SPA	To the south of the LAP boundary.
004064	Lough Ree SPA	To the north-west of the LAP boundary.
004096	Middle Shannon Callows SPA	To the south-west of the LAP boundary.

River Shannon Callows 000216

The River Shannon Callows is designated for the presence of lowland hay meadows, Molinia meadows on calcareous, peaty or clayey-silt-laden soils, alluvial forests with alder (*Alnus glutinosa*) and ash (*Fraxinus excelsior*) and limestone pavements. It is also designated for the presence of otter (*Lutra lutra*). The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. The site is seasonally flooded, along and beside the river between the towns of Athlone and Portumna. The callows begin immediately south of Athlone. Important areas of callows within the immediate vicinity of Athlone occur at Big Meadow, Golden Island, Carrickynachtan, Creggan and Long island (Heery, 1993).

Potential threats to the site arise through alterations in the hydrology of the system, such as drainage, flood relief works, engineering works, or from diffuse or point sources pollution from agriculture and municipal discharge. The River Shannon is used extensively for recreation, which can result in disturbance to wildlife or habitat degradation. Alterations to existing habitat management can result in habitat loss, degradation or fragmentation. Changes in management can include fertilizing botanically-rich fields, the use of herbicides, reversion of hay meadow to pasture, neglect of pasture and hay meadow. The maintenance of generally high water levels in winter and spring benefits all aspects of the flora and fauna, but in this regard, summer flooding is a threat to breeding birds, and may cause neglect of farming.

To maintain the diversity of waterfowl and wetland plants in the callows, it is essential that annual winter and spring flooding is maintained. Apart from damage posed by over fertilising and over stocking, the biggest threat to the wet meadows is drainage. It is generally accepted, however, that draining the Shannon on a regional scale is not a viable project. The floodplain is under pressure from development where it is directly adjacent to urban areas such as Athlone.

Lough Ree cSAC 000440

Lough Ree is designated for the Annex I habitats: natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation, alkaline fens, old sessile oak woods with Ilex and Blechnum in British Isles, semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites), bog woodland, limestone pavements, and degraded raised bogs still capable of natural regeneration. It is also designated for the presence of otter (*Lutra lutra*). Many of these habitats are associated with the lake and shoreline and comprise terrestrial, semi-aquatic and aquatic habitats. Lowland wet grassland is found in abundance around the shore and occurs in two types. One is 'callowland', grassland which floods in winter. This provides feeding for winter waterfowl and breeding waders. The other is an unusual community on stony wet lakeshore all around the lake. Dry calcareous grassland occurs scattered around the lake shore. The lake itself contains one of only two populations of the endangered fish species, pollan (*Coregonus autumnalis*). The shrimp (Crustacean) *Mysis relicta* occurs in this lake and is a relict of the glacial period in Ireland.

The predominant landuses within the site are recreation, such as boating, angling, camping, picnicking and shooting, and low-intensity agriculture, with grazing on dry and wet grassland around the shore and some hay cutting. Some of these activities are damaging, but in a very localised way, and require careful planning. The main threat to the aquatic environment comes from artificial enrichment of the waters by agricultural and domestic waste, and also by peat silt in suspension which restricts aquatic flora to shallower waters. Terrestrial and shoreline habitats are potentially at risk from a change in management or habitat loss, degradation or fragmentation.

Ferbane Bog cSAC 000575

Ferbane Bog cSAC has been designated due to the presence of the Annex I priority habitat active raised bog, as well as two other Annex I habitats associated with raised bogs, namely degraded raised bogs still capable of natural regeneration and depressions on peat substrates of the *Rhynchosporion*. The areas of the site that are not priority habitat mainly consist of cutover bog, woodland and lowland wet grassland.

This site is sensitive to hydrological change and there are extensive surface drains, which drain the site and cause the peat to dry out. As a result, pine is invading. Blocking the surface drains should cause re-wetting and marginal dams are required if restoration of the central area is to be achieved. The site is at risk from inappropriate land management within and adjacent to the site such as active peat-cutting and burning. Fertilisation and slurry spreading on improved fields outside the site margins could cause enrichment of groundwater and drains, and thus impact on bog hydrochemistry.

Fin Lough cSAC 000576

Fin Lough cSAC has been designated due to the presence of the Annex I habitat, alkaline fen, and because of the presence of *Vertigo geyeri*, a rare snail listed on Annex II of the EU Habitats Directive. Other habitats occurring within the cSAC include calcareous springs, limestone/marl lake, reed and large sedge swamps, fen-bog transition, bog woodland, raised bog, scrub and wet grassland. The transition from calcium-rich lake to reedbed, to fen, to bog is relatively intact in some areas, which is exceptional for this part of the country.

Fin Lough is supplied with lime-rich water from the surrounding eskers and this habitat and species is particularly dependant on groundwater supply and quality and potential impacts on groundwater hydrology can have significant impacts on the site. There are a large number of drains on site and the entire site is undergoing hydrological and vegetation changes due to drainage. The natural succession of fen results in the establishment of scrub, which initially forms in the drier areas. Once the hydrology and drainage of the site is determined, it may be possible to control these factors to ensure that the alkaline fen habitat present within the site can be maintained. Other activities on site include grazing and the site is occasionally used for shooting of ducks during the winter season and for bird-watching.

Mongan Bog cSAC 000580

Mongan Bog candidate Special Area of Conservation (cSAC) lies just east of the River Shannon and 12 km south of Athlone. The site is designated for the presence of active raised bogs, an Annex I Priority habitat, and two other Annex I habitats: Degraded raised bogs still capable of natural regeneration, depressions on peat substrates of the *Rhynchosporion*. Cut-over bog, grasslands and scrub provide habitat diversity around the bog margins, and the relict of a bog-to-esker vegetation transition is found along the south side.

Much of the peat of the bog has been cut away over the past centuries, with an estimated 40.5% of the original dome remaining. Small-scale peat extraction continues at a number of locations and, along with drainage of the surrounding land, causes a gradual drying out of the bog. Some dumping of household and farmyard refuse takes place along the southern boundary.

Lough Funshinagh cSAC 000611

Lough Funshinagh is located approximately 12km north-west of Athlone, in County Roscommon. The site is designated for the presence of a turlough, an Annex I Priority habitat. Lough Funshinagh is a unique and atypical example of this habitat, and has a particular value in being relatively unmodified by grazing and modern agriculture. Included among the regular winter visitors

are three species listed on Annex I of the European Birds Directive: Bewick's swan, whooper swan and golden plover.

Turloughs are groundwater dependant habitats and are extremely susceptible to alterations in groundwater quantity or quality through activities such as drainage, abstraction or contamination.

Castlesampson Esker cSAC 001625

The site is designated for the presence of semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*)(*important orchid sites) and turloughs. The vegetation of most of the esker is of dry grassland, with small amounts of scrub scattered throughout. Improved grassland in the site is found mainly at the base of the esker. Dry grassland on the site is quite species-rich.

Although gravel is being quarried all around the esker and gravel pits occur within the site, the esker is largely intact and fairly undisturbed. The importance of the site lies in its almost intact structure, something that is very rare in Irish eskers, in its relatively undisturbed state and in the presence of good quality, species-rich dry calcareous grassland. Threats to the site result from quarrying and agricultural intensification, using fertilizer or other methods that reduce species diversity. The turloughs are groundwater dependant habitats, which are extremely susceptible to alterations in groundwater quantity or quality.

Pilgrim's Road Esker cSAC 001776

The site is designated for the presence of semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*). Pilgrim's Road Esker is a narrow continuous esker ridge extending 2 km east from Clonmacnoise. The site is adjacent to the River Shannon Callows, to the north, and Mongan raised bog, to the south. The site supports a large population of the rare green-winged orchid (*Orchis morio*), a Red Data Book species. This population is apparently the largest in Ireland.

Land-use on the site is mostly grazing by cattle (also rabbits) and this helps to prevent encroachment of scrub, a potential threat to the species-rich grassland. In places to the east, where grazing is extensive, blackthorn encroachment is evident. Lack of fertiliser application has allowed the localized species-rich flora to survive. If fertiliser application were ceased over the whole area species-richness would gradually increase throughout.

Carn Park Bog cSAC 002336

Carn Park bog is a good example of a raised bog habitat which supports significant areas of the Annex 1 Priority habitat active raised bog, and Annex I habitat degraded raised bog (capable of regeneration). Some areas of vegetation of depressions on peat substrates of the *Rhynchosporion* also occur. Although a significant proportion of this site has been planted with conifers in the past, a large area of open bog still exists and this still remains of high ecological interest. In the northern half of the site there is an area where the raised bog surrounds a linear ridge of mineral ground. This area has the potential to form a lagg area when the conifers are removed and drain blocking is carried out.

The main threats to the site are from invading conifers and drying out as a result of drainage on site. A recent restoration plan aims to clear-fell the mature conifers, control regeneration and block drains with peat dams to re-wet the area.

Crosswood Bog cSAC 002337

Crosswood Bog is situated approximately 5 km east of Athlone, Co. Westmeath, mainly in the townlands of Crosswood, Glenaghanvoneen, and Creggan Lower. The site is a candidate Special Area of Conservation selected for active raised bog and degraded raised bog, habitats that are listed on Annex I of the E.U. Habitats Directive. Active raised bog comprises areas of high bog that are wet and actively peat-forming, where the percentage cover of bog mosses (*Sphagnum* spp.) is high, and where some or all of the following features occur: hummocks, pools, wet flats, *Sphagnum* lawns, flushes and soaks. Degraded raised bog corresponds to those areas of high bog whose hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration. The site consists of a quaking bog, with a well-developed sequence of pools, hollows and hummocks, and a flush supporting woodland. Cutover occurs on all margins of the bog.

Current land use on the site consists of peat-cutting around the edge of the high bog; it is more intensively cut on the western and southern margins. While the northern margin has drains that extend into the intact bog it is relatively protected from development due to the proximity to the Dublin – Galway railway line along the northern boundary. Forestry is found to the south of the site on areas of cutover bog. Some fields on old cutover are used for pasture and are presently undergoing further reclamation. Damaging activities associated with these land uses include drainage throughout the site (both old and recent) and extensive burning of the high bog. These are activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

Ballynamona Bog and Corkip Lough cSAC 002339

The site is designated for the presence of turloughs, active raised bogs, bog woodland, degraded raised bogs still capable of natural regeneration, depressions on peat substrates of the *Rhynchosporion*. The remaining bog is relatively small compared to the extent of original bog complex. Areas of species-rich calcareous grassland add to the diversity of the site. It is the only site outside the Shannon where water germander has been recorded. It is an important site for local birdlife with nesting colonies of lapwing and redshank with occasional snipe.

This site is vulnerable to loss of habitat through turf cutting and drainage. The turlough is extremely susceptible to alterations in groundwater quantity or quality through activities such as drainage, abstraction or contamination.

Middle Shannon Callows SPA 004096

The site is designated for the presence of corncrake, golden plover, lapwing, black-tailed godwit, redshank and whooper swan. It is also of special conservation interest for the presence of internationally important numbers of wintering waterfowl, wigeon and black-headed gull. The callows continues to hold over 40% of the Irish population of the globally endangered corncrake, although numbers have declined in recent years.

These species and their habitats are highly dependant on aquatic and wetland habitats and are therefore highly sensitive to hydrological change. Significant risk to the site would arise from changes in the quantity or quality of the water within the site. There would be significant risk to the site resulting from changes in management of agricultural grassland, loss or fragmentation of the habitats present within the site. The species are also vulnerable to disturbance within or immediately adjacent to the site.

Lough Ree SPA 004064

The site is designated for the presence of teal, mallard, tufted duck, common scoter, goldeneye, golden plover, lapwing and common tern. It is also of special conservation interest of the presence of whooper swan, wigeon, shoveler, coot. Other Annex I species occur within the site. These include nationally important number of Greenland white-fronted goose, which use several areas of callow-land around the lake in winter and some of the lake islands provide nesting sites for common tern.

These species and their habitats are highly dependant on aquatic and wetland habitats and are therefore highly sensitive to hydrological change. Significant risk to the site would arise from changes in the quantity or quality of the water within the site. There would also be significant risk to the site resulting from changes in management of agricultural grassland, loss or fragmentation of the habitats present within the site. The species are also vulnerable to disturbance within or immediately adjacent to the site.

Mongan Bog SPA 004017

The site is designated as a traditional Greenland white-fronted goose site. A number of bird species listed in Annex I of the E.U. Birds Directive occasionally use the bog: Greenland white-fronted goose, peregrine falcon, merlin, short-eared owl and hen harrier. Corncrake, also listed in Annex I, has been found on the bog margin.

These species and their habitats are vulnerable to hydrological works that may result in further drainage of the bog. There is also significant risk to the site from any activity that would result in the loss, degradation or fragmentation of existing habitats, such as turf cutting or high levels of recreation.

SCREENING ASSESSMENT

The following screening assessment is carried out in accordance with EU Guidance (EC, 2001) and Irish Guidance (DoEHLG, 2009) using the standard screening assessment form provided in Annex 2 of the EU Guidance Document.

Implicit in the Habitats Directive is the application of the **precautionary principle**, which is used (i) where there is potential for negative effects and (ii) where due to inconclusive or insufficient data it is not impossible to determine with sufficient certainty the risk in question (EC, 2000b).

Assessment criteria	
Describe the individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites.	<p>The LAPC will require provision of key services and infrastructure in the area. The assessment is based on zoning objectives and the provision of key services and infrastructural development.</p> <ul style="list-style-type: none"> ▪ Much of the LAPC area is not serviced by water services infrastructure. The LAPC will result in the provision of water supply to the area and installation of associated infrastructure. ▪ The LAPC will require the upgrading of transport infrastructure in the area and this has the potential to negatively impact on adjacent sites through potential habitat loss, contamination or disturbance. ▪ A network of streams and drains cross the Plan area. The LAPC will result in the construction of commercial, industrial, services and ancillary residential accommodation. This creates potential for runoff and surface water contamination feeding into adjacent sites which have hydrological connections with the LAPC area.
<p>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:</p> <ul style="list-style-type: none"> ▪ Size and scale; ▪ Land-take; ▪ Distance from Natura 2000 site or key features of the site; ▪ Resource requirements; ▪ Emissions; ▪ Excavation requirements; ▪ Transportation requirements; ▪ Duration of construction, operation etc.; ▪ Others. 	<ul style="list-style-type: none"> ▪ The LAPC is adjacent to a Natura 2000 site, Crosswood Bog cSAC, whose favourable conservation status is determined by the hydrological regime. Drainage associated with the Plan area could potentially impact on the designated site. ▪ The LAPC will result in the provision of water supply to the area and installation of associated infrastructure. The siting and routing of facilities could potentially impact on adjacent Natura 2000 sites. ▪ Wastewater treatment and drainage provisions have the potential to impact negatively on Natura 2000 sites through inappropriate siting of works, surface water drainage features or insufficient wastewater capacity. ▪ The upgrading of transport infrastructure associated with the LAPC has the potential to negatively impact on adjacent sites through potential habitat loss, contamination or disturbance. ▪ Contamination may arise in adjacent waters during

	<p>construction through poor working practices, leakages or accidental spillage of materials if efficient pollution control measures are not fully implemented and maintained.</p> <ul style="list-style-type: none"> ▪ The DLAPC made positive provision for a network of connected open space and wildlife corridors. However, there was potential for disturbance to wildlife from development and recreational activities, for example from walkway/cycleways on the proposed wildlife corridors along River AI and Clonbonny and from other elements of the open space network and buffer areas. Sites that are immediately adjacent are significantly at risk of disturbance through inappropriate development. Sources of disturbance include noise, vibration, light, construction and operation activities or other sources of disturbance arising from recreation and amenity or from the inappropriate timing of works.
<p>Describe any likely changes to the site arising as a result of:</p> <ul style="list-style-type: none"> ▪ Reduction of habitat area; ▪ Disturbance of key species; ▪ Habitat or species fragmentation; ▪ Reduction in species density; ▪ Changes in key indicators of conservation value; ▪ Climate change. 	<ul style="list-style-type: none"> ▪ The River Shannon Callows is an area of high biodiversity and supports a range of protected habitat and species, which require certain environmental conditions to be maintained. The LAPC could result in some contamination of water quality or disturbance of species. This could alter the distribution of aquatic, wetland and terrestrial species. ▪ An alteration to the hydrological regime in Crosswood Bog cSAC could potentially result in further drying of the bog and a reduction in the quality and extent of habitats and associated species.
<p>Describe any likely impacts on the Natura 2000 site as a whole in terms of:</p> <ul style="list-style-type: none"> ▪ Interference with the key relationships that define the structure of the site; ▪ Interference with key relationships that define the function of the site. 	<ul style="list-style-type: none"> ▪ The Shannon Callows cSAC & SPA supports a diversity of freshwater, wetland and terrestrial ecosystems. The relationship between water quantity and quality and habitats is the key relationship that defines the structure and function of these sites. Diffuse or point source contamination resulting from any proposed development could adversely affect the long-term distribution of the habitats and species for which the sites are designated. ▪ The biodiversity of Crosswood Bog cSAC is dependant on maintaining the hydrological regime. Any alteration to the quantity or quality of water within the site could have significant implications for the extent and quality of habitats and the key environmental conditions that support the sites integrity.
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.</p>	<ul style="list-style-type: none"> ▪ Following a review of the individual elements of the DLAPC and other plans and projects such as the existing County development plan, the proposed Loughandonning draft LAP and the draft Creggan sewage masterplan, it was considered that there was potential for significant adverse effects on individual Natura 2000 sites as set out in the Screening matrix (Tables 3.2 and 3.3) for the following reasons: <ul style="list-style-type: none"> - The provision of key services and infrastructural development could result in

	<p>significant impact to water quality through contamination with sediments, hydrocarbons, faecal coliforms and other contaminants.</p> <ul style="list-style-type: none"> - Drainage associated with the LAPC area could potentially impact on the designated site. - The siting and routing of facilities could potentially impact on adjacent Natura 2000 sites. - The details of wastewater treatment for the LAPC will need to be established to ensure that there will be no negative impact on Natura 2000 sites through inappropriate siting of works, surface water drainage features or insufficient wastewater capacity. - There is potential for disturbance of species in Natura 2000 sites arising from the individual elements of the LAPC and the cumulative impacts of other plans and projects. - There is currently limited information on the more precise nature of urban development for the LAPC. With further detail, these potential impacts could be mitigated or ruled out. <p>It was concluded that the draft LAPC had potential to have significant adverse impacts upon River Shannon Callows cSAC and Middle Shannon Callows SPA and Crosswood Bog cSAC as listed in Tables 3.2 and 3.3. The precautionary principle was applied as there was potential for negative effects resulting from the DLAPC and there was insufficient information to determine with sufficient certainty the risk in question. Hence, a Stage 2 was required for these sites.</p>
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Table 3.2: Screened list of Natura 2000 cSAC sites located within 15km of DLAPC Boundary

Site ID	Site Name	Is there potential for:				AA required
		Direct impacts e.g. habitat loss	Indirect impacts e.g. alteration to the hydrological regime	Surface or ground water contamination	Disturbance to protected species (Habitats Directive Annex II or IV)	
000216	River Shannon Callows cSAC	No	No	Yes	Yes	Yes
000440	Lough Ree cSAC	No	No	No	No	No
000575	Ferbane Bog cSAC	No	No	No	No	No
000576	Fin Lough (Offaly) cSAC	No	No	No	No	No
000580	Mongan Bog cSAC	No	No	No	No	No
000611	Lough Funshinagh cSAC	No	No	No	No	No
001625	Castlesampson Esker cSAC	No	No	No	No	No
001776	Pilgrim's Road Esker cSAC	No	No	No	No	No
002336	Carn Park Bog cSAC	No	No	No	No	No
002337	Crosswood Bog cSAC	Yes	Yes	Yes	No	Yes
002339	Ballynamona Bog And Corkip Lough cSAC	No	No	No	No	No

Table 3.3: Screened list of Natura 2000 SPA sites located within 15km of DLAPC Boundary

Site ID	Site Name	Is there potential for:				AA required
		Direct impacts e.g. habitat loss	Indirect impacts e.g. alteration to the hydrological regime	Surface or ground water contamination	Disturbance to protected species (Habitats Directive Annex II or IV)	
004017	Mongan Bog SPA	No	No	No	No	No
004064	Lough Ree SPA	No	No	No	No	No
004096	Middle Shannon Callows SPA	No	No	Yes	Yes	Yes

4 STAGE I ASSESSMENT CONCLUSION

It was concluded that the draft plan had potential to have significant adverse impacts upon the River Shannon Callows cSAC and Middle Shannon Callows SPA and Crosswood Bog cSAC as listed in Tables 3.2 and 3.3. The precautionary principle was applied as there was potential for negative effects resulting from the DLAPC and there was insufficient information to determine with sufficient certainty the risk in question. Hence, a Stage 2 assessment was required for these sites.

5 STAGE 2 – APPROPRIATE ASSESSMENT

5.1 INTRODUCTION

The screening stage identified that Appropriate Assessment of the draft Local Area Plan was required to identify policies and objectives that might have potential effects, including potential ‘in combination’ impacts, on the conservation objectives of the Natura 2000 sites listed in Table 4.1. Any negative impacts on the integrity of these sites will require the implementation of avoidance or mitigation measures. The Appropriate Assessment process is an iterative process and following initial reviews, amendments to the Plan may be required to avoid progression to Stages 3 and 4 of the Appropriate Assessment process.

Table 4.1: Natura 2000 Sites to be included in Appropriate Assessment

Site Name	Site Code	Location Relative to Creggan LAP area
River Shannon Callows cSAC/ Middle Shannon Callows SPA	000216/ 004096	1.5 km
Crosswood Bog cSAC	002337	Immediately adjacent

5.2 DESCRIBE THE ELEMENTS OF THE PLAN THAT ARE LIKELY TO GIVE RISE TO SIGNIFICANT EFFECTS ON THE SITE

There is potential for significant adverse effects on individual Natura 2000 sites as set out in the Screening matrix (Tables 3.2 and 3.3) for the following reasons:

- The provision of key services and infrastructural development could result in significant impact to water quality through contamination with sediments, hydrocarbons, faecal coliforms and other contaminants.
- Drainage associated with the LAP area could potentially impact on the designated site.
- The siting and routing of facilities could potentially impact on adjacent Natura 2000 sites.
- The details of wastewater treatment for the LAP will need to be established to ensure that there will be no negative impact on Natura 2000 sites through inappropriate siting of works, surface water drainage features or insufficient wastewater capacity.
- There is potential for disturbance of species in Natura 2000 sites arising from the individual elements of the draft plan and the cumulative impacts of other plans and projects.
- There is currently insufficient information on the exact nature of the Masterplan for the LAP. With further detail, these potential impacts could be mitigated or ruled out.

The potential impacts on the groundwater environment are:

- The risk of groundwater pollution (contaminated runoff or spillage);
- The permanent alteration of the natural groundwater flow patterns and levels.
- The construction of large areas of paved areas will reduce the area that recharge can enter the groundwater environment.
- Abstraction altering groundwater levels.

The potential risks to the surface water environment are:

- Wastewater treatment effluent carrying pollutants, nutrients or other contaminants.
- Diffuse pollution resulting from land management or development carrying contaminants such as silt, hydrocarbons, faecal coliforms and cement.
- Point source discharge from industrial discharges, land management or other point source discharge.

5.3 CONSERVATION OBJECTIVES

Article 6 of the Habitats Directive states that:

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications of the site in view of the site's conservation objectives'.

The conservation objectives for cSACs are set out below.

Crosswood Bog cSAC

1. To maintain the Annex I habitats:
 - Active raised bogs (Priority Habitat)
 - Degraded raised bogs still capable of natural regenerationfor which the cSAC has been selected at favourable conservation status
2. To maintain the extent, biodiversity and species richness of the site
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

River Shannon Callows cSAC

1. To maintain the Annex I habitats:
 - Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*);
 - Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinia caerulea*)
 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alluvial Forest, Alnus forest, Salix forest)
 - Limestone pavementsfor which the cSAC has been selected at favourable conservation status
2. To maintain the Annex II species, otter (*Lutra lutra*), for which the cSAC has been selected at favourable conservation status
3. To maintain the extent, biodiversity and species richness of the site
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Middle Shannon Callows SPA draft conservation objectives for are set out below

To maintain the special conservation interests for the SPA at favourable conservation status.

1. Selection Species: Corncrake, golden plover, lapwing, black-tailed godwit, redshank, whooper swan
2. Other Species of Conservation Interest: 20,000+ wintering waterfowl, widgeon, black-headed gull.

According to the EU Habitat Directive, favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, is stable or increasing, and
- The ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined below.

The favourable conservation status of a species is achieved when:

- Population data on the species concerned indicate that it is maintaining itself, and
- The natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis

5.4 DESCRIBE HOW THE PLAN WILL AFFECT KEY SPECIES AND KEY HABITATS

CROSSWOOD BOG CSAC

The site supports habitats that are hydrologically dependant. The site has been designated for (i) active raised bog, which is wet and actively peat-forming, and (ii) degraded raised bog corresponds to those areas of high bog whose hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration. The site also supports quaking bog and flush with woodland. These habitats may be directly or indirectly surface and groundwater dependant. The hydrological connections between the bog and the surrounding area are not sufficiently understood therefore alterations to the surface and groundwater regime in the LAP area has the potential to alter surface water and groundwater flow patterns within the Natura 2000 site.

Current landuse on the Natura 2000 site consists of peat-cutting around the edge of the high bog. Cutover occurs on all margins of the bog and the western and southern margins, adjacent to the proposed LAP area, are most intensively altered. Damaging activities associated with this landuse includes drainage throughout the site (both old and recent) and extensive burning of the high bog. These are activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability.

A network of drains surrounds the boundary of the bog, particularly to the west and south, which bounds the LAP area. The northern margin has drains that extend into the intact bog, however, this side is relatively protected from development due to the proximity to the railway. The network of drains feed into two surface water features: the River AI and the Cloonbonny/Fardrum Stream and drain to the southeast eventually discharging into the River Shannon. Any increase in drainage capacity of these drains or streams has the potential to increase flow rates from the Natura 2000 site and contribute to further drying of habitats.

Groundwater vulnerability in and around the LAP area has not been determined but has an interim classification of high to low vulnerability. The proposed development will result in a significant increase in the area of hardstanding and the potential for surface water runoff to enter the groundwater leading to contamination during the construction and operation phase is high. Any contamination of groundwater aquifers in the surrounding area has the potential to negatively impact on the Natura 2000 site. Individual mitigation will be required for each development in line with standard best practice and licensing procedures to ensure that the surface water drainage and discharges are suitably handled.

Abstraction from groundwater aquifers in the area also has the potential to alter groundwater flow and supply to the Natura 2000 site. However, the supply for the Creggan area is sourced from the Shannon. The capacity of the Athlone Water Treatment Plant has recently been augmented. The proposed South Westmeath Regional Water Scheme will provide a new intake from Lough Ree, and thus provide a long-term supply for Creggan without abstraction from groundwater aquifers in the area. Therefore there is no likely significant impact on the Natura 2000 site resulting from abstraction once the required infrastructure is fully in place prior to development.

Waste water from the proposed LAP also has the potential to negatively impact on the Natura 2000 site. However, a new foul sewer network is proposed to serve the entire plan area. The new pumping station will connect to the existing wastewater treatment plant at Golden Island and there is no likely significant impact on the Natura 2000 site resulting from waste water once the required infrastructure is fully in place prior to development.

Because of the proximity of the development to the Natura 2000 site, there is potential for roads and other infrastructure to be routed adjacent to or within the site resulting in direct habitat loss and fragmentation. All siting and routing of future development will avoid the Natura 2000 site.

Development within the area could attract people for recreation and amenity purposes. Certain habitats within the bog, for example active raised bog, are highly susceptible to trampling and could be adversely impacted. Therefore, increased visitor numbers to the Natura 2000 site could negatively impact upon the sites integrity. Some habitats that have already been disturbed or are less sensitive

may be able to sustain recreational use. Any future proposals to increase visitor access to the area will require Appropriate Assessment in consultation with the NPWS.

River Shannon Callows cSAC and Middle Shannon Callows SPA

The Natura 2000 sites are located at a distance of over 1.5 km from the LAP area. Direct impacts are not likely. Indirect impacts via surface water hydrology are possible as the proposed LAP is linked by two surface water features the River AI and the Cloonbonny/Fardrum Stream to the Natura 2000 sites. Any increase in drainage capacity of these drains or streams has the potential to increase flow rates entering the Natura 2000 site. The proposed development will result in a significant increase in the area of hardstanding and the potential for surface water runoff to enter surface water features leading to contamination during the construction and operation phase is high. There is potential for alterations to surface water quality and quantity entering the Natura 2000 sites as a result of the proposed development. While an alteration in the flow rates and discharge is likely to be small in relation to the overall volume of the river, there is potential for localized effects on the habitats and species within the area, particularly through contamination and siltation.

The composition and distribution of qualifying features, such as lowland hay meadows and Molinia meadows, is dependant on flooding regimes.

5.5 DESCRIBE HOW THE INTEGRITY OF THE SITE (DETERMINED BY STRUCTURE AND FUNCTION AND CONSERVATION OBJECTIVES) IS LIKELY TO BE AFFECTED BY THE PROJECT OR PLAN (E.G. LOSS OF HABITAT, DISTURBANCE, DISRUPTION, CHEMICAL CHANGES, HYDROLOGICAL CHANGES ETC).

Crosswood Bog cSAC

The site supports habitats that are hydrologically dependant. The hydrological connections between the bog and the surrounding landscape are not sufficiently understood. Alterations to surface water and groundwater resources in the LAP area could potentially alter the hydrological regime within Crosswood Bog. This in turn could have adverse impacts on the distribution and species composition of habitats for which the site is designated. Other knock-on effects on the overall biodiversity of the site are also likely. Increasing visitor access to the site could negatively impact on the integrity of the site through damage to habitats and disturbance of species.

River Shannon Callows cSAC and Middle Shannon Callows SPA

Water quality and flooding regime are the key environmental conditions that support the sites' integrity. Interference or deterioration of these factors could alter the structure and function of the site at a local level and could potentially negatively impact on the habitats and species for which the sites are designated. A contamination event during the construction or operation phases of the proposed development could result in a negative impact on structure and function of the Natura 2000 site both locally and further downstream.

An alteration in water quality and quantity as a result of the individual elements described above could have significant adverse effects the overall biodiversity value of the site by diminishing the extent and quality of wetland habitats and dependant species.

Wild birds are susceptible to disturbance. However, the location of the construction activities is over 1.5km from the closest point of the SPA and it is highly unlikely that disturbance arising from construction or operation activity will negatively impact on the SPA.

5.6 DESCRIBE MITIGATION MEASURES THAT ARE TO BE INTRODUCED TO AVOID, REDUCE OR REMEDY THE ADVERSE EFFECTS ON THE INTEGRITY OF THE SITE

As part of the iterative process, initial reviews and consultations were incorporated into mitigation (See JBA Consulting, 2010 and Managers Report on Creggan Local Area Plan 2010-2025). The amended Creggan LAP includes the following general objective and will refer to the specific mitigation for each Natura 2000 site.

General Objective

- Any plan or project, irrespective of the scale or purpose, which has the potential to negatively impact on the integrity of a Natura 2000 site, will be assessed according to Article 6 of the Habitats Directive. The Planning Authority may allow development where it can be clearly demonstrated that there is no direct or indirect adverse effect on the integrity of a Natura 2000 sites.
- The proponents of any plan or project will consult with prescribed bodies, and take account of any licensing or authorisation requirements when planning or undertaking development which is likely to affect designated areas or protected species.

Specific mitigation

An initial desk-based review by JBA, principally focused on topography and river catchments, suggested that any groundwater entering the Crosswood Bog is from a source to the east rather than the Creggan LAP area. Consultation was carried out with the NPWS and a response is in preparation. Should the response not clarify the groundwater flow paths, a more detailed study will be required to confirm the exact nature of the sub-surface hydrology. The impact of any effects from Zoning Objectives are limited to Area B1, east of the existing M6. Until such a time that this area can be confirmed as not impacting the hydrology of Crosswood Bog the review of the Zoning Objectives must take due account of this recommendation (JBA Consulting, 2010). The finding of the hydrological review has been incorporated into the specific mitigation below.

Crosswood Bog cSAC

Crosswood Bog cSAC is potentially at risk of significant adverse impact from direct impacts such as habitat loss and fragmentation and from indirect impacts such as alterations to the hydrology of the site from adjacent development. The following mitigation was prescribed to ensure that there is no adverse impact on the integrity of the site from the draft Creggan LAP

- Ensure that there is no encroachment on the Natura 2000 site and no direct habitat loss or fragmentation.
- Establish a buffer zone around the Natura 2000 site to ensure that there is no impact on the hydrology of the site. The buffer zone will extend west and south from the Natura 2000 site boundary to the existing M6 motorway and no development will be permitted within this area. The extent of the buffer zone may be reassessed once further hydrological surveys, have been undertaken, or further information is available from the NPWS, to ensure that there will be no adverse impacts from the proposed development on the integrity of the Natura 2000 site.
- Ensure that any alteration to the surface water drainage in the area does not negatively impact upon the surface water levels within the Natura 2000 site.
- Ensure that there are no excavations into groundwater or alterations to groundwater levels within the proposed LAP area that will negatively impact on groundwater flow in the Natura 2000 site.
- Ensure that all developments within the LAP area adhere to best practice and legislative requirements during construction and operation to prevent discharge of contaminants and pollutants to surface water or groundwater. Discharge from any proposed development will

be properly licensed and monitored in accordance with best practice and legislative requirements.

- Ensure that sufficient infrastructural capacity for wastewater treatment and water supply is in place prior to granting permission for any development.
- Ensure that transportation routes including roads, cycleways and pedestrian routes are sited away from the Natura 2000 site and do not pose a threat of disturbance or habitat loss or any other negative impact. Proposals for formal recreational access to the site will require assessment in accordance with Article 6 of the Habitats Directive.
- The use of Sustainable Urban Drainage Systems (SUDS) should be advocated on new developments to treat and eliminate potential contamination arising from diffuse sources such as construction or stormwater runoff.

River Shannon Callows cSAC and Middle Shannon Callows SPA

The desk-based hydrological review also indicated that the majority of the mitigation measures listed below, relate to best practice guidelines and should be taken into consideration during all developments and flood mitigation measures. Adherence with these guidelines and mitigation measures will ensure that the Callows remain unaffected by potential future zoning objectives. The maintenance of undeveloped riparian zones is a matter that applies directly to the Zoning Objectives and the Planning System and Flood Risk Management Guidelines. The review of the Zoning Objectives has taken due account of this recommendation through the application of the Flood Risk Management Guidelines and the application of the sequential approach in areas of flood risk (JBA Consulting, 2010).

- Protect and maintain undeveloped riparian zones and natural floodplains along the River Shannon and its tributaries.
- Ensure full compliance with Urban Waste Water Regulations 2001-2004, inclusive of phosphorous due to the sensitivity of the site.
- Ensure full compliance with Waste Water Discharge Authorization Requirements as per 2007 Regulations.
- Ensure compliance with the measures set out in the Shannon International River Basin Management Plan.
- The use of Sustainable Urban Drainage Systems (SUDS) should be advocated on new developments to treat and eliminate potential contamination arising from diffuse sources such as construction or stormwater runoff.
- Ensure best practice measures are implemented in during the construction and operation phases of development to prevent contamination of surface or groundwater.
- Ensure that any alteration to surface water drainage in the area does not negatively impact on the surface water flow to the Natura 2000 site.

5.7 REVIEW OF STRATEGIES AND OBJECTIVES

In reviewing the draft LAP, the following re-wording, omissions or additions were recommended:

Area A strategy:

To *investigate the potential for* re-open the disused Mullingar to Athlone Railway and to provide a cycleway along disused railway *subject to appropriate assessment in accordance*.

Area C strategy:

To *investigate the potential for* an open space buffer to the River Shannon area to the south and west and for a riverwalk and wildlife corridor *subject to appropriate assessment*.

Access and Movement objectives

Omit: *To provide for an amenity walk through Crosswood Bog.*

Open Space objectives

Add: *To protect the integrity of adjacent and connected Natura 2000 sites.*

Mapping showing walking or cycling routes show note that routes are indicative only and *subject to appropriate assessment*. Routes should not be shown through Crosswood Bog.

Design Guidelines

To overcome barriers to movement along the railway line and watercourses through the provision of crossing points *subject to appropriate assessment*.

A buffer zone is proposed around Crosswood Bog cSAC extending from the existing M6 east to the boundary of the designated site in order to protect the integrity of this important candidate SAC.

4.12 Flooding

Sustainable development and flood risk management in areas that are connected to Natura 2000 site will be subject to appropriate assessment.

6 STAGE 2 ASSESSMENT CONCLUSION AND NATURA IMPACT STATEMENT

Preliminary hydrological assessments have been carried out in relation to Crosswood Bog cSAC, and the River Shannon Callows cSAC, which assessed hydrological conditions within and adjacent to the sites and specified mitigation to avoid adverse impacts on the Natura 2000 sites from the proposed LAP. Mitigation was given above under section 5.6 and this has been incorporated into the LAP through an iterative process. The Strategic Flood Risk Assessment provides a review of zoning objective in relation to the Creggan LAP area and potential flood risk areas. Recommendations in relation to flood risk have also been incorporated into the proposed LAP and will further serve to strengthen protection of the adjacent Natura 2000 site.

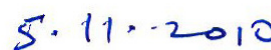
Overall, the prescribed mitigation as incorporated into the LAPC will create a buffer zone around Crosswood Bog cSAC and prevent any development east of the M6 motorway, which is sufficient to protect the Natura 2000 site. Alterations to the buffer zone will be in light of further hydrological surveys or further information from the NPWS. Mitigation has also been incorporated to prevent any contamination or alteration to surface water and groundwater as a result of the LAP development.

The management of Crosswood Bog cSAC is the responsibility of the National Parks and Wildlife Service of the Department of Environment, Heritage and Local Government. The NPWS produces Conservation Management Plans, which outlines the management framework for the site, including the sites conservation objectives. The Council is committed to supporting the aims and conservation objectives of such plans and furthering their implementation through both policy and practical means where feasible.


It has been concluded that once these mitigation measures have been fully implemented, there will be no significant effects on the extent of the Natura 2000 sites or on the key environmental factors supporting their structure and function such as hydrology. Therefore there will be no significant adverse effects on the integrity of the Natura 2000 sites as a result of the proposed development.



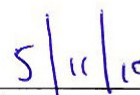
Terry McCague
Senior Planner



Date



Barry Kehoe
Director of Services



Date

7 RESULTS OF CONSULTATION

The Department of Environment Heritage and Local Government have noted the following:

It was noted that the plan area for the Creggan Local Area Plan lies immediately adjacent to Crosswood Bog Special Area of Conservation Site No. SAC 002337 and is approximately 1.5km upstream of the Middle Shannon Callows Special Area of Conservation Site No, SAC 000216 and Special Protection Area Site No, SPA 0004096. The proximity of the proposed plan to the designated sites and the extent of the plan, have the potential to have a significant negative impact upon the sites and the surrounding environment. The screening reports have correctly identified the threats to the Natura 2000 sites and the wider environment. We concur with the findings of the screening reports i.e. that a SEA Environmental Report and an Appropriate Assessment are necessary. The draft plan outlines the framework for significant development in an area, much of which has not previously been developed. The Department sees the lands to the east of the M6 as particularly sensitive, as this area acts an important buffer for Crosswood Bog Special Area of Conservation. Strategies and objectives within the plan should reflect the sensitivities of this area.

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