Monaghan
COUNTY COUNCIL
COMHAIRLE CONTAE
MHUINEACHÁIN

Arts
047 71114

Community &
Enterprise
047 30500

County Library
047 51143

County Museum
047 82928

Environment
047 30593

Finance
047 30589

Fire/Building Control
047 30521

Higher Education
Grants
047 30550

Housing Estate
Management
047 30529

Housing Loans/Grants
047 30527

Human Resource
Management
047 30586

Motor Tax
047 81175

Planning
047 30532

Register of Electors
047 30547

Roads
047 30597

Water Services
047 30504

10th April 2010

Administration,
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
Headquarters,
PO Box 3000,
Johnston Castle Estate,
Co. Wexford.

Re: Notice in Accordance with Regulation 25(c) (ii) of the Waste Water Discharge (Authorisation) Regulations 2007

A Chara,

Further to your correspondence of the 7th April 2010, please find enclosed the following documentation and accompanying CD-ROMs relating to our application for nine Waste Water Discharge Certificates of Authorisations (A0020-01, A0029-01, A0031-01, A0032-01, A0033-01, A0034 -01, A0035-01, A0036-01 and A0037-01):

- Appropriate Assessment for each agglomeration - Original + 1 copy
- Amended Non-Technical Summary for each agglomeration - Original + 1 copy
- CD-ROM of each Appropriate Assessment & Amended Non-Technical Summary

I trust you will find everything in order, however should you require any further information, please do not hesitate to contact me.

Mise le Meas,

Mark Johnston

Senior Executive Engineer.

Monaghan County Council, Council Offices, The Glen, Monaghan, Ireland
Tel 00353 47 30500 | Fax 00353 47 82739 | Email info@monaghancoco.ie

Monaghan County Council

Carrickroe Waste Water Discharge Certificate of Authorisation (A0034-01)

Appropriate Assessment Screening for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No 684 of 2007)

Date: May 2010

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Appendix A - Slieve Beagh SPA Site Synopsis

1 Introduction

1.1 Background

As required under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No 684 of 2007), Monaghan County Council submitted nine Certificates of Authorisation applications to the EPA on 22nd December 2009. The WwTW's concerned are Threemilehouse, Tydavnet, Clontibret, Knockatallon, Oram, Carrickroe, Drum, Magheracloone and Tyholland.

This report has been produced to support the Waste Water Certificate of Authorisation application for the Carrickroe agglomerations (EPA Application Register Numbers A0034-01) and to form a response to the EPA correspondence of 7th April 2010 (in line with Regulation 25 c (ii) of the Waste Water Discharge (Authorisation) Regulations 2007) which requested Monaghan County Council to:

"*Assess the likelihood of significant effects of the waste water discharges from the above agglomerations on the relevant European sites by referring to Circular L8/08 "Water Services Investment and Rural Water Programmes - Protection of Natural Heritage and National Monuments" issued by the Department of Environment Heritage and Local Government. In particular, the flow diagram in Appendix 1 should be completed within one month of the date of this notice. If significant effects are likely then an appropriate assessment must be carried out and a report of this assessment forwarded to the Agency within one month of the date of this notice*".

1.2 Appropriate Assessment Legislation

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora - the "Habitats Directive" - provide legal protection for habitats and species of European importance. The Directives requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conversation status and provides the legislation to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites.

Natura 2000 sites are Special Areas of Conservation (SAC) designated under the Habitats Directive and Special Protection Areas (SPA) designated under the Conservation of Wild Birds Directive (79/409/EEC). Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment:

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 for the site in view of the site's 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.

Article 6(4) of the Directive deals with alternative solutions, the test of "imperative reasons of overriding public interest" (IROPI) and compensatory measures:

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.

1.3 Waste Water Discharge (Authorisation) Regulations, 2007

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

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

1.4 Methodology

1.4.1 Initial Screening of Projects

In order to identify potential ecological constraints, all water services projects (in this case the Carrickroe Waste Water Treatment Plants and associated discharges), should be subjected to initial screening in accordance with the initial screening checklist in the *Circular L8/08 Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments (September 2008)* (see **Table 1** below). This process will confirm if the project is required to be screened for impacts (as per Appendix 1 Circular L8/08 DoEHLG Sept 2008).

Table 1: Initial Screening for Waste Water Services Infrastructure Projects

Initial Screening (as per DoEHLG Circular L8/08 September 2008)
1. Is the development in or on the boundary of a nature conservation site NHA/SAC/SPA?
2. Will nationally protected species be directly impacted? Wildlife Acts (1976 and 2000), Flora Protection order (S.I. 94 of 1999)?
3. Is the development a surface water discharge or abstraction in the surface water catchment, or immediately downstream of a nature conservation site with water dependant qualifying habitats/ species?
4. Is the development a groundwater discharge or abstraction in the ground water catchment or within 5km of a nature conservation site with water-dependant qualifying habitats/species?
5. Is the development in the surface water or groundwater catchment of salmonid waters?
6. Is the treatment plant in an active or former floodplain or flood zone of a river, lake, etc?
7. Is the development a surface discharge or abstraction to or from marine waters and within 3km of a marine nature conservation site?
8. Will the project in combination with other projects (existing and proposed) or changes to such projects affect the hydrology or water levels of sites of nature conservation interest or the habitats of protected species?

1.4.2 Appropriate Assessment Screening (Stage 1)

Where initial screening reveals that a project is required to be screened for impacts, an Appropriate Assessment Screening must be carried out in accordance with the Appendix 1 Flow Diagram of the DoEHLG Circular 08/08 (see **Figure 1** below).

The flow diagram in the DoEHLG Circular 08/08 will be used to screen for impacts. If the conclusion of the screening outlined in this Natura 2000 Screening Protocol is to "Assess Impacts", then Stage 2 Appropriate Assessment will be required to be carried out.

This screening methodology is designed to assist those planning and designing water services solutions when determining whether Appropriate Assessment for Natura 2000/European sites or habitats & species listed in the annexes of the EU Birds and Habitats Directives is necessary or not. It also should also be applied to Natural Heritage Areas (NHAs).

1.4.3 Appropriate Assessment (Stage 2)

In Stage 2 of this process, the impact(s) of the project or plan on the integrity of the European Site is considered with respect to the Conservation Objectives of the site.

The impact of the discharges from the WwTW on the integrity of the European Designated Site(s) will be considered with respect to the Conservation Objectives of the site. This involves acquiring adequate information on the project, in this case the WWTWs, predicting the likely effects (direct, indirect, short and long term, isolated, interactive and cumulative) and their impacts on the conservation objectives and status of the European Designated Site. Finally, mitigation measures will need to be identified and assessed against the adverse effects the project is likely to cause.

This Appropriate Assessment process has been prepared in accordance with EPA guidance notes and Department of Environment Heritage and Local Government Circular Letter L8/08 (September 2008) with data from the NPWS, EPA and Water Matters web site, in combination with Monaghan County Council data.

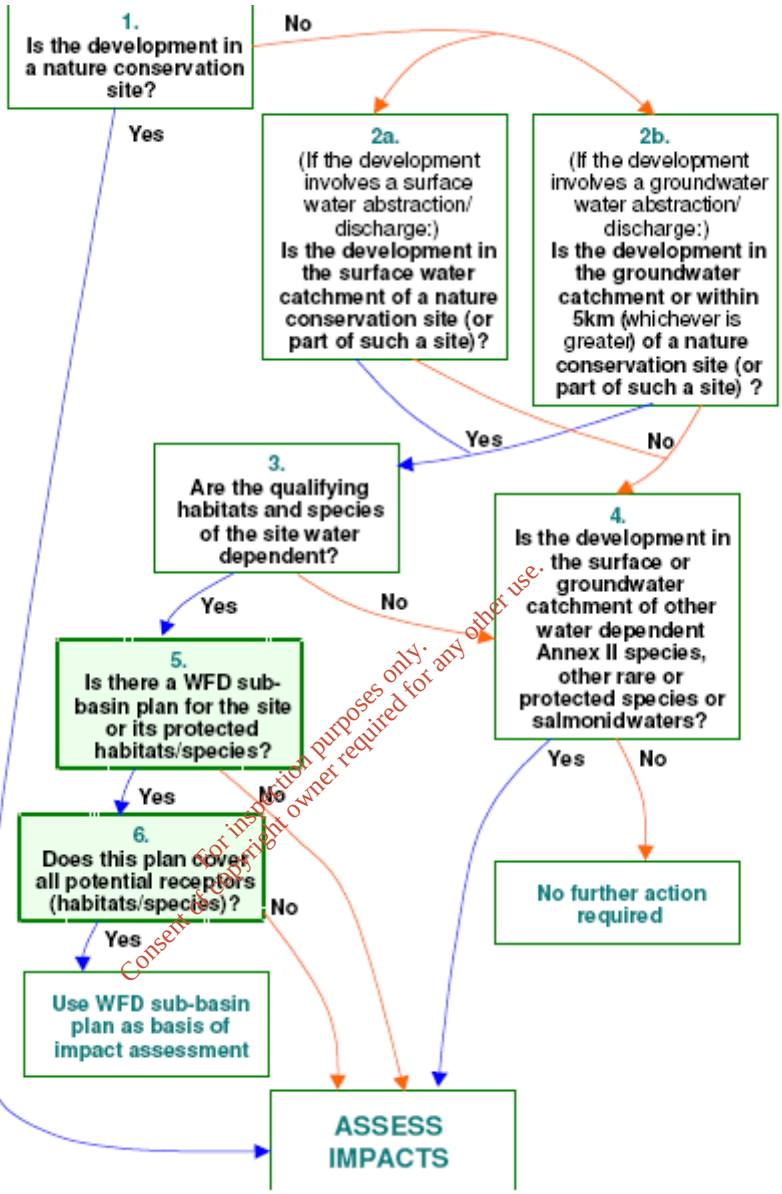


Figure 1. Flow Diagram for Screening Water Services Infrastructure Projects (Source: DoEHLG Circular L08/08 Sept 2008)

2 Pre Screening

As per the DoEHLG Circular 08/08, pre-screening is required to determine whether water services projects (in this case, Carrickroe Waste Water Treatment Plant Discharge) must be screened for impacts. If the answer is "yes" to any of the pre-screening questions, Stage 1 Appropriate Assessment Screening, must be carried out. If the conclusion of the screening outlined in the Natura 2000 Screening Protocol is to "Assess Impacts", then an Appropriate Assessment must be prepared.

The requirement to screen for impacts will be determined in the sub section below.

2.1 Carrickroe WWTW

2.1.1 Background

The Waste Water Works serving the Carrickroe and the immediate environs comprises a network of gravity sewers, pumping station at Carrickroe village, associated rising main and a waste water treatment works. The plant comprises two inline primary settlement tanks, a Rotating Biological Contactor, a final settling tank and reed beds. It is located is located at 263674E 345976N also in the townland of Derryveagh, County Monaghan.

The primary discharge of the waste water works is to an unnamed stream at NRG 263674E, 345976N in the townland of Derryveagh, Co, Monaghan. This stream drains into the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish, which ultimately drains into the Blackwater River.

The treated effluent has an average BOD concentration of 2.6mg/l and average suspended solids concentration of 3.9 mg/l. Average concentrations of nutrients are as follows; orthophosphate 1.5 mg/l (P), Total Phosphorus 1.06 mg/l (P) and Total Nitrogen 9.1 mg/l (N). At present the waste water treatment plant is fully meeting the required standards as set out in the Urban Waste Water Regulations 2001(S.I 254 of 2001) for the limits set on BOD, COD and suspended solids.

Further information on the Carrickroe Waste Water agglomeration is contained in Monaghan County Council's Waste Water Certificate of Authorisation application (Ref: A0034-01).

2.1.2 Carrickroe Pre-Screening

Table 2. The Requirement to Screen the Carrickroe WwTW for Impacts

Carrickroe WwTW	Answer
1. Is the development in or on the boundary of a nature conservation site NHA/SAC/SPA?	No
2. Will nationally protected species be directly impacted? Wildlife Acts (1976 and 2000), Flora Protection order (S.I. 94 of 1999)?	No
3. Is the development a surface water discharge or abstraction in the surface water catchment or immediately downstream of a nature conservation site with water dependant qualifying habitats/ species?	No
4. Is the development a groundwater discharge or abstraction in the ground water catchment or within 5km of a nature conservation site with water-dependant qualifying habitats/species?	No
5. Is the development in the surface water or groundwater catchment of salmonid waters?	No
6. Is the treatment plant in an active or former floodplain or flood zone of a river, lake, etc.?	No
7. Is the development a surface discharge or abstraction to or from marine waters and within 3km of a marine nature conservation site?	No
8. Will the project in combination with other projects (existing and proposed) or changes to such projects affect the hydrology or water levels of sites of nature conservation interest or the habitats of protected species?	No

The Carrickroe WWTW is not within a designated Special Area of Conservation (SAC) or a Special Protected Area (SPA). It is also not located within a National Heritage Area (NHA). The nearest Natura 2000 site within the Blackwater catchment is the Slieve Beagh SPA (Site Code 004167) (see **Figure 2** and **Appendix 1** for Site Synopsis). This site is located approximately 2.8km west of the discharge point however this site is not downstream/down gradient of the discharge point.

Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC), referred to as the Birds Directive by the DoEHLG due to their conservation value for birds of importance in the European Union.

This SPA is one of the strongholds for Hen Harrier in the country. The site also supports breeding Merlin, a species that is also listed on Annex I of the E.U. Birds Directive. Red Grouse is found in unplanted areas of bog and heath. This is a species that has declined in Ireland and is now listed. Red Peregrine, another E.U.

Birds Directive Annex I species, nests in the Northern Ireland sector of Slieve Beagh and can be seen over the site at times.

The main threat to the long-term survival of Hen Harriers within the site is further afforestation, which would reduce and fragment the area of foraging habitat, resulting in possible reductions in breeding density and productivity.

Overall, the site provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species. It may also be of national importance for breeding Merlin.

As the answer to **all** of the questions in **Table 2** is 'no', the Screening Stage 1 of the Appropriate Assessment process is not required. However, in order to comply with the letter from the EPA dated 7th April 2010 which states that "*in particular, the flow diagram in Appendix 1 should be completed and the results of each section recorded*", the Screening Stage 1 and the Appendix 1 Flow Diagram of *Circular L8/08 (September 2008)* have been completed for this project.

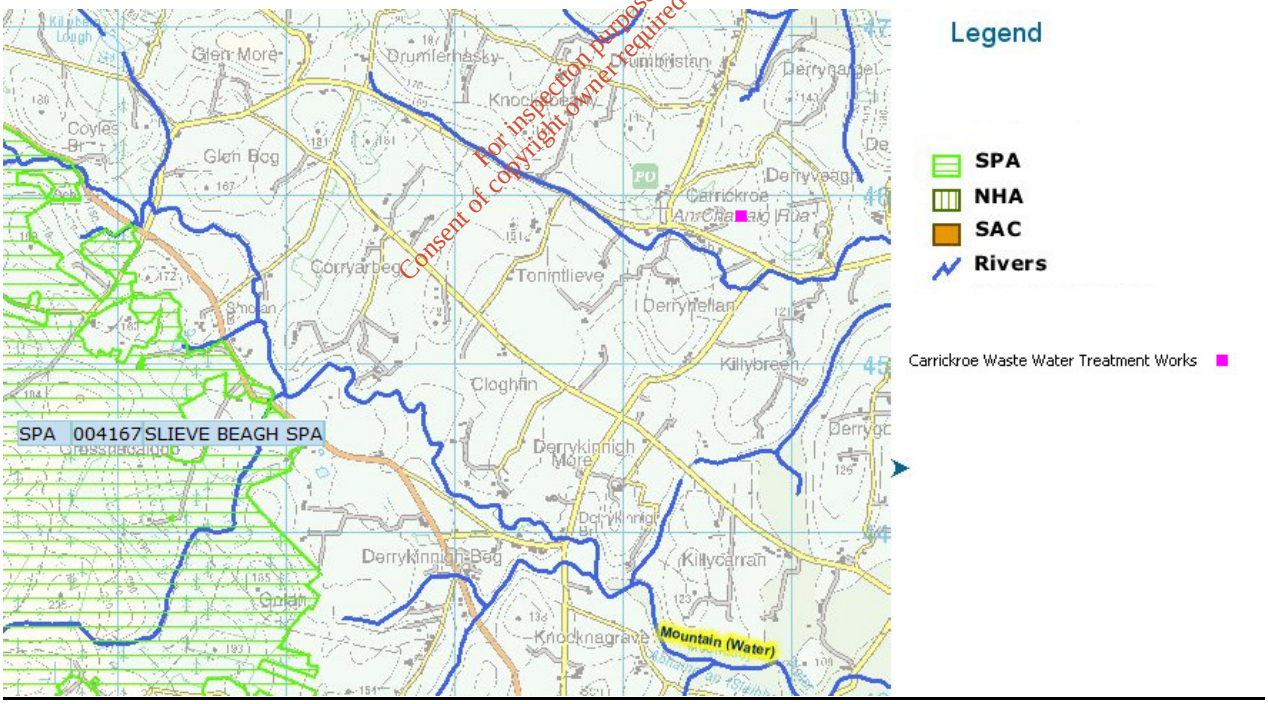


Figure 2. Nearest Designated Site to Carrickroe WWTW **(Source: EPA ENVision)**

3 Stage 1-Screening

3.1 Introduction

As noted in Section 1.3.2, where initial screening reveals that a project is required to be screened for impacts, an Appropriate Assessment Screening must be carried out in accordance with the Appendix 1 Flow Diagram of the DoEHLG Circular 08/08. However, as noted in Section 2.1.2, Screening Stage 1 is not required as a result of the pre-screening stage but is has been completed in this instance in order to comply with the EPA letter dated 7th April 2010.

This Screening exercise will identify the likely impacts (if any) from the Carrickroe waste water discharge effluent on the Slieve Beagh SPA and will consider whether these effects are likely to be significant.

3.2 Step 1 Management of the Site

The Carrickroe agglomeration and its discharge are neither directly connected to nor necessary to the management of the Slieve Beagh SPA.

3.3 Step 2 Description of the Project

3.3.1 General

A brief description of the WwTW and associated discharge is given in this section. Further information is contained within the Waste Water Discharge Certificate of Authorisation application File Ref A0034-01.

The outfall from the Carrickroe Waste Water Plant discharges to an unnamed stream at NRG 263674E, 345976N. This stream drains into the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish, which ultimately drains into the Blackwater River. The water course is situated within the Neagh Bann IRBD river basin and Blackwater River Catchment and is part of the Cavanmore-Astrish, Tributary of Blackwater Sub Basin.

The unnamed stream and the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish are not identified as "sensitive" waterway under the Urban Waste Water Treatment Regulations S.I. 254 2001 nor are they

classified as "salmonid" rivers under S.I. 293 of 1988. The Blackwater River, however, is classified as "sensitive" from the confluence of the River Shambles to Newmills Bridge.

The overall River Water Framework Directive status for the Cavanmore-Astrish Waterbody, tributary of the Blackwater sub basin is 2a, hence probably not at risk of failing to meet good status in 2015.

The treated effluent has an average BOD concentration of 2.6mg/l and average suspended solids concentration of 3.9 mg/l. Average concentrations of nutrients are as follows; orthophosphate 1.5 mg/l (P), Total Phosphorus 1.06 mg/l (P) and Total Nitrogen 9.1 mg/l (N). At present the existing waste water treatment plant is fully meeting the required standards as set out in the Urban Waste Water Regulations 2001(S.I 254 of 2001) for the limits set on BOD, COD and suspended solids. With regard to dangerous substances, no levels exceeded the standards as outlined in the Water Quality (Dangerous Substances) Regulations 2001.

3.3.2 Carrickroe Waste Water Treatment Plant

The Waste Water Works serving the Carrickroe and the immediate environs comprises a network of gravity sewers, pumping station at Carrickroe village, associated rising main and a waste water treatment works with a design capacity of 150 PE. The plant is currently serving a PE of approximately 80 (Design PE 150).

The plant comprises two inline primary settlement tanks, a Rotating Biological Contactor, a final settling tank and reed beds.

Inlet Works

Flow through the works is by gravity and is unscreened.

Treatment

Two inline settlement tanks are provided, with capacity of approximately $20m^3$. Flow passes from the settlement tanks to a rotating biological contactor. The rotating biological contactor (RBC) is rotated slowly by a small electric motor and is arranged so that a proportion of the media is submerged in the effluent at any time. As the RBC rotates, the media is subjected alternately to wastewater and air, encouraging an aerobic, biologically active film of biomass to establish on the media sheets, oxidising the pollutants in the sewage. The effluent flows to a final settlement tank before flowing to reed beds. The reed bed operates as a polishing filter to reduce nutrient contents further after the primary and secondary treatment prior to

the effluent being discharged to surface water. A sludge return pump is provided in the final settlement tank, which returns the sludge to the inlet tank.

Sludge

The settling tanks are de-sludged by tanker every 2 months. The sludge is transported to Monaghan for further treatment.

3.3.3 In Combination Impacts

This AA screening process only relates to the Carrickroe WWTW discharge. The discharge has the potential to only have an effect on the aquatic environment, hence it can be inferred that in combination effects need only apply to other plans and projects that have an impact on the aquatic environment. Based on the above and a review of industrial and municipal discharges in the vicinity and the fact that the SPA is up gradient of the discharge, no combination impacts are predicted.

3.4 Step 3 Characteristics of the Site

3.4.1 General Description

The Slieve Beagh SPA comprises much of the eastern and south-eastern sectors of the Slieve Beagh upland area that extends from County Monaghan into Northern Ireland. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier.

This SPA is one of the strongholds for Hen Harrier in the country. A survey in 2005 resulted in four confirmed breeding pairs, representing over 2.5% of the national total. However, when the Northern Ireland sector of Slieve Beagh is considered, there was a total of 10 breeding pairs in 2005. The mix of forestry and open areas provides optimum habitat conditions for this rare bird, which is listed on Annex I of the Birds Directive. The early stages of new and second-rotation conifer plantations are the most frequently used nesting sites, though some pairs may still nest in tall heather of unplanted bogs and heath. Hen Harriers will forage up to approximately 5km from the nest site, utilising open bog and moorland, young conifer plantations and hill farmland that is not too rank. Birds will often forage in openings and gaps within forests. In Ireland, small birds and small mammals appear to be the most frequently taken prey.

The Conservation Objective of this site is to maintain the special conservation interests (*i.e.* Hen Harrier) for this SPA at favourable conservation status.

The site also supports breeding Merlin, a species that is also listed on Annex I of the E.U. Birds Directive. Two probable pairs were recorded in 2002-03 during survey work for a wind farm but further survey is required to determine the exact status of this small falcon. Red Grouse is found in unplanted areas of bog and heath, this is a species that has declined in Ireland and is now Red listed. Peregrine, another E.U. Birds Directive Annex I species, nests in the Northern Ireland sector of Slieve Beagh and can be seen over the site at times.

The main threat to the long-term survival of Hen Harriers within this site is further afforestation, which would reduce and fragment the area of foraging habitat, resulting in possible reductions in breeding density and productivity.

Overall, the site provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species.

3.4.2 NHA Qualifying Interest

This site is of high importance for Hen Harriers. The site also supports breeding Merlin, a species that is also listed on Annex I of the E.U. Birds Directive. Red Grouse, which is now Red listed, is found in unplanted areas of bog and heath. Peregrine, another E.U. Birds Directive Annex I species, nests in the Northern Ireland sector of Slieve Beagh and can be seen over the site at times.

The qualifying interests for which the SPA is designated are not water dependent and the site is located up gradient of the discharge location. Therefore, no significant effects are likely then no further Assessment is required.

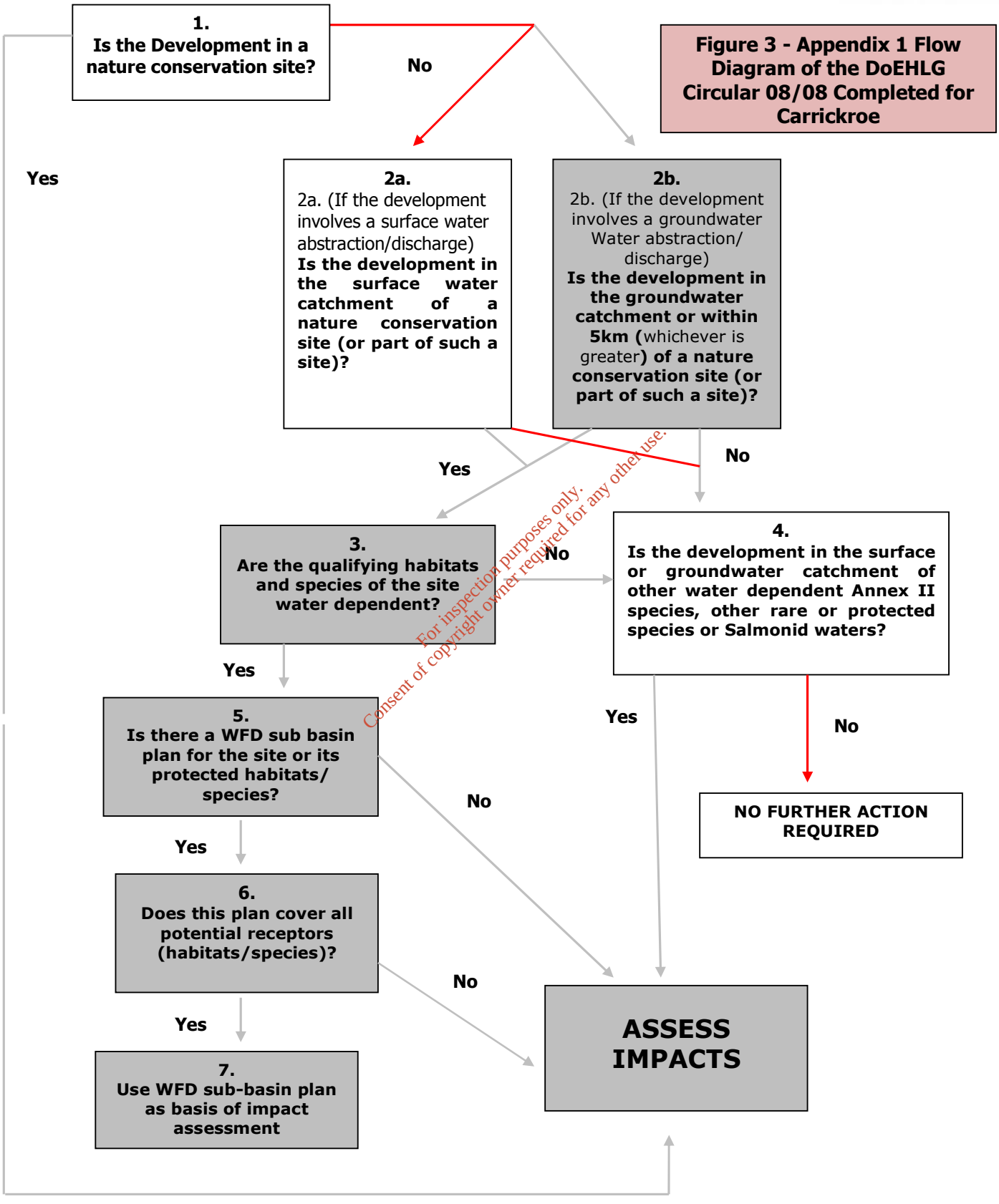
3.5 Step 4 Assessment of Significance

As per Circular L8/08 Water Services Investment and Rural Water Programmes - Protection of Natural Heritage and National Monuments issued by the DoEHLG, this section displays the outcome of the Appendix 1 Flow Diagram which was used to screen for impacts. It should be noted that the red line indicates the project-specific outcomes.

3.6 Conclusion

The discharge from the Carrickroe WWTW will not have a significant adverse impact on the conservation objectives or integrity of the Slieve Beagh SPA. Therefore, Stage 2 of the Appropriate Assessment process is not required

Figure 3 - Appendix 1 Flow Diagram of the DoEHLG Circular 08/08 Completed for Carrickroe



APPENDIX A

SITE NAME: SLIEVE BEAGH SPA

SITE CODE: 004167

The Slieve Beagh SPA comprises much of the eastern and south-eastern sectors of the Slieve Beagh upland area that extends from County Monaghan into Northern Ireland.

Mountain blanket bog is well developed at the higher altitudes and especially at Eshbrack (peak of 365 m). The vegetation is largely dominated by Deergrass (Scirpus cespitosus), Ling Heather (Calluna vulgaris), Cross-leaved Heath (Erica tetralix), Hare's-tail Cottongrass (Eriophorum vaginatum), Common Cottongrass (E. angustifolium), Crowberry (Empetrum nigrum) and a range of mosses such as Sphagnum capillifolium, S. papillosum, S. tenellum and Hypnum cupressiforme. In places, Cranberry (Vaccinium oxycoccos) is an abundant component of the vegetation. Elsewhere the bog is mostly cutover and there are also wet and dry heaths present. In total, bog and heath occupies 43% of the site. The mid-slopes are afforested (40% of site), with plantations of various ages (open canopy, closed canopy, clear-fell). The remainder of the site is rough or marginal grassland (16%).

Some of the old field systems support species-rich wet grassland vegetation dominated by Soft Rush (Juncus effusus). Several small dystrophic lakes are present within the site.

This SPA is one of the strongholds for Hen Harrier in the country. A survey in 2005 resulted in four confirmed breeding pairs, representing over 2.5% of the national total. However, when the Northern Ireland sector of Slieve Beagh is considered, there was a total of 10 breeding pairs in 2005. The mix of forestry and open areas provides optimum habitat conditions for this rare bird, which is listed on Annex I of the Birds Directive. The early stages of new and second-rotation conifer plantations are the most frequently used nesting sites, though some pairs may still nest in tall heather of unplanted bogs and heath. Hen Harriers will forage up to c. 5 km from the nest site, utilising open bog and moorland, young conifer plantations and hill farmland that is not too rank. Birds will often forage in openings and gaps within forests. In Ireland, small birds and small mammals appear to be the most frequently taken prey.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Hen Harrier.

The site also supports breeding Merlin, a species that is also listed on Annex I of the E.U. Birds Directive. Two probable pairs were recorded in 2002-03 during survey work for a wind farm but further survey is required to determine the exact status of this small falcon. Red Grouse is found in unplanted areas of bog and heath – this is a species that has declined in Ireland and is now Redlisted.

Peregrine, another E.U. Birds Directive Annex I species, nests in the Northern Ireland sector of Slieve Beagh and can be seen over the site at times.

The main threat to the long-term survival of Hen Harriers within the site is further afforestation, which would reduce and fragment the area of foraging habitat, resulting in possible reductions in breeding density and productivity.

Overall, the site provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species. It may also be of national importance for breeding Merlin.

22.5.2007

CARRICKROE WASTE WATER TREATMENT WORKS

WASTE WATER DISCHARGE CERTIFICATE OF AUTHORISATION

Revised Non Technical Summary

Monaghan County Council
County Offices
The Glen
Co. Monaghan

May 2010

Carrickroe - Revised Non Technical Summary

Monaghan County Council is making an application to the Environmental Protection Agency (EPA) for a Waste Water Discharge Certificate of Authorisation for the Carrickroe Waste Water Treatment Plant (WWTP) and agglomeration in compliance with the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

Under Schedule 2 of the above regulations, the prescribed date for submission of Waste Water Discharge Licence Applications for agglomerations (with discharges with a population equivalent of less than 500 PE) is 22nd December 2009. The WWTP at Carrickroe falls under this category, having an agglomeration with a design population equivalent of 150 and a current estimated population equivalent of 80.

The Waste Water Works serving the Carrickroe and the immediate environs comprises a network of gravity sewers, pumping station at Carrickroe village, associated rising main and a waste water treatment works. The plant comprises two inline primary settlement tanks, a Rotating Biological Contactor, a final settling tank and reed beds.

The primary discharge of the waste water works is to an unnamed stream at NRG 263674E, 345976N in the townland of Derryveagh, Co, Monaghan. This stream drains into the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish, which ultimately drains into the Blackwater River. The associated waste water treatment plant is located at 263674E 345976N also in the townland of Derryveagh, County Monaghan.

The plant is supervised/manned for two hours Monday to Friday, giving a total of ten hours a week.

The unnamed stream and the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish are not identified as a "sensitive" waterway under the Urban Waste Water Treatment Regulations S.I. 254 2001 nor is it classified as a "salmonid river" under S.I. 293 OF 1988. The Blackwater River, however, is classified as "sensitive" from the confluence of the River Shambles to Newmills Bridge.

The overall River Water Framework Directive status for the Cavanmore-Astrish Waterbody, tributary of the Blackwater sub basin is 2a, hence probably not at risk of failing to meet good status in 2015.

With regard to Designated Sites, the Carrickroe WWTW is not in or on the boundary of an NHA, SAC or SPA. The discharge is not immediately downstream of nature conservation sites with water dependent habitats or species. The nearest Natura 2000 site is the Slieve Beagh SPA (Site Code 004167). This site is located approximately 2.8km west of the discharge point however this site is not downstream/down gradient of the discharge point.

Taking cognisance of the DoEHLG Circular L8/08 "Water Services Investment and Rural Water Programmes - Protection of Natural Heritage and National Monuments", a pre-screening and Appropriate Assessment Screening assessment was carried out to determine the likely impacts on the Slieve Beagh SPA of the Carrickroe waste water discharge and to consider whether these effects are likely to be significant.

It was concluded that the discharge from the Carrickroe WWTW will not have a significant adverse impact on the conservation objectives or integrity of the Slieve Beagh SPA and therefore, Stage 2 of the Appropriate Assessment process was not required.

There is no EPA monitoring site upstream or downstream of the discharge point or along the Blackwater68_BlackwaterTRIB_CavanmoreTRIB-Astrish.

The treated effluent has an average BOD concentration of 2.6mg/l and average suspended solids concentration of 3.9 mg/l. Average concentrations of nutrients are as follows; orthophosphate 1.5 mg/l (P), Total Phosphorus 1.06 mg/l (P) and Total Nitrogen 9.1 mg/l (N). At present the existing waste water treatment plant is fully meeting the required standards as set out in the Urban Waste Water Regulations 2001(S.I 254 of 2001) for the limits set on BOD, COD and suspended solids. With regard to dangerous substances, no levels exceeded the standards as outlined in the Water Quality (Dangerous Substances) Regulations 2001.

The receiving stream currently has no flow in it and there are no hydrometric stations in the vicinity. Assimilative calculations were unable to be performed. However effluent data meets the standards as outlined in the UWWT Regulations and Dangerous Substances Regulations.