APPENDIX 3

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Appropriate Assessment for Scotstown & Ballinode WwTP's. D0494-01 D0435-01 **Appendix 3:**



Monaghan County Council Water Services Department Comhairle Chontae Mhuineacháin Roinn Seírbíse Úisce

SCOTSTOWN & BALLINODE WASTEWATER TREATMENT WORKS

Waste Water Discharge License Application

Application Register Numbers: D0494-01 & D0435-01

Regulation 18 (3) (b) Further Information Response

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1. Introduction

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. 684 of 2007) Monaghan County Council submitted Waste Water Discharge Licence applications to the Environmental Protection Agency (EPA) for Scotstown and Ballinode Wastewater treatment Works. The following report has been produced to form a response to the EPA correspondence of 6th May 2011 (Notice in accordance with Regulation 18(3) of the Waste Water Discharge (Authorisation) Regulations 2007) for 'Section F: Existing & Impact of the discharge(s)', which requires an appropriate assessment to be completed for these two agglomerations. Scotstown and Ballinode villages are neighbouring villages some 2.4km apart as the crow flies and discharges from both of these WwTW are into the river Blackwater, it was deemed therefore appropriate, to prepare one Appropriate Assessment report for the discharges from both of these agglomerations.

2. Management of the Sites

The Scotstown and Ballinode Waste Water Treatment Works (WwTW) and their discharges are not directly connected with or necessary to the management of any European site (Special Area of Conservation, SAC properties Protection Area, SPA).

3. Project Description *Purples of for Note:* A brief description of the treat preprint works and associated discharges is given in this section, further detailed information is contained within the Waste Water Discharge Licence Application files Ref: D0494-01 & D0435-01.

Scotstown WwTP - D0494-01:

The waste water treatment works is designed to cater for a population equivalent of 1000 and is currently accepting effluent flows of approximately 520 PE. A network of gravity sewers and associated rising main, collect and transport waste water from the Scotstown village and environs, to the WwTW located at the South East of the village.

The WwTW consists of inlet works, storm storage, Ferric dosing, two primary settlement tanks, a Rotating Biological Contactor (RBC), two filter beds, final settlement tank and return activated sludge system. The primary discharge of the waste water works is to the Blackwater river at NGR 261140E 336760N in the townland of Teraverty adjacent to the WwTW. There is a storm overflow from a storm holding tank located at NGR 261135E 336742N in the event of continuous storm conditions whereby the storm tank fills up and the treatment works is at full capacity, discharge is into the river Blackwater. The storm overflow complies with Procedures and Criteria for Storm Water Overflows published by the Dept. of the Environment 1995. The Blackwater River is located in the Neagh Bann International **River Basin District.**

From 2010 results, the treated effluent has an average BOD concentration of 12mg/l, average COD concentration of 37.17mg/l and average suspended solids concentration of 26 mg/l. Average concentration of nutrients are as follows: Total Phosphorous 0.9mg/l (P) and Total Nitrogen 14.9 mg/l. 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.

Ballinode WwTP - D0435-01:

The waste water treatment works is designed to cater for a population equivalent of 1000 and is currently accepting effluent flows of approximately 462 PE. A network of gravity sewers and associated rising main, collect and transport waste water from the Ballinode village and environs, to the WwTW located at the South of the village.

The WwTW consists of inlet works, storm storage, Ferric dosing, primary settlement tank, a Rotating Biological Contactor (RBC), two filter beds, final settlement tanks and return activated sludge system. The primary discharge of the waste water works is to the Blackwater river at NGR 263057E 335886N in the townland of Quiglough adjacent to the WwTW. There is a storm overflow from a storm holding tank located at NGR 263003E 335851N, in the event of continuous storm conditions whereby the storm tank fills up and the treatment works is at full capacity, discharge is into the river Blackwater. The storm overflow complies with Procedures and Criteria for Storm Water Overflows published by the Dept. of the Environment 1995. The Blackwater River is located in the Neagh Bann International River Basin District.

From 2010 results, the treated effluent has an average BOD concentration of 2.3mg/l, average COD concentration of 31.8mg/l and average suspended solids concentration of 6.17 mg/l. Average concentration of nutrients are as follows: Total Phosphorous 0.85mg/l (P) and Total Nitrogen 16.39 mg/l. 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, slightly elevated levels of Total Nitrogen were recorded on occasion, this can be attributed to mechanical problems with the filter beds which have since been remedied.

Both plants are manned every day by caretakers for a number of hours and both plants are also linked to the Monaghan County Council SCADA system which provides an alarm facility in the event of a fault.

The Blackwater river is not identified as salmonid water under EC (Quality of Salmonid Water) Regulations 1988. The overall river Framework Directive status for the Blackwater River is 1a, hence it is at risk of failing to attain 'good status' by 2015. This section of the Blackwater River where the discharge points for Scotstown and Ballinode WwTP's are located is not classified as 'sensitive', however further downstream (circa. 7.6km) the Blackwater River is classified as 'sensitive' from it's confluence with the Shambles River in Monaghan town to Newmills Bridge.

Monaghan County Council monitors the river directly upstream and downstream of both treatment plants. The results of which are contained within Section F of both

discharge licence applications along with the assimilative capacity calculations of the receiving water – Blackwater River. The conclusion of these calculations as outlined in Section F of the discharge applications is that the impact of the Scotstown and Ballinode WwTP discharges, can be assimilated into the river and will not have a pollution effect over long distances.

The Scotstown and Ballinode WwTP's are not in or on the boundary of an NHA, SAC or SPA. The nearest conservation sites are some proposed National Heritage Area's namely, **Mullaghmore Lake (South) pNHA** 1.4km North East of Scotstown village, **Drumreaske Lough pNHA** 1.4km South East of Ballinode village, **Rosefield Lake and Woodland pNHA** 1.7km South of Ballinode village and **Wrights Wood pNHA** 3.4km South East of Ballinode village. None of these proposed NHA's are located upstream or downstream of the discharge locations of Scotstown or Ballinode WwTP and they are all a significant distance from the discharge locations.

The nearest designated Natura 2000 conservation site to the WwTP's is **Slieve Beagh Special Protected Area (SPA) and Esbrack Bog National Heritage Area (NHA).** They are located circa. 6km North West of Scotstown village and circa. 8 km from Ballinode village respectively. Both Slieve Beagh SPA and Esbrack Bog NHA are interlinked in the one area with Slieve Beagh extending into Northern Ireland. These sites are located <u>upstream</u> of the discharge points of both WwTp's. Figure 1 denotes the proximity of these sites to the treatment plants.





(Source: EPA ENVision)

Mullaghmore Lake (South) pNHA, is a shallow lake which is colonized by floating vegetation (scraw) and reed beds, there is a better than average number and variety of wildfowl on the lake including tufted duck, Pochard and Whooper Swan.

Drumreaske Lough pNHA is a small calcareous lough surrounded by areas of marchland and mixed woodland which provides for an interesting ecological area. Stoneworts are present in the lough and the Great Fen-sedge amonst the reed beds.

Rosefield Lake and Woodland pNHA is another small calcareous lake surrounded by Alder woodland. The lake contains Stonewort, Canadian Waterweed and Broad-leaved Pondweed, reed beds consist of mainly Common Reed, Bottle Sedge and Jointed Rush. The Alder woodland contains Rusty Willow and Brown Sedge.

Wrights Wood pNHA, is hilltop open woodland containing a variety of old Goat Willow trees and younger coppiced Ash trees. There is ground flora established including Herb-Robert, Wood Avens and German Speedwell.

Slieve Beagh SPA is an upland area in County Monaghan that extends into Northern Ireland, Mountain Blanket Bog areas are well developed at the higher altitudes with a range of mosses and vegetations. This site is a Special Protection Area under the E.U. Birds Directive of special conservation interest for Hen Harrier. Breeding Merlin species are also on this site (species listed on Annex 1 of the E.U. Birds Directive). 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.

Esbrack Bog NHA is and extensive area of upland blanket bog directly linking with the aforementioned Slieve Beagh SPA. A range of vegetation and mosses dominate the developed bog including Deer Sedge, Ling Heather, Cross-Leaved Heath and Cranberry. There are a number of bog pools and lakes on the site. This site supports a number of birds such as Red Grouse, Greenfand White-fronted Goose, Hen Harrier, Merlin and Golden Plover. This bog contains the last remaining relatively intact bog habitat in Co. Monaghan and blanket bog habitat is a globally scarce resource. Their long term survival therefore requires sensitive management.

All of the above sites are described as follows in the site synopsis taken from the National Parks and Wildlife Service Data:

Site Synopsis:

SITE NAME: MULLAGHMORE LAKE (SOUTH) pNHA

SITE CODE: 001785

This shallow lake, situated about 6km north-west of Monaghan, is one of the larger lakes in the area. In 1984 An Foras Forbartha provided the following site description.

It is a shallow lake which is rapidly infilling, becoming colonised by floating scraw. The lake surface is colonised by water-lilies (both Nymphaea alba and Nuphar lutea). The emergent vegetation consists of dense reed beds of Common Club-Rush (Schoenoplectus lacustris) and Water Horsetail (Equisetum fluviatile), especially in the south and west.

The reed beds are surrounded by freshwater marsh, containing Bogbean (Menyanthes trifoliata), Yellow Loosetrife (Lysimachia vulgaris) and Common Marsh-bedstraw (Galium palustre).

On the south-east margin of the lake there is woodland containing Alder (Alnus glutinosa) and willow (Salix spp). These trees also form a narrow band around the rest of the lake.

There is a better than average number and variety of waterfowl on the lake including Tufted Duck, Pochard, Mute and Whooper Swan. A small wooded island on the middle of the lake provides a nesting site for a small breeding colony of Grey Heron.

This site is of importance because it provides an excellent example of colonisation of open water by scraw (floating vegetation) as well as providing for a better than average number of wildfowl.

SITE NAME: DRUMREASKE LOUGH pNHA

SITE CODE: 001602

This small calcareous lough is situated 3km north-west of Monaghan. With its surrounding pockets of marshland and mixed woodland it forms an interesting ecological area. In 1972 An Foras Forbartha provided the following site description:

The calcareous nature of the lough is evident from the presence of stoneworts (Chara spp) which form a narrow shelf all around the lough edge. The calcicole Great Fensedge (Cladium mariscus) is also present amongst the reed-beds that surround most of the lough.

On the lake margins are pockets of wet, marshy ground. These are colonised mainly by Wayfaring-tree (Viburnum lantana), which is presumably planted. In between these pockets are open areas dominated by sedges (Carex spp.) with the main flowering species consisting of Wild Angelica (Angelica sylvestris), Bogbean (Menyanthes trifoliata), Marsh Lousewort (Pedicularis palustris), Common Spottedorchid (Dactylorhizajuchsii) and Greater Spearwort (Ranunculus lingua).

To the east of the lough is mixed woodland. This contains conifers, deciduous trees and omamental introductions such as Barberry (Berberis vulgaris), Rhododendron (Rhododendron ponticum) and Snowberry (Symphoricarpos albus). It is this combination of planted and natural species which add to the botanical value of the site.

Several fishing stands are to be found around the shoreline. Anglers appear to be the main visitors to the lake and the main cause of litter.

Considering its small size, this site shows a lot of diversity, with a calcareous lake, freshwater marsh and mixed woodland. The presence of a stonewort in the lough and of the Wayfaring-tree round its margins increases the interest of the site.

SITE NAME: ROSEFIELD LAKE AND WOODLAND DNHA

SITE CODE: 001784

This site, 4km west of Monaghan consists of a small calcareous lake surrounded by Alder (Alnus glutinosa) woodland.

In 1984 An Foras Forbartha provided the following site description.

The lake contains stonewort (Chara spp.), Canadian Waterweed (Elodea canadensis) and Broad-leaved Pondweed (Potamogetan natans). There is an emergent zone of Common Club-rush (Schoenoplectus lacustris), Bulrush (Typha latifolia) and Great Fen-sedge (Cladium mariscus). This zone is surrounded by reed beds, consisting mainly of Common Reed (Phragmites australis) with Bottle Sedge (Carex rostrata) and Jointed Rush (Juncus articulatus).

There is an Alder wood on the north, east and west margins of the lake. This varies from I-20m in width with the largest section on the north-east margin. This wet woodland contains Rusty Willow (Salix cinerea subsp. oleifolia) and Brown Sedge Jt (Carex disticha).

SITE NAME: WRIGHT'S WOOD

SITE CODE: 001612

Wright's Wood is one of many small woodlands west and south-west of Monaghan. Like most, it crowns a hillock, the topof which lies just above 100m.

In 1972 An Poras Porbartha provided most of the following site description:

The wood contains an interesting mix of very old Goat Willow trees (Salix caprea) and younger Ash trees (Fraxinus excelsior), the latter of which are regularly coppiced. The coppiced Ash stakes are held within wire-mesh enclosures. The woodland appears to be even-aged and therefore is probably artificial.

The woodland is of a fairly open nature, thus enabling a reasonable ground flora to establish itself. Mosses are abundant on the ground and grow on many of the older trees together with lichens. The main herbaceous species in the ground flora include Herb-Robert (Geranium robertianum), Enchanter's-nightshade (Circaea lutetiana), Wood Avens (Geum urbanum) and Germander Speedwell (Veronica chamaedrys).

Only a small area of woodland remains after a substantial area of it was clear-felled recently and is now used to graze cattle on. The remaining woodland is also grazed which is threatening the development of the ground flora, but not to any serious extent.

The site's interest lies in the different species of trees within the woodland, providing an example of different stages of colonisation. It is also the best woodland site known in Monaghan and is representative of coppiced ash woodland.

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 (Ca//una vulgaris), Cross-leaved Heath (Erica tetra/iXj, Hare's-tail Cotton grass (Eriophorum vaginatum), Common Cottongrass (£ angustifo/ium), Crowberry (Empetrum nigrum) and a range of mosses such as Sphagnum capi//ifo/ium, S. papi//osum, S. tene//um 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 were 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.

SITE NAME: ESHBRACK BOG NHA

SITE CODE: 001603

Eshbrack Bog NHA is an extensive area of upland blanket bog located about 8 km north-west of Scotstown, Co. Monaghan in the townlands of Eshnaglogh and Knockanearla. The site links directly with Slieve Beagh, a Special Area of Conservation in Northern Ireland and has an altitude range of between 200 m and 350 m. The bedrock geology consists of Carboniferous Sandstone.

A stream that flows north-east along the Tyrone/Monaghan border forms the northern boundary of the site. The Colebrooke River forms part of the western boundary of the site.

On the high ground blanket bog is extensively developed. This is largely dominated by a combination of Deer Sedge (Scirpus cespitosus), Ling Heather (Calluna vulgaris), Cross-leaved Heath (Erica tetralix), Hare's tail Cotton grass (Eriophorum vaginatum) Common Cottongrass (E. angustifohum), 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. A number of bog pools are found on the site and several lakes occur which vary in species composition depending on nutrient status and water depth. Two of these, Lough Naheery and Lough Sallagh, straddle the Monaghan/Tyrone border. The former is a good example of an oligotrophic (nutrientpoor) lake and contains characteristic species such as Quillwort (Isoetes lacustris). The latter is an example of a species-poor dystrophic lake.

Relatively undisturbed heath communities occur on the bog margins and on the slopes of some of the shallow stream valleys. In some places the peat has been cut down to

the more mineral, though still acid, sub-soils and vegetation more typical of acid grasslands has developed here, typified by Velvet Bent (Agrostis canina) and Mat-

grass (Nardus stricta). Lowland wet grassland occurs in the bottoms of the shallow valleys. Scrub stands are generally small and isolated, occurring mainly on the steeper sections of the river valleys. Hazel (Corylus avellana) is the main species, often occurring with Rusty Willow (Salix cinerea subsp. oleifolia).

Flushes occur on some of the valley sides and valley bottoms and these can vary in species composition depending on water movement and water chemistry. Slightly flushed slopes tend to be dominated by Purple moor-grass (Molinia caerulea) but as flushing increases the vegetation is characterised by Sharp-flowered Rush (Juncus acutiflorus) and an increase in mosses and broad-leaved herbs.

Several bird species listed in the Irish Red Data Book are found within the site

including Greenland White-fronted Goose, Hen Harrier, Merlin and Golden Plover.

Grazing and heather burning have maintained an open structure to the heath and grassland communities but has resulted in modification to some areas of the blanket bog. Nevertheless, heather is still relatively abundant in places and provides excellent habitat for Red Grouse, a declining and threatened species in Ireland. Conifer plantations, mainly planted on lands under 300 m altitude, have been a major cause of habitat loss in the vicinity of the site. Second rotation crops are being planted where commercially mature conifer plantations have been harvested. These pose a continuing threat to the intact bog through the negative impacts of drainage, fertilisation and self-seeding of conifers onto the bog surface. Drainage associated with peat cutting has also affected the hydrological integrity of the site.

Eshbrack Bog NHA contains the last remaining relatively intact bog habitat in Co. Monaghan. Although parts of the site have been affected by hand cutting and mechanical peat extraction, much of the cutover areas are now starting to regenerate. The intact blanket bog areas feature hummock/hollow complexes and flushed slopes and the wide range of associated habitats, which include upland grassland on peaty soil, heath, reedbed, swamp, freshwater marsh, scrub and wet, broadleaved woodland, add considerably to the conservation value of the site. The occurrence of Cranberry, an uncommon species of blanket bog and of very restricted distribution in the county, is also of note. A number of bird species listed in the Irish Red Data Book occur in the site, including Greenland White-fronted Goose, Hen Harrier, Merlin, Golden Plover and Red Grouse.

Blanket bog habitat is a globally scarce resource. It is largely confined to coastal regions at temperate latitudes with cost, wet, oceanic climates. Northwest Europe contains some of the best-developed areas of blanket bog in the world. The most extensive areas are found in Ireland and Britain. Upland blanket bogs, due to their exposure to severe climatic conditions at high elevations, are particularly vulnerable to erosion by human activities and extensive areas are currently undergoing active erosion due mainly to overgrazing. The current area of intact upland blanket bog in Ireland represents only a fraction of the original resource, due to the combined impacts of afforestation and overgrazing, and intact examples are therefore extremely valuable for nature conservation. Their long-term survival requires sensitive management.

Conclusion:

The discharges from Scotstown and Ballinode WwTP's has the potential to only have an effect on the aquatic environment, the 'in combination' effect therefore need only apply to other plans and projects that have an impact on the aquatic environment. No effects on any of the sites previously described are predicted as the Scotstown and Ballinode WwTP's do not discharge to any of the above listed proposed NHA's nor to Slieve Beagh SPA or Esbrack Bog NHA as they are both located a considerable distance upstream from both WwTP's. Monaghan County Council has no plans to extend the current WwTP's. There is no combination impacts predicted based on the aforementioned and there are no industrial discharges to the receiving water in the vicinity of the discharges from the WwTP's.

4. Characteristics of the site

The conservation objectives of the designated sites (previously described in section 3) is to maintain the qualifying interests for them at favorable conservation status. The qualifying interests in the sites are primarily the species and habitats of flora and fauna that are present within and around them. Some of these sites are water dependent, however, neither Scotstown nor Ballinode WwTP's discharge to any of these sites. The two designated sites namely Slieve Beagh SPA and Esbrack bog NHA are located a considerable distance upstream from the Scotstown and Ballinode WwTP discharge locations in the Blackwater River and as previously outlined no effects on any of the sites or their qualifying interests are predicted, therefore no further assessment is required.

5. Assessment of significance

Protection of National Heritage and National Monuments

The screening methodology used for Scotstown and Ballinode WwTP's is in accordance with the Department of the Environment, Heritage and Local Government Circular L8/08, Water Services Investment Programmes, Protection of National Heritage and National Monuments.

Within the circular initial screening in accordance with Appendix 1 (national heritage) and Appendix 2 (architectural heritage) are required.

6. Appendix 1 Screening (Natural Heritage)

Appendix 1 of Circular L8/08 prescribes 8 questions and a screening flow diagram (see Figure 2) that are used to determine if a new development requires screening for potential impacts to habitats, flora or fauna. The 8 checklist questions are dealt with below.

1. Is the development in or on the boundary of a nature conservation site NHA / SAC / SPA?

No, neither Scotstown nor Ballinode Waste Water Treatment Plants are sited in or on the boundary of a nature conservation site.

2. Will nationally protected species be directly impacted? Wildlife Acts (1976 and 2000) Flora Protection order (S.I. 94 of 1999)?

No. The existing Scotstown nor Ballinode WwTW's are not sited within a protected area. The existing WwTP's are not affecting protected species under the Wildlife Acts or Flora Protection Order (S.I. of 1999) as these are existing plants and their discharges are meeting the required standards as set out in the Urban Waste Water Regulations 2001 (S.I. 254 of 2001).

3. Is the development a surface water discharge or abstraction in the surface water catchments or immediately downstream of a nature conservation site with water dependent qualifying habitats / species?

Scotstown and Ballinode WwTP's discharges into the Blackwater River (surface water). The river Blackwater is not in a surface water catchment or immediately downstream of a nature conservation site with water dependent qualifying habitats/ species.

4. Is the development a groundwater discharge or abstraction in the ground water catchment or within 5 km of a nature conservation site with water dependent qualifying habitats / species?

No. The existing WwTP's do not discharge to groundwater or abstract groundwater.

5. Is the development in the surface water or groundwater catchment of salmonid waters?

No. The receiving water is not a designated salmonid water.

6. Is the treatment plant in an active or former floodplain or zone of a river, lake, etc?

lake, etc? No. The treatment plant is not situated on an active or former floodplain. One recorded flood incident is recorded on the OPW National Flood Hazard Mapping database, which occurred in 1987, the cause of which in the report is attributed to the extreme nature of the storm that occurred (24 hr return period of the storm being in the order of once in 100 years) and dramage works that aggravated the flood that were in progress at the time 0.9km upstream of this point on the river.

7. Is the development a surface water discharge or abstraction to or from marine waters and within 3 km of a marine nature conservation site?

No. All discharges from the WwTW's are to a surface water river course.

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 Scotstown WwTW has a treatment capacity of 1,000 PE. The current load on the WwTW is approximately 520PE (52 % of design capacity), the Ballinode WwTP has a treatment capacity of 1,000 PE, the current load on the WwTP approximately 462PE (46% of design capacity). There are no plans to extend or combine either of the existing plants. The WwTW's and the discharges from them do not have any effect on the hydrology or water levels of any surface water courses.

The flow diagram – Figure 2 attached was completed as per circular L8/08 to complete the screening process and applies to both Scotstown and Ballinode WwTP's, the red lines indicate the project specific outcomes, which requires no further action.

Figure2.

Appendix 1 Flow Diagram of the DOEHLG Circular L8/08 completed for Scotstown & Ballinode WwTP's.



7. Appendix 2 Screening (Archaeological Heritage)

Appendix 2 provides an Archeological heritage checklist for Local authorities in which to assess the potential impacts on archeological material and recorded monuments.

The seven statements provided in appendix 2 are dealt with below.

• Any scheme that extends within or impinges upon the confines of the "black line" drawn around a monument on the Record of Monuments and Places map.

The Scotstown nor Ballinode WwTW's do not impinge upon any protected monument sites or areas of archeological importance.

The closest monuments to Scotstown WwTP are:

• Carrowhatta Ringfort: (MO009-003), located 350m NE of WwTW: A circular area of ringfort surrounded by earthen bank, probably original.

• The next closest monument is an earthwork (monument number MO009-004), 540 metres West of the Scotstown WwTP of which there are no visible traces.

There is also one important structure abounding the WwTW, listed under the 'Record of Protected Structure of National, Regional and local Status':

• Carroll's Mill – The remains of a 19th Century water powered corn mill (MO IAR 009001) a 3 bay two storey mill which retains its waterwheel and some of its principal machinery to north boundary of the WwTW site. A kiln and a flax mill were also located here but there are no traces of them left.

The closest monuments to **Ballinode WwTP** are:

There are no recorded monuments located in the vicinity of the Ballinode WwTP site on the records of places and monuments map.

There are some important structures located in the vicinity of the WwTW, listed under the 'Record of Protected Structure of National, Regional and local Status':

• Ballinode Bridge (41400917) 140m from WwTP – Three arched hump back bridge remains of a 19th Century water powered corn mill.

• Mills point (MO IAR 009-005) 150m from WwTP – Remains of a water powered corn mill, a steam powered flax mill and later a saw mill now incorporated into a later building.

• St. Davnet's Church Ballinode (41400915) 520m from WwTP.

• Any scheme that is likely to have an adverse impact on the setting and amenity of a monument on the Record of Monuments and Places map.

The closest monument is the Carrowhatta ringfort (monument number MO009-003), located 350 metres North of the Scotstown WwTP as detailed above. There are no monuments recorded in the vicinity of the Ballinode WwTP.

The existing Scotstown WwTP will not have an adverse impact on the setting and amenity of this monument or any of the monuments in the wider area.

• Any scheme that may not be in proximity to known monuments but is large in scale.

Both the Scotstown and Ballinode WwTP's are designed to treat effluent from a PE of 1000, the Scotstown treatment plant site comprises of approximately 0.7 acres and the Ballinode treatment plant site is approximately 1.2 acres. Both treatment plant sites are landscaped with trees and hedgerows. Neither of the treatment plants impact on the surrounding environment as they are not large scale.

• Any scheme that may be unduly close to archeological complexes.

Neither Scotstown WwTW nor Ballinode WwTP sites are not unduly close to any known archeological complexes and do not pose a threat to the archaeological heritage of the area.

• Any scheme that will impact on rivers, lakes, the inter-tidal zone, the foreshore or any underwater area where historic shipwrecks or other underwater archeological objects may be located.

The existing Scotstown and Ballinode WwTW's do not impact on any historic shipwrecks or other underwater archaeological objects.

• Any scheme that requires an Environmental Impact Statement

The existing schemes do not require Environmental Impact Statements.

• Any scheme that may have an adverse impact on the setting and amenity of any national monument in the ownership or guardianship of the Minister for the Environment, Heritage and Local Government or any national monument in the ownership or guardianship of the local authority or any national monument that is subject to a preservation order.

The existing Scotstown and Ballinode Wastewater treatment schemes do not have any adverse impact on any national monument or any monument that is subject to a preservation order.

8. Screening Conclusion

The above screening assessment concludes that the presence of the Scotstown or Ballinode WwTW's will not impact upon a European Site or on any National Monument, therefore an Appropriate Assessment is not required.

Monaghan County Council will continue to mitigate the potential impacts to the receiving waters by ensuring that sampling and monitoring of the discharges from the WwTW's are in accordance with the Urban Waste Water Discharge Regulations.

In accordance with the procedure outlined in DoEHLG Circular L08/08, no significant effects are likely to occur.

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