

This report has been cleared for submission to the Board by Karen Creed

Signed Michelle Date 03/10/11



OFFICE OF CLIMATE,  
LICENSING & RESOURCE USE.

**INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION**

<b>To:</b>	Directors	
<b>From:</b>	Patrick Byrne	<b>Environmental Licensing Programme</b>
<b>Date:</b>	29 <sup>th</sup> September 2011	
<b>RE:</b>	Application for a Waste Water Discharge Licence from Monaghan County Council for the agglomeration named Carrickmacross, Reg. No. D0062-01	

**Application Details**

<b>Schedule of discharge licensed:</b>	Discharges from agglomerations with a population equivalent of more than 10,000
<b>Licence application received:</b>	14 January 2008 (Documentation received 14 December 2007, application fee received on 14 January 2008).
<b>Regulation 12 Notice issued:</b>	30 June 2008
<b>Regulation 18(3)(b) Notice issued:</b>	30 June 2008
<b>Information under Regulation 18(3)(b) received:</b>	11 December 2008
<b>Regulation 20(1)(a) Notice issued:</b>	15 April 2009
<b>Information under Regulation 20(1)(a) received:</b>	14 April 2011
<b>Site notice check:</b>	7 January 2008 (AL prior to receipt of valid application) and 24 June 2008 (PB)
<b>Site visit:</b>	None
<b>Submission(s) Received:</b>	Inland Fisheries Ireland (formerly Eastern Regional Fisheries Board), 6 April 2009 Incident Report, 11 <sup>th</sup> July 2011

## 1. Agglomeration

This application relates to the Carrickmacross agglomeration. The sewer system (waste water collection network) in the agglomeration is a mixture of separate and fully combined drainage areas. The agglomeration is served by an existing tertiary waste water treatment plant (WWTP) which has a treatment capacity of 12,150 population equivalent p.e. An Environmental Impact Statement (EIS) was prepared in support of a planning application for a new WWTP with an ultimate design capacity of 44,000p.e. Under the Water Services Investment Program (WSIP) 2007-2009 it was proposed to construct a new treatment plant with a design capacity of 30,000 p.e. under a Design, Build, Operate Contract. This proposal is currently on hold due to affordability issues. However, advance works progressing priority elements of the scheme will be undertaken on the treatment plant increasing the design p.e. to 12,500, and providing capacity for influent from Rye Valley Food Limited (IPPC Licence Register No. P0806-01). This scale of the WWTP should provide ample reserve capacity for future residential and commercial developments in the future. The advance works proposed include:

- Pumping station (inlet and outlet),
- Storm tanks,
- Inlet works,
- Effluent outfall pipeline, and
- Associated site works.

It has been estimated that the advance works will cost approximately €4.2 million.

The domestic population equivalent of the Carrickmacross agglomeration is approximately 5,000, discharges from industry, commercial premises, shops and schools represent an additional 6,000-7,000 p.e. Rye Valley Foods Limited is the most significant single discharge to the WWTP, Rye Valley Foods Limited have an Integrated Pollution Prevention and Control (IPPC) licence issued by the EPA, IPPC Licence Register No. P0806-01. To avoid installation of significant capacity at the Carrickmacross WWTP Monaghan County Council and Rye Valley Foods Limited have agreed that the maximum discharge from Rye Valley Foods Limited will be 800m<sup>3</sup>/day with a maximum BOD loading of 350kg/day. This is equivalent to 5,833 p.e. based on 60g BOD/person/day.

Private contractors, who remove sludge from small public and private wastewater treatment works and septic tanks, discharge tankered wastes to the WWTP. In addition sludge is imported from the following small treatment plants operated by Monaghan County Council: Maghercloone, Cooreagh Cottages, Drummond Houses and Inniskeen (approximately 432m<sup>3</sup>, 250m<sup>3</sup>, 250m<sup>3</sup> and 200m<sup>3</sup> respectively per annum).

Monaghan County Council had originally proposed to extend the WWTP to an ultimate capacity of 44,000 p.e. (an initial phase one of 30,000p.e. rising to 44,000 for phase two), the proposed treatment system would employ tertiary treatment and would achieve lower emission limit values than those achievable from the existing WWTP. Monaghan County Council in their EIS submitted to An Bord Pleanala sought to maintain the primary discharge to the Proules River, however, An Bord Pleanala sought further information in support of the application and Monaghan County Council proposed to install an outfall pipeline with a diameter of 600mm and 3.34km in length. The outfall pipeline would discharge to the Longfield River downstream of Naglack and Monalty Loughs. An Bord Pleanala approved the proposed WWTP (two phases) and outfall pipeline in January 2007.

As identified above, since grant of planning permission, Monaghan County Council in association with the Department of Environment, Community and Local Government have scaled back the design capacity of the proposed WWTP on the basis that the industrial load to the WWTP will not be as high as anticipated and due to affordability issues.

Monaghan County Council have upgrading the waste water collection network in Carrickmacross. The upgrading provides for the abandonment of all existing storm water overflows (SWO) in the agglomeration. The new sewers laid provide for the conveyance of the higher flow-rates to the WWTP. It is necessary to maintain one SWO, in proximity to the WWTP, until the advance works are completed at the WWTP. The new collection network was due to be substantially completed during 2011 after which the contract provides for a twelve month maintenance period. There are currently two pumping stations within the agglomeration, under the control of the Water Services Authority, there have been no recorded emergency overflows from the pumping stations in 2008/2009. The upgrading sewer scheme involves installation of six new pumping stations.

## **2. Discharges to waters**

### Primary Discharge (Existing and Proposed)

The primary discharge (SW-1) currently discharges into the Proules River which flows into Naglack Lough and then into Monalty Lough. The Proules River has limited assimilative capacity. Water quality at station 0300 just upstream of Lough Naglack (approximately 400 metres downstream of the primary discharge point) was recorded as Q2-3 in 2006. Sampling could not be undertaken at station 0300 in 2009 due to new housing development.

The Killanny Group Water Scheme extracts approximately 2,200m<sup>3</sup>/day of water from Monalty Lough. The proposed primary discharge point is to be re-located to the River Proules (Longfield River), downstream of Monalty Lough. The re-location of the discharge point was approved by An Bord Pleanála. Despite the decision not to construct the WWTP as proposed in the planning application and associated EIS it is proposed to construct the outfall to the Longfield River as part of the advance works. The RL requires the current discharge SW-1 to cease on or before the 31 December 2014.

The proposed discharge point to the Longfield River involves the construction of a 3.34km pipeline from the WWTP. The Longfield River offers greater assimilative capacity than the existing discharge to the Proules River.

Monaghan County Council provided, in support of the licence application, details of the proposed new WWTP as was submitted to An Bord Pleanála. While the scale of the proposed new WWTP, in terms of design load, will not now be funded, advance works as described above will be constructed.

The proposed new WWTP would have resulted in a significant improvement in effluent quality discharged, the current effluent discharge, and following upgrade, aims to meet limits of 10, 10 and 2mg/l for suspended solids, BOD and total phosphorus respectively. The emission limit values that were proposed for the new WWTP were: suspended solids 10mg/l, ammonia 1.0mg/l, BOD 6.5mg/l, COD 50mg/l, and total phosphorus 0.2mg/l. The advance works will not achieve the emission limits that were anticipated for a new WWTP as the advance works do not significantly add to the level of waste water treatment provided.

The discharge from the WWTP was compliant with the Urban Waste Water Treatment Regulations in 2006. In 2007 an insufficient number of samples were

taken, however, the 11 samples taken were in compliance with the regulations. The existing and proposed receiving water is designative as 'sensitive' under the Urban Waste Water Treatment Regulations. Monitoring of the discharge in 2007 indicates an annual mean for total phosphorus of 1.14mg/l, the limit specified in the Urban Waste Water Treatment Regulations is 2mg/l. The RL specifies emission limits for the existing WWTP based on what it can achieve, including a limit of 2.0mg/l total phosphorus.

#### Storm Water Overflows (SWO)

When the licence application was submitted there were eleven storm water overflows (combined sewer overflows) within the agglomeration (SW2-SW12), including the SWO at the WWTP. The SWOs discharged to the Proules River and Lisanisk Lake. Neither the frequency or volume of discharge from the SWOs had been recorded, however the Applicant considers that as the SWOs were constructed prior to the publication of 'Procedures and Criteria for Storm Water Overflow' and none of the SWOs were considered likely to meet the standard specified in the Department of Environment guidance document.

Upgrading of the collection network in Carrickmacross is due to be substantially completed during 2011 after which the contract provides for a twelve month maintenance period. Monaghan County Council have confirmed that the waste water collection network upgrade will result in ten SWOs being decommissioned. The RL requires SW-3 to SW12 to cease from 31 December 2011. The SWO, SW-2 adjacent to the WWTP, will remain until the advance works at the WWTP are completed at which time it may be decommissioned or retained as an infrequently used SWO. The RL does not require SW-2 to be decommissioned.

Additional storm storage capacity shall be provided as part of the proposed advance works at the WWTP to reduce the frequency of discharge via SW-2 to the Proules River, the additional storage may possibly remove the need for a discharge via SW-2. Currently the storm water tank has limited capacity of approximately 450m<sup>3</sup>, it is proposed to provide additional capacity increasing storage to approximately 2,500m<sup>3</sup> which will provide balancing of influent and storm water flows. The RL requires SW-2 to comply with the definition of a SWO by 1<sup>st</sup> January 2015.

#### Pumping Stations

There are currently two pumping stations (Ballybay Rd and Oriel Rd Pumping Stations) under the control of the Water Services Authority, they are each served by a duty and stand-by pump and a mobile generator is available. It is proposed by the applicant that an 'assist pump' will be installed at the Ballybay Rd pumping station. Additional pumping stations are to be installed as part of the upgrading of the waste water collection network, however no associated storm water or emergency overflows are to be provided.

### **3. Receiving waters and impact**

The following tables summarise the main considerations in relation to the River Proules, downstream of the existing primary discharge, and in relation to the River Proules (Longfield River) downstream of the proposed primary discharge.

**Table 1.0 Receiving waters (Existing)**

<b>Characteristic</b>	<b>Classification</b>	<b>Comment</b>
Receiving water name and type	River Proules	Tributary of the River Glyde
Resource use	Water Abstraction	From Monalty Lough approximately 2.4km d/s of SW-1
Amenity value	Coarse fishing and boating in Lough Naglack	600 metres d/s of SW-1.
Applicable Regulations	Abstraction of Drinking water <sup>Note 1</sup>  European Communities Environmental Objectives (Surface Water) Regulations 2009	Water abstraction from Monalty Lough for public consumption
Designations	River Proules and Monalty Lough designated as Sensitive Areas  Lough Naglack and Monalty Lough are proposed Natural Heritage Areas (pNHA).	Urban Waste Water Treatment Regulations 2001, as amended
EPA monitoring stations	06P01 0110, 500m downstream Dry Bridge 06P01 0300, Just upstream of Lough Naglack 06P01 0400, Broken Bridge 06P01 0600 Br at Killanny	2km upstream of SW-1  400 metres downstream of SW-1. Downstream of Lough Naglack 3km d/s of Monalty Lough
Biological quality rating (Q value)	Q4 in 2009 at 0110 Q2-3 in 2006 at 0300 Q3 in 2003 at 0400 Q3-4 in 2009 at 0600	
WFD risk score/category	1a, water body is at risk of failing to meet good status in 2015 1b, water body probable at risk of failing to meet good status in 2015	Proules River  Monalty Lough
WFD Status	Poor  Moderate  Moderate	River Proules u/s Monalty Lough River Proules d/s/ Monalty Lough Monalty Lough
WFD protected areas	River Proules	Drinking water abstraction (Monalty Lough) Nutrient Sensitive Area

Note 1: European Communities (Quality of Surface Water intended for the Abstraction of Drinking Water) Regulations, 1989, S.I. No. 294/1989.

**Table 2.0 Receiving waters (Proposed)**

Characteristic	Classification	Comment
Receiving water name and type	Longfield River, downstream of Monalty Lough (also referred to as the River Proules)	Tributary of the River Glyde
Resource use	Water Abstraction	Monalty Lough upstream of SW-1 (proposed)
Amenity value	None	
Applicable Regulations	Abstraction of Drinking water <sup>Note 1</sup>  European Communities Environmental Objectives (Surface Water) Regulations 2009	Water abstraction from Monalty Lough for public consumption
Designations	River Proules designated as a Sensitive Area	Urban Waste Water Treatment Regulations 2001, as amended
EPA monitoring stations	06P01 0400, Broken Br. 06P01 0500, Ballymackney Bridge  06P01 0600 Bridge at Killanny  06G02 0600 Bridge West of Mullacrew	Upstream of Monalty Lough Approximately 1km d/s of SW-1 (proposed)  Approximately 3km d/s of SW-1 (proposed) Approximately 9.2km d/s of SW-1 (proposed)
Biological quality rating (Q value)	Q3 in 2003 at 0400 Q3-4 in 2006 at 0600 Q3-4 in 2009 at 0600 Q4 in 2009 at 0600 (River Glyde)	
WFD risk score/category	1a, water body is at risk of failing to meet good status in 2015 1b, water body probable at risk of failing to meet good status in 2015	Proules River  Monalty Lough
WFD Status	Moderate  Moderate	River Proules d/s/ Monalty Lough Monalty Lough
WFD protected areas	Longfield River	Drinking water abstraction (Monalty Lough) Nutrient Sensitive Area

Note 1: European Communities (Quality of Surface Water intended for the Abstraction of Drinking Water) Regulations, 1989, S.I. No. 294/1989.

The existing primary emission point is to the River Proules upstream of Lough Naglack. There is very limited assimilative capacity available in the Proules River at this location. The Agency (Office of Environmental Assessment (OEA)) notes, following biological monitoring in 2009 that *“the Proules River continues to be in a satisfactory condition upstream of the sewage discharge at Carrickmacross in 2009*

*but remains unsatisfactory downstream (0600). Sampling at 0300 proved impossible due to new housing development."*

Lough Naglack and Monalty Lough are located downstream of the existing primary discharge. Drinking water is extracted from Monalty Lough and the full length of the Proules River is designated as sensitive under the UWWT Regulations.

Construction of an effluent pipeline from the WWTP to the Longfield River, downstream of Monalty Lough, has the advantage of greater dilution due to higher flows. The catchment at the existing primary discharge point is approximately 10km<sup>2</sup> compared to approximately 80km<sup>2</sup> at the proposed discharge point. In addition the proposed discharge point is downstream of the drinking water abstraction.

Under the Water Framework Directive the overall objective for the River Proules and Monalty Lough is to restore the waterbodies to good status by 2021.

Biological water quality monitoring immediately upstream of the existing primary discharge point (SW-1) has revealed unsatisfactory conditions, Q2-3 at the Ardee Road Bridge (Station 0200). This station is upstream of the primary discharge but downstream of Carrickmacross town and therefore has previously been impacted by SWOs within the agglomeration. It is likely that the abandonment of the storm overflows within the agglomeration, as part of the sewerage network upgrading, should have a positive impact on the water quality at this location.

#### Assimilative Capacity

There is very limited dilution and assimilative capacity available in the Proules River at the existing discharge point. The 95%ile flow rate at the current primary discharge point is 0.037m<sup>3</sup>/sec. The impact of the current primary discharge is resulting in the water quality reducing from Q4 upstream (upstream of any SWO associated with the agglomeration) of the agglomeration to Q2-3 downstream (downstream of the SWO and the primary discharge).

The proposed primary discharge point is downstream of Monalty Lough. The 95%ile flow rate in the Longfield River at the proposed primary discharge point is 0.142m<sup>3</sup>/sec and the 50%ile flow is 1.096m<sup>3</sup>/sec. Monaghan County Council have stated that they are awaiting approval from the Department of Environment Community and Local Government to progress with the advance works. The RD requires that the effluent outfall pipeline to the River Proules (Longfield River) shall be provided by the 1<sup>st</sup> January 2015.

Table 2.0: Assimilative capacity calculations at the proposed discharge point to the River Proules (Longfield River) for actual background concentrations and based on a notionally clean river.

Parameter		Background (mg/l)	Proposed ELVs for Primary Discharge (mg/l)	Contribution from primary discharge (mg/l)	Predicted downstream quality (mg/l)	EQSs (mg/l) <sup>Note 1</sup>
BOD	Actual Background	2.5 <sup>Note 1</sup>	10	1.69	4.2	≤2.6 (95%ile) <sup>Note 2</sup>
	Notionally Clean	0.26			1.95	
Ortho-phosphate	Actual Background	0.04 <sup>Note 1</sup>	0.4	0.068	0.108	≤0.075 (95%ile) <sup>Note 2</sup>
	Notionally Clean	0.005			0.073	
Ammonia	Actual Background	0.076 <sup>Note 1</sup>	0.75	0.127	0.203	≤0.14 (95%ile) <sup>Note 2</sup>
	Notionally Clean	0.008			0.135	

Note 1: Background water quality from EIS prepared on behalf of Monaghan County Council.

Note 2: European Communities Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 20 (95%ile standards presented).

The above table is based on an effluent discharge of 2,500m<sup>3</sup>/day which represents the emission associated with a 12,500 p.e. agglomeration loading and the discharge from Rye Valley Foods Limited. The EIS, which considered the proposal to expand the WWTP to a design capacity of 30,000 p.e. in phase 1 and 44,000 p.e. in phase 2 was based on a discharge of greater than 6,000m<sup>3</sup>/day.

The background concentrations at the proposed discharge point to the River Proules (Longfield River) are elevated, therefore there is limited assimilative capacity within the proposed receiving water. The background quality should improve somewhat as a result of the collection network upgrades and following relocation of the primary discharge.

Based on the above calculations the existing emission limit of 10mg/l for BOD is appropriate however emission limit values proposed in the Recommended Licence (RL) for ortho-phosphate and ammonia are more stringent than the existing WWTP was designed to achieve. The RL requires compliance with the more stringent emission limit values from 1<sup>st</sup> January 2015. Therefore the RL requires the waste water treatment system to be examined and possibly upgraded to achieve the proposed emission limit values of 0.4mg/l for ortho-phosphate and 0.75mg/l for ammonia.

#### 4. Ambient Monitoring

There are existing EPA water monitoring stations located on the River Proules, in particular there are stations:

- upstream of the Carrickmacross agglomeration, 0100 Dry Bridge,
- downstream of Carrickmacross town, but upstream of the existing primary discharge, 0200 Ardee Road Bridge, and
- Downstream of the primary discharge, 0300 Just u/s Lough Naglack (this station was not accessible in 2009 when visited by the OEA due to a new housing development).

It is considered that these monitoring stations are appropriate for ambient monitoring of discharges from the agglomeration and the existing primary discharge. The proposed primary discharge will be located downstream of Monalty Lough. There are no existing EPA water monitoring stations within close proximity of the proposed discharge point, therefore the RL requires the establishment of ambient monitoring stations upstream of the proposed discharge point (downstream of Monalty Lough) and downstream of the proposed discharge point. The location of these monitoring points shall be agreed with the Agency 12 months prior to commencement of discharge and shall be monitored for a period of twelve months prior to the commencement of the proposed discharge. Ambient monitoring at the monitoring stations, 0100, 0200 and 0300 shall be maintained after the primary discharge point has been relocated as these points are appropriate to monitor the emissions from storm overflows. The RL provides for Monaghan County Council to use monitoring results associated with monitoring undertaken by the EPA.

### **5. Combined Approach**

The Waste Water Discharge Authorisation Regulations, 2007 (S.I. No. 684 of 2007), as amended, specify that a 'combined approach' in relation to licensing of waste water works must be taken. The emission limits for the discharge are established on the basis of the stricter of either or both, the limits and controls required under the Urban Waste Water Treatment Regulations (S.I. No. 254 of 2001), and amendments, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made. The RL as drafted gives effect to the principle of the Combined Approach as defined in S.I. No. 684 of 2007 as amended.

### **6. Discharges from agglomerations where insufficient treatment is in place**

Monaghan County Council have upgraded the waste water collection network in the Carrickmacross agglomeration. The new collection network was due to be substantially completed during 2011 after which the contract provides for a twelve month maintenance period. The upgrading of the collection system will result in all SWOs, except SW-2, being decommissioned. SW-2 may also cease following installation of additional storm water tanks and balancing capacity as part of the proposed advance works at the WWTP, however the RL provides for its retention.

The River Proules provides limited assimilative capacity at the existing discharge point and the discharge point is up gradient of a water extraction system taken from Monalty Lough. The proposed expansion of the WWTP, while originally provided for under the Water Services Investment Program it is now on hold due to affordability issues. However, advance works to provide priority elements of the scheme will be progressed, these include pumping stations, storm water tanks, inlet works, effluent outfall and associated site works. The cost of the advance works has been estimated by Monaghan County Council to be approximately €4.2million. The 2010-2012 WSIP identifies the Treatment Plant Upgrade and Outfall as a contract to start 2010 – 2012 and allocates €5.5 million towards it.

The existing WWTP has tertiary treatment and is therefore capable of meeting emission limit values which are in compliance with the Urban Waste Water Directive. The RL requires the primary discharge point to be relocated by the 1<sup>st</sup> January 2015, the RL also specifies emission limit values which are more strict than the current WWTP can achieve for ortho-phosphate and ammonia which will be applicable from the 1<sup>st</sup> January 2015 and may require some upgrading of the WWTP.

## **7. Programme of Improvements**

As outlined above there have been significant collection network improvements undertaken to date. The proposed significant upgrade to the WWTP has been put on hold however advance works are proposed, including an effluent outfall to the Longfield River.

## **8. Compliance with EU Directives**

In considering the application, regard was had to the requirements of Regulation 6(2) of the Waste Water (Discharge) Authorisation, Regulations, 2007 as amended (S.I. No. 684 of 2007) notably:

### Drinking Water Abstraction Regulations

Drinking water is extracted from Monalty Lough by the Killany-Reaghstown Group Water Scheme, the extraction point is approximately 2,400 metres downstream of the existing primary discharge (SW-1). The abstraction rate from Monalty Lough is approximately 2,200m<sup>3</sup>/day. Monaghan County Council was required to prepare a risk assessment at the request of An Bord Pleanala to examine the possible reasons why the treated effluent might not meet the proposed final effluent discharge standards and the measures proposed to mitigate these risks to an acceptable level. Monaghan County Council claims that in each instance it was found possible to mitigate the risk to an acceptably low level.

The RL requires construction of an effluent outfall pipeline to the Longfield River downstream of the Monalty Lough drinking water extraction point.

The RL requires the Water Service Authority to monitor the quality of the water downstream of the existing primary discharge. They shall notify the Group Water scheme extracting water from Monalty Lough as soon as practical after a discharge to river in excess of the emission limit values so that measures to minimise impact can be taken as necessary, condition 6.1.

### Sensitive Waters

The Urban Waste Water Treatment Regulations designate the River Proules – downstream of Carrickmacross sewage outfall, to confluence with the River Glyde. The existing primary discharge and the proposed primary discharge are into the designated sensitive area. The River Proules was originally designated as sensitive in Part 2 of the Third Schedule of the Urban Waste Water Treatment Regulations 2001, these regulations specified that a sanitary authority shall provide treatment plants which provide more stringent treatment than secondary or an equivalent treatment in respect of all discharges from agglomerations with a p.e. greater than 10,000 into sensitive areas by 31 May 2008. The existing WWTP provides tertiary treatment.

### Water Framework Directive [2000/60/EC]

The RL, as drafted, transposes the requirements of the Water Framework Directive. The RL requires the relocation of the primary discharge point to the River Proules (Longfield River) prior to the 1<sup>st</sup> January 2015. The emission limit values specified from 1 January 2015 are also likely to require upgrade of the existing waste water treatment.

Those limits specified in the RL, in conjunction with other measures taken by Monaghan County Council, are determined with the aim of achieving good water quality status by 2021.

#### Urban Waste Water Treatment Directive [91/271/EEC]

Carrickmacross agglomeration does comply with the requirements of the Urban Waste Water Treatment Directive in terms of the level of treatment provided. The RL, as drafted, has regard to the requirements of the Urban Waste Water Treatment Directive.

#### Bathing Water Directive [2006/7/EC]

There are no designated bathing waters located in the vicinity of the discharges.

#### EC Freshwater Fish Directive [2006/44/EC]

The River Proules, Longfield and Glyde are not designated salmonid waters. Nutrient removal is currently installed on the existing WWTP due to the limited assimilative capacity available and as required by the UWWT Regulations. The RL specifies limits for the existing WWTP. The RL requires more strict emission limit values to be achieved by 1 January 2015 for orthophosphate and ammonia (0.4mg/l and 0.75mg/l respectively).

#### Shellfish Waters Directive [2006/113/EC]

There are no designated shellfish waters in the vicinity of the discharges from the agglomeration.

#### Dangerous Substances Directive [2006/11/EC]

The applicant has provided sampling results for the 19 dangerous substances in the primary discharge for the purposes of the licence application. The measured concentrations are not considered significant, cyanide is the only parameter measured which exceeded the ambient standards specified in Water Quality (Dangerous Substances) Regulations 2001, 27µg/l in the sampled final effluent compared with the ambient standard of 10µg/l.

#### Birds Directive [79/409/EEC] & Habitats Directive [92/43/EEC]

An EIA was undertaken for the proposed WWTP and new primary discharge point. While the full WWTP upgrade is now unlikely to be completed an Environmental Impact Statement was submitted with this licence application.

Lough Naglack and Monalty Lough are proposed Natural Heritage Areas (pNHA) and are both downstream of the existing primary discharge. The proposed advance works include moving the primary discharge point to the Longfield River downstream of both Loughs.

There are no discharges from the Carrickmacross agglomeration directly into any site designated under the E.U. Habitats or Birds Directives.

#### Environmental Liabilities Directive (2004/35/EC)

Condition 7.2 of the RL as drafted, satisfies all the requirements of the Environmental Liabilities Directive in particular those requirements outlined in Article 3(1) and Annex III of 2004/35/EC.

#### Environmental Impact Assessment Directive (85/337/EEC)

An EIS was submitted with the licence application, I have had regard to the matters mentioned in the EIS and the decision of An Bord Pleanála in so far as they relate to the risk of environmental pollution of the receiving waters from the waste water discharge. Should a further EIS be required as part of any programme of improvements/new WWTP, it will be dealt with as per Condition 1.8 of the RL

### Cross Office Liaison

Advice and guidance issued by the Technical Working Group (TWG) was followed in my assessment of this application. Advice and guidance issued by the TWG is prepared through a detailed cross-office co-operative process, with the concerns of all sides taken into account. The Board of the Agency has endorsed the advice and guidance issued by the TWG for use by licensing Inspectors in the assessment of wastewater discharge licence applications.

### **9. Submissions**

Two submissions were received in relation to this licence application. The first submission was received from the Eastern Regional Fisheries Board (ERFB) on the 6<sup>th</sup> April 2009. The ERFB is now within Inland Fisheries Ireland. An incident report was received on the 11<sup>th</sup> July 2011 from Monaghan County Council.

#### Eastern Regional Fisheries Board

The following summarises the points raised in the submission from the Eastern Regional Fisheries Board (ERFB):

The ERFB notes that the discharge is to the Proules River rather than the River Blackwater.

The ERFB is concerned about the limited assimilative capacity in the Longfield River (proposed discharge point) given the proposed discharge volumes. The estimated 95<sup>th</sup>ile flow in the river is 0.11m<sup>3</sup>/s and the mean flow is 0.981m<sup>3</sup>/s compared to an effluent discharge flow of 0.0717m<sup>3</sup>/s. The ERFB note the discharge is likely to rise to 0.215m<sup>3</sup>/s.

In relation to environmental impacts it is noted that only the River Proules, Lough na Glack and Monalty Lake are referred to. The fishery value of the river which flows into the Longfield River upstream of Monalty Lake has been omitted. The river is locally known as the Longfield/Rossdrenagh River. The ERFB note that in fisheries terms the river is a very productive tributary of the River Glyde. The local geology of the river has a positive influence on the quality of the aquatic fauna, good physical characteristics are also present. Numbers from fish stock surveys and Salmon Redd counts both illustrate that the river is highly productive salmonid nursery. Salmon parr travel downstream from the Longfield/Rossdrenagh River through Monalty Lake and the Longfield River on their journey out to sea while adult Salmon travel in the opposite direction to spawn.

The ERFB state that it is vital that the proposed expansion will not have a negative impact on the receiving water.

#### Response:

The existing primary discharge from the Carrickmacross agglomeration is to the River Proules as identified by the ERFB.

The original licence application and associated EIS provided for expansion of the agglomeration up to an ultimate 44,000 p.e., Monaghan County Council in a submission received by the Agency on the 14<sup>th</sup> April 2011 indicate that advance works will only now be completed due to affordability issues. Therefore it is proposed that the agglomeration will not exceed 12,500p.e. plus the effluent contribution from Rye Valley Foods Limited. The assessment under section 3 above is based on the emissions associated with an agglomeration of 12,500 p.e. plus Rye Valley Foods Limited. The RL requires provision of the new outfall and also requires by 1<sup>st</sup> January 2015 compliance with emission limit values which are more stringent

than the existing WWTP can achieve. The assessment, under section 3 above, predicts the impact of the emissions on the receiving waters.

The proposed primary discharge represents a new discharge to the Longfield River, however, the proposed discharge point is at a location where there is greater dilution than the current discharge point to the catchment and is also downstream of the Killanny-Reaghstown Group Water Extraction.

#### Monaghan County Council

The second submission (Incident Report) was received from Monaghan County Council following an overflow from the oxidation ditch during a period of heavy rain when the storm tank was already full. The incident occurred for approximately 45 minutes. The incident report identifies the corrective actions taken to address the incident, decrease incoming flow rate and reduce effluent flow to oxidation ditch no. 1, and the preventative actions planned, reduce flows to oxidation ditch and build 250mm high wall around affected area of oxidation ditch.

#### Response

Monaghan County Council have identified in the incident report that the likelihood of reoccurrence is high during heavy rain due to all combined storm overflows having been removed from with the sewer network in the town. The proposed preventative action proposed should reduce the risk and the proposed upgrade proposed for the WWTP, particularly the addition storm water capacity should reduce the risk of losses from the oxidation ditch during heavy rain events.

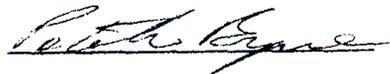
#### **10.Charges**

The RL sets an annual charge for the agglomeration at €4,276 and is reflective of the monitoring and enforcement regime being proposed for the agglomeration.

#### **11.Recommendation**

I recommend that a Final Licence be issued subject to the conditions and for the reasons as set out in the attached Recommended Licence.

Signed



Patrick Byrne

Office of Climate, Licensing and Resource Use

Annex 1: Carrickmacross Waste Water Treatment Plant, River Proules, Existing and Proposed Primary discharge points.

