

# OFFICE OF **ENVIRONMENTAL SUSTAINABILITY**

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

To: Micheal Lehane, Director

From: Siobhán Egan, Inspector, **Environmental Licensing Programme** 

2 November 2021 Date:

Application for a Waste Water Discharge Licence review from **Irish Water**, RE:

for the agglomeration named Millstreet and Environs, Reg. No. D0332-

02.

# **Application & Agglomeration Details**

Agglomeration Name: Millstreet and Environs (see map Appendix 1)

County: Cork

Schedule of discharge licensed: Discharges from agglomerations with a

population equivalent of 2,001 to 10,000.

(Licence Review)

Licence review application received: 13th September 2019

Notices under Regulation 18(3)(b)<sup>1</sup> issued: None (0)

Site notice check: 11th October 2019

25th November 2019 Site Visit:

Three (3), dated 24th October 2019, 18th Submission(s) Received:

November 2019 and 20th July 2020.

Design Population Equivalent: 3,220 p.e.

Actual Population Equivalent: 2,915 p.e. (75 % domestic, 25

commercial/institutional).

Secondary treatment with elements of tertiary Type of treatment:

treatment (nutrient removal).

Wastewater treatment plant (WWTP) The WWTP consists of upgraded treatment

description: works providing tertiary treatment and including screening and grit removal, biological treatment with aeration, nitrification and

denitrification, and phosphorus removal.

Environmental Impact Assessment required: No

Stage 2 Appropriate Assessment required: Yes

Yes (dated November 2016, received on 13th Natura Impact Statement (NIS) submitted:

September 2019)

<sup>&</sup>lt;sup>1</sup> European Union (Waste Water Discharge) Regulations 2007 to 2020.

# 1. Review Application

Cork County Council was granted a Waste Water Discharge Licence (WWDL) for Millstreet and Environs (Reg. No. D0332-01) on 3<sup>rd</sup> February 2014. The WWTP is located at 127399 E, 090983 N. The original (WWTP) had been constructed in the 1970s and was designed for a population equivalent of 1,600. The licence required remedial action to be taken by the licensee by 31<sup>st</sup> December 2015 (Condition 5.4 and Schedule C) involving the relocation of the primary discharge point to the Finnow River and providing secondary treatment with elements of tertiary treatment (in the form of nutrient removal) thus ensuring appropriate protection is afforded to the Finnow River, a tributary of the River Blackwater (Munster).

The grounds for this review detailed by the licensee are:

- WWTP upgrade works,
- Relocation of the primary discharge from the Tanyard Stream to the Finnow River, and
- Network improvements.

The current licence (Reg. No. D0332-01) provides ELVs for discharge to the Finnow River at 127998 E, 092205 N, following the decommissioning of the primary discharge to the Tanyard Stream in December 2015. The ELVs set under D0332-01 were determined for a flow of 0.27 m³/s at a location c.1.5 km downstream of the proposed primary discharge point subject of this review. In March 2020 the Agency's Office of Environmental Enforcement (OEE) became aware that the WWTP was discharging from the proposed primary discharge point that is the subject of this review. This discharge point is not authorised under the current licence (Reg. No. D0332-01) and continues to be in use. The OEE has recorded an open incident relating to the discharge (Ref. INCI019194). Notice was received by the Agency the 18<sup>th</sup> March 2020 of a High Court decision² to grant an application for leave to appeal for Judicial Review for reliefs relating to discharges under D0332-01. The Agency is a notice party to the proceedings. A hearing date is yet to be fixed.

The upgraded WWTP has a design p.e. of 3,220 p.e. and provides secondary treatment with elements of tertiary treatment (nutrient removal). Treatment includes screening and grit removal, biological treatment with aeration, nitrification, denitrification and phosphorus removal.

A partially combined collection system serves the agglomeration. The nature of the wastewater is predominantly domestic. All flows to the WWTP are by two gravity inlet sewers and the collection system is a partially combined network and that includes four pumping stations. The loading to the WWTP can also increase during events at the event centre in the town.

Where the Agency grants a revised licence, the previous licence (Reg. No. D0332-01) shall be superseded and revoked.

<sup>&</sup>lt;sup>2</sup> Sweetman v Irish Water (2020/202 JR) The Courts Service of Ireland https://www.courts.ie

#### 1.1 Environmental Impact Assessment (EIA)

Environmental Impact Assessment Directive [2014/52/EU]

#### Planning Status:

The licensee submitted the planning application to Cork County Council for the upgraded Millstreet and Environs WWTP on the 3<sup>rd</sup> March 2017 and planning permission (Planning Ref. No. 17/04490) was granted on 13<sup>th</sup> November 2017. Screening for EIA is identified in planning-related documentation and an EIA was not carried out by Cork County Council.

#### Screening for EIA:

The Agency has directly applied the 2014 EIA Directive<sup>3</sup> as the *European Union (Waste Water Discharge) Regulations 2007 to 2020*<sup>4</sup> do not provide for transitional arrangements for waste water discharge applications on-hand. The application was received by the Agency on 13<sup>th</sup> September 2019.

In accordance with the EIA Screening Determination (dated 29<sup>th</sup> September 2020), the Agency determined that the activities are not likely to have a significant effect on the environment, and accordingly an EIA is not required. The determination states the following:

Having considered the information provided by the licensee, which satisfies the requirements of Annex II A of the 2014 EIA Directive (in so far as it respects the matters that come within the functions of the Agency) and the mitigation measures proposed by the licensee, the authorisation is unlikely to give rise to significant effects on the environment by virtue of its nature, size or location. This determination has been made having regard to the following:

- The wastewater discharge authorisation application is not of a project type specified in Annex I of the EIA Directive, and;
- The wastewater treatment plant serves an agglomeration with a population equivalent <10,000 which is considered small in scale.
- Wastewater is treated prior to discharge to the receiving water.
- With regard to European sites, the potential effects of discharges on European Sites and their water dependant qualifying interests will be assessed under the Habitats Directive (Appropriate Assessment).
- The cumulative effect with other existing and planned discharges are not likely to give rise to significant effects.

<sup>&</sup>lt;sup>3</sup> Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU of the European Parliament and of the Council on the assessment of the effects of certain public and private projects on the environment.

<sup>&</sup>lt;sup>4</sup> The *European Union (Waste Water Discharge) Regulations 2007 to 2020* does not make provision for transitional arrangements i.e. for water discharge authorisation applications onhand at 29<sup>th</sup> June 2020. Therefore the Agency directly applies the 2014 EIA Directive.

# 2. Discharges to waters

The following table outlines the main considerations in relation to waste water discharges to waters from this agglomeration.

**Table 1:** Waste water discharges to waters

Primary discha	arge point – E126674, N092040 at Finnow Bridge		
Receiving	Finnow River, a tributary of the River Blackwater (Munster)		
Type of receiving water	Freshwater		
Normal flow	A primary discharge of 725 m³/day based on the design capacity of the WWTP of 3,220 p.e. and on 225 litres per head per day to allow for combined flows and infiltration.		
Maximum flow	The WWTP is designed to treat a maximum of 3DWF, equivalent to 2,175 m³/day. The WWTP includes a storm holding tank for preliminary treated flows with a storage capacity of 2 hrs at 3DWF. The WWTP can store additional 3DWF which is pumped back through the WWTP when normal flows return.		
Secondary disc	charge point(s)		
Receiving	None (0)		
Type of receiving water	n/a		
Normal flow	n/a		
Maximum flow	n/a		
Storm water o	verflow(s)		
Storm water overflow(s)	Yes, the network includes seven (7) storm water overflows (SWOs) that are either new, retained and/or repurposed.		
	Of the seven SWOs, two (2) are dual function SWO/EO and discharge into the Finnow River, the further five (5) SWOs discharge into the Tanyard Stream.		
Receiving water name(s)	Freshwater - Finnow River (2) or Tanyard Stream (5).		
Emergency over	erflow(s)		
Emergency overflow(s)	Yes (2) dual function EO/SWO as detailed above.		

Details of the quality of the effluent recorded from the WWTP, the ELVs set in the previous licence for the primary discharge and requested ELVs are provided in Table 2.

**Table 2.** Effluent quality data (annual means) reported through Annual Environmental Reports (AERs), ELVs in previous licence (D0332-01) for discharges to the Finnow River and Tanyard Stream, and ELVs requested (mg/l) in the review application.

Parameter	<b>AER 2019 Table 2.1.2</b> (dated 05/06/2020)	<b>AER 2020 Table 2.1.2</b> (dated 20/05/2021)	D0332-01 ELVs: Tanyard Stream (Schedule A.1.2)	D0332-01 ELVs: Finnow River (Schedule A.1.1)	Requested ELVs (Finnow River)
BOD	2.46	2.18	25	25	25
COD	14.12	16.28	125	125	-
Orthophosphate	ı	0.08	-	0.5	0.5
Ammonia	-	0.69	-	1	1
Suspended Solids	4.41	3.25	35	25	25

# 3. Impact of waste water discharges

# Primary discharge

The following table summarises the main considerations in relation to the Finnow River downstream of the proposed primary discharge.

**Table 3.** Primary discharge receiving waters

Characteristic	Classification	Comment	
Receiving water name	FINNOW (BLACKWATER)_030	The Finnow River (WFD Code: IE_SW_18F030300) confluences with the main stem of the Blackwater (Munster)_070 River 2 km d/s of the discharge point.	
	Blackwater River (Cork/Waterford) SAC (002170) Blackwater Callows SPA	The discharge point and receiving water is within the Blackwater River (Cork/Waterford) SAC (Site code:	
Designations	(004094)	002170) designated for Annex 1 habitats and Annex 2 species including	
Designations	Blackwater Estuary SPA (004028)	Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> ). This Qualifying Interest is located downstream of the	
	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365)	confluence of the Finnow river with the main stem of the Blackwater River.	
WFD Protected Areas	Salmonid river	The Finnow River flows into the main stem of the Munster Blackwater River which is identified as a Salmonid river.	
	Existing:		
Receiving water monitoring stations	• u/s Br Finnow R confl. (RS18O070700)	Located 2.7 km u/s of the discharge point	
	• d/s Wallis's Br (RS18F030400)	Located 2 km d/s of the discharge point	

	New:	
	• u/s Finnow Bridge at 126655E 092042N (RS18F030290)	Located 30 meters u/s of the new proposed primary discharge point
	d/s location to be agreed by the Agency	Location to be agreed by the Agency.
Biological quality rating	Q4 – 5 (2020)	2.7 km u/s (RS180070700) on the Finnow River
(Q value)	Q4 (2020)	2 km d/s (RS18F030400) on the Finnow River at Wallis's Bridge
		Ecological Status or Potential (SW 2013-2018) is <b>Unassigned</b>
WFD status	Risk: Not at Risk	Environmental Objective <b>Good</b> (2027), source: OEA.
		Discharges from Millstreet and Environs WWTP are not identified as a significant pressure on this waterbody.

The primary discharge enters a waterbody that is a Special Area of Conservation (SAC) designated for interests that depend on water and water quality attributes (see Appendix 2). The 2009 Regulations<sup>5</sup> apply to the Munster Blackwater River (main stem) and to the Munster Blackwater population of Freshwater Pearl Mussel. Regulations (S.I. 355 of 2018) that provided for the removal of the designation for Freshwater Pearl Mussel on the main stem of the Munster Blackwater River were quashed on 5 December 2019 and are not considered further here.

The Finnow River flows into the main stem of the Blackwater (Munster)\_070 River which has a Good ecological status (2013 – 2018). The environmental objective for the Munster Blackwater River is to support the Freshwater Pearl Mussel (Margaritifera margaritifera) and the **High status environmental quality standards** as laid down in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009), as amended are required to achieve this objective. The Finnow River flows into the main stem of the Munster Blackwater River which is identified as a Salmonid river<sup>6</sup> and afforded protection as a protected area under the Water Framework Directive.

**Mass balance calculations** were carried out using the monitoring information provided by the Agency's Office of Evidence and Assessment (OEA). The mass balance calculations are based on the 95%ile flow in the receiving water, the mean background concentration of each parameter in the receiving water, the normal effluent discharge rate and the maximum permitted concentration of the parameter in the effluent (Table 4). This is a cumulative assessment of the receiving waterbody as the background concentration takes into account any upstream discharges or impacts on the receiving waterbody.

<sup>6</sup> European Communities (Quality of Salmonid Waters) Regulations 1988, S.I. No. 293 of 1988.

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<sup>&</sup>lt;sup>5</sup> The European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009. S.I. No.296 of 2009.

- The OEA provided the estimated 95%ile flow in the Finnow River at the primary discharge point as **0.16** m³/s. This figure is based on the Qube model. The catchment is an area of 49.6 km².
- The Agency's Office of Radiation Protection and Environmental Monitoring (ORM) provided background water chemistry concentrations that take account of upstream contributions.
- The effluent flow is detailed by the licensee as 0.008 m³/s equating to **725** m³/day.
- Environmental Quality Objectives

The European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended, set environmental quality standards, for High Status, for the receiving water for orthophosphate (0.045 mg/l), ammonia (0.09 mg/l) and BOD (2.2 mg/l). Stringent ELVs are set to contribute towards achieving the environmental objectives established for the waterbody, and specifically for Freshwater Pearl Mussel.

**Table 4.** Mass Balance Calculations, values in mg/l.

Paramete r	Background conc.	Proposed ELVs for discharge	Contribution from discharge	Predicted downstream conc.	Relevant standard
BOD	0.7300	20	0.9966	1.69	2.2 Note1
Ortho- Phosphate	0.0186	0.5	0.0249	0.0426	0.0450 Note1
Ammonia	0.0440	0.8	0.0399	0.0817	0.09 Note1

Note 1: European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended.

An emission limit value (ELV) of **0.5 mg/l** is recommended for orthophosphate, **0.8 mg/l** for ammonia and **20 mg/l** for BOD and detailed in *Schedule A: Discharges & Discharge Monitoring* of the Recommended Licence. The ELV for **suspended solids has been set as 25 mg/l** in keeping with protection for salmonid waters under the Water Framework Directive. The limits are set based on the mass balance calculations and in accordance with the combined approach.

Condition 3.3 of the recommended licence requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving water shall occur as a result of the discharge.

Monitoring of the discharges will take place as per Schedule A of the recommended licence.

Previous data (annual means reported in 2019 and 2020 Annual Environmental Reports (AERs)) demonstrate that the emission limit values for BOD and Suspended Solids are achievable (Table 2). The ELVs set for Ortho-P and for Ammonia will be challenging for the WWTP, although they are set so as to ensure that the discharge is appropriate for the assimilative capacity of the river at this location. The upgraded WWTP has anoxic and anaerobic tanks for Phosphorus and Nitrogen removal and chemical dosing for Phosphorus. The upgraded WWTP has capacity to treat the parametres identified to the level identified.

#### Storm Water Overflows

The network has seven (7) storm water overflows that are either new, retained and/or repurposed (i.e. change in function). Two (2) are dual function storm water overflows/emergency overflow and discharge into the Finnow River, the five (5) SWOs discharge into the Tanyard Stream. Table 5 provides details of SWO/EOs and Table 6 details the ecological status of the Tanyard Stream.

**Table 5.** Storm Water Overflows (SWOs) and Emergency Overflows (EOs)

Reference	Name	Туре	Location	Receiving Waterbody	Status	Compliance with DoECLG criteria <sup>7</sup>
SW004	Kilarney Road	Dual SWO /EO	126345E 090483N	Finnow River	Existing	Unknown – to be assessed
SW005	Mount Leader Bridge	Dual SWO /EO	126808E 089966N	Finnow River	Existing	Yes
SW006	Drain at Station Road u/s of WWTP	SWO	127330E 090754N	Tanyard Stream	Existing & Upgraded	Unknown – to be assessed
SW007	At WWTP Inlet Pumps	Dual SWO /EO	127398E 091013N	Tanyard Stream	Existing & Repurposed	Yes
SW008	Adjacent To Dairygold	SWO	127826E 090348N	Tanyard Stream	Existing	Yes
SW009	At WWTP	SWO	127398E 091013N	Tanyard Stream	Newly constructed	Yes
SW010	Drain at Station Road u/s of WWTP	SWO	127330E 090754N	Tanyard Stream	Existing	Unknown – to be assessed

**Table 6.** Ecological status of the Tanyard Stream (Finnow (Blackwater)-040: IE SW 18F030400) receiving waters for five (5) storm water overflows.

Characteristic	Classification	Comment
	Risk: Review.	Ecological Status or Potential (SW 2013-2018) is <b>Good</b>
WFD status		Environmental Objective <b>Good</b> (2027), source: OEA.
		Discharges from Millstreet and Environs agglomoration are not identified as a significant pressure on this waterbody.

<sup>&</sup>lt;sup>7</sup> Compliance with DoECLG criteria 'Procedures and Criteria in Relation to Storm Water Overflows', 1995

It is noted that compliance with DoECLG criterea is unknown for three (3) existing stormwater overflows that are to be retained and that details of spill events from SWOs are unknown.

The recommended licence requires that the licensee;

 Ensures that all storm water overflows are in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other in guidance as may be specified by the Agency (Condition 3.4). These requirements will reduce spill frequency with the aim of achieving high status of the receiving waters and are to be completed within 12 months of the date of grant of this licence.

The licensee has identified that infiltration of the network is occurring and that rehabilitation works on the network planned by Irish Water are expected to reduce infiltration to standard levels. In order to manage flows resulting from the network, a new screened overflow (SW009) is provided at the inlet sump pump. The inlet flows of up to 78 l/s (0.078 m³/s) are pumped to receive preliminary treatment, flows in excess of this go through a bar screen and overflow to the Tanyard Stream (SW007).

It is noted that no formal assessment of the network has taken place and that no assessment is proposed as part of Irish Water's Capital Investment Plan<sup>8</sup>.

• The recommended licence requires the licensee to carry out an assessment of infiltration as part of the Programme of Improvements under Condition 5.2.2.

#### **Emergency Overflows/Accidental discharges**

Discharges from emergency overflows are potential sources of environmental damage. To deal with potential accidents and emergency situations arising at the waste water works, there are two (2) dual-function emergency and storm water overflows present in the agglomeration that discharge into the Finnow River.

The waste water works includes monitoring equipment that will allow relevant flow rates in the WWTP to be monitored. The WWTP operator can monitor this information remotely. The WWTP includes alarms in the event of equipment malfunction that notify the WWTP operator. Additionally, the licensee details that:

- Equipment is provided in a duty/standby arrangement with the automatic switchover.
- A facility that allows the WWTP to be connected to a portable generator allows continued operation of the WWTP in the event of interruption of the power supply.
- An Emergency Response Plan will be prepared by the Contractor for their operation of the WWTP.

The identification of such measures that minimise any environmental damage associated with discharges from the waste water works following anticipated events or accidents/incidents is required by Condition 4.18 of the recommended licence. Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:

<sup>&</sup>lt;sup>8</sup> Irish Water Investment Plan 2020 – 2024 (November 2018). For the Millstreet and Environs agglomeration the Capital Investment Plan identifies: *Provision for WWTP to protect environment and quality of receiving waters, decommission end of life infrastructure and facilitate future growth.* <a href="https://www.cru.ie/wp-content/uploads/2019/07/CRU19091h-Irish-Water-RC3-Submission-Capital-Investment-Plan.pdf">https://www.cru.ie/wp-content/uploads/2019/07/CRU19091h-Irish-Water-RC3-Submission-Capital-Investment-Plan.pdf</a>

- An operation and maintenance programme for all plant and equipment to ensure that no unauthorised waste water discharges take place (Condition 4.9).
- An Emergency Response Procedure is required to minimise the effects of any emergency on the environment (Condition 6.5).
- A limit of 3220 p.e. has been considered in-keeping with the design capacity of the WWTP. The treatment capacity of the WWTP will be assessed by the licensee on an annual basis (Condition 1.7).

#### 3.1 Appropriate Assessment

Birds Directive [2009/147/EC] & Habitats Directive [92/43/EEC]

The European Sites assessed, their associated qualifying interests and their conservation objectives along with the assessment of the effects of the discharges from the agglomeration served by the WWTP on the European Sites are listed in Appendix 2.

The Millstreet & Environs WWTP discharges to the Finnow River, which forms part the Blackwater River (Cork/Waterford) SAC<sup>9</sup>. The site is protected for habitats listed under Annex 1 of the Habitats Directive and species listed under Annex II of the same directive. European Sites are also located downstream of the discharge and in areas adjacent to the agglomeration with qualifying interests that may be dependent on water and water quality attributes of receiving waters.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the sites, if the discharges from the agglomeration served by the WWTP individually or in combination with other plans or projects is likely to have a significant effect on any European Site.

The discharges from the agglomeration served by the WWTP are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the discharges, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the discharges from the agglomeration served by the WWTP was required.

The screening identified that the risk of significant effects on European sites could not be ruled out given that the qualifying interests of nearby designated sites are dependent on water and water quality attributes of receiving waters. In particular, Freshwater Pearl Mussel (Margaritifera margaritifera) is a qualifying interest of the Blackwater River (Cork/Waterford) SAC. Potential impacts include poor quality of the river substrate and sedimentation. Salmonid fish are host to the larval form of freshwater pearl mussels. The environmental objective of high status is required for the Blackwater River (Cork/Waterford) SAC (002170).

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the *European Communities* (*Birds and Natural Habitats*) *Regulations 2011 as amended,* pursuant to Article 6(3) of the Habitats Directive, that the discharges from the agglomeration served by the WWTP, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular

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<sup>&</sup>lt;sup>9</sup> SAC: Special Area of Conservation designated under the *Habitats Directive*, Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

- Blackwater River (Cork/Waterford) SAC (002170)
- Blackwater Callows SPA (004094)
- Blackwater Estuary SPA (004028)
- Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365)

having regard to their conservation objectives and will not affect the preservation of the sites at favourable conservation status if carried out in accordance with this recommended licence and the conditions attached hereto for the following reasons:

- Condition 3 and Schedule A of the recommended licence specifiy ELVs, determined in accordance with the combined approach, that will contribute towards the achievement of environmental objectives of European sites, and the environmental objective of high status for Blackwater River (Cork/Waterford) SAC (002170), and include the EQSs established under European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) as amended.
- Condition 3.3 requires the licensee to take such measures as necessary to
  ensure that no deterioration in the quality of the receiving water shall occur as
  a result of the discharge.
- Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.
- Specified monitoring of discharges and receiving waterbodies. (Condition 4 and Schedule B)
- An on-going programme of improvement is required. (Condition 5.1)

The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:

- An operation and maintenance programme for all plant and equipment to ensure that no unauthorised wastewater discharges take place. (Condition 4.9)
- An Emergency Response Procedure is required to minimise the effects of any emergency on the environment. (Condition 6.5)

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of European Sites, in particular;

- Blackwater River (Cork/Waterford) SAC (002170)
- Blackwater Callows SPA (004094)
- Blackwater Estuary SPA (004028)
- Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365)

#### 4. Ambient Monitoring

Schedule B: Ambient Monitoring of the recommended licence specifies the parameters, analysis method and frequency for which ambient monitoring of the primary discharge shall be carried out. It is noted that the licensee provided ambient monitioring locations in unsolicited correspondence received in June 2020, however these were not appropriate to the location of the primary discharge.

The requirements for ambient monitoring in *Schedule B: Ambient Monitoring* are sufficient to monitor for potential impacts on the receiving water as a result of the discharge. The upstream monitoring point is located 30 metres upstream of the primary discharge point. The downstream ambient monitoring location is to be agreed by the Agency.

## 5. Combined Approach

The European Union (Waste Water Discharge) Regulations 2007 to 2020 specify that a 'combined approach' in relation to licensing of waste water works must be taken, whereby 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, 2001, as amended, 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 recommended licence as drafted gives effect to the principle of the Combined Approach as defined in European Union (Waste Water Discharge) Regulations 2007 to 2020.

#### 6. Programme of Improvements

The WWTP in Millstreet provides secondary treatment with elements of tertiary treatment (nutrient removal) for waste water from the Millstreet & Environs agglomeration. *Schedule C.1* of the recommended licence requires specified improvements for storm water overflows SW004, SW006 and SW010. If they are found to be non-compliant with DoECLG criteria, works are to be completed within 12 months of the date of grant of the licence.

Condition 5.1 of the recommended licence requires the licensee to prepare and submit to the Agency a programme of infrastructural improvements to maximise the effectiveness and efficiency of the waste water works.

#### 7. Compliance with EU Directives

In considering the application, regard was had to the requirements of Regulation 6(2) of the *European Union (Waste Water Discharge) Regulations 2007 to 2020* notably:

**Table 7.** Compliance with EU Directives/Regulations

Compliance with Directives/Regulations	Description and Conditions in recommended licence
Urban Waste Water Treatment Directive [91/271/EEC]	Compliant in terms of level of treatment provided.
	Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.
Water Framework Directive [2000/60/EC]	Schedule A.1 of the recommended licence sets ELVs to contribute towards achieving environmental objectives established for the waterbody and protected areas.
EC Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009), as amended	Schedule A of recommended licence sets ELVs to contribute towards achieving environmental objectives established for the waterbody and protected areas.  Condition 4.11 requires screening for priority substances.
Drinking Water Abstraction Regulations, as amended	There are no drinking water abstractions within close proximity to the discharge points.
Bathing Water Directive [2006/7/EC]	No bathing waters present.
Environmental Impact Assessment Directive [2014/52/EU]	An EIA screening determination was carried out for this application.
Birds Directive [2009/147/EC] & Habitats Directive [92/43/EEC]	An AA has been carried out as part of the assessment process.

## 8. Submissions

Three (3) submissions were received in relation to this application. The issues raised in the submissions are summarised below. However, the original submission should be referred to at all times for greater detail and expansion of particular points.

Submission 1: Ms. Bernadine Scanlan, Principal Environmental Health Officer, HSE, Mallow Business Park, Mallow, Co. Cork, and Maryanne Horgan, Emergency Management Office. Dated 24<sup>th</sup> October 2019.

The HSE (Environmental Health Service and South Emergency Management in the context of site operations) in its submission to the Agency reviews the areas of

- Any potential contamination of surface water or ground water, and
- Emissions to air, including noise and odour.

The submission makes recommendations and identifies the following issues:

Issue raised	Detail of issue raised	Response
Surface water contamination and monitoring	Notes that the upgrade works including storm water storage will eliminate risk and improve receiving water quality.	Condition 6.1 also requires the licensee to notify the Agency of any incidents and maintain a record of same.
Groundwater contamination and monitoring	Recommends sampling of nearby wells to identify any contamination.	There are no direct or indirect discharges to groundwater associated with the WWTP. There is no groundwater monitoring required in this licence.
		Condition 6.1 requires the licensee to notify the Agency of any incidents and maintain a record of same.
Adherence to ELVs	Strict adherence required to ensure maintenance of	Condition 3.1 requires that no discharges from the waste water works are permitted save under and in accordance with the licence.
	groundwater quality and protection of human health.	Condition 3.2 requires that no specified discharge from the waste water works shall exceed the emission limit values set out in <i>Schedule A: Discharges and Discharge Monitoring</i> , of this licence, subject to the requirements of Condition 2.
Inspection and maintenance of outfall pipe	Notes the assimilative capacity of the proposed discharge point and location in the Blackwater River SAC. Recommends an inspection and maintenance programme for the outfall pipe.	Condition 4.9 requires that the licensee shall maintain a programme for maintenance and operation of all plant and equipment to ensure that no unauthorised waste water discharges take place.  Condition 5.1 and 5.2 requires that the programme of improvements shall include an assessment of the integrity of the waste water works.
Odour management and auditing	Notes the mitigation measures for Odour and for Noise impacts on sensitive receptors. Recommends an Odour Management Plan and regular unannounced audits.	This lies outside the scope of this licensing process.
Complaints procedure in place	Recommends a complaints procedure and point of contact for the facility.	Condition 6.2 requires that the licensee shall record all complaints of an environmental nature related to the discharge(s) to waters from the waste water works in accordance with the national environmental complaints procedure. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.
Provision of incident information to emergency services.		The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and

		5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, Condition 6.5 details that an Emergency Response Procedure is required to minimise the effects of any emergency on the environment. Condition 6.1 requires the licensee to notify the Agency of any incidents and maintain a record of same.
Signage for access to the site for Emergency services		The licensee is required to clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency (Conditions 4.6), and ensure that a person in charge or a nominated deputy shall be available to meet with authorised person(s) of the Agency at all reasonable times and shall allow access to the waste water works or other premises that the Agency reasonably considers may contain information pertaining to a discharge from those works (Condition 4.7).
Accounting for personnel in emergencies		This lies outside the scope of this licensing process.
Identification of critical/vulnerable receptors	Identify hospitals, schools, nursing homes etc. that could be affected by any incident.	The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, Condition 6.5 details that an Emergency Response Procedure is required to minimise the effects of any emergency on the environment. Condition 6.1 requires the licensee to notify the Agency of any incidents and maintain a record of same.
Site operator assistance with emergency services	To assess potential impacts should an incident occur.	The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, Condition 6.5 details that an Emergency Response Procedure is required to minimise the effects of any emergency on the environment. Condition 6.1 requires the licensee to notify the Agency of any incidents and maintain a record of same.
A Plan for Business Continuity	Planning for severe weather.	The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, Condition 6.5 details that an Emergency Response Procedure is required to minimise the effects of any emergency on the environment. Condition 6.1 requires the licensee to notify the Agency of any incidents and maintain a record of same.

**Overall response:** The recommended licence as drafted requires a range of control, mitigation and monitoring measures aimed at protecting the receiving water environment from waste water discharges. These conditions are identified in the table above. It is considered that the conditions detailed in the recommended licence will satisfy any the issues raised by the HSE that are within the remit of the Agency's licensing process.

# Submissions 2 and 3: Mr. Peter Sweetman and on behalf of Wild Ireland Defence CLG by email, dated 18<sup>th</sup> November 2019 and dated 20<sup>th</sup> July 2020

#### **Summary of issue raised – Submission 2:**

Mr Sweetman outlines that the Agency is required to carry out assessments - Appropriate Assessment (AA) and Environmental Impact Assessment (EIA) and that the application is a new development that requires a new Natura Impact Statement (NIS) rather than an amended NIS.

#### **Summary of issue raised – Submission 3:**

Mr. Sweetman outlines that the test for appropriate assessment screening is set out in Kelly -v- An Bord Pleanála [2014] IEHC 400 (25 July 2014). Mr. Sweetman states that it is necessary to perform appropriate assessment according to the interpretation of the Directive by the Court of Justice of the European Union (CJEU) and that the EPA does not have the right to deviate from these. Mr. Sweetman also states that any Environmental Impact Assessment must also be carried out according to the interpretations of the CJEU.

#### Response to submissions 2 and 3:

The Agency completed an Appropriate Assessment Screening regarding the effects of the project on European sites. An Appropriate Assessment Screening Determination was issued on 20<sup>th</sup> November 2019, which included specific reasons for determining that a Stage 2 Appropriate Assessment was required. An NIS (dated November 2016) was submitted with the licence review application made on 13<sup>th</sup> September 2019.

The Appropriate Assessment section of this report details the results of the appropriate assessment conducted as part of the licence application and this has informed the recommended licence for the discharge. In carrying out the Appropriate Assessment the Agency had the required information to address the issues identified.

As part of the consideration of this licence application, the Agency determined whether the application should be made subject to an Environmental Impact Assessment (EIA). As the *European Union (Waste Water Discharge) Regulations 2007 to 2020* do not provide for transitional arrangements for waste water discharge applications on-hand on the 29<sup>th</sup> June 2020, the Agency is directly applying the EIA Directive and has carried out EIA screening. An EIA screening determination, made on the 29<sup>th</sup> September 2020, determined that EIA is not required for this licence review application.

#### 9. Cross Office Liaison

Advice and guidance issued by the Waste Water Technical Working Group (WWTWG) was followed in the assessment of this application. Advice and guidance issued by the WWTWG 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 WWTWG for use by licensing inspectors in the assessment of wastewater discharge licence applications.

Consultation was undertaken with the Agency's Office of Environmental Enforcement for comments and observations on the current enforcement status of the Millstreet and Environs agglomeration. The Agency's Catchments Team was consulted for an update on the environmental objectives of the receiving water body and the surrounding water. The Office of Environmental Assessment team was consulted with regards to water flows, and the Office of Radiation and Environmental Monitoring were consulted with regard to water chemistry.

# 10. Charges

The recommended licence requires that the licensee shall pay to the Agency, such sum as the Agency from time to time determines 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

Siobhán Egan

Inspector

**Environmental Licensing Programme** 

Blackwater River (Cork/Waterford) SAC Millstreet Primary Discharge (new) L1115 Previous primary discharge retained as a SWO Green Glens WWTP Equestrian R583

**Appendix 1:** Map of the location of Millstreet & Environs WWTP and associated primary discharge point.

**Appendix 2:** Assessment of the effects of discharges from the agglomeration served by the WWTP on European sites and proposed mitigation measures.

European Site (site code)	Distance /Directio n from primary discharge	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Assessment
Blackwater River (Cork/Waterford) SAC (002170)	0 mtrs from primary discharge point 970 mtrs northwest of the WWTP	Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1220 Perennial vegetation of stony banks 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)*  Species 1096 Brook Lamprey (Lampetra planeri) 1106 Salmon (Salmo salar) 1421 Killarney Fern (Trichomanes speciosum) 1095 Sea Lamprey (Petromyzon marinus) 1355 Otter (Lutra lutra) 1103 Twaite Shad (Alosa fallax fallax) 1092 White-clawed Crayfish (Austropotamobius pallipes) 1029 Freshwater Pearl Mussel (Margaritifera margaritifera) 1099 River Lamprey (Lampetra fluviatilis)	Blackwater River (Cork/Waterford) SAC [002170]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural	A pathway is identified for the Qualifying Interests of the designated site where the effect of discharges from the agglomeration served by the waste water works including accidential discharges may have a potential impact on water quality, and on habitats and dietary requirements of species identified.  The potential impact of discharges on the Qualifying Interests of the site include the deterioration water quality, sedimentation and impacts on clean gravels and host and dietary requirements of interests. In particular, for Freshwater Pearl Mussel (Margaritifera margaritifera), potential impacts include poor quality of the river substrate and sedimentation. Salmonid fish are host to the larval form of freshwater pearl mussels. The environmental objective of high status is required for the Blackwater River (Cork/Waterford) SAC (002170).  The mitigation measures proposed to ensure that the discharges from the agglomeration served by the waste water works will not adversely affect the integrity of the European site include the operation of the wastewater treatment facility in accordance with licence conditions and limits. All discharges from the agglomeration served by the waste water works and the potential for accidents to arise are addressed by implementing and maintaining the conditions associated with the licence.  These include the following:  • ELVs, determined in accordance with the combined approach, will contribute towards the achievement of the environmental objective of high status for Blackwater River (Cork/Waterford) SAC (002170) and include the EQSs established <i>under European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) as amended.</i> (Condition 3 and Schedule A)  • Condition 3.3 requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving water shall occur as a result of the discharge.

European Site (site code)	Distance /Directio n from primary discharge	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Assessment
				<ul> <li>Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.</li> <li>Specified monitoring of discharges and receiving waterbodies. (Condition 4 and Schedule B)</li> <li>An on-going programme of improvement is required. (Condition 5.1)</li> </ul> The continued anticipation and management of accidental discharges is
				required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:
				<ul> <li>An operation and maintenance programme for all plant and equipment to ensure that no unauthorised wastewater discharges take place. (Condition 4.9)</li> <li>An Emergency Response Procedure is required to minimise the effects of any emergency on the environment. (Condition 6.5)</li> </ul>
		Birds	NPWS (2020) Conservation objectives for Blackwater Callows	A pathway is identified for the Qualifying Interests of the designated site where the effect of discharges from the agglomeration served by the waste water works including accidential discharges may have a potential impact on water quality, and on habitats and dietary requirements of species identified.
Blackwater Callows SPA (004094)	73 km downstrea m of the WWTP	A052 Teal (Anas crecca) A038 Whooper Swan (Cygnus cygnus) A156 Black-tailed Godwit (Limosa limosa) A050 Wigeon (Anas penelope)  Habitats Wetlands	SPA [004094]. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht. (Dated 07/04/2020) http://www.npws.ie/sites /default/files/protected-	The mitigation measures proposed to ensure that the discharges from the agglomeration served by the waste water works will not adversely affect the integrity of the European site include the operation of the wastewater treatment facility in accordance with licence conditions and limits. All discharges from the agglomeration served by the waste water works and the potential for accidents to arise are addressed by implementing and maintaining the conditions associated with the licence.
			sites/conservation_object ives/CO004094.pdf	These include the following:  • ELVs, determined in accordance with the combined approach, will contribute towards the achievement of environmental objectives and include the EQSs established under European

European Site (site code)	Distance /Directio n from primary discharge	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Assessment
				Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) as amended. (Condition 3 and Schedule A)  Condition 3.3 requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving water shall occur as a result of the discharge.  Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.  Specified monitoring of discharges and receiving waterbodies. (Condition 4 and Schedule B)  An on-going programme of improvement is required. (Condition 5.1)  The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:  An operation and maintenance programme for all plant and equipment to ensure that no unauthorised wastewater discharges take place. (Condition 4.9)  An Emergency Response Procedure is required to minimise the effects of any emergency on the environment. (Condition 6.5)
Blackwater Estuary SPA (004028)	120 km downstrea m of the WWTP	Birds A157 Bar-tailed Godwit (Limosa lapponica) A140 Golden Plover (Pluvialis apricaria) A050 Wigeon (Anas penelope) A156 Black-tailed Godwit (Limosa limosa) A162 Redshank (Tringa totanus) A160 Curlew (Numenius arquata) A142 Lapwing (Vanellus vanellus) A149 Dunlin (Calidris alpina)  Habitats Wetlands	NPWS (2012) Conservation Objectives: Blackwater Estuary SPA 004028. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. (Dated 17 <sup>th</sup> May 2012)  http://www.npws.ie/sites /default/files/protected-	A pathway is identified for the Qualifying Interests of the designated site where the effect of discharges from the agglomeration served by the waste water works including accidential discharges may have a potential impact on water quality, and on habitats and dietary requirements of species identified.  The mitigation measures proposed to ensure that the discharges from the agglomeration served by the waste water works will not adversely affect the integrity of the European site include the operation of the wastewater treatment facility in accordance with licence conditions and limits. All discharges from the agglomeration served by the waste water works and the potential for accidents to arise are addressed by implementing and maintaining the conditions associated with the licence.

European Site (site code)	Distance /Directio n from primary discharge	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Assessment
			sites/conservation object ives/CO004028.pdf	<ul> <li>ELVs, determined in accordance with the combined approach, will contribute towards the achievement of environmental objectives and include the EQSs established under European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) as amended. (Condition 3 and Schedule A)</li> <li>Condition 3.3 requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving water shall occur as a result of the discharge.</li> <li>Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.</li> <li>Specified monitoring of discharges and receiving waterbodies. (Condition 4 and Schedule B)</li> <li>An on-going programme of improvement is required. (Condition 5.1)</li> </ul>
				<ul> <li>The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:         <ul> <li>An operation and maintenance programme for all plant and equipment to ensure that no unauthorised wastewater discharges take place. (Condition 4.9)</li> <li>An Emergency Response Procedure is required to minimise the effects of any emergency on the environment. (Condition 6.5)</li> </ul> </li> </ul>
Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365)	6 km north/nort	Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea	NPWS (2017) Conservation Objectives: Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC 000365. Version 1. National Parks and Wildlife Service,	A pathway is identified for the Qualifying Interests of the designated site where the effect of discharges from the agglomeration served by the waste water works including accidential discharges may have a potential impact on water quality, and on habitats and dietary requirements of species identified.  The mitigation measures proposed to ensure that the discharges from the agglomeration served by the waste water works will not adversely affect

European Site (site code) /Di	from imary charge	<b>Qualifying Interests</b> (* denotes a priority habitat)	Conservation Objectives	Assessment
		levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 4060 Alpine and Boreal heaths	2017, Ver. 1)	the integrity of the European site include the operation of the wastewater treatment facility in accordance with licence conditions and limits. All discharges from the agglomeration served by the waste water works and the potential for accidents to arise are addressed by implementing and maintaining the conditions associated with the licence.  These include the following:  • ELVs, determined in accordance with the combined approach, will contribute towards the achievement of environmental objectives and include the EQSs established under European Communities Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009) as amended. (Condition 3 and Schedule A)  • Condition 3.3 requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving water shall occur as a result of the discharge.  • Condition 3.4 requires that all storm water overflows shall be in compliance with the criteria for storm water overflows, as set out in the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency.  • Specified monitoring of discharges and receiving waterbodies. (Condition 4 and Schedule B)  • An on-going programme of improvement is required. (Condition 5.1)  The continued anticipation and management of accidental discharges is required by specified Conditions (Condition 4.18, Condition 5.2 and 5.2, Condition 6.1). Additionally, in order to minimise accidents and their consequences, the recommended licence requires the following:  • An operation and maintenance programme for all plant and equipment to ensure that no unauthorised wastewater discharges take place. (Condition 4.9)  • An Emergency Response Procedure is required to minimise the effects of any emergency on the environment. (Condition 6.5)

European Site (site code)	Distance /Directio n from primary discharge	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives	Assessment
		1421 Killarney Fern (Trichomanes speciosum) 5046 Killarney Shad (Alosa fallax killarnensis)		
No pathway was identified for the Qualifying Interests of the following sites:  Mullaghanish Bog SAC (001890) St. Gobnet's Wood SAC (000106) Mullaghanish to Musheramore Mountains SPA (004162) Stack's to Mullaghareirk Mountain,West Limerick Hills and Mount Eagle SPA (004161)				