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**Our Ref: 6313-04-01**

24<sup>th</sup> August 2011

Administration,  
Environmental Licensing Programme,  
Office of Climate, Licensing and Resource Use,  
Environmental Protection Agency,  
Headquarters,  
PO Box 3000,  
Johnstown Castle Estate,  
County Wexford.

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**RE: A0499-01**

To whom it may concern,

Please find hereunder our response to your letter to Mr. Trevor McKechnie of Limerick County Council, dated the 29<sup>th</sup> July 2011, in relation to an application for a Certificate of Authorisation for a Wastewater Treatment Plant at Brookhaven, Montpelier. Co. Limerick.

1. We confirm the Population Equivalent of the Agglomeration is 49 P.E.
2. A Stage 2 Appropriate Assessment is currently being prepared and will follow under a different cover.

Directors: L.E. Waldron (Chairman) R.F. Tobin (Managing Director) M.F. Garrick J. Colleran B.J. Downes S. Finlay P.J. Fogarty D. Grehan  
J.P. Kelly B.M. Mulligan C. O'Keeffe E. Connaughton (Company Secretary) D.A. Downes (Consultant)

Associates: T. Cannon P. Cloonan D. Conneran T. Curran B. Gallagher B. Heaney B. Hutchinson D. Kennedy M. McDonnell C. McGovern  
E. McPartlin

Template let 004

3. Additional information

- 3.1 Sections A to C of the previous submission and their appendices remain unchanged, notwithstanding the confirmed P.E.
- 3.2 All information required under Section D1 (i) has been supplied via the web based link [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). A hardcopy of this information is attached to this submission.
- 3.4 The tabular data required under Section D2 has been attached to this submission
- 3.5 All information requested under Section E1 has been supplied via the web based link [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). A hardcopy of this information is attached to this submission.
- 3.6 Section E2 – Drawing Showing the Sampling and Monitoring Points is attached.
- 3.7 The information required under Section E3 is attached here.
- 3.8 Section E4 - There is no monitoring data available for this site from the past 12 months
- 3.9 Section F - The existing environment has been previously detailed in the original application. We submit here the Water Management Unit Action Plan for the Lough Derg Area in support of the data previously supplied. There is one drinking water abstraction point downstream of this discharge. This abstraction is 15km D/S of the discharge point at Corbally in Limerick City, details, as per Section F2, are attached.
- 3.10 Section G - there are currently no planned improvement works for this site.

Yours faithfully,



Brian Downes, Director, TOBIN Consulting Engineers,

For and on behalf of

Trevor McKechnie, Limerick Co. Council.

cc. Trevor McKechnie, Limerick Co. Council.

## APPENDIX D1

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## Agglomeration details

Leading Local Authority	Limerick County Council
Co-Applicants	
Agglomeration	Brookhaven, Montpelier
Population Equivalent	49
Level of Treatment	Primary
Treatment plant address	Brookhaven, Montpelier, Limerick
Grid Ref (12 digits, 6E, 6N)	166599 / 166720
EPA Reference No:	

## Contact details

Contact Name:	Trevor McKechnie
Contact Address:	Limerick Co. Council, County Hall, Dooradoyle, Limerick
Contact Number:	061-496000
Contact Fax:	061-496010
Contact Email:	trevorm@limerickcoco.ie

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**THIS APPLICATION HAS NOT BEEN SUBMITTED**

Table D.1(i)(a): EMISSIONS TO SURFACE/GROUND WATERS (Primary Discharge Point)

Discharge Point Code: SW-1

Local Authority Ref No:	SW1	
Source of Emission:	Treated Effluent from Montpelier WWTP	
Location:	102m U/S of O'Brien's Bridge	
Grid Ref (12 digits, 6E, 6N)	166507 / 166860	
Name of Receiving waters:	River Shannon	
Water Body:	River Water Body	
River Basin District	Shannon IRBD	
Designation of Receiving Waters:	SAC	
Flow Rate in Receiving Waters:	10	m <sup>3</sup> .sec <sup>-1</sup> Dry Weather Flow
	10	m <sup>3</sup> .sec <sup>-1</sup> 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	CAUTION:*The flow in the River Shannon is considerably affected by lake storage and the operation of sluices.	

Emission Details:

(i) Volume emitted			
Normal/day	7.32 m <sup>3</sup>	Maximum/day	18.3 m <sup>3</sup>
Maximum rate/hour	0.762 m <sup>3</sup>	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	8.47E-05 m <sup>3</sup> /sec		

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## APPENDIX D2

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PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
SW1	Primary	Limerick Co. Council	River	Shannon	River Shannon SAC	166507	166860

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## APPENDIX E1

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**THIS APPLICATION HAS NOT BEEN SUBMITTED**

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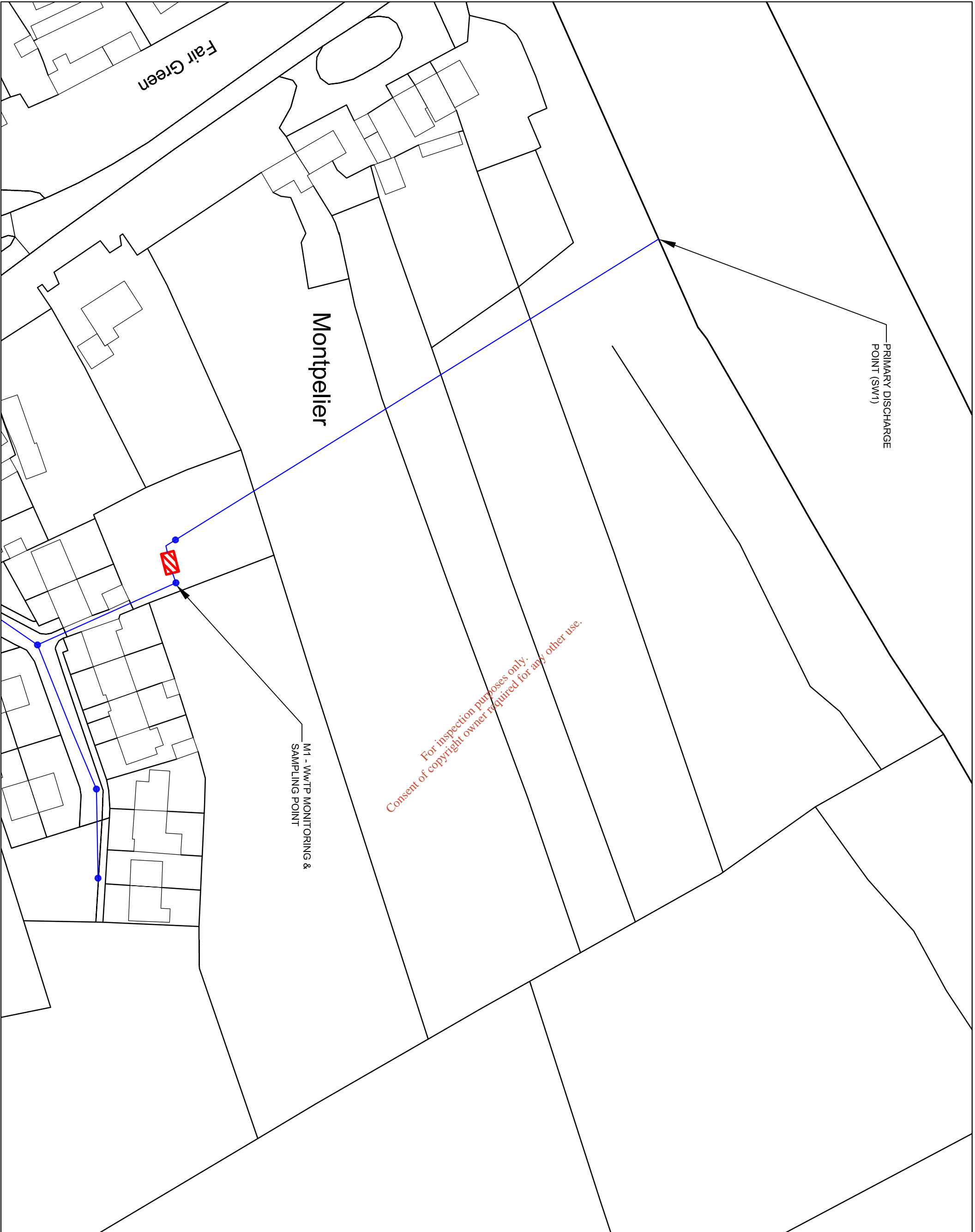
TABLE E.1(i): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Primary and Secondary Discharge Points

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m <sup>3</sup> /annum)
SW-1	365	2671.8

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## APPENDIX E2

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**LEGEND:**  
 EXISTING WASTE WATER TREATMENT PLANT  
 SEWER NETWORK



- NOTES:**
- FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
  - ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	CHKD
A	AUG'11	ISSUED TO EPA	MK	BJD

**Client:**  
 LIMERICK COUNTY COUNCIL

**Project:**  
 EPA WASTE WATER DISCHARGE  
 CERTIFICATE OF AUTHORISATION  
 FOR  
 MONTPELLIER  
 (Brookhaven)

**Title:**  
 ATTACHMENT E.2  
 LOCATION OF MONITORING  
 &  
 SAMPLING POINT

**Scale @ A3:**  
 1:1000

Prepared by:	Checked:	Date:
MK	BJD	AUG '11

**Project Director:** BDOWNNES  
**Drawing Status:** WWDC APPLICATION

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**Drawing No.:** 6313-23-06  
**Revision:** A

## APPENDIX E3

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PT_CD	PR_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
M1	Primary	M&S	166605	166722	N

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# APPENDIX F1

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# Lough Derg Management Unit Action Plan

## Lough Derg WMU

**Legend**

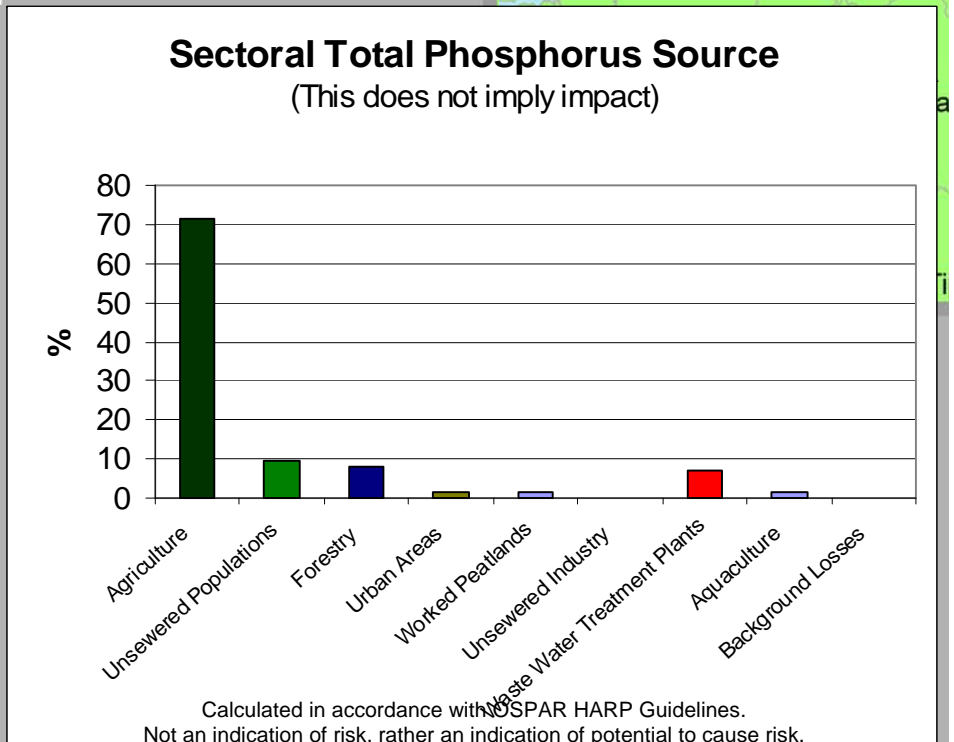
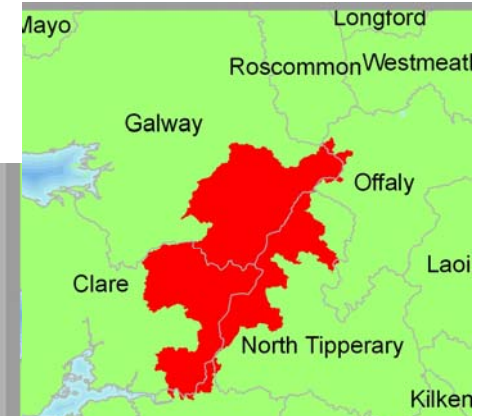
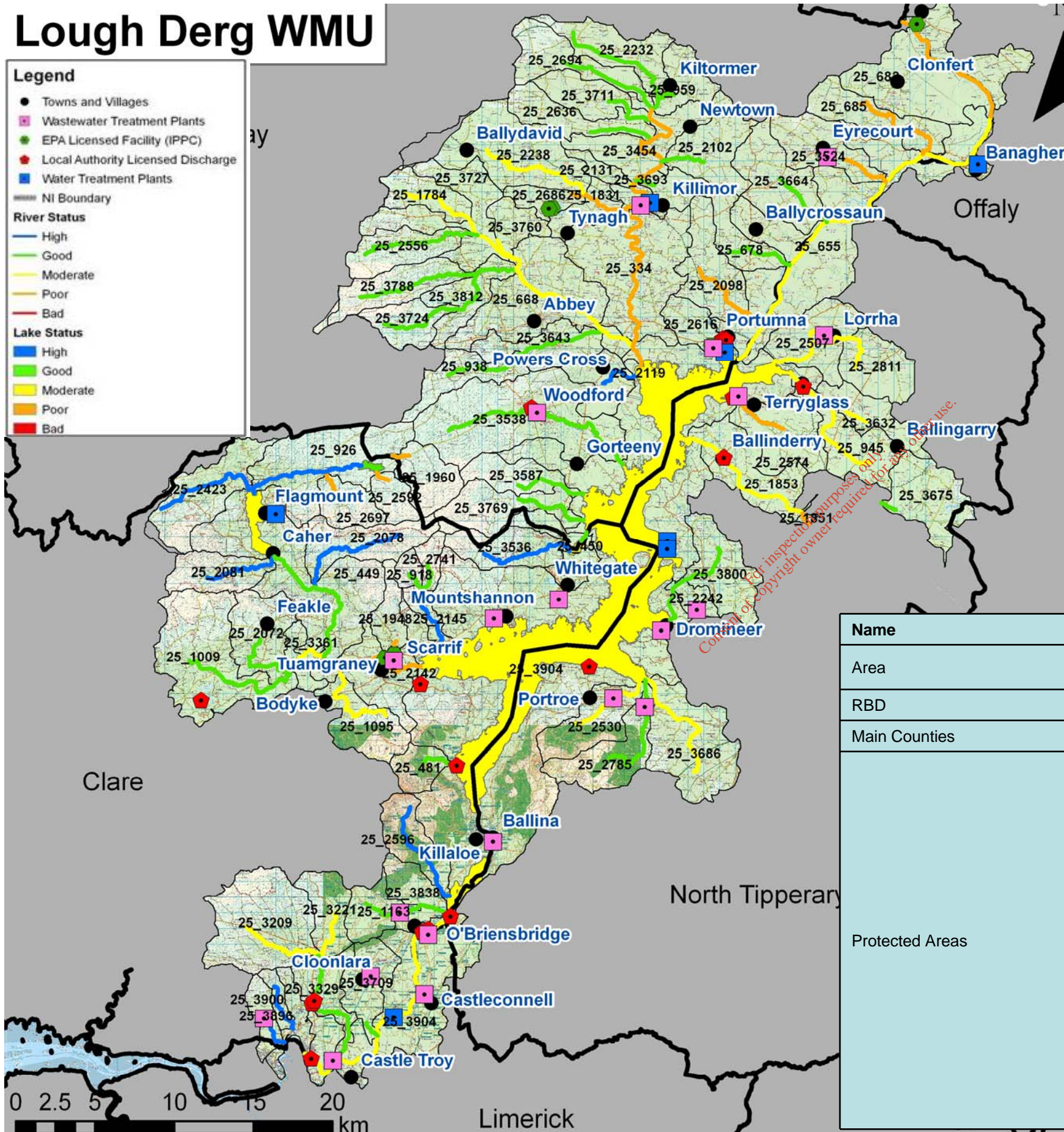
- Towns and Villages
- Wastewater Treatment Plants
- EPA Licensed Facility (IPPC)
- Local Authority Licensed Discharge
- Water Treatment Plants
- NI Boundary

**River Status**

- High
- Good
- Moderate
- Poor
- Bad

**Lake Status**

- High
- Good
- Moderate
- Poor
- Bad



<b>Name</b>	Lough Derg Water management Unit
<b>Area</b>	1820 km <sup>2</sup>
<b>RBD</b>	Shannon RBD
<b>Main Counties</b>	Galway, Offaly, Tipperary, Limerick, Clare.
<b>Protected Areas</b>	<p><b>Drinking Water</b> 9 including: Graney Lough, Derg Lough pHMWB, Derg Lough, Tynagh, Ardnacrusa, Limerick City North, River Shannon, Graney, Kilcrow.</p> <p><b>Bathing Water Rivers:</b> 4 including: Lough Derg, Portumna, Mountshannon and Ballycuggeran.</p> <p><b>Nutrient Sensitive Water:</b> 2 including: Lough Derg on the River Shannon, and River Nenagh.</p> <p><b>SACs:</b> 18 including: River Shannon Callows, Barroughter Bog, Cloonmoylan Bog, Derrycrag Wood Nature Reserve, Loughatorick South Bog, Pollnacknockaun Wood Nature Reserve, Kilcarren-Firville Bog, Glenomra Wood, Rosturra Wood, Liskeenan Fen, Glendree Bog, Pollagoona Bog, Lower River Shannon, Lough Derg, North-East Shore, Slieve Bernagh Bog, Redwood Bog, and Ardgraique Bog.</p> <p><b>SPAs:</b> 3 including: Lough Derg Shannon SPA, Middle Shannon Callows SPA, and Slieve Aughty Mountains.</p>

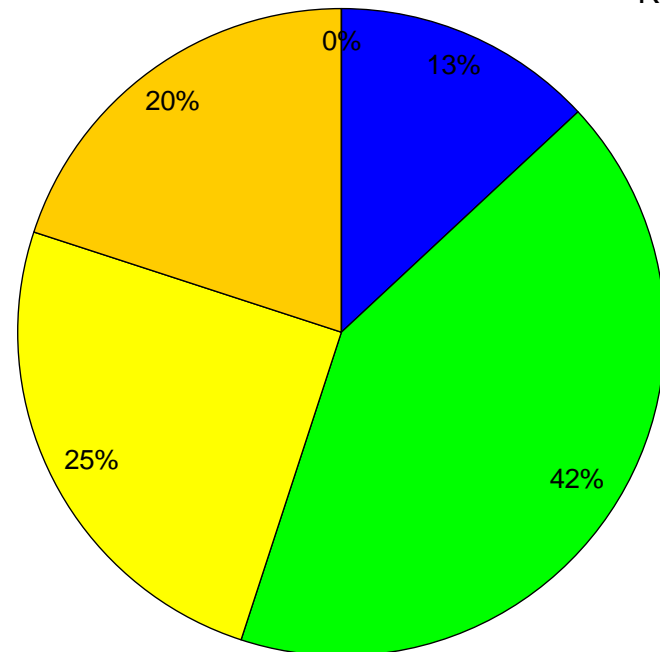
# Lough Derg Water Management Unit Action Plan

STATUS/IMPACTS	
Overall status	Rivers: 79 River Water Bodies - 10 High, 33 Good, 20 Moderate, 16 Poor. Lakes: 6 Lake water bodies - 1 is good status (Atorick Lough) and the other 5 are moderate status (Derg Lough, Alewnaghta Lough), Graney Lough, Derg Lough, pHMWB Derg Lough)
Status elements	Rivers:Physchem dictates overall status for 6 good water bodies, the remainder are dictated by Q score. Lakes: Atorick Lough driven by Macrophytes. Alewnaghta Lough driven by Macrophytes, Nutrients - Ammonium, Total Phosphorus. Graney Lough driven by Macrophytes, Chlorophyll, Nutrients - Ammonium, Total Phosphorus. Derg Lough driven by Nutrients Expert Opinion over-ride.
Possible Impacts - EPA Water Quality 2007	<p>ARDCLOONY: Water quality continues to be of the highest standard in this river and as such it deserves rigorous protection from agricultural pollution, in particular from slurry spreading.</p> <p>ARDCRONY STREAM: The lack of sensitive macroinvertebrate fauna coupled with excessive algal and macrophyte growth observed at station 0500 on the Ardcroney stream continues to indicate unsatisfactory ecological conditions in 2008.</p> <p>ARDGREGANE STREAM: A slight improvement in the macroinvertebrate faunal diversity was noted in 2008 but again the lack of sensitive fauna indicated unsatisfactory ecological conditions at Crannagh Bridge (0400) with heavy siltation also noted.</p> <p>AYLE: Latest Clare Co Co assessment carried out in 2007 showed satisfactory conditions for macroinvertebrates, agriculture is the main pressure in this catchment.</p> <p>BALLINLOUGH STREAM: The Ballinlough River was in satisfactory condition when surveyed in November 2003.</p> <p>BALLYFINBOY: The Ballyfinboy River was in a generally unsatisfactory condition when surveyed in 2008. A decline in ecological quality was noted at stations 0250, 0300 and 0400 with only a slight improvement noted at station 0800. Extreme calcification of the substratum was again noted at stations 0400 and 0800 . Sewage and Agricultural sources suspected.</p> <p>BARNACULLIA STREAM: The Barnacullia Stream is a small stream that adjoins the old Tynagh Mines tailings pond. Only four invertebrates taxa were found in the sample indicating toxic conditions. There appears to have been a decrease in diversity and abundance of invertebrates in comparison with the most recent previous samples taken here.</p> <p>BLACKWATER (CLARE): Latest Clare Co Co assessment carried out in 2007 showed satisfactory conditions in the upper catchment but poor downstream at Blackwater Bridge. Due possibly to localised impacts and septic tanks.</p> <p>BLEACH: Satisfactory quality, however catchment is heavily forested</p> <p>BOW: Satisfactory Quality</p> <p>CAPPAGH (GALWAY): An improvement was noted in the upper Cappagh (0100) where farm pollution had previously been recorded. The middle reaches were satisfactory (0200) with no change on previous surveys but a deterioration in quality was noted at the last site surveyed on the lower Cappagh (0400) in comparison with the 2003 survey.</p> <p>CARRIGAHORIG STREAM: Although the Macroinvertebrate faunal diversity in the lower reaches (0500) had improved since 2005, the community continued to be dominated by pollution tolerant taxa indicating unsatisfactory ecological conditions in 2008. The lack of sensitive macroinvertebrate taxa, luxuriant instream macrophyte growth and excessive siltation continues to indicate eutrophic conditions.</p> <p>CLOGHAUN: Currently moderate status. Upstream stations at are high, but deterioration occurring downstream in SH_25_1009 and SH_25_3361. Agriculture pressure and possibly localised pressures.</p> <p>COOS: Good status at sites monitored at Boley and Toorennny Bridge.</p> <p>CORRA: Q4-5 at site 400 Gortaderry Bridge. Catchment is heavily forested.</p> <p>DERRAINY: Q4-5 at site 200 at Derrain Bridge.</p> <p>DRUMANDOORA: Q4-5 and good status on main stretch. Catchment is heavily forested.</p> <p>DRUMKEARY STREAM: Good status on main stretch Q4 and Q4-5 at monitoring sites 300 and 350.</p> <p>DUNIRY: Good status on main stretch Q4 and Q4-5 at monitoring sites 100 and 400 (Cullenagh Bridge and u/s of Cappagh).</p> <p>EYRECOURT STREAM: No change in status – still unsatisfactory.</p>

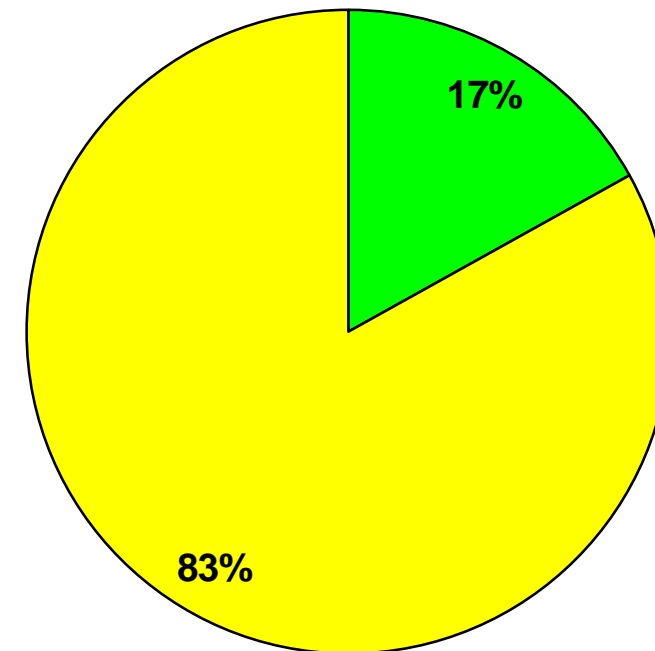
# Lough Derg Water Management Unit Action Plan

STATUS/IMPACTS	
Possible Impacts - EPA Water Quality 2007	<p>GLENOMRA WOOD: Currently Good status</p> <p>GRANEY (SHANNON): Good status at locations monitored except at monitoring site 400 d/s of Scarriff with Q3 – a decrease from 2003. Also drop in quality in SH_25_2142.</p> <p>KILCROW: Unsatisfactory status.</p> <p>KILFADDA CASTLE STREAM: As in previous surveys, the Kilfadda Castle Stream remains in an unsatisfactory ecological condition in 2008.</p> <p>LISDUFF (KILCROW): Unsatisfactory status.</p> <p>LISDUFF STREAM (SHANNON): The Lisduff Stream is impacted by the Tynagh Mines lake outflow (the lake covers what was an open cast section of the mine), which contains relatively high heavy metal concentrations. The fauna indicates that toxic conditions still persist reducing the diversity and abundance of the faunal community.</p> <p>LORRHA STREAM: The Lorrha Stream downstream of Friars Lough (0300) was in an unsatisfactory ecological condition in 2008. The dominance of pollution tolerant macroinvertebrate fauna, luxuriant weed growth and heavy substratum siltation continued to indicate that improvements are required before satisfactory conditions can be restored. Agriculture is suspected as the most likely source of the eutrophication and siltation observed .</p> <p>MOUNTRICE: Unsatisfactory status. Latest Clare Co Co assessment carried out in 2007 showed satisfactory conditions for macroinvertebrates, however there are pressures from agriculture and forestry. NEWTOWN: The Newtown River was in a satisfactory ecological condition at Newtown Bridge (0200) in 2008. Macroinvertebrate diversity has improved slightly since the previous survey however some signs of enrichment including enhanced algal development and heavy siltation, were evident. Unrestricted livestock access poses a threat to the future satisfactory status at this location.</p> <p>SCARRIFF STREAM: This stream was again moderately polluted at the point surveyed in 2005. Localised impacts.</p> <p>SHANNON (Lower): The lower Shannon River was in an unsatisfactory ecological condition in 2008. Although macroinvertebrate diversity increased, pollution tolerant species dominated the fauna at Incherky Quay (2060) indicating a decline in ecological status. Excessive siltation and low dissolved oxygen concentrations were also noted. Ecological conditions remain unsatisfactory at Castleconnell (2500) with a paucity of sensitive macroinvertebrate taxa and excessive macrophyte and algal production evident again in 2008 .</p> <p>WOODFORD (GALWAY): Satisfactory status</p> <p>YOUGHAL (TIPPERARY): Satisfactory ecological conditions continue in the lower reaches (0200) in 2008</p>

River Data



Lake Data



High	High
Good	Good
Moderate	Moderate
Poor	Poor
Bad	Bad
Yet to be determined	Yet to be determined

# Lough Derg Water Management Unit Action Plan

STATUS/IMPACTS	
Possible Impacts - EPA Water Quality	<p>Lake Waterbodies:</p> <p>Atorick Lough driven by Macrophytes sampled in 2005 with a free Index value Good in Q2. data.</p> <p>Alewnaghta Lough Macrophytes sampled in 2003 giving a status of moderate in Q2, data old, low confidence in final status. No data for 2004-2006. 2007 PC returned moderate status. It is a monitored lake. 2007-2008 Nutrients - Amm and TP returned Moderate status.</p> <p>Graney Lough Macrophytes sampled in 2006, moderate- Q1, 2004-2006 Chlorophyll mesotrophic, 2007 Chlorophyll mesotrophic and moderate status, 2007 Ammonium and Total Phosphorus moderate but n=4. N=12 for 2004-2006 data- Chlorophyll moderate.</p> <p>Lough Derg - Moderate, 2004-2006 mesotrophic and in 2007 oligotrophic and Chlorophyll =high status. 2001-2006 data used - moderate for TP=32.21429. Zebra Mussel present.</p>

PRESSURES/RISKS	
Nutrient sources	93% Total phosphorus is diffuse, mainly from agriculture (71%), unsewered properties (10%) and forestry (8%). 7% comes from WWTP.
Point pressures	<p>20 Wastewater Treatment Plants: Ballycannon/Meelick, Clonlara, Mountshannon, Scarriff, Whitegate, Eyrecourt, Killimor, Portumna, Woodford, Castleconnell, Castletroy, Mountpellier, Ballina, Coolbawn, Dromineer, Lorrha, Newtown, Portroe, Puckane, Templederry.</p> <p>2 Waste Facilities – Scarriff Civic Amenity Centre &amp; Longpavement Landfill</p> <p>7 IPPCs: Timber Producer (Scarriff), 2 x Energy Producer (Shannonbridge and Tynagh), 2 x Peat Extraction, Galvaniser, Meat Processing.</p> <p>25 Section- 4s: 1 Book Shop, 2 B&amp;Bs, Manufacturer (Analytical Equipment), Hospital, Public House, 2 Fisheries, Abattoir, Livestock Marketer, Architect, Electricity Producer, Asylum Seeker Centre, 2 Housing Estates, Hospital, Soft-Drinks Producer, 2 Construction Developers, 2 Holiday homes (Clare), Golf Club (Clare), Shop/Deli (Clare), Medical Devices (Clare) and 1 other Private Company.</p> <p>7 WTPs: Flagmount, Killimor P.S., Portumna, Coolbawn and Nenagh RWSS, Banagher, and Clonlara Waterworks.</p> <p>5 Community Septic tanks - Bridgetown, Bodyke, Feakle, O'Briensbridge, Flagmount.</p>
Wastewater Treatment Plants (WWTP) and Industrial Discharges	<p>The following WWTPs are at risk:</p> <p>Ballina, North Tipp            Ballycannon (Meelick) WWTP            Castletroy WWTP            Dromineer            Eyrecourt WWTP            Killimor WWTP            Lorrha            Mountshannon WWTP            Newtown            Portroe            Puckane            Scarriff WWTP            Whitegate WWTP            Woodford</p> <p>The following Industries are at risk:            2 housing estates, Electricity Supply Board, 2 Timber Producers, Power Plant.</p>

# Lough Derg Water Management Unit Action Plan

PRESSURES/RISKS	
Quarries, Mines & Landfills	8 Registered Quarries. SH_25_3209, SH-25_1163, SH_25_2596, SH_25_2142, SH_25_3904_1, SH_25_1009, SH_25_449, SH_25_926. 1 WB at risk SH_25_3904.  1 Mine – Tynagh. 1 WB at risk; SH_25_2686.  7 Closed (Historic) Landfills - Whitegate, 1 Private Licence (SH_25_3454), Portumna, Ballina, Longpavement, Portroe and Borrisokane. 2 WB at risk; SH_25_3454 and SH_25_3904.
Agriculture	42 WB at risk; SH_27_722, SH_25_3800, SH_25_1163, SH_25_1784, SH_25_3686, SH_25_2530, SH_25_2098, SH_25_3524, SH_25_2238, SH_25_3675, SH_25_1831, SH_25_3709, SH_25_3760, SH_25_2242, SH_25_3838, SH_25_2232, SH_25_334, SH_25_3454, SH_25_3361, SH_25_2686, SH_25_2636, SH_25_2616, SH_25_3896, SH_25_2694, SH_25_1948, SH_25_1009, SH_25_959, SH_25_1851, SH_25_1853, SH_25_3727, SH_25_3900, SH_25_2072, SH_25_2574, SH_25_685, SH_25_3904, SH_25_655, SH_25_682, SH_25_3711, SH_25_1095, SH_25_3221, SH_25_3209, SH_25_2142.
On-site systems	There are 14,643 septic tanks within this WMU, 6,958 of these are located in areas of very high or extreme risk.
Forestry	10 at risk; SH_25_926, SH_25_2697, SH_25_2592, SH_25_1960, SH_25_3587, SH_25_3788, SH_25_3724, SH_25_3209 and Lough Graney, Lough Attorick
Dangerous substances	None
Morphology	27 at risk; SH_25_3800, SH_25_1784, SH_25_3686, SH_25_938, SH_25_3643, SH_25_3711, SH_25_3904, SH_25_2507, SH_25_3727, SH_25_1851, SH_25_668, SH_25_2131, SH_25_959, SH_25_2694, SH_25_3632, SH_25_2636, SH_25_2686, SH_25_3454, SH_25_3693, SH_25_334, SH_25_2238, SH_25_2102, SH_25_3675, SH_25_1831, SH_25_3760, SH_25_945, and SH_25_2232.
Abstractions	8 WBs: Whitegate SH_25_3904, Mountshannon SH_25_3904, Scarriff SH_25_2145 and SH_25_1948, Lough Graney SH_25_449, Feakle SH-25_2072, Killaloe SH_25_3904, Bridgetown SH_25_1163, Limerick Corporation supply SH_25_3709 RShanon Head Race
Other	None

SELECTED ACTION PROGRAMME		OBJECTIVES	
<i>NB All relevant basic measures, general supplementary measures and SEA mitigation measures apply</i>			
Point Sources	WWTP measures are summarised in the Table below WWTP upgrades & licensing to be implemented where required. Examine the terms of discharge authorisations to determine whether they require review for the purpose of compliance with water body objectives including protected area objectives and environmental quality standards.	Restore 2015	16 river water bodies. 2 lakes.
Diffuse Sources	Good Agricultural Practice regulations inspections/enforcement. Septic Tanks: At Risk septic tanks are to be prioritised for inspections. Subsequent upgrade or connection to municipal systems depends on inspection and economic tests. Other diffuse sources may need recommendations.	Protect	43 River Waterbodies. 1 Lake Waterbodies.
Other	Morphological pressures in the Lough Derg require 27 channelisation investigation to establish if supplementary measures are required to address water quality issues associated with morphology. Abstractions - Future abstractions licensing programme and assessment.	Alternative Objectives	Extended deadlines – 17 River Waterbody with 2021 deadlines. 3 River Waterbodies with 2027 deadlines. 3 Lake Waterbody with 2021 deadlines.  2 New Modifications or Development - Replace stop planks at Meelick Weir, widen canal and moorings at Munster Harbour and moorings at Connaught harbour, and Flood alleviation works being carried out on Woodford River.  HMWB/AWB - 0 HMWB. 5 AWB; -Shannon Navigation: Part of Limerick Park Canal (IE__SH_pAWB_SHN_19A) -Grand Canal Main Line, -Errina Plassey Canal (IE__SH_pAWB_SHN_19B) -Ardnacrusha_Tailrace (IE__SH_AWB_ATR) -Ardnacrusha_Headrace (IE__SH_AWB_AHR) -Killaloe Canal (IE__SH_pAWB_SHN_19B) -Canal East of Meelick (IE__SH_pAWB_SHN_19C)
Future Pressures and Developments	<i>Throughout the river basin management cycle future pressures and developments will need to be managed to ensure compliance with the objectives of the Water Framework Directive and the Programme of Measures will need to be developed to ensure issues associated with these new pressures are addressed.</i>		

# Lough Derg Water Management Unit Action Plan

Point Source Discharge	County	Priority	Measure (Capital Works)
Ballycannon (Meelick) WWTP	Clare	1	Provide tertiary treatment or relocate outfall.
Ballycannon (Meelick) WWTP	Clare	1	Provide nutrient removal or relocate outfall.
Castletroy WWTP	Limerick County	1	Provide nutrient removal.
Eyrecourt WWTP	Galway County	2	Increase capacity of treatment plant.
Eyrecourt WWTP	Galway County	2	Provide tertiary treatment or relocate outfall.
Eyrecourt WWTP	Galway County	2	Provide nutrient removal or relocate outfall.
Point Source Discharge	County	Priority	Measure (Investigation before Capital Works)
Puckane	North Tipp	3	Investigate the need for tertiary treatment or for the relocation of the outfall.
Woodford	Galway County	2	Investigate the need for increase in capacity of treatment plant.
Woodford	Galway County	2	Investigate the need for tertiary treatment or for the relocation of the outfall.
Point Source Discharge	County	Priority	Measure
Killimor WWTP	Galway County	1	Implement an appropriate performance management system
Point Source Discharge	County	Priority	Measure
Castletroy WWTP	Limerick County	2	Investigation of CSO's
Killimor WWTP	Galway County	3	Investigation of CSO's
Lorrha	North Tipp	3	Investigation of CSO's
Newtown	North Tipp	3	Investigation of CSO's
Portroe	North Tipp	3	Investigation of CSO's
Scarriff WWTP	Clare	3	Investigation of CSO's
Point Source Discharge	County	Priority	Measure
Ballycannon (Meelick) WWTP	Clare	2	Ensure capacity of treatment plant is not exceeded
Clonlara WWTP	Clare	2	Ensure capacity of treatment plant is not exceeded
Mountshannon WWTP	Clare	2	Ensure capacity of treatment plant is not exceeded
Scarriff WWTP	Clare	3	Ensure capacity of treatment plant is not exceeded
Whitegate WWTP	Clare	2	Ensure capacity of treatment plant is not exceeded
Ballina, North Tipp	North Tipp	3	Ensure capacity of treatment plant is not exceeded
Dromineer	North Tipp	2	Ensure capacity of treatment plant is not exceeded
Newtown	North Tipp	3	Ensure capacity of treatment plant is not exceeded
Portroe	North Tipp	3	Ensure capacity of treatment plant is not exceeded

# Lough Derg Water Management Unit Action Plan

IE_SH_LoughDerg																		
County	Member State Code	Monitored Y (Extrapolated N)	Donor Waterbody	Biological Elements				Supporting Elements				Chemical Status	Protected Areas				Objective	Date objective to be achieved
				Macroinvertebrates (O)	FreshWater Pearl Mussel	Fish	Phytobenthos (Diatoms)	Morphology	Specific Pollutants	Physio-chemical	Ecological Status		Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters	Drinking Water		
Clare	SH_25_1009	Y		G							G		Y	Y		GES	2009	
Clare	SH_25_1095	N	SH_25_2530								M		Y			GES	2015	
Clare	SH_25_1163	Y								G	G					GES	2009	
Clare	SH_25_1948	Y		P							P			Y		GES	2021	
Clare	SH_25_2072	Y								G	G			Y		GES	2009	
Clare	SH_25_2081	Y		H				G			G	H	Y	Y		HES	2009	
Clare	SH_25_2142	Y		P							G	P		Y		GES	2021	
Clare	SH_25_2145	Y		H				G			G	H		Y		HES	2009	
Clare	SH_25_2596	Y		H							H	H	Y			HES	2009	
Clare	SH_25_2697	N	SH_27_287									P		Y		GES	2027	
Clare	SH_25_2741	N	SH_25_2078									G		Y		GES	2009	
Clare	SH_25_3209	Y		M								M				GES	2015	
Clare	SH_25_3221	N	SH_25_3209									M	Y			GES	2015	
Clare	SH_25_3329	Y		G							H	G				GES	2009	
Clare	SH_25_3361	Y		M							H	M				GES	2015	
Clare	SH_25_3838	N	SH_27_253									G				GES	2009	
Clare	SH_25_3900	N	SH_27_620									H				HES	2009	
Clare	SH_25_449	Y		G							H	G		Y		GES	2009	
Clare	SH_25_481	N	SH_25_2078									G	Y			GES	2009	
Clare	SH_25_918	N	SH_25_2078									G		Y		GES	2009	
Clare, Galway	SH_25_2078	Y		H							H	H	Y	Y		HES	2009	
Clare, Galway	SH_25_2423	Y		H							H	H		Y		HES	2009	
Clare, Galway	SH_25_2592	N	SH_27_287									P	Y	Y		GES	2027	
Clare, Galway	SH_25_3536	Y		H							H	H	Y	Y		HES	2009	
Clare, Galway	SH_25_450	N	SH_25_3769									G		Y		GES	2009	
Clare, Galway	SH_25_926	Y		H							H	H	Y	Y		HES	2009	
Clare, Galway, North Tipp	SH_25_3904_1	Y		M							H	M	Y	Y	Y	GES	2021	
Clare, Limerick	SH_25_3709	N	SH_27_253									G	Y			GES	2009	
Clare, Limerick	SH_25_3896	N	SH_27_620									H	Y			HES	2009	
Galway	SH_25_1784	N	SH_25_2238									M				GES	2015	
Galway	SH_25_1831	Y		P								P				GES	2021	
Galway	SH_25_2098	N	SH_25_334									P	Y	Y		GES	2021	
Galway	SH_25_2102	N	SH_25_678									G				GES	2009	
Galway	SH_25_2119	N	SH_27_181									H	Y	Y		HES	2009	
Galway	SH_25_2131	N	SH_25_668									M				GES	2015	
Galway	SH_25_2232	N	SH_25_2694									G				GES	2009	
Galway	SH_25_2238	Y		M								M				GES	2015	
Galway	SH_25_2556	Y		G							H	G		Y		GES	2009	
Galway	SH_25_2616	N	SH_26_550									P		Y		GES	2021	
Galway	SH_25_2636	Y										G				GES	2009	
Galway	SH_25_2686	N	SH_25_3454									P				GES	2021	
Galway	SH_25_2694	Y		G							H	G				GES	2009	

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# Lough Derg Water Management Unit Action Plan

River Data  
Continued

IE_SH_LoughDerg																			
County	Member State Code	Monitored Y (Extrapolated N)	Donor Waterbody	Biological Elements				Supporting Elements				Ecological Status	Chemical Status	Protected Areas				Objective	Date objective to be achieved
				Macrobenthos (Q)	Freshwater Mussel	Fish	Phytoplankton (Diatoms)	Morphology	Specific Pollutants	Physio-chemical	Special Area of Conservation			Special Protection Area	Nutrient Sensitive Waters	Drinking Water			
Galway	SH_25_334	Y		P							H	P		Y	Y		GES	2021	
Galway	SH_25_3454	Y		P							H	P					GES	2021	
Galway	SH_25_3524	Y		P							G	P			Y		GES	2021	
Galway	SH_25_3538	Y		G							H	G		Y	Y		GES	2009	
Galway	SH_25_3587	Y									G	G			Y		GES	2009	
Galway	SH_25_3643	Y									G	G			Y		GES	2009	
Galway	SH_25_3693	N	SH_25_678									G		Y			GES	2009	
Galway	SH_25_3711	N	SH_25_2636									G					GES	2009	
Galway	SH_25_3724	Y		G								G			Y		GES	2009	
Galway	SH_25_3727	N	SH_25_2238									M			Y		GES	2015	
Galway	SH_25_3760	N	SH_25_2238									M					GES	2015	
Galway	SH_25_3788	Y		G							H	G			Y		GES	2009	
Galway	SH_25_3812	Y		G								G			Y		GES	2009	
Galway	SH_25_668	Y		M					B		H	M		Y	Y		GES	2015	
Galway	SH_25_685	N	SH_26_3065									P			Y		GES	2021	
Galway	SH_25_938	Y										G			Y		GES	2009	
Galway	SH_25_959	N	SH_25_2636									G					GES	2009	
Galway, Clare	SH_25_1960	N	SH_27_287									P		Y	Y		GES	2027	
Galway, Clare	SH_25_3769	Y		G							H	G		Y	Y		GES	2009	
Galway, North Tipp	SH_25_3664	N	SH_25_678									G			Y		GES	2009	
Galway, North Tipp	SH_25_678	Y										G		Y	Y		GES	2009	
Galway, Offaly	SH_25_682	N	SH_25_3524									P		Y	Y		GES	2021	
Limerick, Clare, North Tipp	SH_25_3904_2	Y		M							H	M		Y			GES	2021	
North Tipp	SH_25_1851	Y		P								G					GES	2021	
North Tipp	SH_25_1853	Y		M							H	M			Y		GES	2015	
North Tipp	SH_25_2242	N	SH_25_1819									G		Y			GES	2009	
North Tipp	SH_25_2507	Y		M								G		Y	Y		GES	2021	
North Tipp	SH_25_2530	Y		M								G			Y		GES	2021	
North Tipp	SH_25_2574	N	SH_25_3530									P			Y		GES	2021	
North Tipp	SH_25_2785	Y		G							H	G					GES	2009	
North Tipp	SH_25_2811	N	SH_25_2507									M		Y			GES	2015	
North Tipp	SH_25_3632	Y		M								G		Y			GES	2015	
North Tipp	SH_25_3686	Y		M								G			Y		GES	2015	
North Tipp	SH_25_3800	N	SH_25_1819									G		Y			GES	2009	
North Tipp	SH_25_945	Y		M							H	M		Y	Y		GES	2015	
North Tipp, Galway, Offaly	SH_25_655	Y		M							H	M		Y	Y		GES	2015	
North Tipp, Offaly	SH_25_3675	N	SH_25_3670									G				Y	GES	2009	

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# Lough Derg Water Management Unit Action Plan

## Lake Data

IE_SH_LoughDerg																			
County	Member State Code	Name	Monitored Y (Extrapolated N)	Biological Elements			Supporting Elements				Ecological Status	Chemical Status	Protected Areas					Objective	Date objective to be achieved
				Macrophytes	Chlorophyll	Fish	Morphology	Nutrient Enrichment	Physico Chemical	Special Area of Conservation			Special Protection Area	Nutrient Sensitive Waters	Bathing Water	Drinking Water			
Clare	SH_25_190	Graney ( Lough )	Y	M	M		G	M	M	M			Y			Y	GES	2015	
Clare, Galway	SH_25_172	Atorick ( Lough )	Y	G						G			Y				GES	2009	
Clare, Galway	SH_25_189	Alewnaghta ( Lough )	Y	M	G			M	M	M							GES	2015	
Clare, North Tipp	SH_25_191b	Derg ( Lough ) pHMWB	N		H			M	M	M			Y		Y	Y	GEP	2021	
North Tipp	SH_25_9	Derg ( Lough )	N							M							GES	2021	
North Tipp, Galway, Clare	SH_25_191a	Derg ( Lough )	Y		H			G	G	M			Y	Y	Y	Y	GES	2021	

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## APPENDIX F2

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ABS_CD	AGG_SERVED	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
PA1_25_3904	Limerick City	ABS_1	15km	159216	158757	N

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