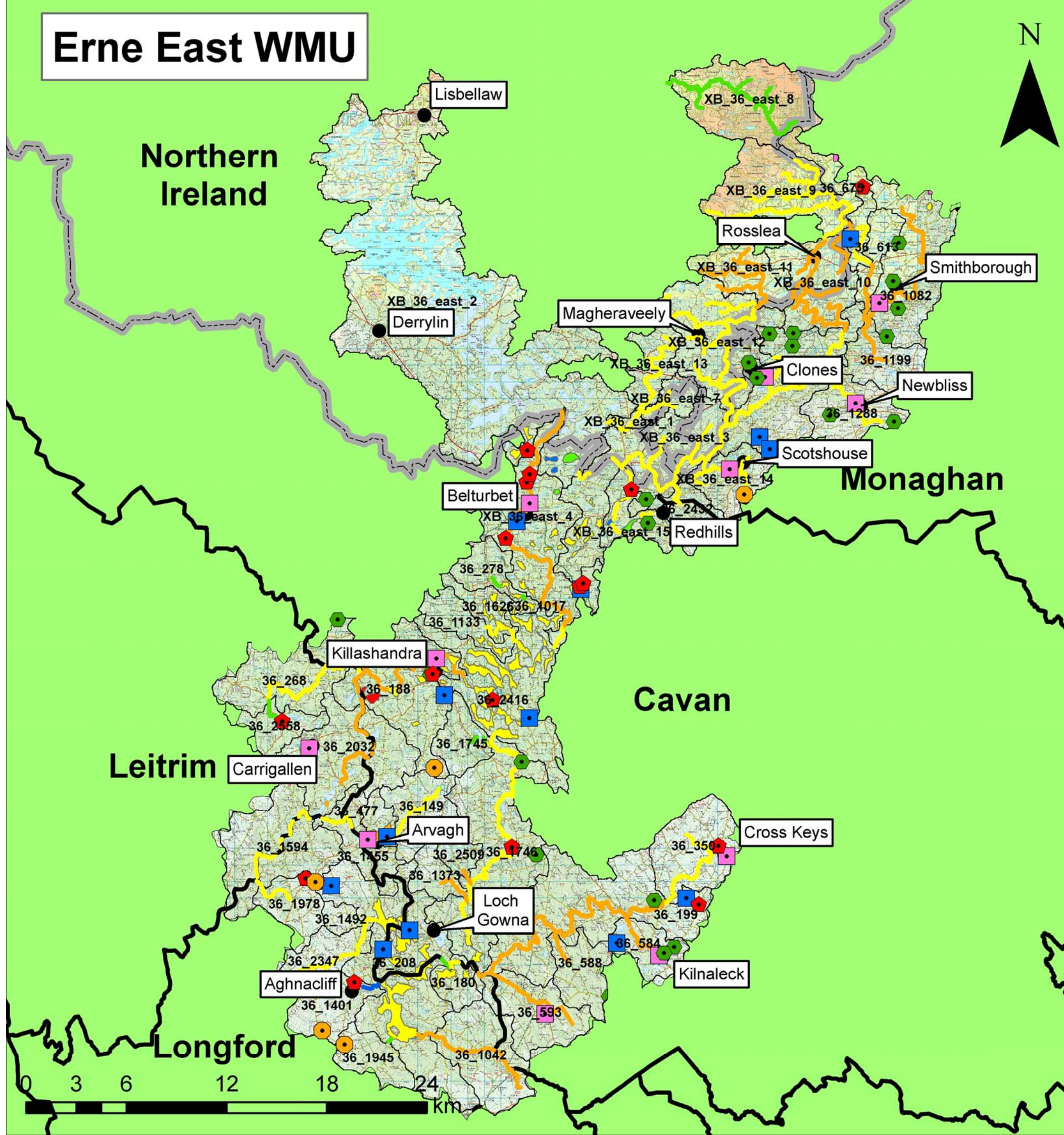


Erne East WMU



Erne East Water Management Unit Action Plan

Legend

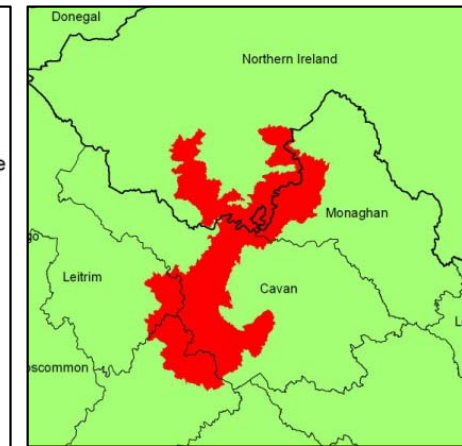
- Towns
- Wastewater Treatment Plants
- EPA Licensed Facility (IPPC)
- Local Authority Licensed Discharge
- Water Treatment Plants
- Quarry
- NI Boundary

River Status

- High (Blue line)
- Good (Green line)
- Moderate (Yellow line)
- Poor (Orange line)
- Bad (Red line)

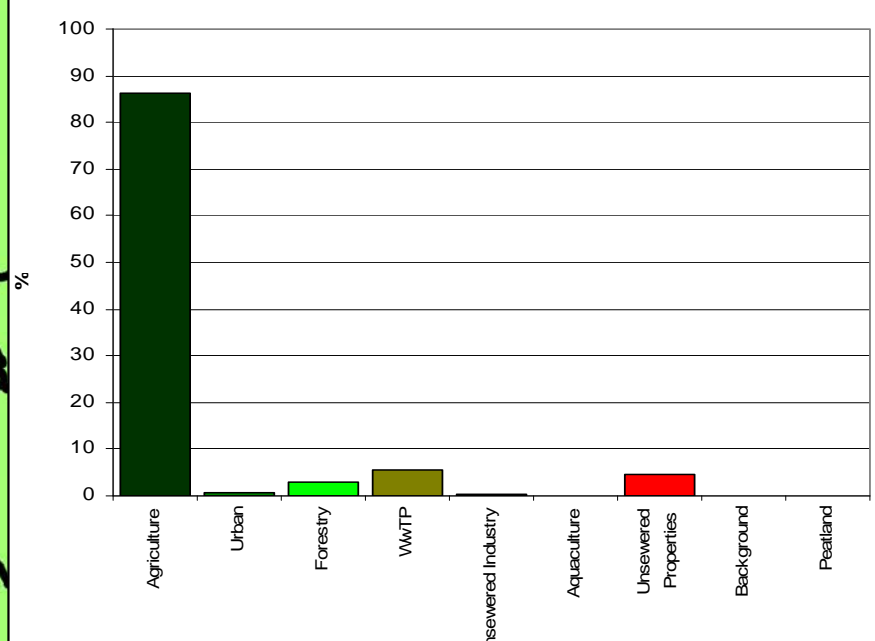
Lake Status

- High (Blue square)
- Good (Green square)
- Moderate (Yellow square)
- Poor (Orange square)
- Bad (Red square)



Name	Erne East Management Unit
Area	1160 km ²
River Basin District	North West RBD
Main Counties	Monaghan/Cavan
Protected Areas	1 SAC (Lough Oughter) 1 SPA (Lough Oughter) 1 sensitive water under the urban wastewater treatment regulations (Lough Oughter) 12 Drinking Waters (including Annagh Lough, Kill Lough, Garty Lough, Lough Naback, Lough Gowna, Mill Lough,, Erne and Annalee River)

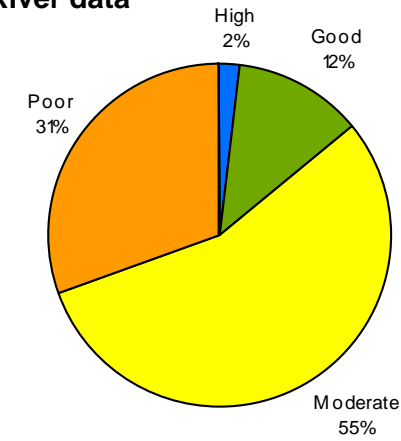
Sectoral Total Phosphorus Source
(This does not imply impact)



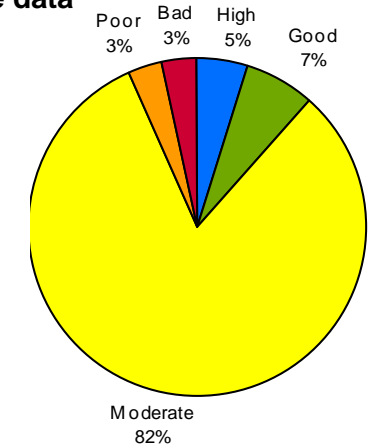
Erne East Water Management Unit Action Plan

STATUS/IMPACTS	
Overall status	Mostly moderate to poor status with 6 river water bodies at good status, 1 at high status, 26 water bodies at moderate and 16 at poor.(49 water bodies in total). There are 60 lakes in the WMU and the status is predominantly moderate (49), with 3 at high status, 4 at good status, 2 at poor status and 2 at bad status.
Status elements	Macroinvertebrates (Q score) dictates status in moderate to poor cases. Physio-chemical failures dictate status for 6 river water bodies within the WMU, 2 of which are cross border. Where chemical monitoring is carried the water bodies pass chemical the relevant chemical standards.
Possible Impacts - EPA Water Quality	<p>CONAWARY (UPPER) – (NW_36_1082, Status 2009 - Poor) Pollution by suspected agriculture worsened considerably in this stream and was assessed as 'serious' in 2004. River remains at poor status due to agriculture and other rural pressures.</p> <p>CULLIES - 225600,301300 (NW_36_2032, Status 2009 – Poor) suspected sewage and industrial impacts below Killeshandra. Heavy Siltation and/or lake effects affecting Q score.</p> <p>FINN (MONAGHAN) - (XB_36_east_3, Status 2009 - Moderate) Further improvement is required. Clones and environs urban area is impacting on the water quality in this stream.</p> <p>LAHEEN STREAM - (NW_36_188, Status 2009 - Poor) - lower reaches continued to be distinctly over enriched by suspected agriculture.</p> <p>LEGGA STREAM - (NW_36_1594, Status 2009 - Moderate) lower reaches were heavily silted, as a result of recent dredging, and as such were in an unsatisfactory condition from the ecological aspect.</p> <p>MAGHERARNEY- (XB_36_east_3, Status 2009 - Moderate) – Far from satisfactory upstream. Agriculture and industry suspected.</p> <p>MAGHERY - (NW_36_1082, Status 2009 – Poor) Moderate pollution of suspected agricultural origin continued. Continuing unsatisfactory. Industry also impacts. Intensive agriculture has impacted on river and Magherarney Lake.</p>

River data



Lake data



PRESSURES/RISKS	
Nutrient sources	Over 90% of phosphorus load is diffuse with agriculture representing the largest source of diffuse nutrients (86%). WWTPs are the largest source of point source nutrients in the WMU contributing 5% of the phosphorus load. There is additional load from the Northern Ireland portion of catchment.
Point pressures	11 WWTP (Arvagh, Belturbet, Killeshandra, Carrigallen, Clones, Kilnaleck, Newbliss, Scothouse, Kilcogy, Crosskeys, Smithboro). 16 Local Authority licenced (Section 4) discharges (incl. Forestry, development association, Electrical services, construction, water park, Inn, School, Management company, concrete production, livestock mart); 20 IPPC licences - abattoir and animal food processor (Clones) and IPPC poultry units (predominantly agriculture) five of which discharge to surface waters. Point sources from Northern Ireland e.g. Roslea WWTP. 13 WTPs - Annagh Lough, Kill Lough, Attrain Lough, Graddum Lough, Garty Lough, Lough Naback, Lough Gowna, Mill Lough, Kilcorran Lough, Corconnelly Lough, Erne River, Clones.
Wastewater Treatment Plants (WWTP) and Industrial Discharges	Belturbet (Cavan) – Evidence of impact downstream. Killeshandra – possible problems with future WWTP capacity Carrigallen (Leitrim) - risks associated with insufficient capacity of plant and and receiving water. Proposed upgrade is included in Leitrim Towns & Villages Sewerage Scheme. Essential upgrade to meet effluent discharge standards included in submission to DoEHLG for WSIP 2010-2012. Newbliss - risks associated with insufficient assimilative capacity for BOD. Smithboro (Monaghan) – no risks identified. Clones - risks associated with insufficient assimilative capacity in receiving water for BOD
Quarries, Mines & Landfills	5 Quarries within WMU, one of which has a Local Authority licence to discharge to surface waters (Carrigallen), however no direct risk to water quality identified. Closed landfill in catchment which requires rehabilitation.
Agriculture	30 water bodies at risk from agricultural pressures, which represents the majority of the WMU.
On-site systems	There are 9679 septic tanks in this WMU, 3653 are in areas of high or extreme risk due to hydrogeological conditions. 13 waterbodies have been assessed to be at risk of failing to achieve the required standards due to unsuitable hydrogeological conditions and the high density and location of unsewered properties in these areas; (NW_36_1288, NW_36_1401, NW_36_1492, NW_36_188, NW_36_199, NW_36_208, NW_36_2347, NW_36_477, NW_36_584, NW_36_675, XB_36_east_14, XB_36_east_15, XB_36_east_4).
Forestry	No water bodies at risk
Dangerous substances	No water bodies at risk
Morphology	11 water bodies at risk from channelisation pressures: (NW_36_1133, NW_36_1455, NW_36_1626, NW_36_188, NW_36_2416, NW_36_2558, NW_36_268, NW_36_278, NW_36_588, XB_36_east_1, XB_36_east_2).
Abstractions	2 Boreholes for Carrigallen private GWS. 9 lakes at risk – Corconnelly, Graddum, Cornaseer, Killcoran, Naback, Gary, Kill, Mill and Attrain Loughs. 9 river water bodies at risk: (NW_36_1133, NW_36_1455, NW_36_199, NW_36_2032, NW_36_477, NW_36_584, NW_36_613, NW_36_675, XB_36_east_4).
Other	General Land drainage issues, construction activities, diffuse rural other than agriculture e.g. business/small industry/commercial/institutional etc. Hard surface discharges such as garage forecourts etc.

SELECTED ACTION PROGRAMME

NB All relevant basic measures, general supplementary measures and SEA mitigation measures apply

Point Sources	WWTP measures are summarised in the Table below 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.
Diffuse Sources	Agriculture - Measures will be required to address diffuse pollution pressures from agriculture such as the Good Agricultural Practices Regulations investigations and enforcement, particularly in at risk areas. Septic tanks - The 3653 septic tanks in extreme risk areas are to be prioritised for inspections. Subsequent upgrade or connection to municipal systems depends on inspection and economics tests. Other rural diffuse pressure will need to be controlled through development control process, e.g. construction, quarries etc.
Other	Investigation required to determine impact of channelisation on status Abstractions - future national licensing controls to be introduced
Future Developments	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.

OBJECTIVES

Good status 2015	Seven river water bodies are currently at satisfactory quality and must be retained at this status. Thirteen river water bodies have a 2015 objective to achieve good status. Seven lakes are currently at satisfactory quality and must be retained at this status. Twelve lakes have a 2015 objective to achieve good status.
Alternative Objectives	No new Modifications or Developments. Heavily Modified Water Body - Upper Lough Erne (NB_36_672) Extended Timelines - There are extended timelines proposed to 2021 to 29 river water bodies and 41 lakes within the WMU.

Erne East Water Management Unit Action Plan

WWTP Measures

Point Source Discharge	County	Priority	Measure (Plants requiring Capital Works)	Date	WMU
Clones WWTP	Monaghan	2	Increase Capacity of Treatment plant	2015+	ErneEast
Carrigallen WWTP	Leitrim	3	Increase Capacity of Treatment plant.	2015	ErneEast
Carrigallen WWTP	Leitrim	3	Provide tertiary treatment	2015	ErneEast
Point Source Discharge	County	Priority	Measure (Investigation before Capital Works)	Date	WMU
Arvagh WWTP	Cavan	3	Investigate the need for tertiary treatment or for the relocation of the outfall.	2015	ErneEast
Kilnaleck WWTP	Cavan	3	Investigate the need for tertiary treatment or for the relocation of the outfall.	2015	ErneEast
Clones WWTP	Monaghan	2	Investigate the need for tertiary treatment or for the relocation of the outfall.	2015+	ErneEast
Point Source Discharge	County	Priority	Measure (Plants requiring the Implementation of Performance Management System [PMS])	Date	WMU
Arvagh WWTP	Cavan	1	Implementation of PMS	2012	ErneEast
Clones WWTP	Monaghan	1	Implementation of PMS	2012	ErneEast
Killeshandra WWTP	Cavan	1	Implementation of PMS	2012	ErneEast
Newbliss WWTP	Monaghan	1	Implementation of PMS	2012	ErneEast
Scotshouse WWTP	Monaghan	1	Implementation of PMS	2012	ErneEast
Point Source Discharge	County	Priority	Measure (Plants requiring the investigation of Combined Sewer Overflows [CSO])	Date	WMU
Clones WWTP	Monaghan	2	Investigation of CSO's	2015+	ErneEast
Belturbet WWTP	Cavan	2	Investigation of CSO's	2012	ErneEast
Point Source Discharge	County	Priority	Measure (Ensure capacity of treatment plant is not exceeded)	Date	WMU
Killeshandra WWTP	Cavan	2	Plants required to ensure the capacity of the treatment works is not exceeded	2010	ErneEast
Newbliss WWTP	Monaghan	3	Plants required to ensure the capacity of the treatment works is not exceeded	2010	ErneEast

River Data

IE_NW_ErneEast																	
Member State Code	Monitored Y (Extrapolated N)	Donor Waterbody	Biological Elements				Supporting Elements				Chemical Status	Protected Areas				Objective	Date objective to be achieved
			Macroinvertebrates (Q)	FreshWater Pearl Mussel	Fish	Phytoplankton (Diatoms)	Morphology	Specific Pollutants	Physio-chemical	Ecological Status		Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters	Drinking Water		
NW_36_1017	N	NW_36_268								M		Y	Y			GES	2021
NW_36_1042	N	NW_36_188								P						GES	2021
NW_36_1082	Y		P						G	P						GES	2021
NW_36_1133	N	NW_36_268								M		Y	Y			GES	2021
NW_36_1199	N	NW_36_2417								P						GES	2021
NW_36_1288	N	NW_36_596								M						GES	2021
NW_36_1373	N	NW_36_199								P						GES	2021
NW_36_1401	Y									H						HES	2009
NW_36_1455	N	NW_36_1594								M						GES	2015
NW_36_149	N	NW_36_1594								M						GES	2015
NW_36_1492	N	NW_36_1594								M						GES	2015
NW_36_1594	Y		M							H	M					GES	2015
NW_36_1626	N	NW_36_268								M		Y	Y			GES	2015
NW_36_1745	N	NW_37_3253								G		Y	Y			GES	2009

Erne East Water Management Unit Action Plan

River Data

IE_NW_ErneEast																	
Member State Code	Monitored Y (Extrapolated N)	Donor Waterbody	Biological Elements				Supporting Elements				Protected Areas					Objective	Date objective to be achieved
			Macroinvertebrates (O)	FreshWater Pearl Mussel	Fish	Phytoplankton (Diatoms)	Morphology	Specific Pollutants	Physio-chemical	Ecological Status	Chemical Status	Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters	Drinking Water		
NW_36_1746	Y		M			M		H	G	M	G	Y	Y			GES	2021
NW_36_180	N	NW_36_1746								M						GES	2021
NW_36_188	Y		P						H	P		Y	Y			GES	2021
NW_36_1945	N	NW_36_550								G						GES	2009
NW_36_1978	N	NW_36_1594								M						GES	2015
NW_36_199	Y		P						H	P						GES	2021
NW_36_2032	Y		P			M		H	H	P	G					GES	2021
NW_36_208	Y		H				G			G						GES	2009
NW_36_2347	N	NW_36_1594								M						GES	2015
NW_36_2416	N	NW_36_786								M		Y	Y			GES	2021
NW_36_2432	N	NW_37_1180								M						GES	2015
NW_36_2509	N	NW_36_199								P						GES	2021
NW_36_2558	Y		G				G			G						GES	2009
NW_36_268	Y		M						H	M						GES	2021
NW_36_278	N	NW_36_1025								G		Y	Y			GES	2009
NW_36_350	Y		M				P		H	M						GES	2021
NW_36_477	N	NW_36_1594								M						GES	2021
NW_36_584	N	NW_36_199								P						GES	2021
NW_36_588	N	NW_36_199								P						GES	2021
NW_36_593	N	NW_36_199								P						GES	2021
NW_36_613	Y		P							M	P					GES	2021
NW_36_675	Y		M							G	M		Y			GES	2015
XB_36_east_1	Y									M	M					GES	2021
XB_36_east_10	Y		P							G	P					GES	2021
XB_36_east_11	Y		M							P	P					GES	2021
XB_36_east_12	Y		M							M	M	Y				GES	2015
XB_36_east_13	Y									M	M					GES	2021
XB_36_east_14	N	XB_36_east_3								M						GES	2015
XB_36_east_15	N	XB_36_east_3								M		Y				GES	2015
XB_36_east_2	N	XB_36_east_4								P		Y				GES	2021
XB_36_east_3	Y		M			M	G	H	M	M	G	Y				GES	2021
XB_36_east_4	Y		M			P		H	G	P	G	Y	Y		Y	GES	2021
XB_36_east_7	Y									M	M					GES	2021
XB_36_east_8	Y		H				M		H	G			Y			GES	2009
XB_36_east_9	Y		M							M	M		Y			GES	2009

Erne East Water Management Unit Action Plan

Lake Data

IE_NW_ErneEast																	
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	Physio Chemical			Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters	Bathing Water	Drinking Water		
NW_36_192	Corconnelly Lough	N							M							GES	2021
NW_36_261	Bun Lough	N							M		Y					GES	2021
NW_36_267	Hollywood Lough	Y						M	M							GES	2021
NW_36_277	Round Lough	N							M		Y					GES	2021
NW_36_301	Burdautiers Lough	N							M		Y					GES	2015
NW_36_316	Graddum Lough	N							M						Y	GES	2021
NW_36_318	Corrarod Lough	N							M		Y					GES	2021
NW_36_329	Killcoran Lough	N							M							GES	2015
NW_36_339	Ramages Lough	N							M		Y					GES	2015
NW_36_343	Drumgorry Lough	N							H		Y					HES	2009
NW_36_346	Naback (Lough)	Y						M	P						Y	GES	2021
NW_36_367	Commons Lough	N							M		Y					GES	2021
NW_36_368	Dummy's Lough	N							G		Y					GES	2009
NW_36_369	Derryhoo Lough	N							M		Y					GES	2021
NW_36_386	Derrygeeraghan Lough	N							M		Y					GES	2021
NW_36_394	Drumlaney Lough	N							M		Y					GES	2015
NW_36_400	Derrybrick Lough	Y	G	H		H	M	M	M	G	Y	Y				GES	2015
NW_36_430	Garty Lough	Y	P	G			M	M	P						Y	GES	2021
NW_36_432	Ardan Lough	Y	M	H		H	M	M	M		Y	Y				GES	2021
NW_36_441	Grilly Lough	N							G		Y					GES	2009
NW_36_444	Edenterriff Lough	N							H		Y					HES	2009
NW_36_448	Kill Lough	N							M							GES	2021
NW_36_458	Tonawolly Lough	N							M		Y					GES	2021
NW_36_465	Parisee Lough	N							M		Y					GES	2021
NW_36_472	Faharlagh Lough	N							H		Y					HES	2009
NW_36_476	Tullyroan Lough	N							M		Y					GES	2021
NW_36_477	Black Lough	N							M		Y					GES	2021
NW_36_489	Killybandrick Lough	N							G		Y					GES	2009
NW_36_490	Drumellis Lough	N							M		Y					GES	2021
NW_36_504	Drumlane Lough	N							M		Y	Y			Y	GES	2015
NW_36_505	Putigan Lough	N							M		Y					GES	2021
NW_36_517	Annagh Lough	Y	M	M		H	G	G	M		Y				Y	GES	2021
NW_36_521	Drummany Lough	N							M		Y	Y				GES	2021
NW_36_524	Gowna (Lough)	Y	M	M			M	M	M						Y	GES	2021
NW_36_559	Aghabane Lough	N							M		Y					GES	2021

Erne East Water Management Unit Action Plan

Lake Data

IE_NW_ErneEast																	
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	Physio Chemical			Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters	Bathing Water	Drinking Water		
NW_36_561	Tully Lough	N							M		Y					GES	2015
NW_36_565	Pleasure Lough	N							M		Y					GES	2021
NW_36_573	Bawn Lough	Y	M	G			M	M	M		Y					GES	2021
NW_36_574	Town Lough	N							M		Y					GES	2021
NW_36_575	Derry Lough	N							M		Y					GES	2021
NW_36_581	Broompark Lough	N							M		Y	Y				GES	2021
NW_36_597	Mill Lough	Y	M	G		H	G	G	M		Y				Y	GES	2015
NW_36_599	Derreskit Lough	N							M		Y					GES	2021
NW_36_603	Deraik Lough	Y							M		Y	Y				GES	2015
NW_36_615	Glasshouse Lough	Y	B	M			M	M	B							GES	2021
NW_36_618	Atrain (Lough)	Y	M			H			M		Y	Y				GES	2015
NW_36_628	Carrs Lough	N							M		Y	Y				GES	2021
NW_36_632	Disert Lough	N							M		Y					GES	2021
NW_36_640	Tullyguide Lough	N							M		Y	Y				GES	2021
NW_36_655	Corglass Lough	Y	M	G	M	H	M	M	M	G	Y	Y				GES	2021
NW_36_657	Oughter (Lough)	Y	M	M		G	M	M	M		Y	Y	Y			GES	2021
NW_36_661	Oughter (Lough)	N							M		Y	Y				GES	2021
NW_36_669	Killrosky Lough	N							M		Y					GES	2015
NW_36_672	Erne (Lough) (Upper)	Y	M	H			M	M	M		Y					GEP	2021
NW_36_677		N							M		Y					GES	2021
NW_36_718	Kilylea Lough	N							G		Y					GES	2009
NW_36_719	Quivvy Lough	N							M		Y					GES	2021
NW_36_720	Derrykerrib Lough	N							M		Y					GES	2021
NW_36_278	Black Lough	Y							B							GES	2021
NW_36_209	Summerhill Lough	Y							M							GES	2015