

Dee WMU

Dee Water Management Unit Action Plan



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

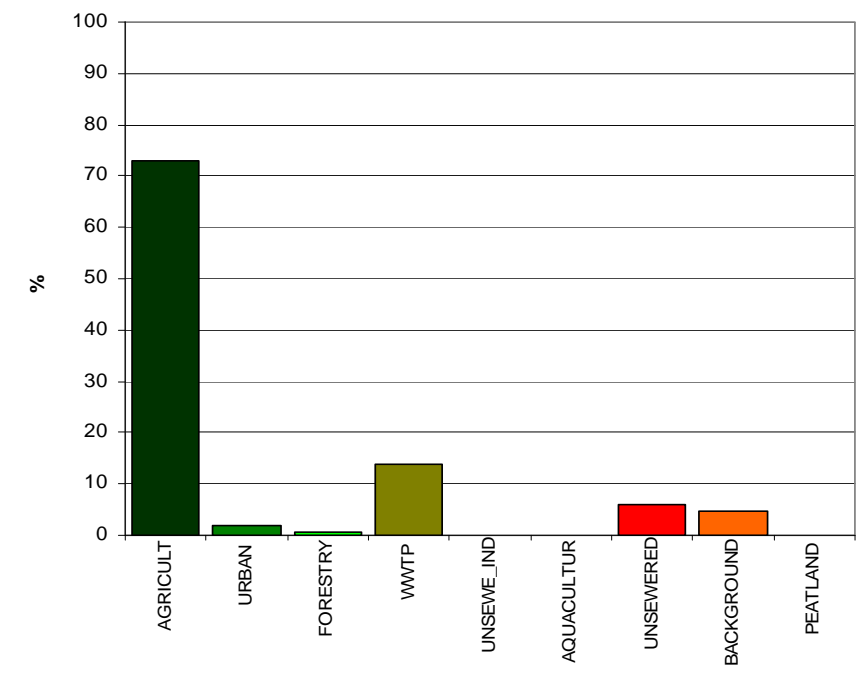
Lake Status

- High
- Good
- Moderate
- Poor
- Bad



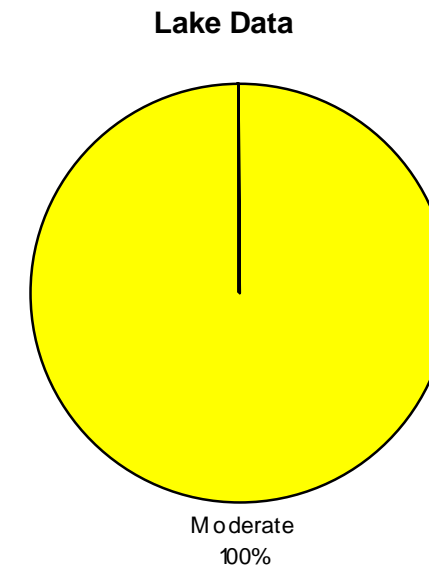
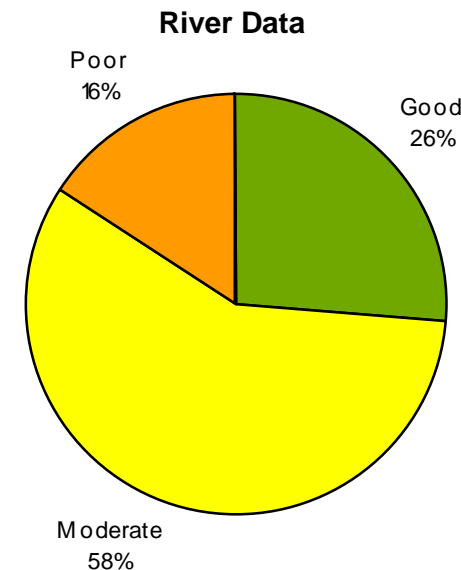
Name	Dee Water Management Unit
Area	490 km ²
River Basin District	Neagh Bann IRBD
Main Counties	Meath/Louth
Protected Areas	1 SAC (Clogherhead) Surface Drinking Water - Dee (River) Brackan Lough, Ervey Lough Bathing Waters – Seapoint, Clogherhead Shellfish Waters – Dundalk Bay

Sectoral Total Phosphorus Source
(This does not imply impact)



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STATUS/IMPACTS	
Overall status	The river water bodies status is predominantly moderate (11) including the main channel of the Dee with 5 river water bodies at good status and 3 at poor status (19 river water bodies within WMU). There are 2 WFD lakes in the WMU at moderate status. The WMU is associated with the following coastal water bodies: Louth Coast (unassigned) and Outer Dundalk Bay (Moderate).
Status elements	Macroinvertebrates (Q score) dictates status. Where physio-chemical monitoring is carried out the status is generally moderate and, in certain water bodies, and can result in a reduction of status class.
Possible Impacts - EPA Water Quality Reports	<p>DEE - Main Channel continues to be generally over-enriched upstream and hypertrophic/moderately polluted below the town of Ardee. Unrestricted cattle access has caused localized bed and bank damage at several locations while extensive bank erosion, of unknown origin was apparent at Hem Bridge. WB Codes: NB_06_733, Status 2009: poor. NB_06_050, Status 2009: moderate; NB_06_1099, Status 2009: poor</p> <p>KILLARY WATER -artificial eutrophication was indicated by excessive algal growths where cattle damage to banks and soiling of bed were observed. WB Code: NB_06_557, Status 2009: moderate.</p> <p>TERMONFECKIN - heavily silted at Sandpit Bridge and obviously over-enriched and dirty at Termonfeckin. Very low flows undoubtedly contributed to this unsatisfactory condition. WB Code: NB_06_305, Status 2009: poor</p> <p>WHITE (LOUTH) - over-enriched and biologically impoverished. Generally unsatisfactory. Agriculture suspected. WB Codes: NB_06_549, Status 2009: moderate. NB_06_550, Status 2009: moderate</p> <p>KILMAINHAM - Continuing satisfactory at both locations surveyed. WB Code: NB_06_610, Status 2009: good.</p>



PRESSURES/RISKS	
Nutrient sources	Over 80% of phosphorus load is from diffuse sources, predominantly agriculture. WWTPs (14%) are also a significant point source of phosphorus.
Point pressures	There are ten WWTP in the WMU Kilmainhamwood, Nobber, Drumconrath, Ardee, Dunleer, Clogherhead, Lobbinstown, Castletown, Annagassan and Tenure. Three EPA licenced (IPPC) discharges - animal by-products processing, shipping tanker fabrication, and plasterboard production 2 of which are discharging to surface waters. Four Local Authority Licenced (Section 4) discharges - Hotel, Engineering, Hospital, Sea Food Processing. Water Treatment Plants - River Dee, Lough Bracken, Ervey Lough
Wastewater Treatment Plants (WWTP) and Industrial Discharges	<p>Dunleer WWTP – risks to water quality relate to downstream Q score of less than good within 3km outfall.</p> <p>Ardee - risks to water quality relate to downstream Q score of less than good within 3km outfall and deterioration in upstream to downstream Q score within 3km of outfall.</p> <p>Drumconrath - risks to water quality relate to insufficient future WWTP capacity, insufficient assimilative capacity in receiving water.</p> <p>Kilmainhamwood - risks to water quality relate to insufficient assimilative capacity in receiving water.</p> <p>Local Authority Licenced (Section 4) discharge (Hotel) - risks to water quality relate to downstream Q score less than good within 3km of outfall and historic deterioration in downstream Q score within 3km of outfall,</p> <p>Local Authority Licenced (Section 4) discharge (Engineering) - risks to water quality relate to downstream Q score less than good within 3km of outfall.</p>
Quarries, Mines & Landfills	1 Landfill - White River Landfill. No risks identified
Agriculture	All water bodies within the WMU are potentially at risk from agriculture
On-site systems	There are 6828 septic tanks in this WMU, 640 have been assessed to be at risk due to their location and hydrogeological conditions. 2 river water bodies have been assessed to be at risk due to unsuitable hydrogeological conditions and the high density and location of unsewered properties: (NB_06_305 & NB_06_810)
Forestry	No water bodies are at risk from forestry

PRESSURES/RISKS (continued)	
Dangerous substances	No water bodies are at risk from dangerous substances
Morphology	Majority of water bodies within the WMU are at risk from channelisation. The river water bodies that are not at risk are NB_06_305, NB_06_306, NB_06_164, NB_06_550.
Abstractions	No river water bodies at risk but Lough Bracken is at risk from abstraction.

SELECTED ACTION PROGRAMME	
<i>NB All relevant basic measures, general supplementary measures and SEA mitigation measures apply</i>	
Point Sources	WWTP measures are summarised in the table overleaf and WWTP licensing will be applied 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.
Diffuse Sources	In terms of the basic measures that will apply, given the agriculture risk associated with all water body within the WMU the Good Agricultural Practice Regulations inspections and enforcement will be key to the achievement of the WFD objective. Septic tanks - The 640 at risk septic tanks are to be prioritised for inspections. Subsequent upgrade or connection to municipal systems depends on inspection and economics tests.
Other	Morphological pressures in the Dee require channelisation investigation over a large proportion of the WMU to establish if measures are required to address water quality issues associated with morphology. The Shellfish Pollution Reduction Programmes for shellfish growing areas will apply to the WMU as it flows into the Dundalk Bay Shellfish Waters. Measures to ensure White River Landfill does not impact on water quality
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	Five river water bodies are at satisfactory condition and should be retained at good status . Two river water bodies have a 2015 objective to achieve good status.
Alternative Objectives	<p>Artificial or Heavily Modified Water bodies – None</p> <p>New Modifications - None</p> <p>Extended Timelines – extensions proposed within WMU to 2021 for 12 river water bodies and 1 lake water body.</p>

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River Data

IE_NB_De																
Member State Code	Monitored Y (Extrapolated N)	Donor Waterbody	Biological Elements			Supporting Elements			Chemical Status	Protected Areas				Objective	Date objective to be achieved	
			Macroinvertebrates (C)	Freshwater Pearl Mussel	Fish	Phytoplankton (Diatoms)	Morphology	Specific Pollutants		Physio-chemical	Ecological Status	Special Area of Conservation	Special Protection Area			Nutrient Sensitive Waters
NB_06_1099	Y		P					M	P					Y	GES	2021
NB_06_164	N	NB_06_549							M						GES	2015
NB_06_195	N	NB_06_50							M						GES	2021
NB_06_239	Y		G					M	M						GES	2021
NB_06_305	Y		P					M	P						GES	2021
NB_06_306	N	NB_06_549							M						GES	2021
NB_06_50	Y		M			M		M	M						GES	2021
NB_06_549	Y		M					M	M						GES	2021
NB_06_550	Y		M			G		M	M						GES	2021
NB_06_553	N	NB_06_910							G						GES	2009
NB_06_557	Y		M				M	M	M						GES	2021
NB_06_566	N	NB_06_586							G						GES	2009
NB_06_586	Y							G	G						GES	2009
NB_06_610	Y		G						G						GES	2009
NB_06_723	N	NB_06_557							M						GES	2015
NB_06_733	Y		P				P	G	P						GES	2021
NB_06_8	N	NB_06_557							M						GES	2021
NB_06_810	N	NB_06_550							M						GES	2021
NB_06_877	N	NB_06_586							G						GES	2009

Lake Data

IE_NB_De																
Member State Code	Name	Monitored Y (Extrapolated N)	Biological Elements			Supporting Elements			Chemical Status	Protected Areas				Objective	Date objective to be achieved	
			Macrophytes	Chlorophyll	Fish	Morphology	Nutrient Enrichment	Physico Chemical		Ecological Status	Special Area of Conservation	Special Protection Area	Nutrient Sensitive Waters			Bathing Water
NB_06_209	Brackan Lough	N							M						GES	2021
NB_06_54	Ervey Lough	N							M					Y	GES	2021

WWTP Measures

Point Source Discharge	County	Priority	Measure (Plants requiring the Implementation of Recommendations of Pollution Reduction Plans [PRP] for Shellfish waters)	Date	WMU
Annagassan	Louth	1	Implementation of PRP for shellfish waters	2010	Dee
Point Source Discharge	County	Priority	Measure (Plants requiring the Implementation of Performance Management System [PMS])	Date	WMU
Ardee WWTP	Louth	1	Implementation of PMS	2012	Dee
Clogherhead	Louth	1	Implementation of PMS	2012	Dee
Dunleer WWTP	Louth	1	Implementation of PMS	2012	Dee
Point Source Discharge	County	Priority	Measure (Plants requiring the investigation of Combined Sewer Overflows)	Date	WMU
Ardee WWTP	Louth	3	Plants requiring the investigation of Combined Sewer Overflows	2015	Dee
Lobinstown	Meath	3	Plants requiring the investigation of Combined Sewer Overflows	2015	Dee
Point Source Discharge	County	Priority	Measure (Plants required to ensure capacity of treatment plant is not exceeded)	Date	WMU
Drumconrath	Meath	3	Same measure as listed above	2010	Dee
Kilmainhamwood	Meath	3	Same measure as listed above	2010	Dee
Nobber	Meath	3	Same measure as listed above	2010	Dee