

Donegal Bay North Catchment Report (HA 37)



Catchment Science & Management Unit

Environmental Protection Agency

August 2021

Version no. 1

Preface

This document provides a summary of the water quality assessment outcomes for the Donegal Bay North Catchment, which have been compiled and assessed by the EPA, with the assistance of the Local Authority Waters Programme (LAWPRO), local authorities and RPS consultants to inform the draft 3rd Cycle River Basin Management Plan. The information presented includes status and risk categories of all waterbodies, details on protected areas, significant issues, significant pressures, source load apportionment modelling and load reduction assessments for nutrients where applicable, an overview of the 2nd Cycle Areas for Action and a list of proposed 3rd Cycle Areas for Action. These characterisation assessments are largely based on information available to the end of 2018, including the WFD Status Assessment for 2013-2018. Protected Area assessments are based on water quality information up to 2018 for Natura 2000 and Salmonid Waters; 2019 for Drinking Water; and 2020 for Nutrient Sensitive Areas and Bathing Waters.

The purpose of this draft report is to provide an overview of the situation in the catchment, draw comparison between Cycle 2 and Cycle 3, and help support the draft River Basin Management Plan 2022-2027 consultation process. Once the consultation process is completed the report will be finalised to reflect any changes and comments made as a result of the consultation process.

Water Framework Directive – key dates and terminology	
Cycle 2 – EPA Characterisation and Assessment	Characterisation and assessment to inform the Cycle 2 RBMP was largely based on 2010-2015 WFD monitoring data.
Cycle 2 Catchment Assessments	Catchment Assessments based on the Cycle 2 characterisation and assessment were published in September 2018.
2 nd Cycle River Basin Management Plan (RBMP) 2018-2021	This plan was for WFD Cycle 2 which runs from 2016-2021. This RBMP was published late, with this plan covering 2018-2021.
2 nd Cycle Areas for Action	These 189 Areas for Action were selected under the RBMP 2018-2021
Cycle 3 -EPA Characterisation and Assessment	Cycle 3 runs from 2022-2027. Assessments to inform the Cycle 3 RBMP is largely based on 2013-2018 WFD monitoring data. This is the latest WFD monitoring assessment period for which all data are available.
Cycle 3 Catchment Assessments	Catchment Assessments based on the Cycle 3 characterisation and assessment were published in August 2021.
3 rd Cycle River Basin Management Plan 2022-2027	This draft RBMP is for WFD Cycle 3 which runs from 2022-2027. Public consultation on this plan by the DHLGH and LAWPRO is taking place in late 2021 and early 2022.
3 rd Cycle Recommended Areas for Action – Protection/ Restoration/Projects	These recommended Areas for Action have been identified in the draft RBMP 2022-2027 and feedback can be given in the public consultation on this plan. They fall into 3 categories – Areas for Protection, Areas for Restoration and Catchment Projects.

Table of Contents

1	Introduction.....	6
2	Waterbody Overview.....	7
2.1	Waterbody Status	7
2.2	Protected Areas	9
2.3	Heavily Modified Waterbodies.....	13
2.4	Artificial Waterbodies	13
3	Waterbody Risk	13
3.1	Overview of Risk	13
3.2	Surface Waters.....	14
3.3	Groundwater.....	16
3.4	Heavily Modified Waterbodies.....	17
3.5	Artificial Waterbodies	17
4	Significant Issues in <i>At Risk</i> Waterbodies	17
4.1	All Waterbodies	17
4.2	High Status Objective Waterbodies	18
5	Significant pressures in <i>At Risk</i> Waterbodies.....	19
5.1	All Waterbodies	19
5.2	High Status Objective Waterbodies	24
6	Source Load Apportionment Modelling (SLAM)	24
7	Load Reduction Assessment	25
7.1	Nitrogen Load Reduction	25
7.2	Phosphorous / Sediment Load Reduction	25
8	2 nd Cycle Areas for Action	26
8.1	Area for Action Overview	26
8.2	Status Change in 2 nd Cycle Areas for Action	28
8.3	Waterbody Risk in 2 nd Cycle Areas for Action	29
8.4	Significant Issues in 2 nd Cycle Areas for Action.....	30
8.5	Significant Pressure in 2 nd Cycle Areas for Action	31
9	3 rd Cycle Recommended Areas for Action	31
9.1	Recommended Areas for Action Overview	31
10	Catchment Summary	33

List of Figures

Figure 1: Overview of subcatchments in the Donegal Bay North catchment.....	6
Figure 2: Waterbody types and numbers in the Donegal Bay North Catchment.	7
Figure 3: Waterbody Status Breakdown (All waterbodies).....	8
Figure 4: Status Class Changes between Cycle 2 and Cycle 3	9
Figure 5: Protected Areas – Public Health.....	10
Figure 6: Water Dependent SPAs / SACs.....	12
Figure 7: Number of waterbodies in each risk category	14
Figure 8: Surface Water Risk Cycle 3	15
Figure 9: Surface Water Risk Change between Cycle 2 and Cycle 3	16
Figure 10: Cycle 3 Groundwater Body Risk	17
Figure 11: Significant Issues across all <i>At Risk</i> WBs between Cycle 2 and Cycle 3.....	18
Figure 12: Significant Issues in <i>At Risk</i> High Status Objective Waterbodies	19
Figure 13: Significant Pressure (All <i>At Risk</i> Waterbodies)	20
Figure 14: Locations of Waterbodies where Agriculture is a Significant Pressure.....	23
Figure 15: Locations of Waterbodies where Forestry is a Significant Pressure	23
Figure 16: Locations of Waterbodies where the Significant Pressure is within the ‘Other’ category ..	23
Figure 17: Locations of Waterbodies where Domestic Waste Water is a Significant Pressure	23
Figure 18: Significant Pressure <i>At Risk</i> High Status Objective Waterbodies	24
Figure 19: Estimated Proportions of N & P from Each Sector in the Donegal Bay North Catchment ..	25
Figure 20: Waterbodies where Agricultural Measures should be Targeted	26
Figure 21: 2 nd Cycle Areas for Action Locations	27
Figure 22: 2 nd Cycle Area for Action Waterbody Status Class Changes between Cycle 2 and Cycle 3 .	29
Figure 23: Number of waterbodies in each risk category in 2 nd Cycle Areas for Action	30
Figure 24: Significant Issues across all 2 nd Cycle Areas for Action Waterbodies.....	30
Figure 25: Significant Pressures in 2 nd Cycle Area for Action Waterbodies	31
Figure 26: 3 rd Cycle Recommended Areas for Action Locations	32

List of Tables

Table 1: Waterbody Status Breakdown Table (All Waterbodies).....	8
Table 2: Designated shellfish areas in the catchment.....	10
Table 3: Natura 2000 Network Assessment Summary.....	11
Table 4: Nutrient sensitive areas in the catchment	13
Table 5: Breakdown of Cycle 3 Industry Significant Pressures in the Donegal Bay North Catchment .	21
Table 6: Urban Waste Water Treatment Agglomerations identified as significant pressures in <i>At Risk</i> waterbodies in Cycle 3	22
Table 7: 2 nd Cycle Areas for Action	27
Table 8: 3 rd Cycle Recommended Areas for Action Breakdown.....	33

1 Introduction

This report aims to provide an overview of the water quality status, risk, key issues and significant pressures for all waterbodies in the catchment based on the Characterisation Assessment undertaken for the 3rd Cycle River Basin Management Plan. In addition, a comparative overview of the water quality in the Donegal Bay North catchment between Cycle 2 and Cycle 3 characterisation is provided along with a summary of the progress made in the 2nd Cycle Areas for Action. The recommended list for the 3rd Cycle Areas for Action is also provided.

To provide context, the Donegal Bay North includes the area drained by all streams entering tidal water between Kildoney Point and Rossan Point, Co. Donegal, draining a total area of 804km² (Figure 1). The largest urban centre in the catchment is Donegal Town. The other main urban centre in this catchment is Killybegs. The total population of the catchment is approximately 18,646 with a population density of 23 people per km². This catchment comprises the rugged landscape surrounding the northern and eastern sides of Donegal Bay from the 600m high sea cliffs of Slieve League in the west to the southern slopes of the Bluestack Mountains in the northeast. A large proportion of the lowlands in the catchment are characterised by an extensive drumlin landscape which indicates the seaward movement of ice in this area during the last ice age.

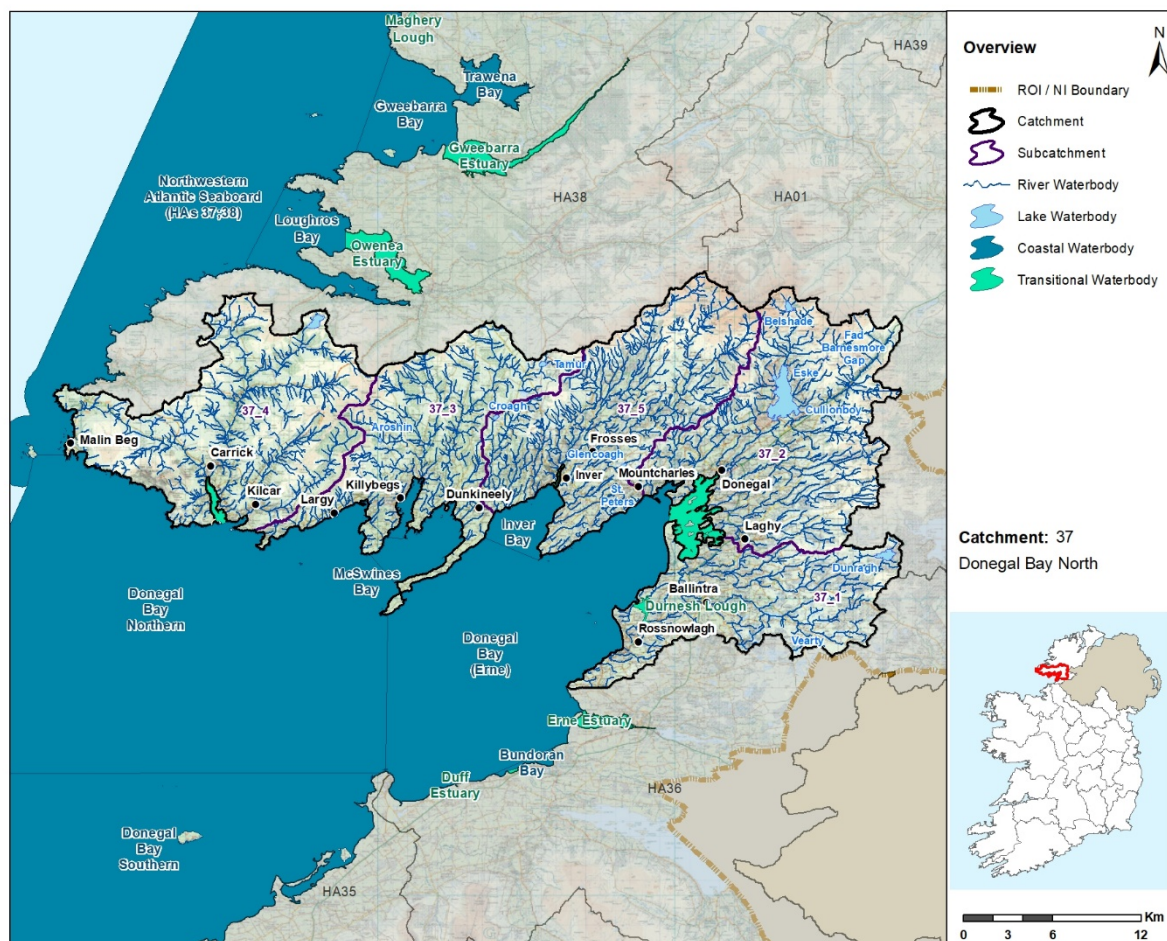


Figure 1: Overview of subcatchments in the Donegal Bay North catchment

The Donegal Bay North catchment is divided into five subcatchments (Figure 1) with 50 river waterbodies, 12 lake waterbodies, four transitional waterbodies, six coastal waterbodies and 13 groundwater bodies (Figure 2).

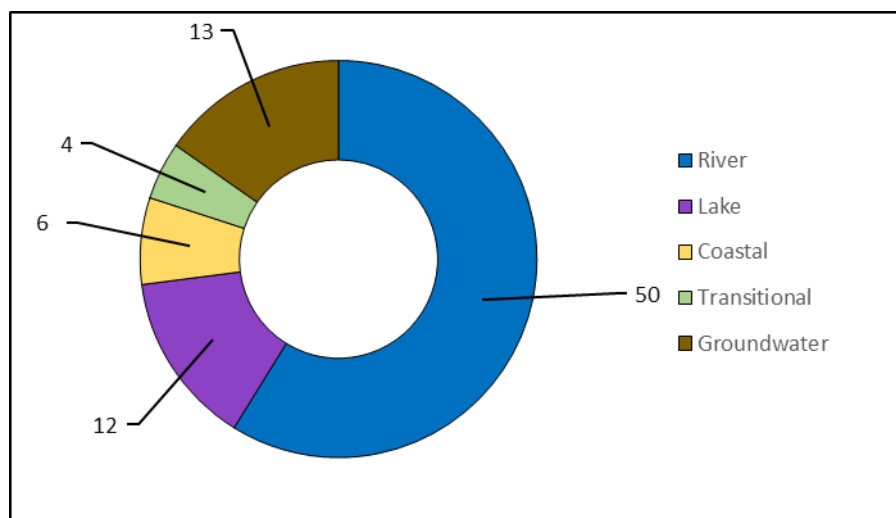


Figure 2: Waterbody types and numbers in the Donegal Bay North Catchment.

2 Waterbody Overview

2.1 Waterbody Status

- ◆ This assessment to inform the 3rd Cycle RBMP is largely based on WFD monitoring data for the period 2013-2018, which is the latest WFD monitoring assessment period for which all data are available.
- ◆ For this assessment to inform Cycle 3, there are nine waterbodies achieving High Status, 33 achieving Good Status, four achieving Moderate Status, nine achieving Poor Status and there are two Bad Status waterbodies. There are 28 waterbodies in the catchment that do not have status assigned for Cycle 3. All waterbodies must achieve at least Good Ecological status.
- ◆ There are 15 river waterbodies and one coastal waterbody (Northwestern Atlantic Seaboard (HAs 37;38)) that must achieve High Ecological Status (HES) in this catchment. These waterbodies are listed in Appendix 1. Of the 16 HES Environmental Objective waterbodies, seven waterbodies are achieving High Status (six river waterbodies and one coastal waterbody) while the remaining river waterbodies are achieving Good Status.
- ◆ There have been reductions of six waterbodies achieving Moderate Status and three waterbodies (all river waterbodies) achieving Poor Status between Cycle 2 and Cycle 3. There have been increases in four waterbodies (three river waterbodies and one coastal waterbody) achieving High Status, three waterbodies (two river waterbodies and one lake waterbody) achieving Good Status and two unassigned waterbodies (Figure 3 & Table 1).

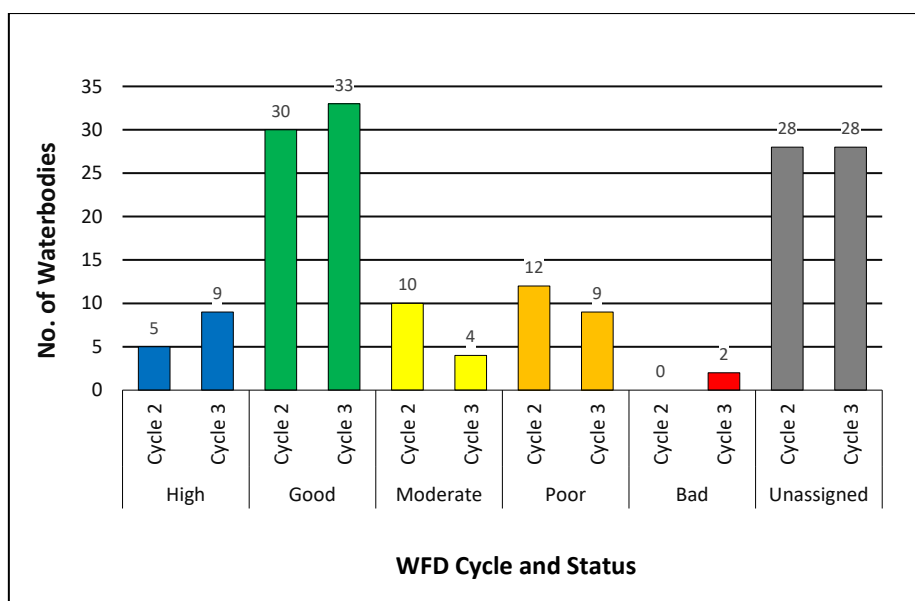


Figure 3: Waterbody Status Breakdown (All waterbodies)

Table 1: Waterbody Status Breakdown Table (All Waterbodies)

2013-2018 Status	River		Lake		Transitional		Coastal		Groundwater		Total	
	Cycle 2	Cycle 3	Cycle 2	Cycle 3	Cycle 2	Cycle 3	Cycle 2	Cycle 3	Cycle 2	Cycle 3	Cycle 2	Cycle 3
High	4	7	0	0	0	0	1	2	0	0	5	9
Good	16	18	0	1	1	1	1	1	12	12	30	33
Moderate	8	4	1	0	0	0	1	0	0	0	10	4
Poor	10	7	0	0	1	1	0	0	1	1	12	9
Bad	0	2	0	0	0	0	0	0	0	0	0	2
Un-assigned	12	12	11	11	2	2	3	3	0	0	28	28
Total	50	50	12	12	4	4	6	6	13	13	85	85

- ◆ Figure 4 illustrates the change in status between Cycle 2 (assessment based largely on 2010-2015 WFD Monitoring data) and Cycle 3 (assessment largely based on 2013-2018 WFD monitoring data).
- ◆ Over this period, 13 (23%) waterbodies have improved in status, 39 (68%) waterbodies have remained unchanged and five (9%) waterbodies have declined in status.¹
- ◆ There is an overall improvement in the status of eight waterbodies across the catchment since the Cycle 2 assessment.

¹ Unassigned waterbodies have not been considered in this Status class change assessment and therefore are not represented in Figure 4. Percentage displayed in the Figure 4 are in relation to the total number of waterbodies with status assigned in both cycles, as opposed to total number of all waterbodies.

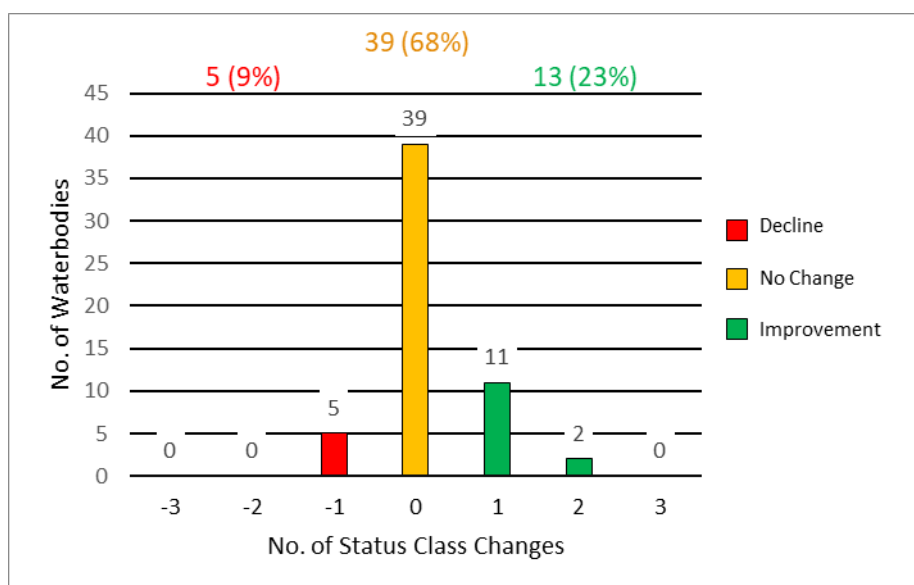


Figure 4: Status Class Changes between Cycle 2 and Cycle 3

2.2 Protected Areas

2.2.1 Drinking Water

- ◆ There are eight surface waterbodies in the catchment identified as Drinking Water Protected Areas (DWPA) based on water abstraction data on the abstraction register and from other sources in 2018. All groundwater bodies nationally are identified as DWPA. DWPA layers can be viewed at <https://gis.epa.ie/EPAMaps/Water> - see *Protected Areas - Drinking Water*.
- ◆ All waterbodies in the catchment met the DWPA objective in 2019.
- ◆ For more detailed information please see the EPA reports on drinking water quality in 2019 for [Public Supplies](#)² and [Private Supplies](#)³.

2.2.2 Bathing Waters

- ◆ There are three marine bathing waters (Murvagh, Rossnowlagh & Fintra) in or directly adjacent to the catchment identified under the Bathing Water Regulations 2008.
- ◆ All three bathing waters had an Excellent classification for 2020.
- ◆ For more detailed information please see the EPA report on [bathing water quality in 2020](#)⁴.

2.2.3 Shellfish Areas

- ◆ There are three designated shellfish areas in the catchment. Inver Bay shellfish area was not surveyed in 2018.

²<https://www.epa.ie/publications/compliance--enforcement/drinking-water/annual-drinking-water-reports/drinking-water-quality-in-public-supplies-2019.php>

³<https://www.epa.ie/publications/compliance--enforcement/drinking-water/annual-drinking-water-reports/focus-on-private-water-supplies-2019.php>

⁴<https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/bathing-water-quality-in-ireland-2020-.php>

- ◆ The Marine Institute assessed the average dissolved concentrations for metals in shellfish waters for the period 2016-2019 and the microbial quality in shellfish flesh for 2018. This assessment was used to determine if the WFD protected area objective for shellfish areas was met.
- ◆ Details on the shellfish area and its associated waterbody is summarised in Table 2.

Table 2: Designated shellfish areas in the catchment

Shellfish Area		Water body Intersection		Objective met?	
Name	Code	Name	Code	Yes	No
Inver Bay	IEPA2_0034	Inver Bay	IE_NW_060_0000	N/A	
		Donegal Bay (Erne)	IE_NW_010_0000		
Donegal Bay	IEPA2_0033	Inner Donegal Bay	IE_NW_050_0100	✓	
		Donegal Bay (Erne)	IE_NW_010_0000		
McSwynes Bay	IEPA2_0035	McSwines Bay	IE_NW_080_0000	✓	

The locations of Protected Areas associated with Public Health (Drinking Water, Bathing Water and Shellfish Areas, where applicable) are illustrated in Figure 5 below.

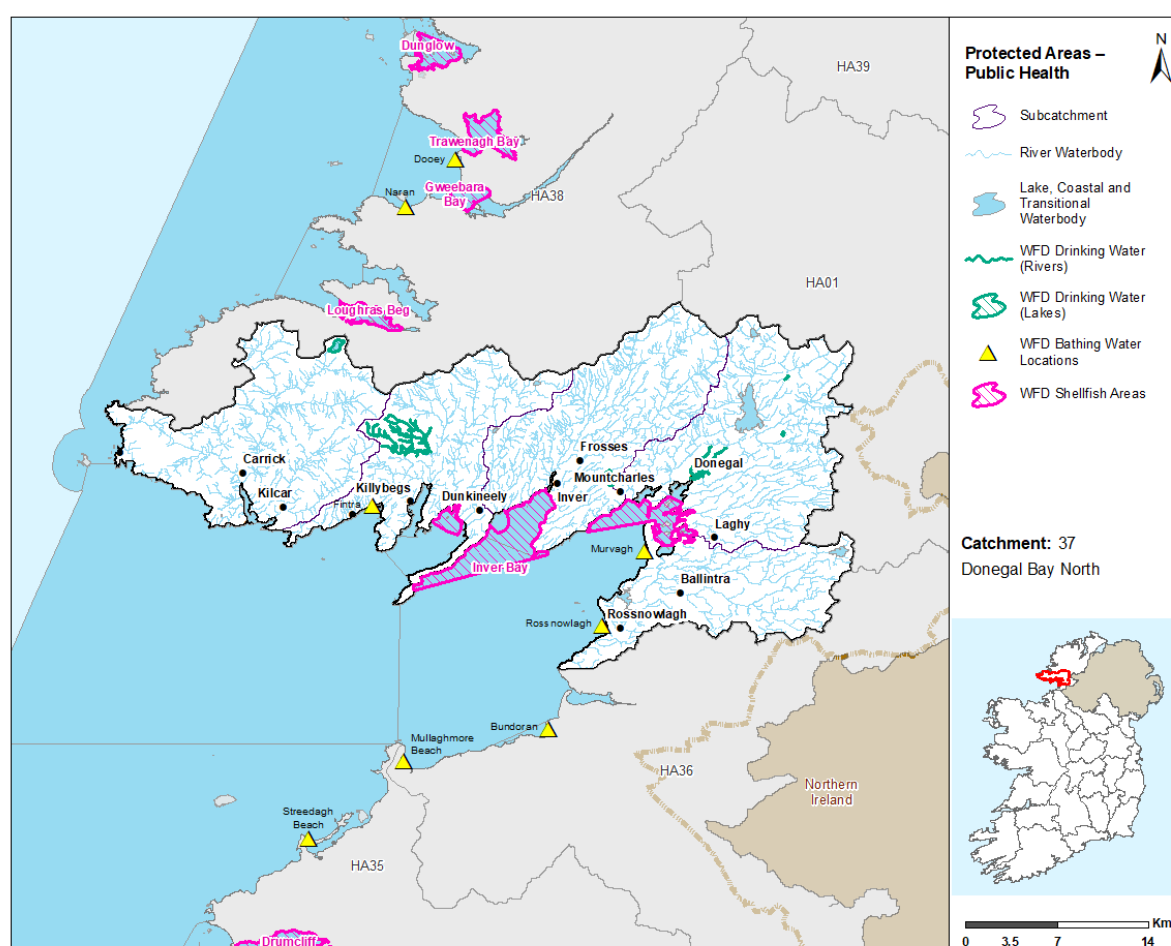


Figure 5: Protected Areas – Public Health

2.2.4 Natura 2000 Sites

- ◆ Many of the habitats and species listed for protection in the Birds and Habitats Directives are water dependent. The Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) with water dependent habitats or species in this catchment are presented in Figure 6, along with waterbodies designated as salmonid waters (S.I. No. 293 of 1988) and waterbodies with Fresh Water Pearl Mussel habitat, where identified.
- ◆ There are 14 SACs in this catchment, 13 of which have water dependent habitats or species. The waterbodies within these SACs were assessed for associated water dependent habitats and species and if they met the supporting requirements for habitats and species using their 2013-2018 WFD status. For the purposes of the assessment, it was assumed that Good ecological status is adequate to meet the supporting conditions of all habitats and species with the exception of the Freshwater Pearl Mussel, which has additional requirements for supporting conditions set out in the Freshwater Pearl Mussel Regulations (S.I. No 296 of 2009) for macroinvertebrates, filamentous algae, phytobenthos, macrophytes and siltation.
- ◆ Specific water supporting conditions have not been identified for the dependent bird species in the SPAs and so waterbodies associated with SPAs are not included in this assessment.

Results of the overall assessment for this catchment are outlined in

Table 3 below, information at a waterbody level can be viewed at [Catchments.ie](https://www.catchments.ie).⁵

Table 3: Natura 2000 Network Assessment Summary

Water Body Type	Total No.	Meeting the Requirements	Did not meet the Requirements	Unknown*
Rivers	8	5	3	0
Lakes	3	2	1	0
Transitional & Coastal	4	3	1	0

*As the waterbody status was unassigned.

- ◆ There are two river waterbodies with FWPM habitats, none of which had achieved the required macroinvertebrate standard as set out in the FWPM Regulations.
- ◆ There are no groundwater bodies delineated and assessed as Groundwater Dependent Terrestrial Ecosystems for this catchment.
- ◆ Water dependent SACs / SPAs (including FWPM SAC sub-catchments) in the catchment are illustrated in Figure 6.

⁵<https://www.catchments.ie/download/catchments-assessments-protected-areas-supporting-documents/>

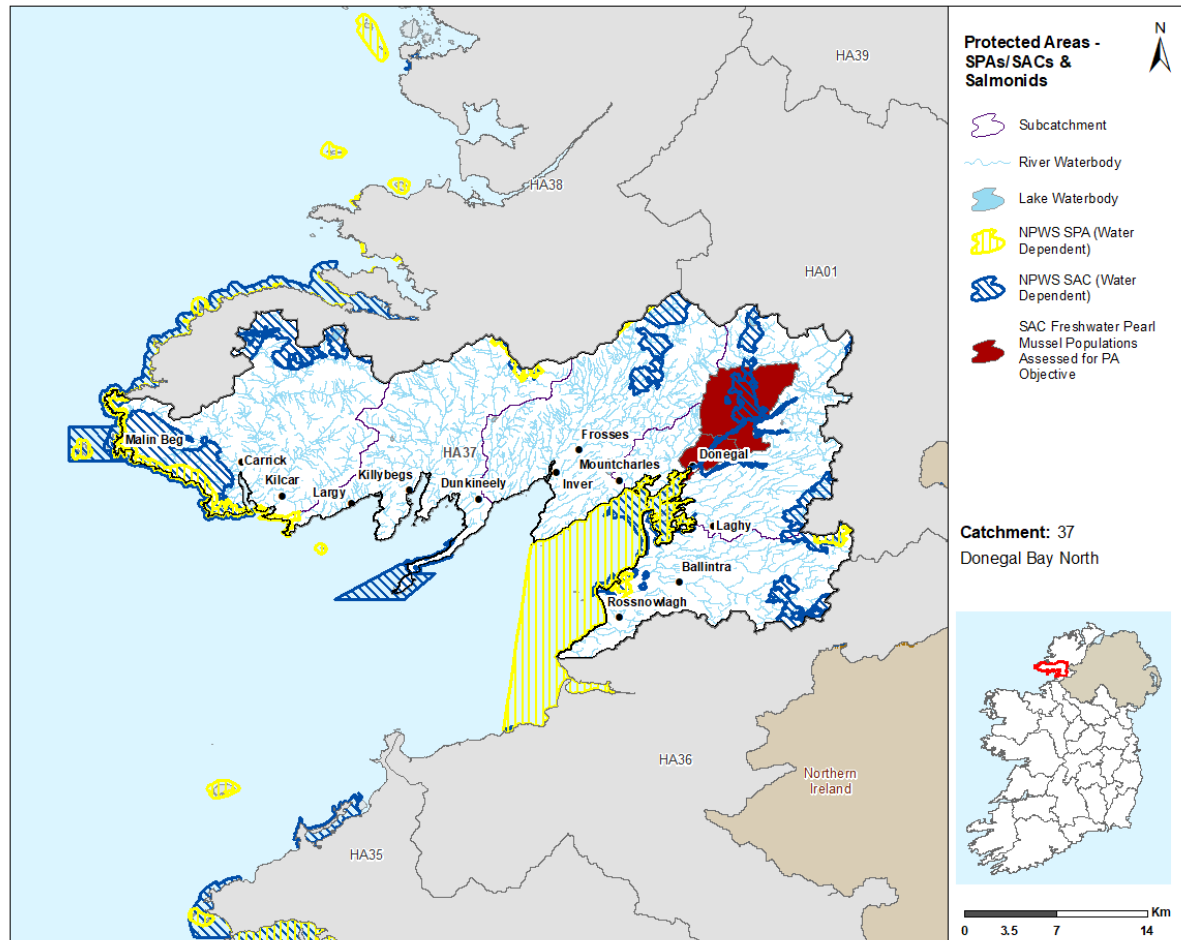


Figure 6: Water Dependent SPAs / SACs

2.2.5 Nutrient Sensitive Areas

- ◆ The EPA carried out a review of Nutrient Sensitive Areas (NSAs) downstream of large urban waste water discharges in 2020. Once the regulations are in place, and nutrient sensitive areas have been identified, additional nutrient removal must be applied (if not already applied) to waste water treatment plants discharging to the sensitive area. If this treatment was in place the objective was deemed to have been met.
- ◆ There are two NSAs in the catchment and these are downstream of two urban wastewater agglomerations. The list of NSAs, associated agglomerations and intersecting water bodies are provided in Table 4.
- ◆ NSA objectives are not being met in the two NSAs in the catchment.

Table 4: Nutrient sensitive areas in the catchment

Nutrient Sensitive Area	Agglomeration		Water body		Objective met?		Comment
	Name	Code	Name	Code	Yes	No	
Killybegs Harbour	Killybegs	D0011-01	Killybegs Harbour	IE_NW_085_0000		✓	Secondary Treatment in Place
Bundoran Bay	Bundoran	D0130-01	Bundoran Bay	IE_NW_020_0000		✓	Tertiary Treatment in place

2.3 Heavily Modified Waterbodies

- ◆ Based on the 1st and 2nd RBMPs there is currently one designated heavily modified water body (HMWB) in the catchment (Killybegs Harbour) due to port facilities. It was classified as having Moderate Ecological Potential in 2010-2015 but has improved to Good in the 2016-2018 period. There will be a consultation period on HMWBs for the 3rd Cycle RBMP and this will be completed for inclusion in the 3rd Cycle Final RBMP.

2.4 Artificial Waterbodies

- ◆ The Donegal Bay North Catchment has no artificial waterbodies (AWBs).

3 Waterbody Risk

3.1 Overview of Risk

- ◆ A waterbody that is *At Risk* means that either the waterbody is currently not achieving its Water Framework Directive (WFD) environmental objective of Good or High Ecological Status or that there is an upward trend in nutrients or ammonia and if this trend continues the waterbody Status will decline by the end of Cycle 3 and will fail to meet its environmental objective.
- ◆ A waterbody can be considered as *Review* for the following three reasons:
 - The waterbody does not have status assigned to it yet, it is referred to as an unassigned waterbody, and therefore there is not enough evidence to determine if it is *At Risk* or *Not At Risk*.
 - The waterbody has shown some slight evidence or improvement, but more evidence is needed before it can be considered as *Not At Risk*.
 - Measures are planned or have already been implemented for the waterbody and no further measures should be applied until there is enough time to assess if these measures are working.
- ◆ A waterbody is *Not At Risk* when it is achieving its environmental objective of either High or Good Status and that there is no evidence indicating that there is a trend towards status decline.
- ◆ In total, there are 85 waterbodies in Donegal Bay North Catchment and 19 (22%) are currently *At Risk*, 13 (15%) in *Review* and 53 (62%) are *Not At Risk*.

3.2 Surface Waters

- ◆ For the 50 rivers waterbodies, 18 (36%) are *At Risk*, nine (18%) are in *Review* and 23 (46%) are *Not At Risk*.
- ◆ For the 12 lake waterbodies, three (25%) are in *Review* and nine (75%) are *Not At Risk*. Eske, croagh and Dunragh are the lake waterbodies in *Review*.
- ◆ For the four transitional waterbodies, one (25%) is in *Review* (Durnesh Lough transitional waterbody) and three (75%) are *Not At Risk*.
- ◆ All six coastal waterbodies are *Not At Risk*.
- ◆ The largest proportion of *At Risk* waterbodies are found in river waterbodies, accounting for 18 (95%) of 19 *At Risk* waterbodies. Figure 7 gives an overview of the breakdown of risk across waterbody types for both Cycle 2 and Cycle 3.
- ◆ Overall, there is an increase in 10 *Not At Risk* waterbodies reflected by reduction of 10 *At Risk* waterbodies between Cycle 2 and Cycle 3.

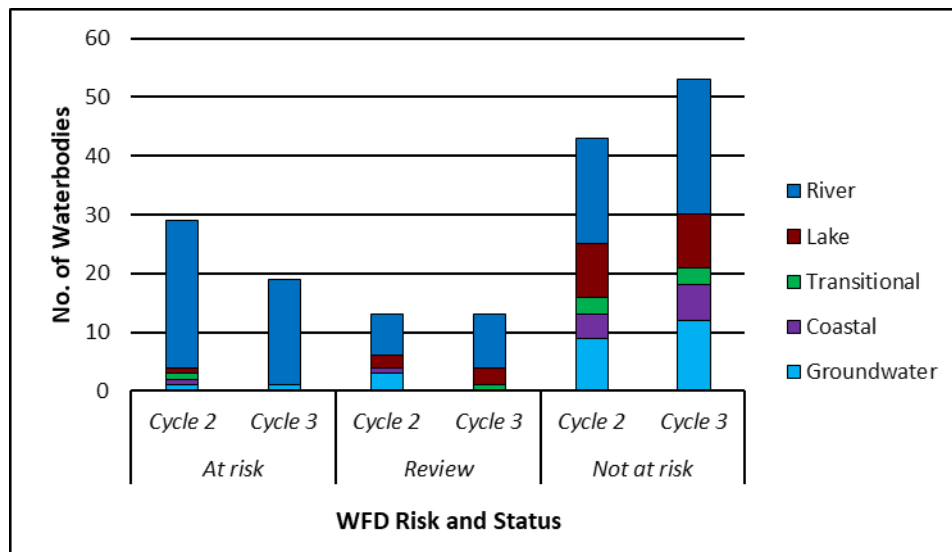


Figure 7: Number of waterbodies in each risk category

- ◆ The location of the *At Risk*, *Review* and *Not At Risk* surface waterbodies for Cycle 3 are shown in Figure 8 while the surface waterbodies that have experienced a change in risk between Cycle 2 and Cycle 3 are shown in Figure 9.

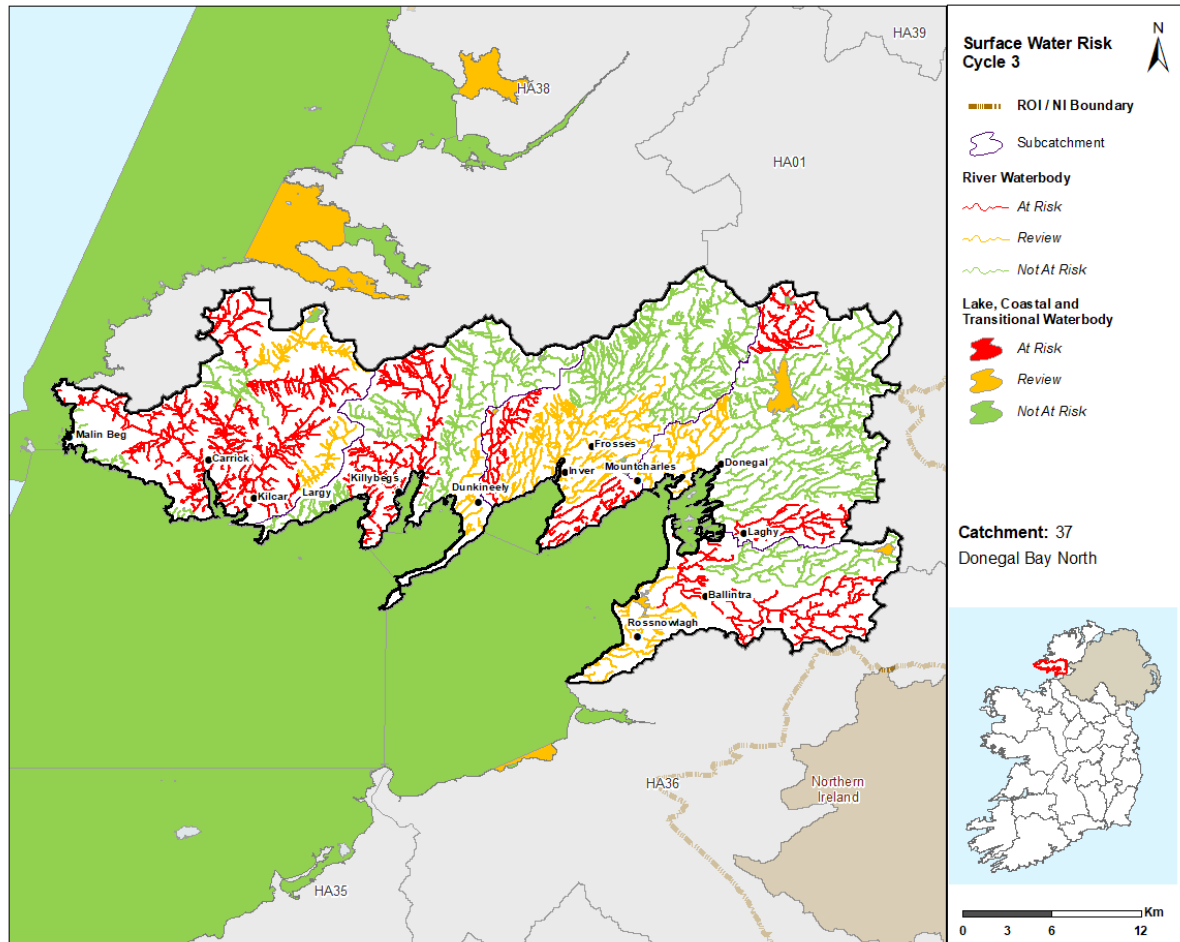


Figure 8: Surface Water Risk Cycle 3

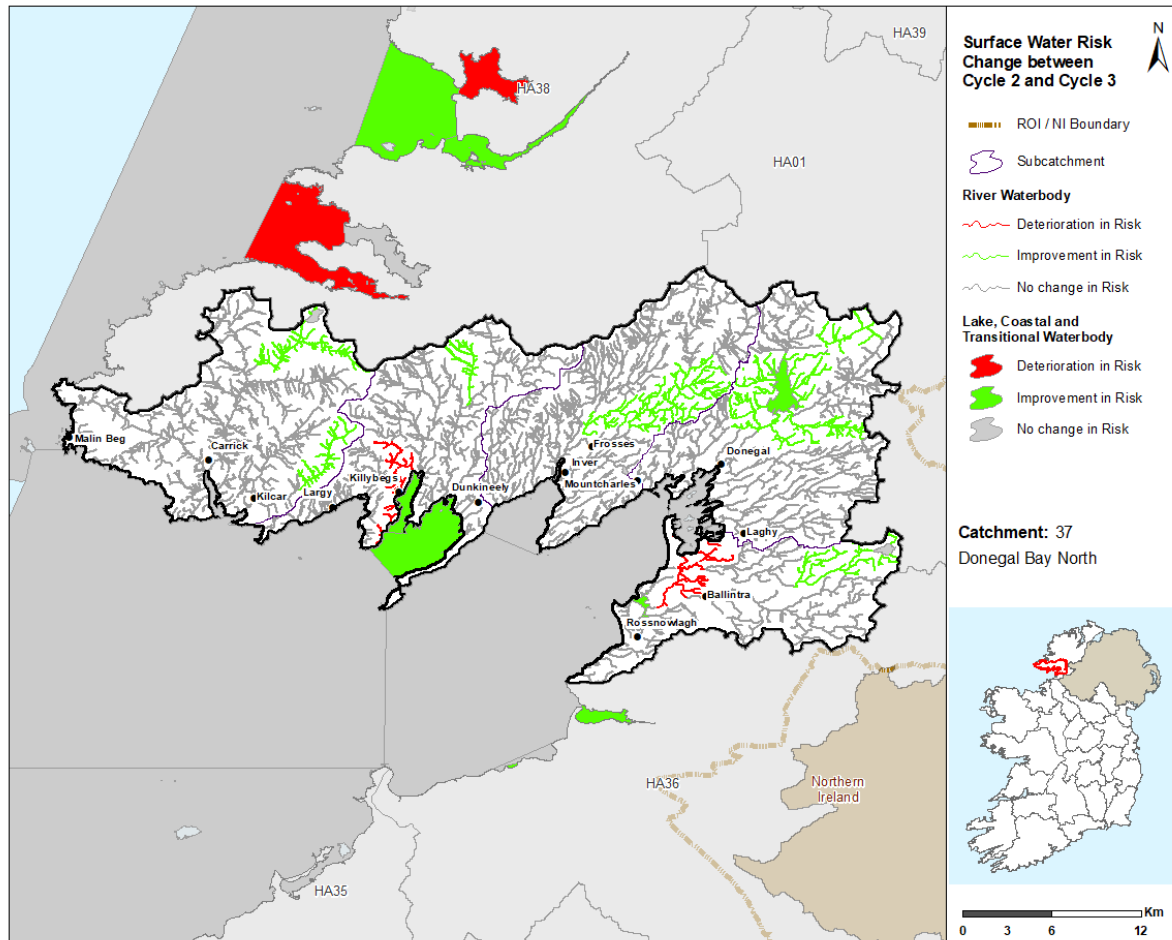


Figure 9: Surface Water Risk Change between Cycle 2 and Cycle 3

3.3 Groundwater

- ◆ For the 13 groundwater bodies, one (8%) is *At Risk* (Waste Facility (W0024-03)) and 12 (92%) are *Not At Risk*.
- ◆ In Cycle 2, there was one groundwater body (Waste Facility (W0024-03)) *At Risk* in this catchment, three in *Review* and nine *Not At Risk*.
- ◆ The location of the *At Risk*, *Review* and *Not At Risk* groundwater bodies for Cycle 3 are shown in Figure 10.

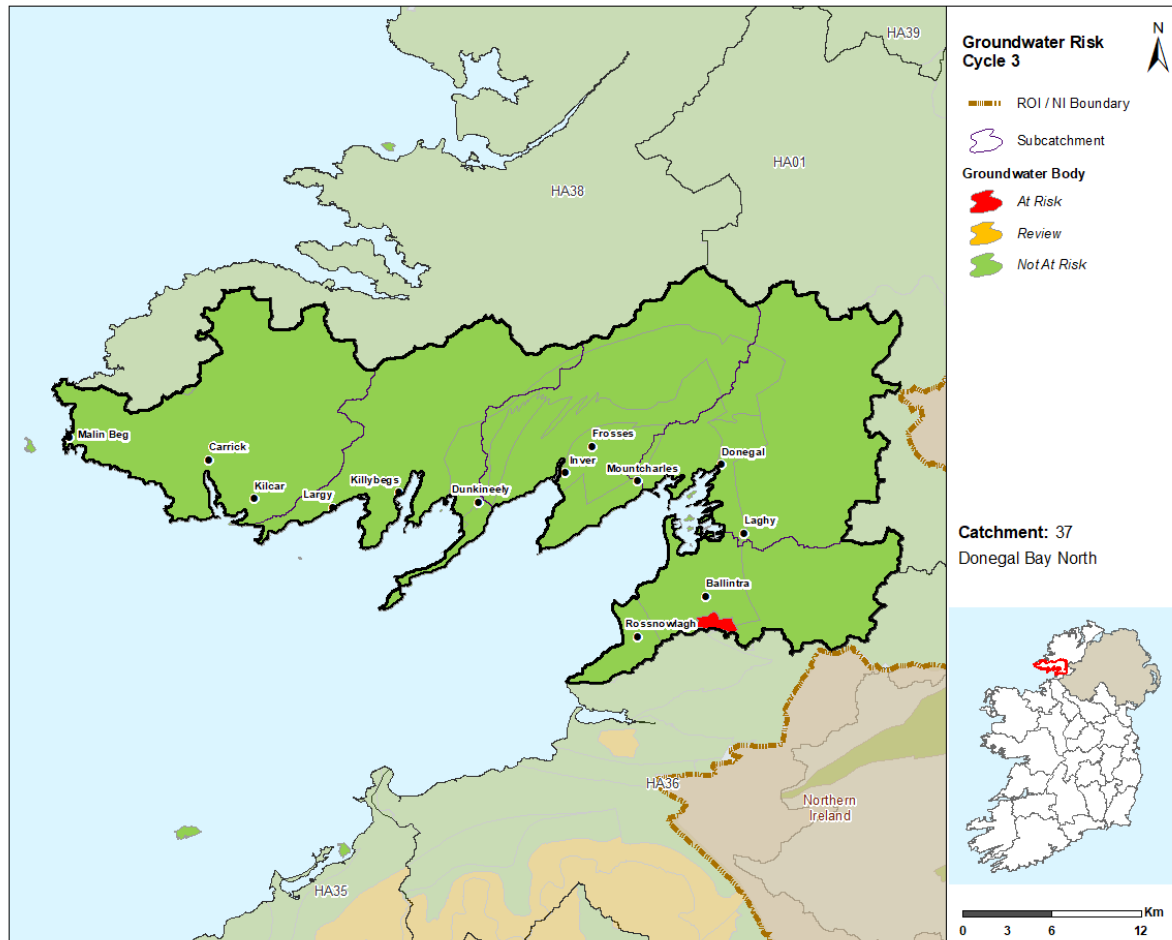


Figure 10: Cycle 3 Groundwater Body Risk

3.4 Heavily Modified Waterbodies

- ◆ The designated heavily modified water body (HMWB) in the catchment (Killybegs Harbour) was classified as being *At Risk* of not meeting its Environmental Objective in Cycle 2 but since the improvement in status it is now deemed *Not At Risk* for Cycle 3. There may be changes to HMWB designation once the Cycle 3 HMWB assessment has been completed and consulted on for the 3rd Cycle Final RBMP.

3.5 Artificial Waterbodies

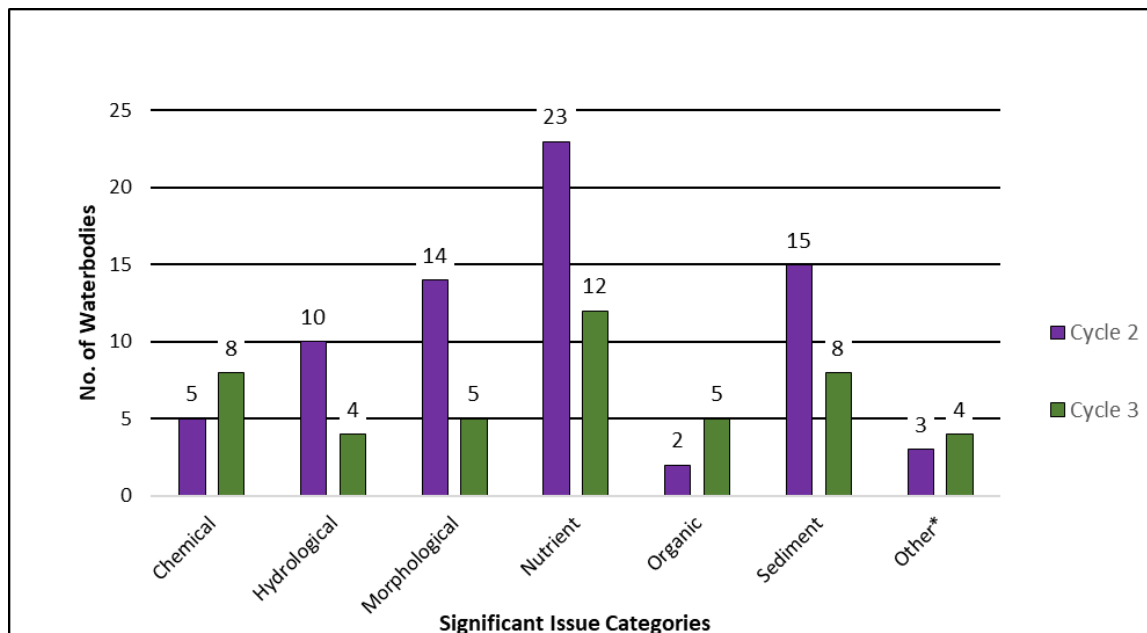
- ◆ As stated in Section 2.4, Donegal Bay North Catchment has no artificial waterbodies.

4 Significant Issues in *At Risk* Waterbodies

4.1 All Waterbodies

- ◆ Despite significant improvement excess nutrients and sediment impacts remain the most prevalent issues in the Donegal Bay North catchment (Figure 11) impacting 12 and eight waterbodies in Cycle 3 respectively. Chemical issues are now impacting eight waterbodies, while morphological and hydrological issues are impacting five and four waterbodies, respectively.

- For river waterbodies, the main significant issues are nutrient impacts (11), sediment impacts (8), chemical pollution (8), morphological impacts (5), hydrological (4), organic pollution (5) and other impacts (3).
 - For the one *At Risk* groundwater body (Waste Facility (W0024-03)) the significant issue is nutrient pollution and Diminution of quality of associated surface waters for chemical reasons.
- ◆ Between Cycle 2 and Cycle 3, the number of waterbodies with nutrients issues has decreased by 11 from 23 to 12 and the number of waterbodies impacted by morphological issues has decreased by nine from 14 to five.
 - ◆ The numbers of waterbodies with sediment and hydrological issues have reduced from 15 and 10 respectively in Cycle 2 to eight and four in Cycle 3.
 - ◆ The number of waterbodies impacted by chemical issues has increased from five in Cycle 2 to eight in Cycle 3.

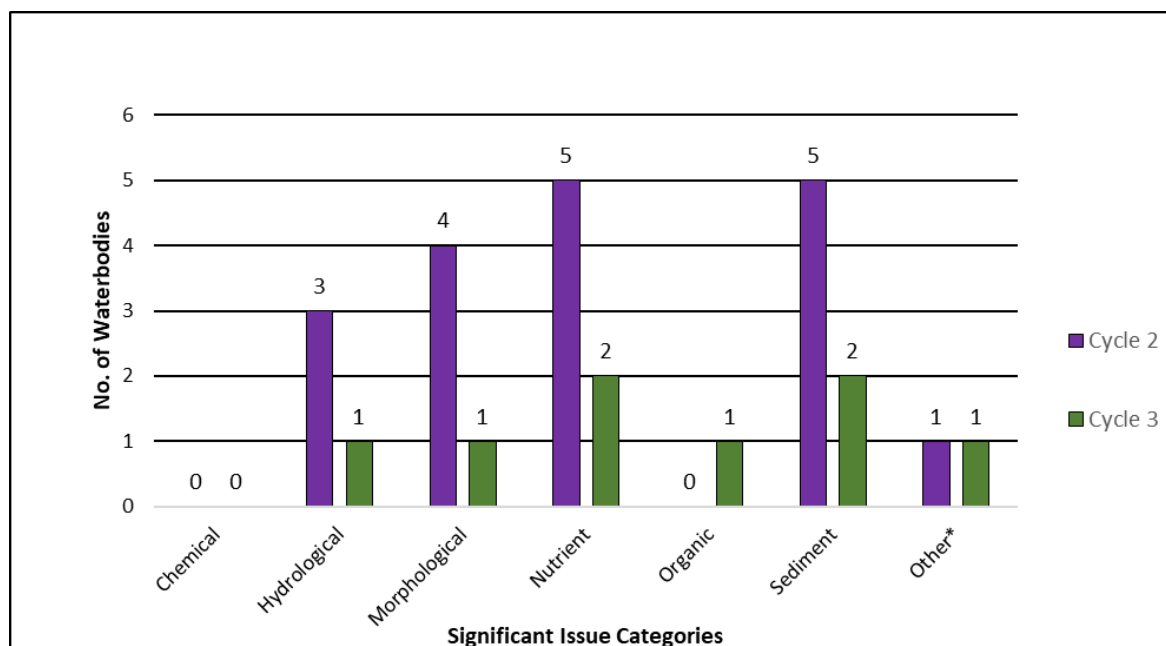


*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 11: Significant Issues across all *At Risk* WBs between Cycle 2 and Cycle 3

4.2 High Status Objective Waterbodies

- ◆ In Cycle 3 for High Status Objective waterbodies sediment and nutrient issues are each impacting two of the three High Status Objective waterbodies currently *At Risk* (Figure 12).
- ◆ Between Cycle 2 and Cycle 3, the number of waterbodies with impacted within each category have all decreased, with the exception of organic pollution which increased by one waterbody.



*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

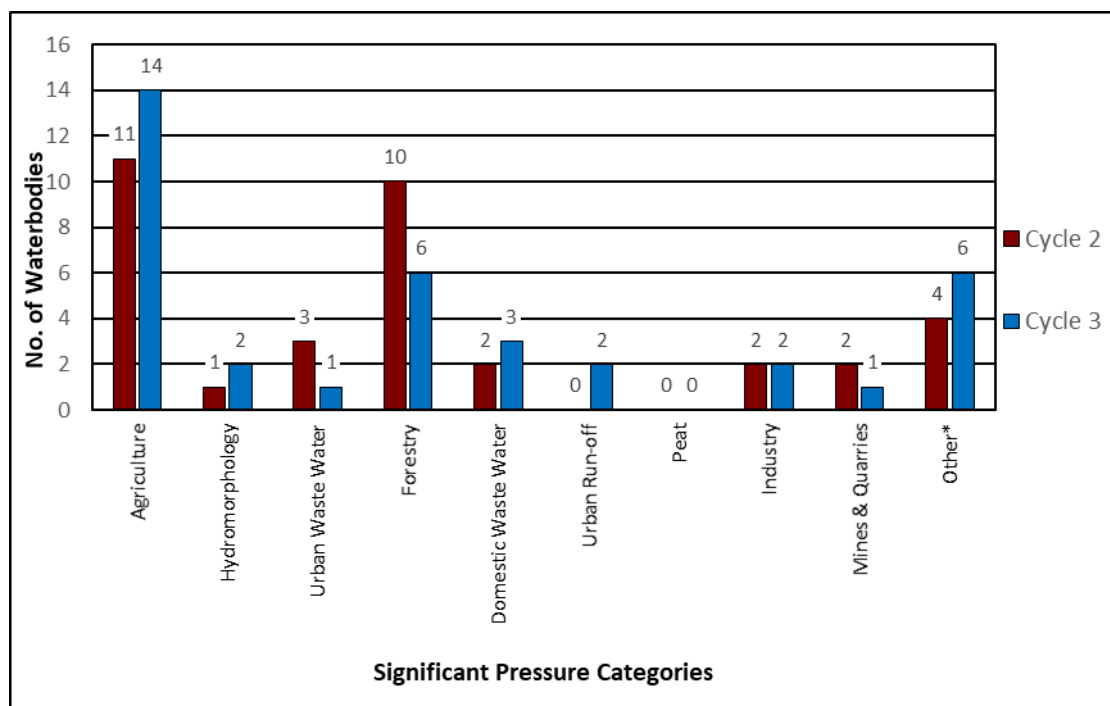
Figure 12: Significant Issues in *At Risk* High Status Objective Waterbodies

5 Significant pressures in *At Risk* Waterbodies

5.1 All Waterbodies

- ◆ Where waterbodies have been classed as *At Risk*, significant pressures have been identified.
- ◆ Figure 13 shows a breakdown of the number of *At Risk* waterbodies in each significant pressure category.
- ◆ The significant pressure affecting the greatest number of waterbodies is agriculture followed by forestry, other⁶, domestic waste water, hydromorphology, urban run-off, industry, mines and quarries and urban waste water.
- ◆ When comparing Cycle 2 and Cycle 3, the biggest change is an increase of three waterbodies where agriculture is a significant pressure from 11 waterbodies in Cycle 2 to 14 waterbodies in Cycle 3 and a reduction of four waterbodies impacted by forestry (from 10 waterbodies to six).

⁶ Abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the "Other" pressure category for the purpose of this report



*Other – abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the “Other” pressure category for the purpose of this report

Figure 13: Significant Pressure (All At Risk Waterbodies)

5.1.1 Pressure Type

5.1.1.1 Agriculture

- ◆ Agriculture is a significant pressure in 14 river waterbodies. The primary issue related to farming in this catchment is diffuse phosphorus loss to water bodies in areas underlain by poorly draining soils and subsoils. There is also evidence of toxicity due to sheep dip (Cypermethrin) in several water bodies. Sediment is also an issue from land drainage works, bank erosion from animal access or stream crossings.

5.1.1.2 Forestry

- ◆ Forestry has been identified as a significant pressure in six river waterbodies (Figure 14). The significant issues are associated with forestry activities such as clearfelling, road construction and planting with associated sediment and nutrient losses which has habitat and morphological impacts. Acidification as well as potential chemical pollution are also noted as an issue in several water bodies associated with recent planting activity. Significant forest fires were identified during Cycle 2 characterisation in Crow_010 river waterbody along with post-fire works to include tidy up of fire breaks, leaving soils vulnerable to erosion.

5.1.1.3 Other significant pressures

◆ Abstraction

Abstraction for Killybegs public water supply has been identified as a significant pressure in Stragar_010 (Lough Aderry Intake & Lough Aroshin Intake) impacting habitats through hydrological changes in the waterbody.

◆ Unknown anthropogenic

The significant pressures impacting three river waterbodies (Corabber_010, Cunlin Lough Stream_010 & Laghy Stream_010) are unknown.

◆ *Waste*

EPA Licensed Activity

The significant pressure affecting one groundwater body (Waste Facility (W0024-03)) is Ballynacarrick Landfill waste facility. The key parameter of concern is ammonia.

Illegal Dumping

Illegal dumping was identified as a pressure in Glen (Carrick)_030 river waterbody after a white paint-like substance on the substrate was observed during the ecological assessment.

5.1.1.4 Domestic waste water

- ◆ Domestic waste water has been identified as a significant pressure in three river waterbodies (Bunlacky_010, Fintragh_010 & Mountcharles_010). Single house discharges as a source of nutrient and organic pollution were identified as significant pressures in Bunlacky_010 and Fintragh_010 whilst the significant issues have arisen from the discharge from a housing scheme in Mountcharles_010 which has resulted in elevated ammonia concentrations. The assimilative capacity of the receiving body (Mountcharles_010) is also an issue.

5.1.1.5 Urban run-off

- ◆ Diffuse urban pressures, caused by misconnections, leaking sewers and runoff from paved and unpaved areas, have been identified as a significant pressure in two river waterbodies. Ballaghdoe_020 is impacted by Kilcar urban area and Glen (Carrick)_030 is impacted by Carrick urban area. Nutrients and organic pollution are the significant issues.

5.1.1.6 Industry

- ◆ Industry has been identified as a significant pressure in two river waterbodies, Stragar_010 and Ballaghdoe_010, with nutrients and organic impacts being the main issues of concern. These point source discharges, causing nutrient and organic issues, arise from industrial discharges (Table 3).

Table 5: Breakdown of Cycle 3 Industry Significant Pressures in the Donegal Bay North Catchment

Waterbody Code	Waterbody Name	Waterbody Type	Emission Type	Name	Impact
IE_NW_37B010075	BALLAGHDOO_010	River	Section 4	N/A*	Nutrient
IE_NW_37S020300	STRAGAR_010	River	Section 4	N/A*	Nutrient & Organic

*Name of facility not provided during characterisation

5.1.1.7 Mines & Quarries

- ◆ A quarry (unnamed) has been identified as a source of sediment in Ballintra_010 river waterbody.

5.1.1.8 Urban Waste Water

- ◆ Urban Waste Water Agglomerations have been identified as a significant pressure in one *At Risk* waterbody (Ballintra_010). The Ballintra agglomeration is not scheduled to be upgraded under Irish Water's Capital Investment Programme (2020-2024).

Table 6: Urban Waste Water Treatment Agglomerations identified as significant pressures in *At Risk* waterbodies in Cycle 3

Facility name	Facility Type	Waterbody	2013-18 Ecological Status	Irish Water's Expected CIP Completion Date ⁷
Ballintra A0294	Agglomeration PE < 500	Ballintra_010	Moderate	N/A

- ◆ Urban waste water significant pressures impacted two less waterbodies than in Cycle 2 (a reduction from three waterbodies to one waterbody). The following Agglomerations were listed as pressures in Cycle 2 not in Cycle 3.
 - Letterbarra Housing Scheme (A0478)
 - Letterbarra No.2 Housing Scheme (A0476)
 - Killybegs (D0011)

Figure 14 – Figure 17 illustrates the locations of waterbodies for the four most common pressures in order of prevalence (agriculture, forestry, other and domestic wastewater) within the catchment in Cycle 3.

⁷ Based on Irish Water's Capital Investment Programme (2020-2024) as of February 2021 and may be subject to change.

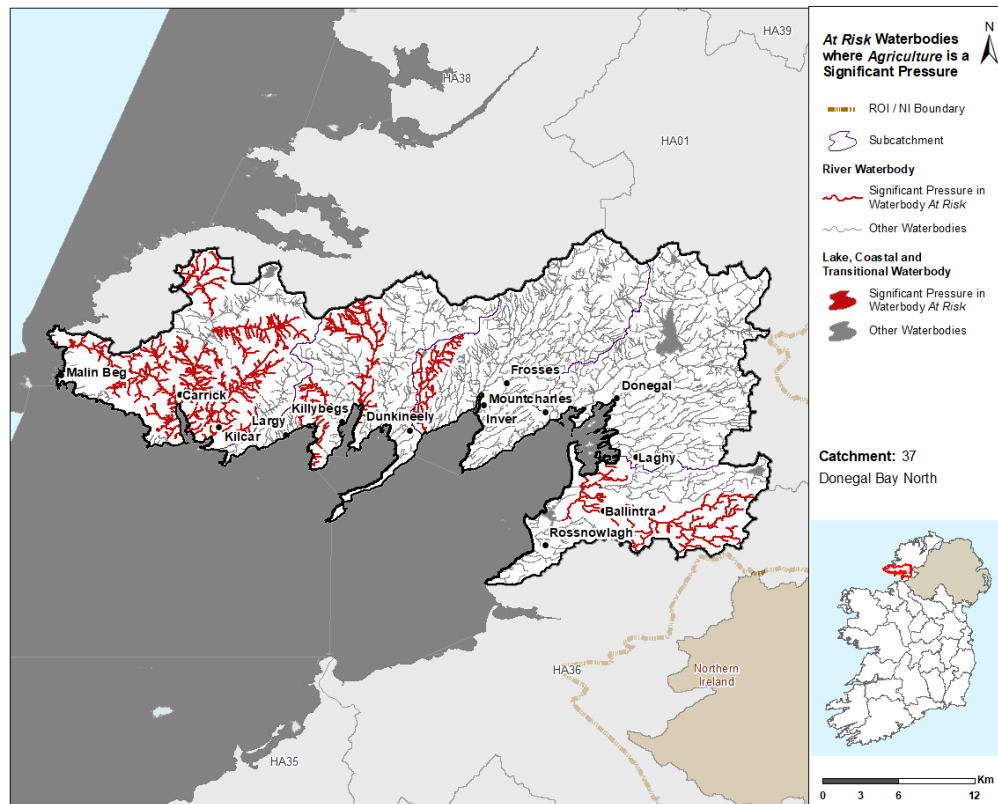


Figure 14: Locations of Waterbodies where Agriculture is a Significant Pressure

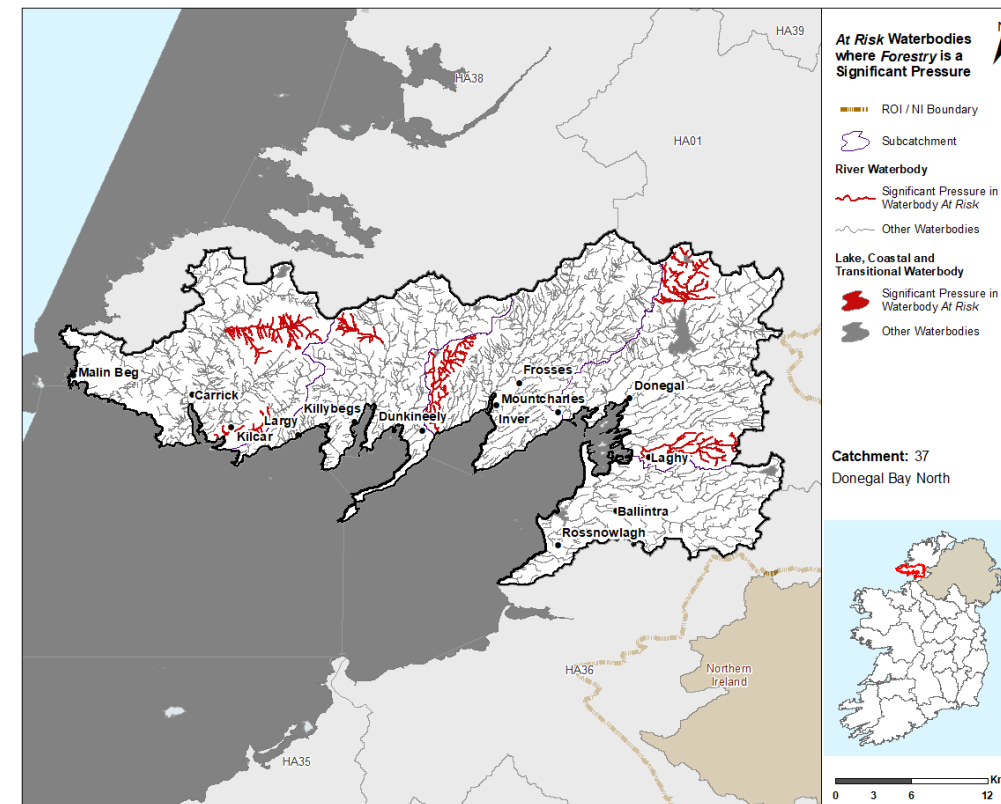


Figure 15: Locations of Waterbodies where Forestry is a Significant Pressure

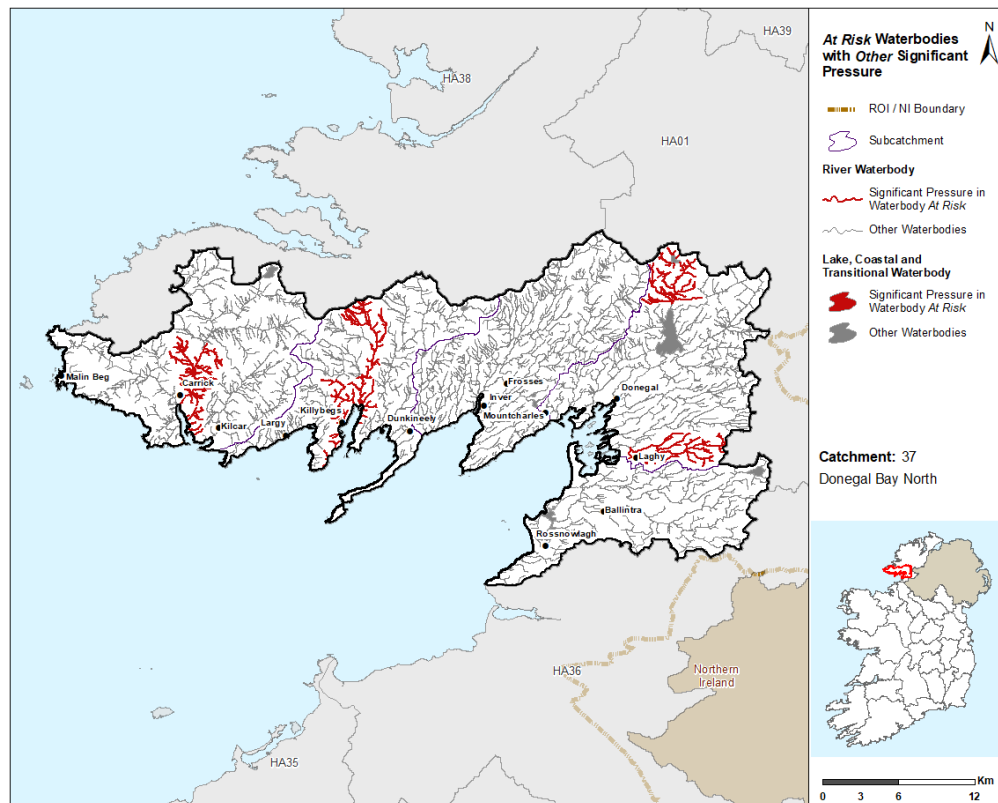


Figure 16: Locations of Waterbodies where the Significant Pressure is within the 'Other' category

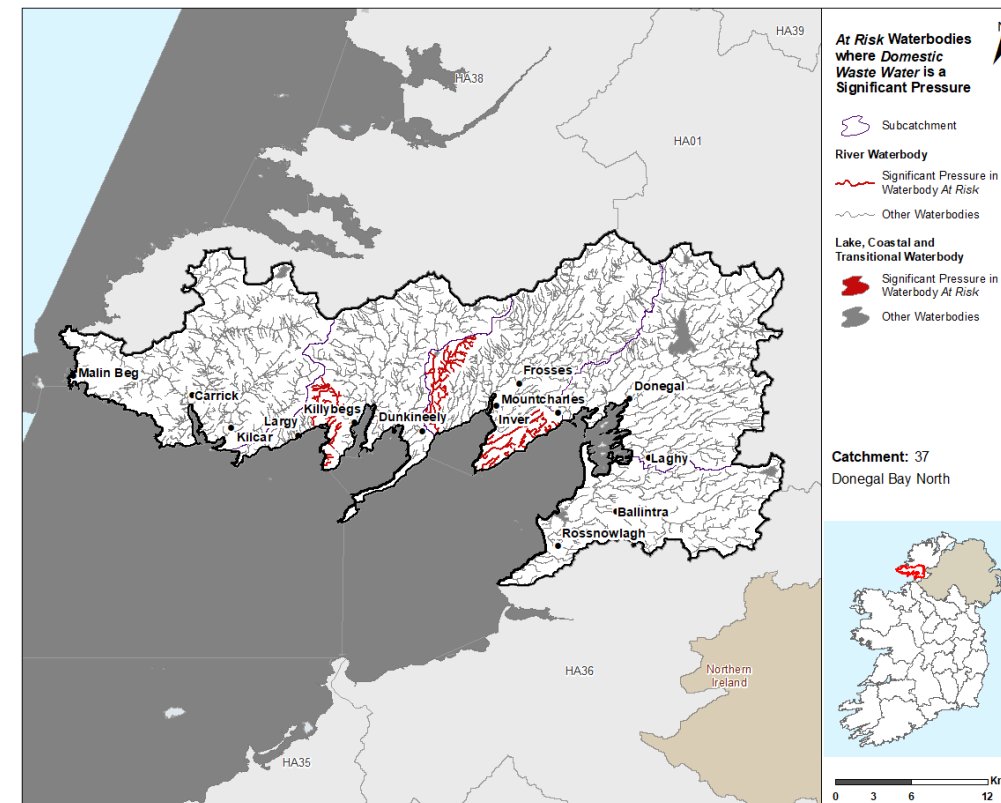
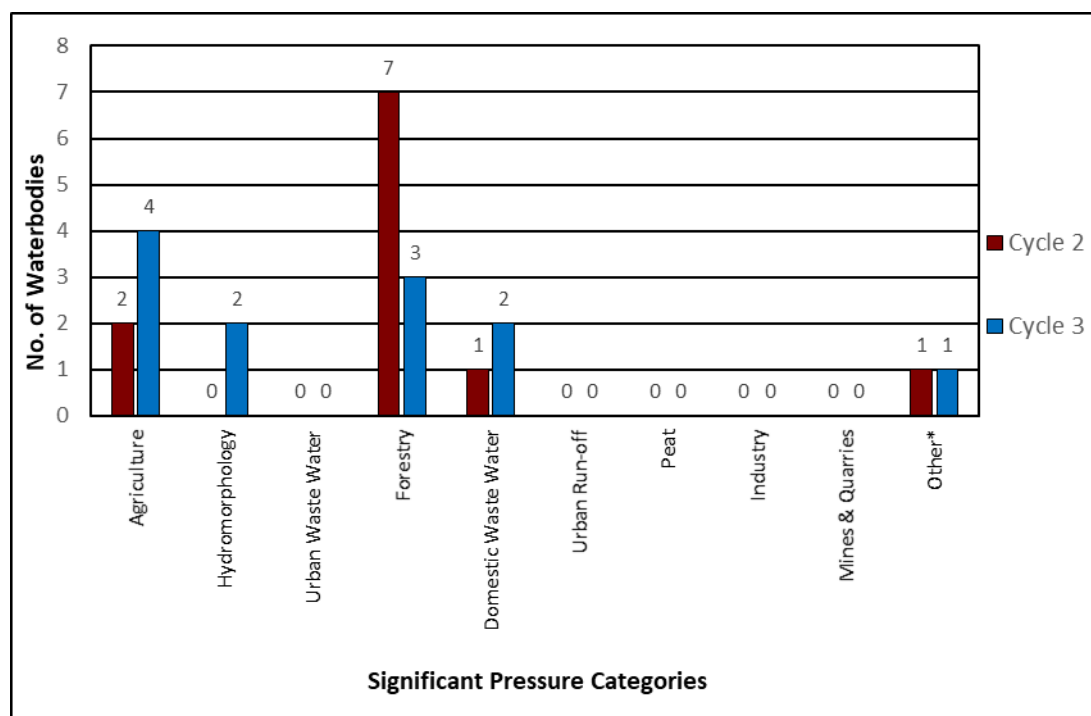


Figure 17: Locations of Waterbodies where Domestic Waste Water is a Significant Pressure

5.2 High Status Objective Waterbodies

- ◆ There are three *At Risk* High Status Objective waterbodies in the catchment for Cycle 3. Fintragh_010 and Bunlacky_010 are both impacted by agriculture and domestic wastewater. Forestry is also a pressure in Bunlacky_010 as well as Corabber_010.



*Other – abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the “Other” pressure category for the purpose of this report

Figure 18: Significant Pressure *At Risk* High Status Objective Waterbodies

6 Source Load Apportionment Modelling (SLAM)

- ◆ The EPA has developed Source Load Apportionment Models (SLAM) for both P and N which estimate the proportion of the phosphorus and nitrogen inputs, respectively, to waters in each catchment that comes from each sector.
- ◆ The main data inputs for the model for agriculture are the 2018 land parcel (LPIS) and animal (AIMs) data from the Department of Agriculture Food and the Marine. The Urban Waste Water (UWW) data comes from Irish Water’s discharge monitoring data. The model also calculates the inputs from a range of other sectors, including for example, forestry, septic tanks, peat, urban runoff and atmospheric deposition.
- ◆ In the catchment land in peat, forestry, discharges from urban waste water and pasture is responsible for 27%, 20%, 20% and 19% of the nitrogen load respectively while land in pasture, peat and discharges from urban waste water contribute 29%, 26% and 19% of the phosphorus loadings for the catchment respectively (Figure 17).

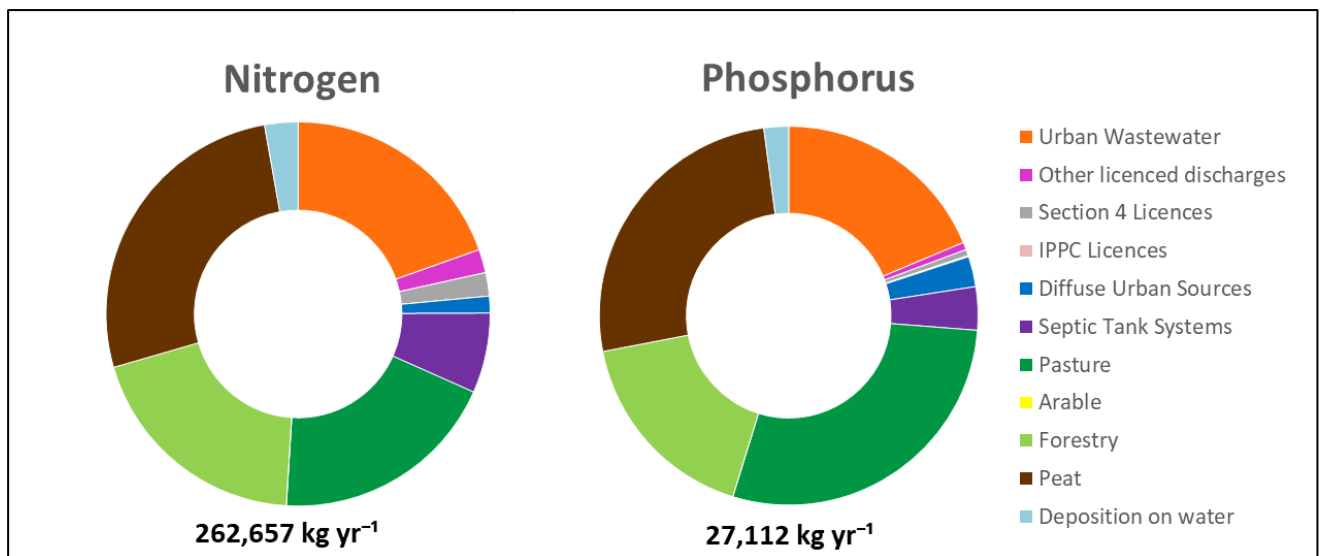


Figure 19: Estimated Proportions of N & P from Each Sector in the Donegal Bay North Catchment

7 Load Reduction Assessment

7.1 Nitrogen Load Reduction

- ◆ An assessment was undertaken to determine if nitrogen reductions in rivers, streams and lakes are required for Transitional and Coastal (TRACs) waterbodies to achieve their WFD environmental objective. The outcome of the assessment indicated that 10 of the 46 catchments require N reductions in our inland waters to restore some TRAC waterbodies. Nitrogen load reduction to meet TRAC WFD objectives are not required in the Donegal Bay North Catchment.

7.2 Phosphorous / Sediment Load Reduction

- ◆ Further modelling work is required to determine if and what P load reductions are required.

Figure 20 highlights areas where agricultural measures for sediment and phosphorus should be targeted. Waterbodies with blue fill are areas where sediment or phosphorus should be targeted. Pollution Impact Potential mapping for both phosphorus and nitrogen in the catchment are provided in Appendix 2.

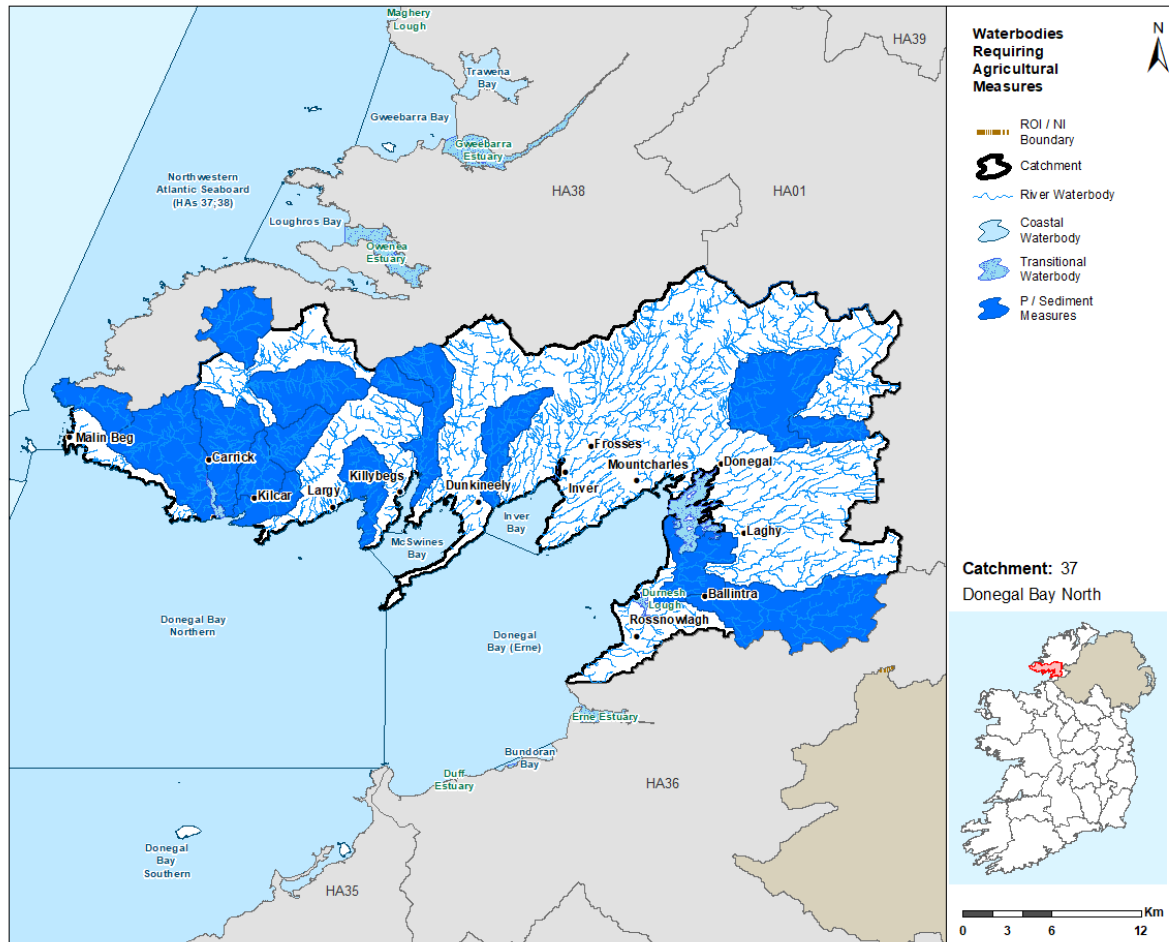


Figure 20: Waterbodies where Agricultural Measures should be Targeted

8 2nd Cycle Areas for Action

8.1 Area for Action Overview

- ◆ There were three Areas for Action, comprising of 21 waterbodies, selected for further characterisation and action in the catchment for the 2nd Cycle River Basin Management Plan. The Areas for Action in the catchment are listed in Table 7 and shown in Figure 21. LAWPRO, in conjunction with local authorities and stakeholders from the Borders Regional Operational Committee, have been working in these areas since 2018.

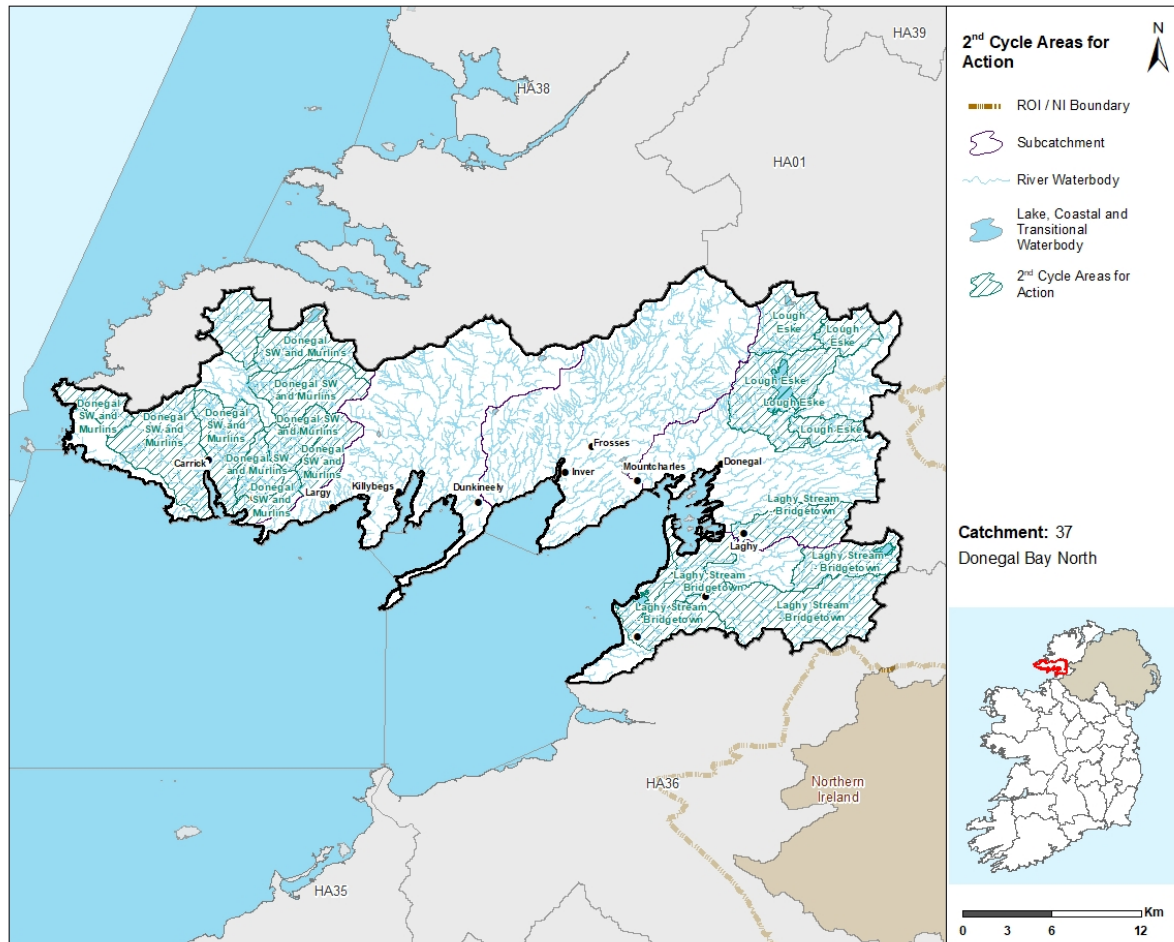


Figure 21: 2nd Cycle Areas for Action Locations

Table 7: 2nd Cycle Areas for Action

2 nd Cycle Area for Action	Number of waterbodies	Sub-catchment	Local Authority	Reason for Selection
Donegal SW & Murlins	10	37_4,	Donegal	• Eight deteriorated Water bodies. • One of the deteriorated water bodies has a High Ecological Status objective that is not being met. • Assess and develop strategies to mitigate toxic impacts that are likely to be from sheep dip • Long term challenge requiring cross agency approach.
Laghy Stream - Bridgetown	6	37_1, 37_2 (part)	Donegal	• One deteriorated High Ecological Status objective water body. • Starting at the headwaters • Multiple Pressures that can be examined at the same time. • Assessing water quality of unassigned water bodies feeding into Durnesh Lough. • Recent deterioration in two water bodies so might represent a quick win scenario.

2 nd Cycle Area for Action	Number of waterbodies	Sub-catchment	Local Authority	Reason for Selection
Lough Eske	5	37_2	Donegal	• Five Deteriorated water bodies. • One of the deteriorated river water bodies is a High Ecological Status objective water body. • All deteriorated water bodies in this area for action have dropped in status in the last monitoring cycle and so there may be possibilities for quick wins. • Same pressures in several the river water bodies feeding into the lake so similar investigations possible. • MCPA in drinking water abstraction from Lough Eske linked with agricultural activity around the lake. • Possibility to improve SAC.

8.2 Status Change in 2nd Cycle Areas for Action

- ◆ For Cycle 3, of the 21 waterbodies in the 2nd Cycle Areas for Action, there is one waterbody at High Status, seven waterbodies at Good Status, three waterbodies at Moderate Status, six waterbodies at Poor Status, one waterbody at Bad Status and three waterbodies where status has not been assigned.
- ◆ There is an overall improvement in the status of five of the 2nd cycle Areas for Action waterbodies across the catchment.⁸
- ◆ Of the 18 waterbodies within the 2nd Cycle Areas for Action which had status assigned, nine experienced no change in status between Cycle 2 and Cycle 3, seven waterbodies experienced an improvement and two were subject to deterioration in status (Figure 22). Of the seven waterbody improvements four were across Lough Eske Area for Action, two within the Donegal SW and Murlins Area for Action and one in Laghy Stream - Bridgetown Area for Action. Both waterbodies which experienced decline were in the Donegal SW and Murlins Area for Action.

⁸ Status class change cannot be calculated for waterbodies where status has not been assigned in either cycle 2 or 3 and therefore these waterbodies are not represented in Figure 18. Percentage displayed in the chart below are in relation to the total number of waterbodies with status assigned in both cycles, as opposed to total number of all waterbodies.

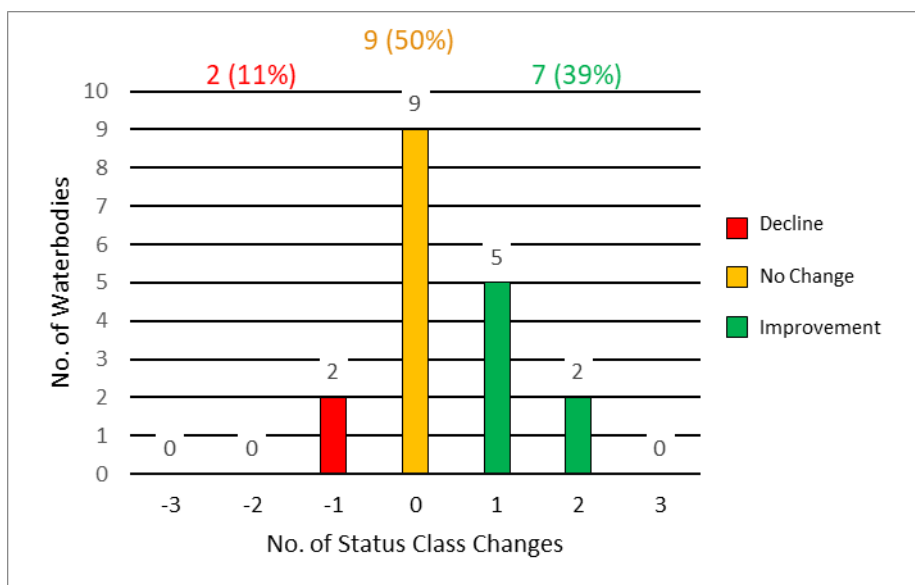


Figure 22: 2nd Cycle Area for Action Waterbody Status Class Changes between Cycle 2 and Cycle 3

8.3 Waterbody Risk in 2nd Cycle Areas for Action

- ◆ For the 21 waterbodies in the 2nd Cycle Areas for Action, 12 (57%) of these are currently *At Risk*, five (24%) in *Review* and four (19%) is *Not At Risk*.
- ◆ For the 19 river waterbodies, 12 (63%) are *At Risk*, three (16%) are in *Review* and four (21%) are *Not At Risk*.
- ◆ Both lake waterbodies (Eske and Dunragh) are in *Review*.
- ◆ All 12 *At Risk* waterbodies are river waterbodies. Figure 23 gives an overview of the breakdown of risk across waterbody types for both Cycle 2 and Cycle 3 in 2nd Cycle Areas for Action.
- ◆ Overall there is a decrease from 18 to 12 *At Risk* waterbodies in 2nd Cycle Areas for Action between Cycle 2 and Cycle 3.

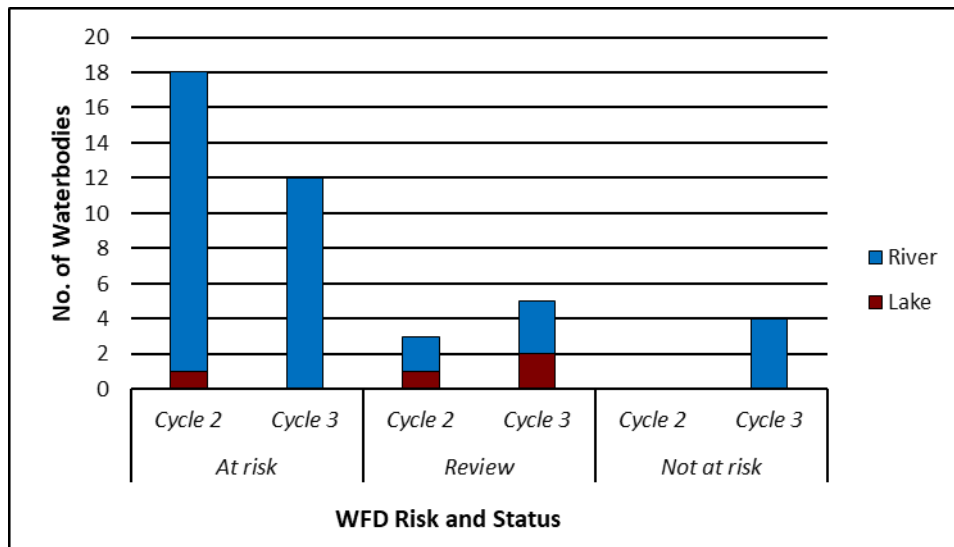
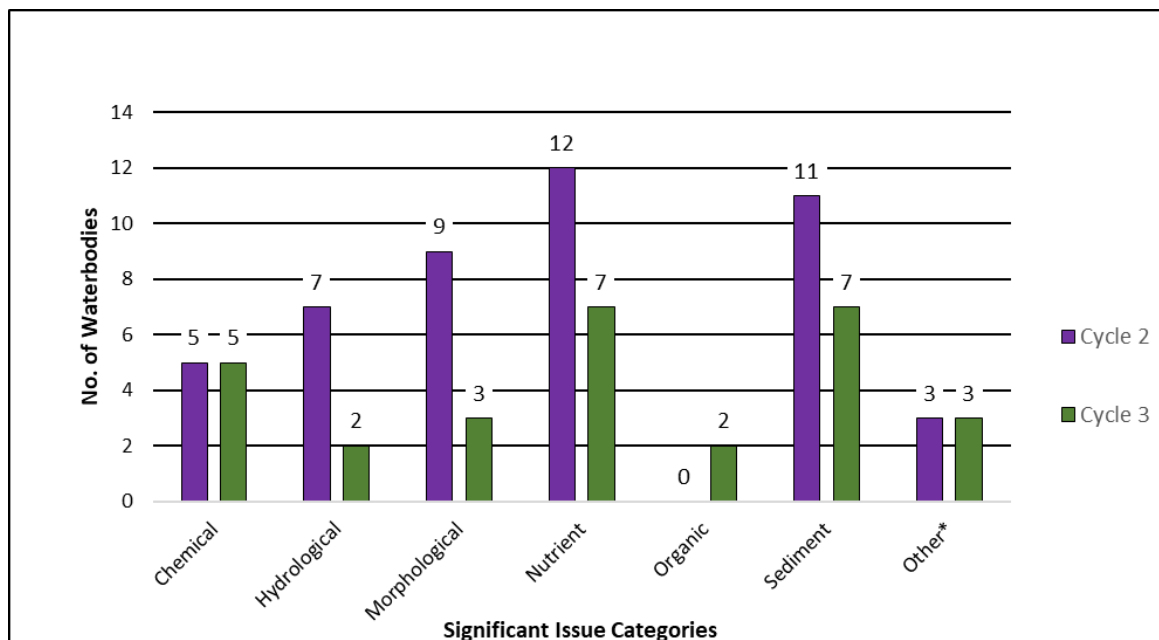


Figure 23: Number of waterbodies in each risk category in 2nd Cycle Areas for Action

8.4 Significant Issues in 2nd Cycle Areas for Action

- ◆ Based on the EPA assessment for Cycle 3, the significant issues in the 2nd Cycle Areas for Action are sediment and nutrient pollution, each impacting seven waterbodies (Figure 24). This is followed by chemical which is impacting five waterbodies and morphological impacts impacting three waterbodies.
- ◆ The number of 2nd Cycle Areas for Action waterbodies associated with each of the significant issues categories has reduced between Cycle 2 and Cycle 3 except for organic pollution which has increased by one waterbody.

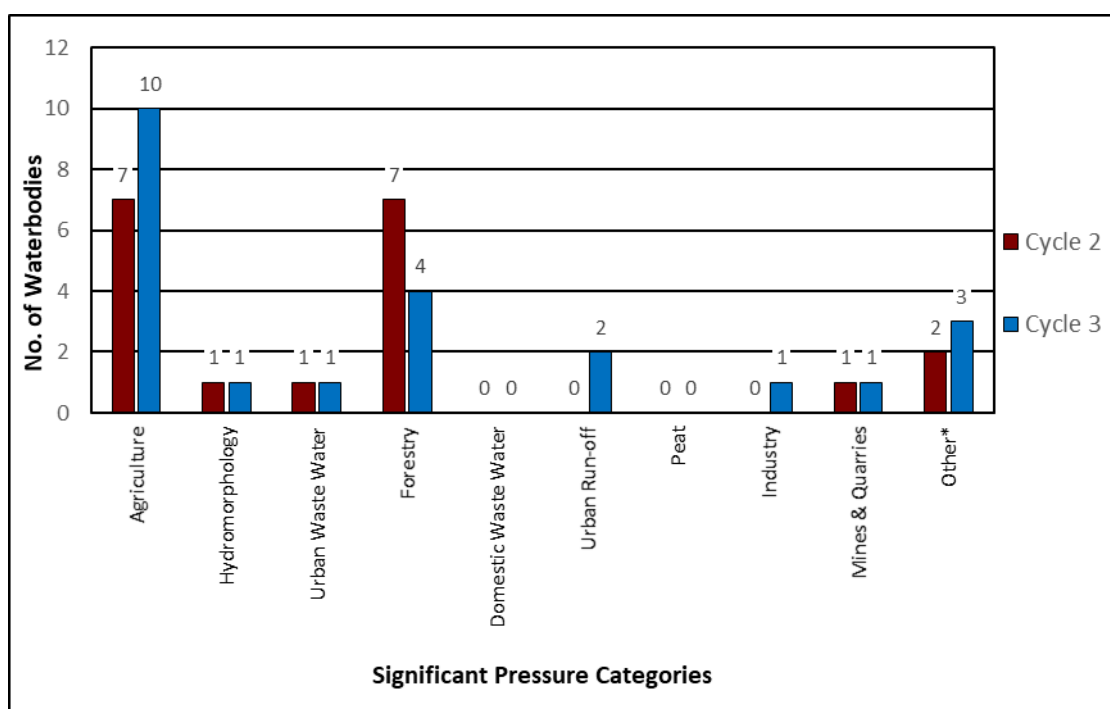


*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 24: Significant Issues across all 2nd Cycle Areas for Action Waterbodies

8.5 Significant Pressure in 2nd Cycle Areas for Action

- ◆ For Cycle 3, in 2nd Cycle Areas for Action waterbodies in the catchment the dominant significant pressures are:
 - Agriculture - 10 waterbodies are impacted compared to seven impacted in Cycle 2.
 - Forestry – four waterbodies are impacted compared to seven impacted in Cycle 2.
 - Other pressures - three waterbodies are impacted compared to two impacted in Cycle 2.
 - Urban waste water and mines and quarry significant pressures both remain unchanged, impacting one waterbody each in Cycle 3.
 - Urban run-off, hydromorphology and industry significant pressures all increased in the number of waterbodies impacted in Cycle 3. Both hydromorphology and industry increased by one, while urban run-off increased by two waterbodies since Cycle 2.
- ◆ When comparing the significant pressures in the 2nd Cycle Areas for Action between Cycle 2 and 3, there has been an increase or no change in all significant pressure categories in the catchment, with the exception of forestry which decreased.



*Other – abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the “Other” pressure category for the purpose of this report

Figure 25: Significant Pressures in 2nd Cycle Area for Action Waterbodies

9 3rd Cycle Recommended Areas for Action

9.1 Recommended Areas for Action Overview

- ◆ For the 3rd Cycle Draft River Basin Management Plan Areas for Action have been extended out to not only include Prioritised Areas for Action undertaken by LAWPRO which focussed on restoring waterbodies, but to also include restoration work undertaken by all agencies under Areas for Restoration. In addition, protection work is included under Areas for Protection and research, pilot schemes and community initiatives are included under Catchment Projects. The

aim of the 3rd Cycle Plan is to capture all activity that is working to restore, improve and/or protect waterbodies.

- ◆ The Recommended 3rd Cycle Areas for Action list will be included in the Draft River Basin Management Plan and will be finalised after the consultation period.
- ◆ There are five Areas for Action, comprising of 24 waterbodies, recommended for further characterisation and action in the catchment for the 3rd Cycle River Basin Management Plan. 15 of the 24 waterbodies in the 3rd Cycle Recommended Areas for Action are *At Risk*, four are in *Review* and five are *Not At Risk*. The five Recommended Areas for Action consist of five Areas for Restoration. LAWPRO are the proposed lead organisation on all five Recommended Areas for Action. The Recommended Areas for Action in the catchment are listed in Table 8 and shown in Figure 26. The reason for selecting for each waterbody in a Recommended Area for Action is provided in Appendix 3.

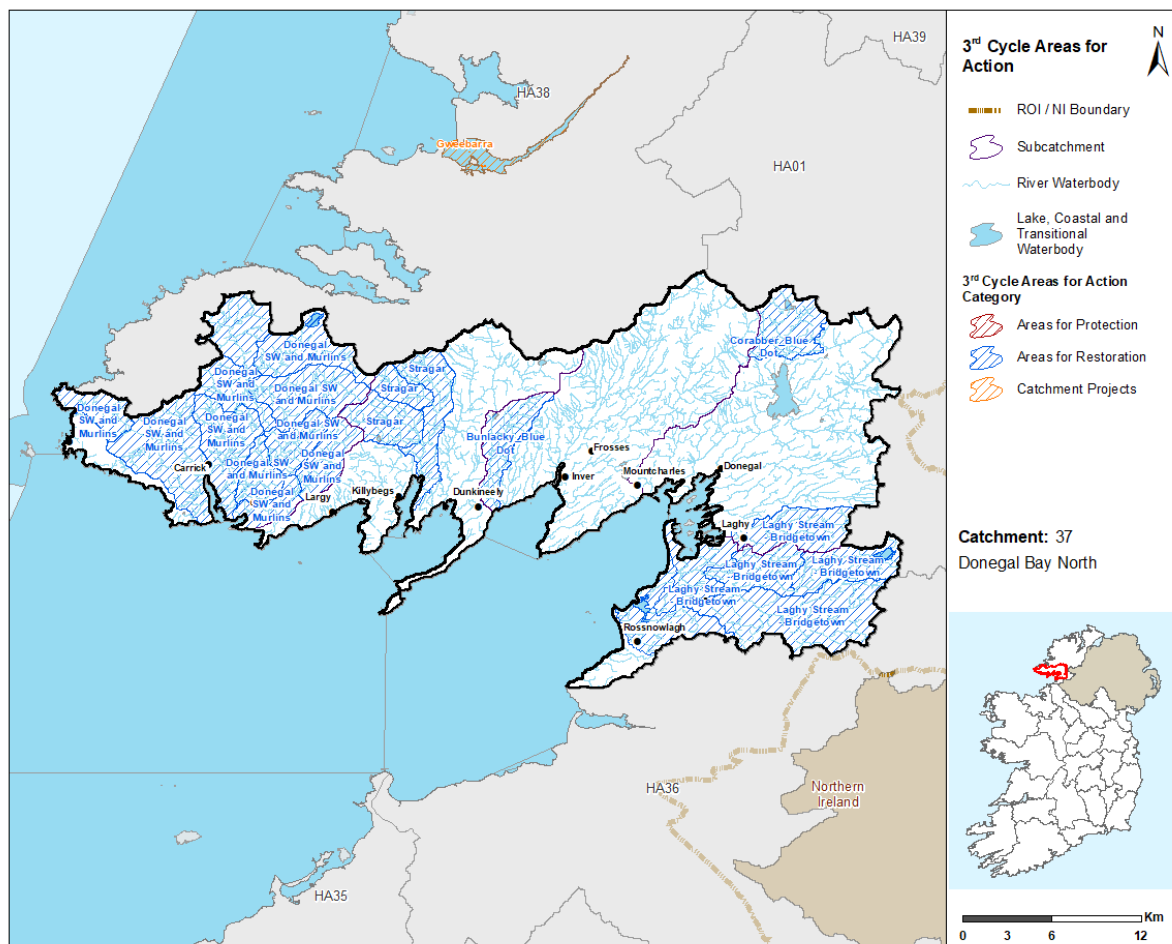


Figure 26: 3rd Cycle Recommended Areas for Action Locations

Table 8: 3rd Cycle Recommended Areas for Action Breakdown

3rd Cycle Recommended Areas for Action	Number of Waterbodies	Recommended Areas for Action Category	Recommended Areas for Action Sub-category	Lead Organisation
Donegal SW and Murlins	12	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Laghy Stream - Bridgetown	7	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Bunlacky_Blue Dot	1	Restoration	Blue Dot Areas for Action LAWPRO and Others	LAWPRO
Corabber_Blue Dot	1	Restoration	Blue Dot Areas for Action LAWPRO and Others	LAWPRO
Stragar	3	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO

10 Catchment Summary

- Of the 50 river waterbodies, 18 are *At Risk* of not meeting their WFD objectives.
- There is one *At Risk* groundwater body (Waste Facility (W0024-03)) out of 13.
- There has been an overall improvement across the catchment with 18 waterbodies *At Risk* in Cycle 3 compared to 29 waterbodies *At Risk* in Cycle 2.
- The main significant issues are from nutrients pollution followed by sediment, chemical, morphological, hydrological impacts, organic pollution and other issues.
- The main significant pressures are agricultural pressures followed by forestry, other⁹ pressures, domestic waste water, hydromorphological, urban run-off, industry, mines and quarries and urban waste water.
- In the 2nd Cycle Areas for Action, 18 waterbodies were *At Risk* in Cycle 2 and 12 waterbodies are *At Risk* in Cycle 3. These improvements have occurred in waterbodies where agriculture and forestry were a significant pressure in Cycle 2 but are no longer a significant pressure in Cycle 3.
- There are five 3rd Cycle Recommended Areas for Action for Cycle 3. They comprise of 24 waterbodies with 15 waterbodies *At Risk*, four in *Review* and five *Not At Risk*.

⁹ Abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the “Other” pressure category for the purpose of this report

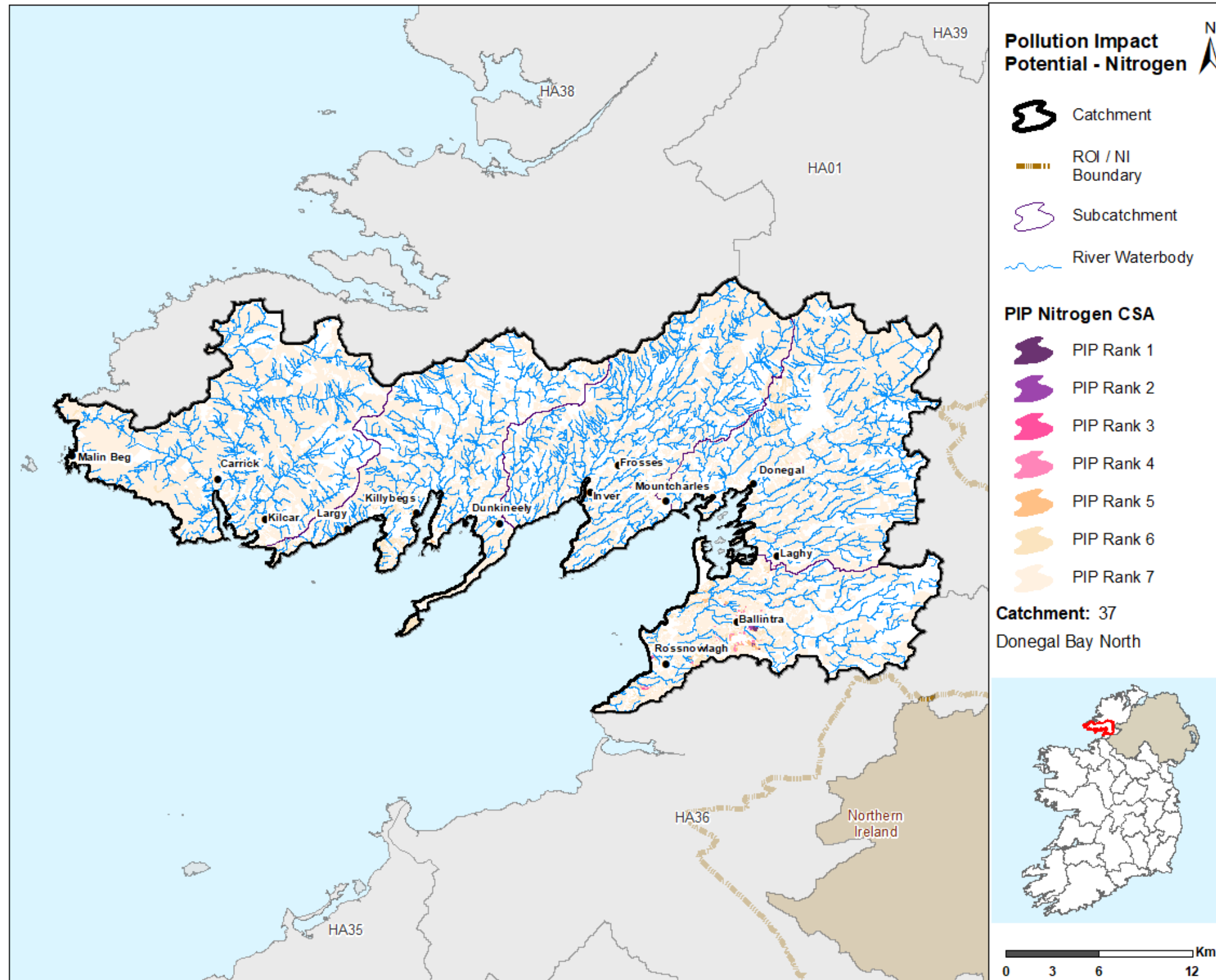
Appendix 1

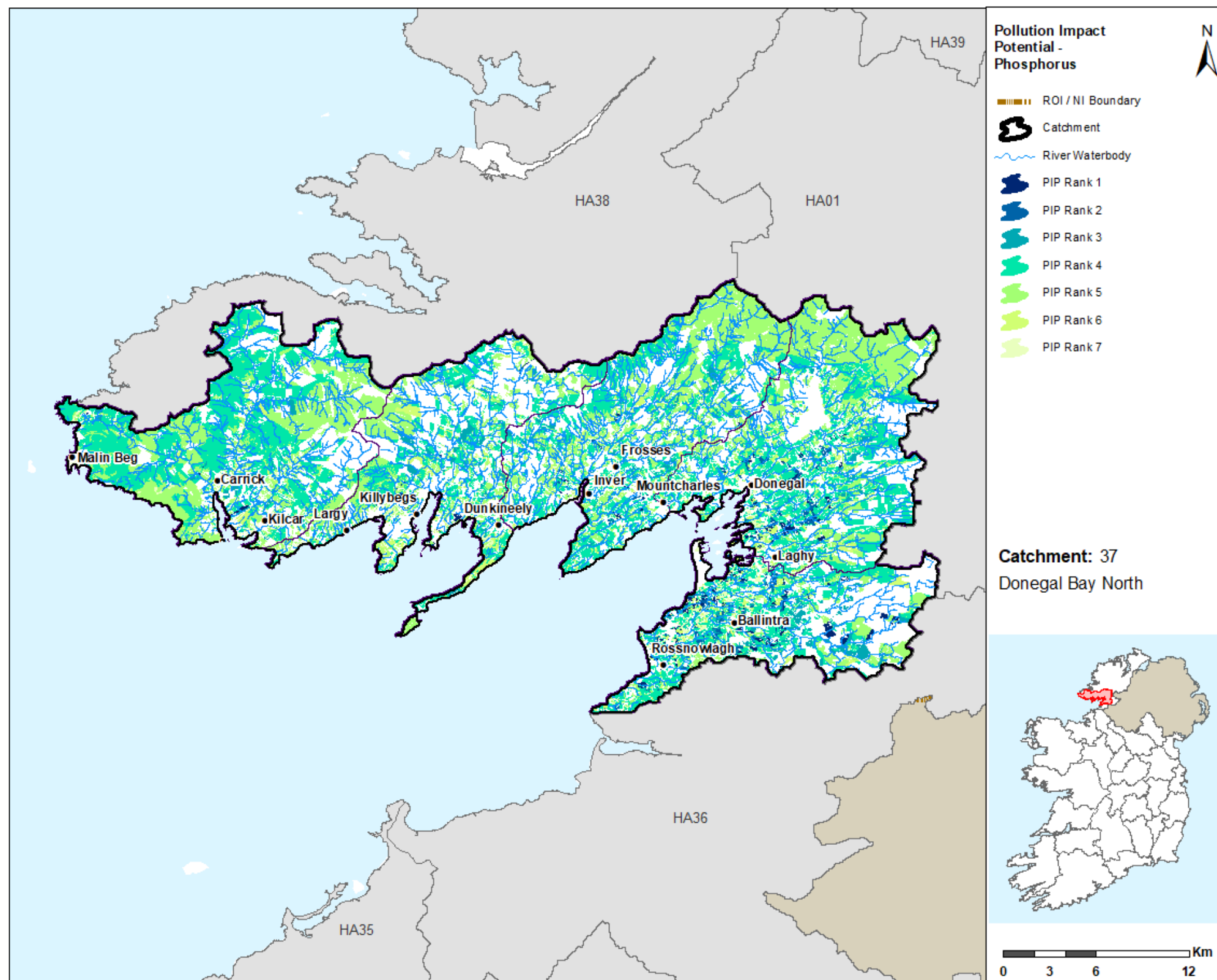
High ecological status objective waterbodies

Waterbody Name	Waterbody Type	Waterbody Code	Status 2013-2018
BRIDGETOWN (DONEGAL)_010	River	IE_NW_37B030030	High
BUNLACKY_010	River	IE_NW_37B040300	Good
CORABBER_010	River	IE_NW_37C010100	Good
EANYBEG WATER_010	River	IE_NW_37E010200	High
FINTRAGH_010	River	IE_NW_37F010100	Good
LOWERYMORE_020	River	IE_NW_37L010300	High
Northwestern Atlantic Seaboard (HAs 37;38)	Coastal	IE_NW_100_0000	High
OILY_010	River	IE_NW_37O010050	High
OWENTESKINY_010	River	IE_NW_37O020600	Good
TULLINTEANE_010	River	IE_NW_37T010400	High

Appendix 2

Pollution Impact Potential Mapping





Appendix 3

Summary information on all waterbodies in the Donegal Bay North Catchment

Subcatchment Code	Waterbody Code	Waterbody Name	Waterbody Type	Risk 10-15	Risk 13-18	Status 10-15	Status 13-18	High Ecological Status Objective Waterbody	Significant Pressures	Recommended Areas for Action Name	Recommended Areas for Action (reasons for selection)
37_4	IE_NW_37B010075	BALLAGHDOO_010	River	At risk	At risk	Poor	Bad	No	Ag, Ind	Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37B010200	BALLAGHDOO_020	River	At risk	At risk	Poor	Poor	No	Ag, UR	Donegal SW and Murlins	Within existing PAA
37_1	IE_NW_37B020200	BALLINTRA_010	River	At risk	At risk	Moderate	Moderate	No	Ag, M+Q, UWW	Laghy Stream - Bridgetown	Within existing PAA, requires further LCA
37_1	IE_NW_37B030030	BRIDGETOWN (DONEGAL)_010	River	At risk	Not at risk	Good	High	Yes		Laghy Stream - Bridgetown	Within existing PAA - No longer At risk, achieving HSO, but maintain under SC approach
37_1	IE_NW_37B030200	BRIDGETOWN (DONEGAL)_020	River	Not at risk	Not at risk	Good	Good	No		Laghy Stream - Bridgetown	Expansion of existing PAA - Not At risk, Good status, but include under SC approach
37_1	IE_NW_37B030620	BRIDGETOWN (DONEGAL)_030	River	Review	At risk	Unassigned	Unassigned	No	Ag	Laghy Stream - Bridgetown	Within existing PAA, requires further LCA. NPWS submissions also
37_5	IE_NW_37B040300	BUNLACKY_010	River	At risk	At risk	Good	Good	Yes	Ag, DWW, For	Bunlacky_Blue Dot	Recently deteriorated Blue Dot Waterbody
37_2	IE_NW_37B050590	BALLYKILLOWEN STREAM_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_1	IE_NW_37B090770	BALLYMAGRORTY_SCOTCH_010	River	Review	Review	Unassigned	Unassigned	No		Laghy Stream - Bridgetown	Within existing PAA, requires further LCA.
37_3	IE_NW_37B260880	BOGSIDE_010	River	Review	Review	Unassigned	Unassigned	No			
37_2	IE_NW_37C010100	CORABBER_010	River	At risk	At risk	Good	Good	Yes	For, Other	Corabber_Blue Dot	LCA complete and measures identified but recommended to maintain as Blue Dot may require extra time for exit/transition strategy - extracted from 2nd Cycle Lough Eske PAA and renamed to reflect
37_4	IE_NW_37C030700	CROW_010	River	At risk	At risk	Poor	Poor	No	Ag, For	Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37C050200	CLOGHANMORE_010	River	At risk	At risk	Poor	Poor	No	Ag	Donegal SW and Murlins	Within existing PAA
37_2	IE_NW_37C060400	CLOGHER (DONEGAL)_010	River	At risk	Not at risk	Poor	Good	No			
37_3	IE_NW_37C080400	CUNLIN LOUGH STREAM_010	River	Not at risk	At risk	Good	Moderate	No	Other		
37_2	IE_NW_37C240980	CLARCARRICKNAGUN_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_1	IE_NW_37C330730	COOL_MORE_010	River	Review	Review	Unassigned	Unassigned	No			
37_2	IE_NW_37D010400	DRUMMENY_010	River	Not at risk	Not at risk	Good	Good	No			
37_5	IE_NW_37D460520	DRUMNAKILLY_010	River	Review	Review	Unassigned	Unassigned	No			
37_5	IE_NW_37E010200	EANYBEG WATER_010	River	Not at risk	Not at risk	High	High	Yes			

Subcatchment Code	Waterbody Code	Waterbody Name	Waterbody Type	Risk 10-15	Risk 13-18	Status 10-15	Status 13-18	High Ecological Status Objective Waterbody	Significant Pressures	Recommended Areas for Action Name	Recommended Areas for Action (reasons for selection)
37_5	IE_NW_37E010700	EANYBEG WATER_020	River	Not at risk	Not at risk	High	High	No			
37_5	IE_NW_37E020050	EANYMORE WATER_010	River	Not at risk	Not at risk	Good	Good	No			
37_5	IE_NW_37E020150	EANYMORE WATER_020	River	At risk	Not at risk	Moderate	Good	No			
37_5	IE_NW_37E030300	EANY WATER_010	River	At risk	Review	Moderate	Good	No			
37_5	IE_NW_37E030350	EANY WATER_020	River	Review	Review	Unassigned	Unassigned	No			
37_5	IE_NW_37E040100	EGLISH_010	River	Not at risk	Not at risk	Good	Good	No			
37_2	IE_NW_37E050200	ESKE_010	River	At risk	Not at risk	Moderate	Good	No			
37_2	IE_NW_37E050400	ESKE_020	River	Not at risk	Not at risk	Good	Good	No			
37_3	IE_NW_37F010100	FINTRAGH_010	River	At risk	At risk	Good	Good	Yes	Ag, DWW		
37_4	IE_NW_37G010045	GLEN (CARRICK)_010	River	At risk	At risk	Poor	Moderate	No	Ag	Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37G010070	GLEN (CARRICK)_020	River	Not at risk	Not at risk	Good	Good	No		Donegal SW and Murlins	Expansion of existing PAA under SC approach
37_4	IE_NW_37G010200	GLEN (CARRICK)_030	River	At risk	At risk	Moderate	Poor	No	Ag, Other, UR	Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37G020100	GLENADDRAGH_010	River	At risk	Review	Moderate	Good	No		Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37G020200	GLENADDRAGH_020	River	At risk	At risk	Poor	Poor	No	Ag, For	Donegal SW and Murlins	Within existing PAA
37_3	IE_NW_37K090640	KILL_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_2	IE_NW_37L010100	LOWERYMORE_010	River	At risk	Not at risk	Poor	Good	No			
37_2	IE_NW_37L010300	LOWERYMORE_020	River	Not at risk	Not at risk	High	High	Yes			
37_2	IE_NW_37L010400	LOWERYMORE_030	River	Not at risk	Not at risk	Good	High	No			
37_2	IE_NW_37L020600	LAGHY STREAM_010	River	At risk	At risk	Moderate	Moderate	No	For, Other	Laghy Stream - Bridgetown	Within existing PAA - LCA and referrals expected to be complete by 2021. Blue Dot site within WB. Not hydrologically connected to other WBs within PAA but maintain under SC approach for exit/transition strategy
37_3	IE_NW_37L030300	LOUGHADEERY_010	River	Not at risk	Not at risk	Good	Good	No		Stragar	Inputting WB to Stragar_010
37_2	IE_NW_37L370150	Leitrim Hill Stream_010	River	Review	Review	Unassigned	Unassigned	No			
37_5	IE_NW_37M070870	MOUNTCHARLES_010	River	At risk	At risk	Unassigned	Unassigned	No	DWW		
37_4	IE_NW_37M620990	Malin Beg_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_3	IE_NW_37O010050	OILY_010	River	Not at risk	Not at risk	High	High	Yes			
37_3	IE_NW_37O010200	OILY_020	River	Not at risk	Not at risk	Good	Good	No			
37_4	IE_NW_37O020600	OWENTESKINY_010	River	At risk	Review	Good	Good	Yes		Donegal SW and Murlins	Within existing PAA
37_4	IE_NW_37O030500	OWENWEE (CARRICK)_010	River	At risk	At risk	Poor	Poor	No	Ag, Hymo	Donegal SW and Murlins	Within existing PAA
37_3	IE_NW_37R010200	ROECHROW_010	River	At risk	At risk	Poor	Bad	No	Ag, For	Stragar	Proposed by LA for LAWPRO based on recent deteriorations

Subcatchment Code	Waterbody Code	Waterbody Name	Waterbody Type	Risk 10-15	Risk 13-18	Status 10-15	Status 13-18	High Ecological Status Objective Waterbody	Significant Pressures	Recommended Areas for Action Name	Recommended Areas for Action (reasons for selection)
37_3	IE_NW_37S020300	STRAGAR_010	River	At risk	At risk	Moderate	Poor	No	Ag, Hymo, Ind, Other	Stragar	Proposed by LA for LAWPRO based on recent deteriorations
37_3	IE_NW_37T010400	TULLINTEANE_010	River	At risk	Not at risk	Good	High	Yes			
37_4	IE_NW_37_140	Meenaviller	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_3	IE_NW_37_147	Aroshin	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_3	IE_NW_37_149	Tamur	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_2	IE_NW_37_180	Belshade	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_2	IE_NW_37_188	Eske	Lake	At risk	Review	Moderate	Good	No			
37_5	IE_NW_37_194	Croagh	Lake	Review	Review	Unassigned	Unassigned	No			
37_5	IE_NW_37_195	Glencoagh	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_1	IE_NW_37_197	Dunragh	Lake	Review	Review	Unassigned	Unassigned	No		Laghy Stream - Bridgetown	Within existing PAA - Unassigned lake, requires further characterisation
37_4	IE_NW_37_200	Nalugraman	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No		Donegal SW and Murlins	Expansion of existing PAA - within Owenteskinny_010. Also proposed by IFI for Arctic char
37_5	IE_NW_37_208	St. Peters	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_2	IE_NW_37_210	Cullionboy	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_2	IE_NW_37_22	Fad Barnesmore Gap	Lake	Not at risk	Not at risk	Unassigned	Unassigned	No			
35_3, 36_20, 36_27, 36_28, 37_1, 37_2, 37_3, 37_5	IE_NW_010_0000	Donegal Bay (Erne)	Coastal	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_3, 37_5	IE_NW_060_0000	Inver Bay	Coastal	Not at risk	Not at risk	Unassigned	Unassigned	No			
35_3, 37_3, 37_4	IE_NW_070_0000	Donegal Bay Northern	Coastal	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_3	IE_NW_080_0000	McSwines Bay	Coastal	Review	Not at risk	Good	High	No			
37_3	IE_NW_085_0000	Killybegs Harbour	Coastal	At risk	Not at risk	Moderate	Good	No			
37_4, 38_1, 38_3, 38_4, 38_5, 38_6, 38_8, 38_9, 39_1, 40_1	IE_NW_100_0000	Northwestern Atlantic Seaboard (HAs 37;38)	Coastal	Not at risk	Not at risk	High	High	Yes			
37_1	IE_NW_040_0100	Durnesh Lough	Transitional	At risk	Review	Poor	Poor	No			
37_1, 37_2	IE_NW_050_0100	Inner Donegal Bay	Transitional	Not at risk	Not at risk	Good	Good	No			
37_5	IE_NW_060_0100	Eany Water Estuary	Transitional	Not at risk	Not at risk	Unassigned	Unassigned	No			
37_4	IE_NW_090_0100	Teelin Bay	Transitional	Not at risk	Not at risk	Unassigned	Unassigned	No			
36_27, 37_1	IE_NW_G_018	Kildoney North	Groundwater	Not at risk	Not at risk	Good	Good	No			
01_1, 01_3, 01_5, 36_25, 36_26, 36_27, 37_1, 37_2,	IE_NW_G_047	Donegal South	Groundwater	Not at risk	Not at risk	Good	Good	No			

Subcatchment Code	Waterbody Code	Waterbody Name	Waterbody Type	Risk 10-15	Risk 13-18	Status 10-15	Status 13-18	High Ecological Status Objective Waterbody	Significant Pressures	Recommended Areas for Action Name	Recommended Areas for Action (reasons for selection)
37_3, 37_4, 37_5, 38_4, 38_9											
01_3, 01_8, 37_3, 37_4, 37_5, 38_1, 38_2, 38_3, 38_4, 38_5, 38_6, 38_7, 38_8, 38_9, 39_3, 39_5, 39_7	IE_NW_G_049	Northwest Donegal	Groundwater	Review	Not at risk	Good	Good	No			
37_2, 37_5	IE_NW_G_067	Frosses	Groundwater	Not at risk	Not at risk	Good	Good	No			
37_3, 37_5	IE_NW_G_068	St. Johns Point	Groundwater	Review	Not at risk	Good	Good	No			
37_2, 37_3, 37_5	IE_NW_G_069	Doorin Point	Groundwater	Not at risk	Not at risk	Good	Good	No			
37_2, 37_3, 37_5	IE_NW_G_070	Inver-Banagher Hill	Groundwater	Review	Not at risk	Good	Good	No			
36_27, 37_1, 37_2	IE_NW_G_071	Donegal-Ballintra	Groundwater	Not at risk	Not at risk	Good	Good	No			
36_27, 37_1	IE_NW_G_072	Ballyshannon	Groundwater	Not at risk	Not at risk	Good	Good	No			
36_27, 37_1	IE_NW_G_100	Waste Facility (W0024-03)	Groundwater	At risk	At risk	Poor	Poor	No	Other		
01_1, 01_3, 01_4, 01_5, 01_7, 36_25, 37_1, 37_2	IEGBNI_NW_G_005	Castlederg	Groundwater	Not at risk	Not at risk	Good	Good	No			
01_5, 36_25, 36_26, 36_27, 37_1	IEGBNI_NW_G_011	Ballyshannon East	Groundwater	Not at risk	Not at risk	Good	Good	No			
01_1, 01_2, 01_3, 01_4, 01_6, 01_7, 01_8, 37_2, 37_5, 38_2, 38_9, 39_6, 39_7	IEGBNI_NW_G_048	Ballybofey	Groundwater	Not at risk	Not at risk	Good	Good	No			

Ag: Agriculture

M+Q: Mines and Quarries

DWW: Domestic Waste Water

Peat: Peat Drainage and Extraction

For: Forestry

UR: Urban Run-off

Hymo: Hydromorphology

UWW: Urban Waste Water

Ind: Industry

Note: Significant Pressures for *Review* waterbodies have not been included as they will need to be confirmed as part of an Investigative Assessment.