3rd Cycle Draft Lower Shannon Catchment Report (HA 25B)

Catchment Science & Management Unit

Environmental Protection Agency

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Preface

This document provides a summary of the water quality assessment outcomes for the Lower Shannon 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.
2nd 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.
2nd 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.
3rd 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.
3rd 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.

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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 Lower Shannon 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 Lower Shannon catchment covers an area of 982km² and is characterised by a wide flat pain underlain by mostly impure limestones with a band of purer karstified limestone running from Fivealley to Ballingarry and an upland region in the east comprising the western slopes of the Slieve Bloom Mountains and the low hills to the southwest of Roscrea. There are extensive sand and gravel deposits around Roscrea and Birr that form productive groundwater aquifers (Figure 1).

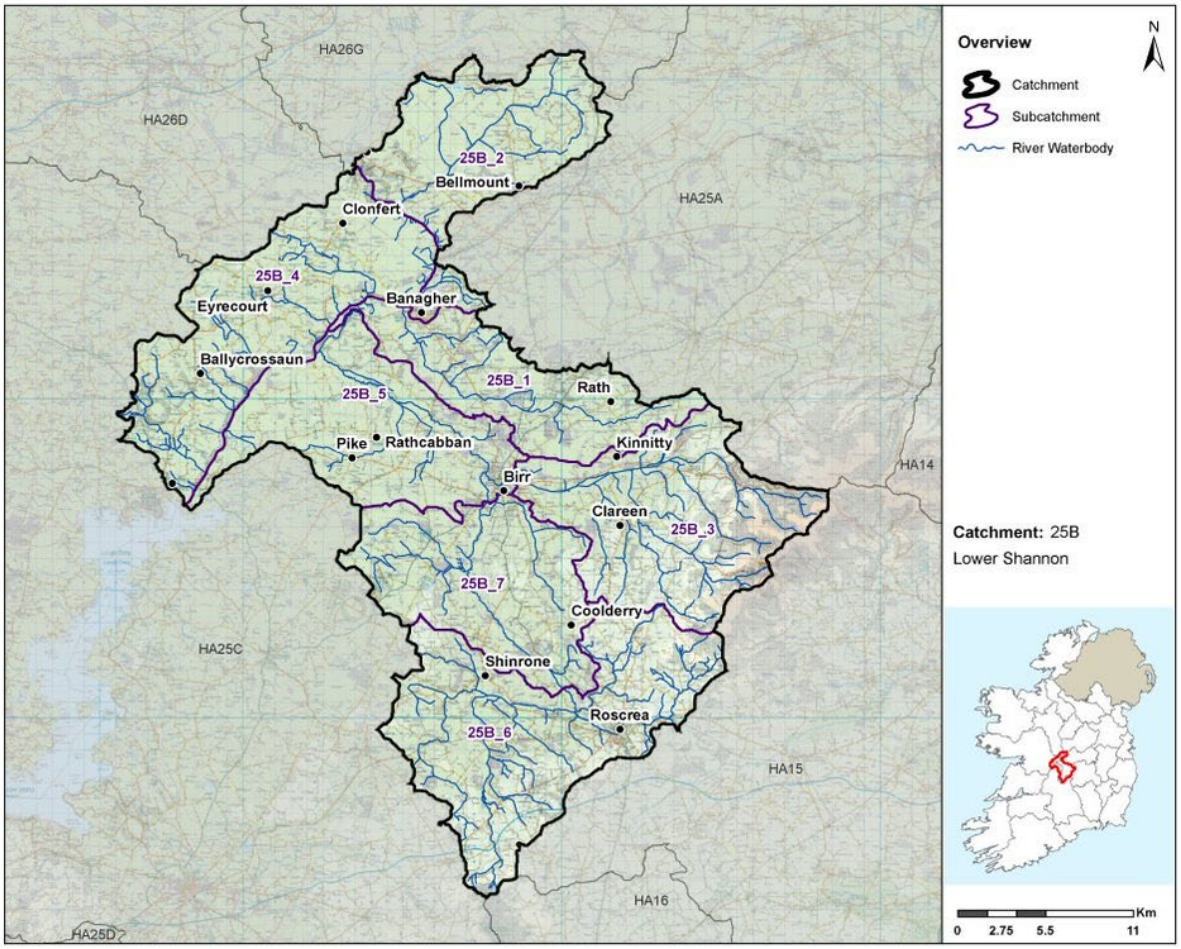


Figure 1: Overview of subcatchments in the Lower Shannon catchment

The Lower Shannon catchment is divided into seven subcatchments (Figure 1) with 44 river waterbodies and 28 groundwater bodies (Figure 2).

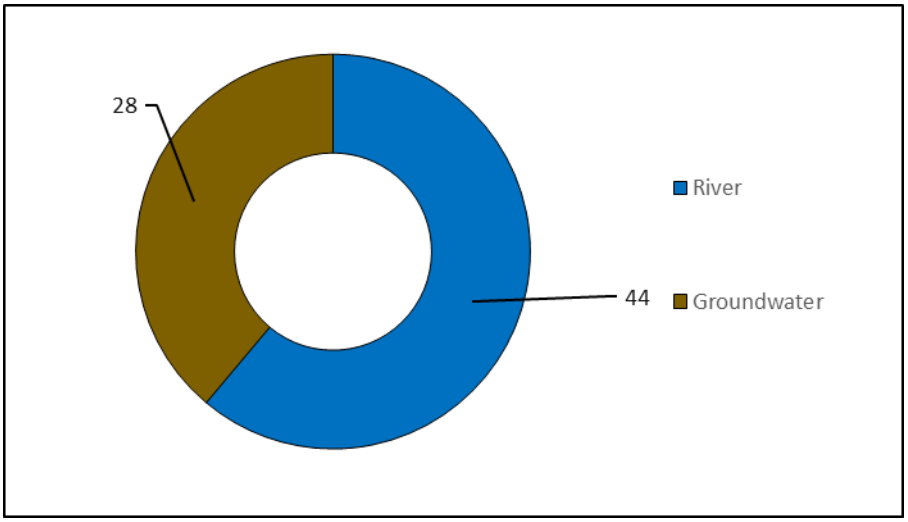


Figure 2: Waterbody types and numbers in the Lower Shannon Catchment.

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 For Cycle 3, there are two waterbodies achieving High Status, 42 achieving Good Status, 11 achieving Moderate Status and seven achieving Poor Status. There are 10 unassigned waterbodies in the catchment for Cycle 3. All waterbodies must achieve at least Good Ecological status.

- There are two river waterbodies (Camcor_010 & Roscomore Stream_010) that must achieve High Ecological Status (HES) in this catchment. These waterbodies are listed in Appendix 1. Both of the HES Environmental Objective waterbodies are achieving High Status.

- There have been reductions of two waterbodies (all river waterbodies) achieving Good Status, one waterbody (river waterbody) achieving Moderate Status and one unassigned river waterbody between Cycle 2 and Cycle 3. There has been an increase of four waterbodies (all river waterbodies) achieving Poor Status (Figure 3 & Table 1).

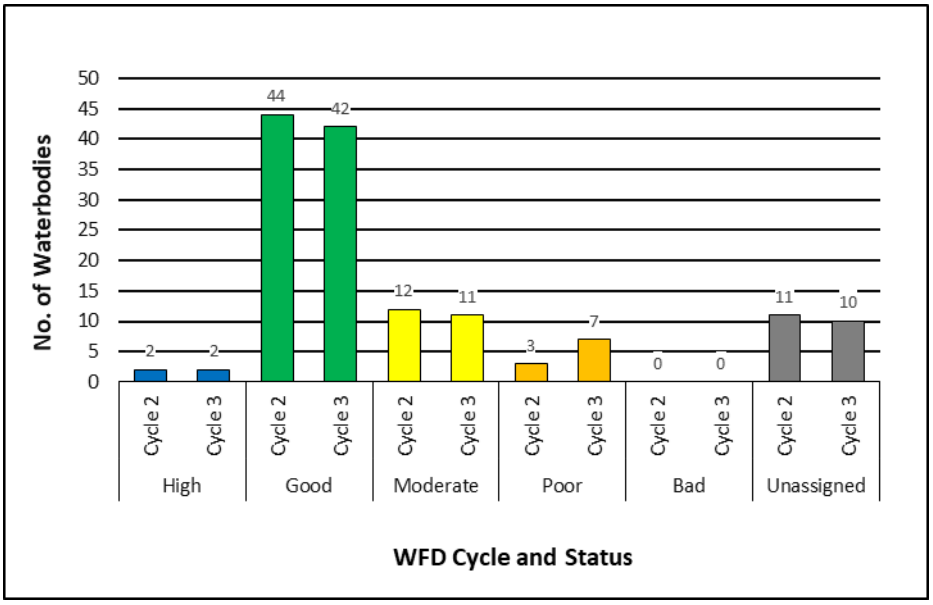


Figure 3: Waterbody Status Breakdown (All waterbodies)

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	2	2	0	0	0	0	0	0	0	0	**2**	**2**
Good	16	14	0	0	0	0	0	0	28	28	**44**	**42**
Moderate	12	11	0	0	0	0	0	0	0	0	**12**	**11**
Poor	3	7	0	0	0	0	0	0	0	0	**3**	**7**
Bad	0	0	0	0	0	0	0	0	0	0	**0**	**0**
Un-assigned	11	10	0	0	0	0	0	0	0	0	**11**	**10**
Total	44	44	0	0	0	0	0	0	28	28	**72**	**72**

- 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 one (2%) waterbodies have improved in status, 53 (88%) waterbodies have remained unchanged and six (10%) waterbodies have declined in status.[1]

- There is an overall decline in the status of five 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.

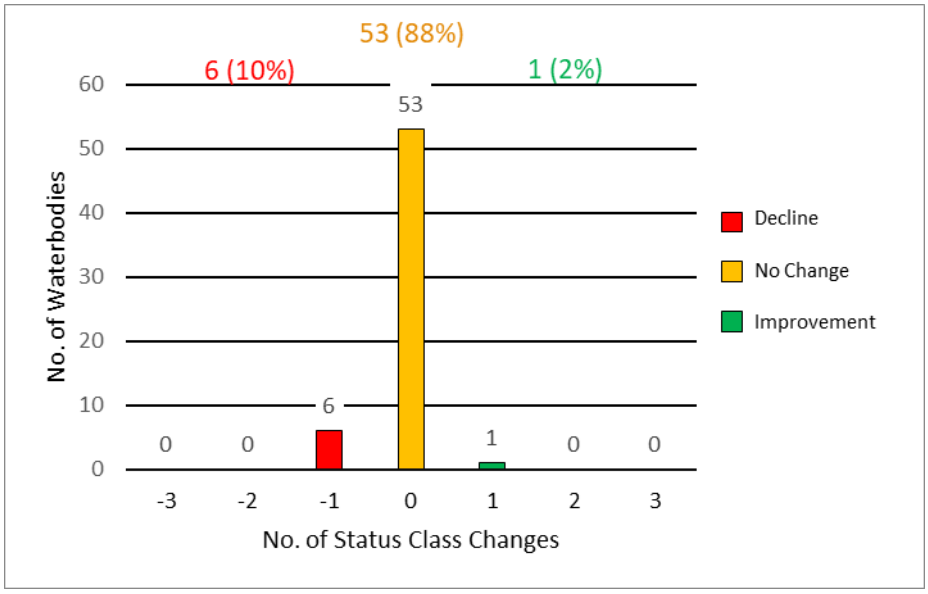


Figure 4: Status Class Changes between Cycle 2 and Cycle 3

2.2 Protected Areas

2.2.1 Drinking Water

There are four 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*.

- One groundwater body in the catchment did not meet the DWPA objective in 2019:
  - Templemore (IE_SE_G_131) groundwater body is the source for Templetuohy public supply (2800PUB1013) which had nitrate exceedance.

- 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 no bathing waters in or directly adjacent to the catchment identified under the Bathing Water Regulations 2008.

- For more detailed information please see the EPA report on bathing water quality in 2020[4].

2.2.3 Shellfish Areas

- There are no designated shellfish areas in the catchment.

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

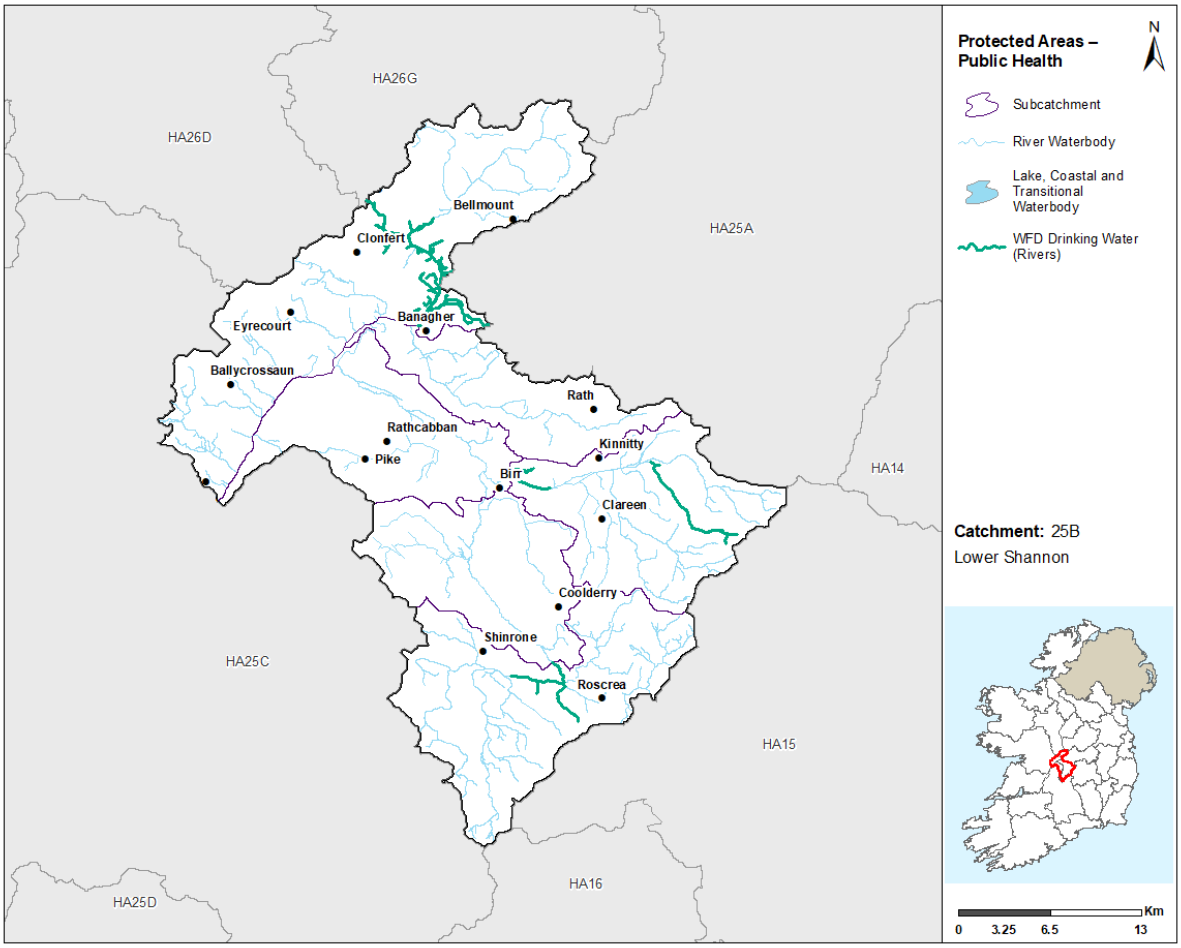


Figure 5: Protected Areas – Public Health

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 17 SACs in this catchment, 15 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 2 below, information at a waterbody level can be viewed at Catchments.ie.[5]

Table 2: Natura 2000 Network Assessment Summary

Water Body Type	Total No.	Meeting the Requirements	Did not meet the Requirements	Unknown*
Rivers	1	1	0	0

**As the waterbody status was unassigned.*

- There are no river waterbodies with FWPM habitats in the catchment.
- There is one groundwater body (GWDTE-Fin Lough Fen (SAC000571)) delineated and assessed as Groundwater Dependent Terrestrial Ecosystems for this catchment. The waterbody is at Good Status (2013-2018).
- Water dependent SACs/ SPAs in the catchment are illustrated in Figure 6.

[5] https://www.catchments.ie/download/catchments-assessments-protected-areas-supporting-documents/

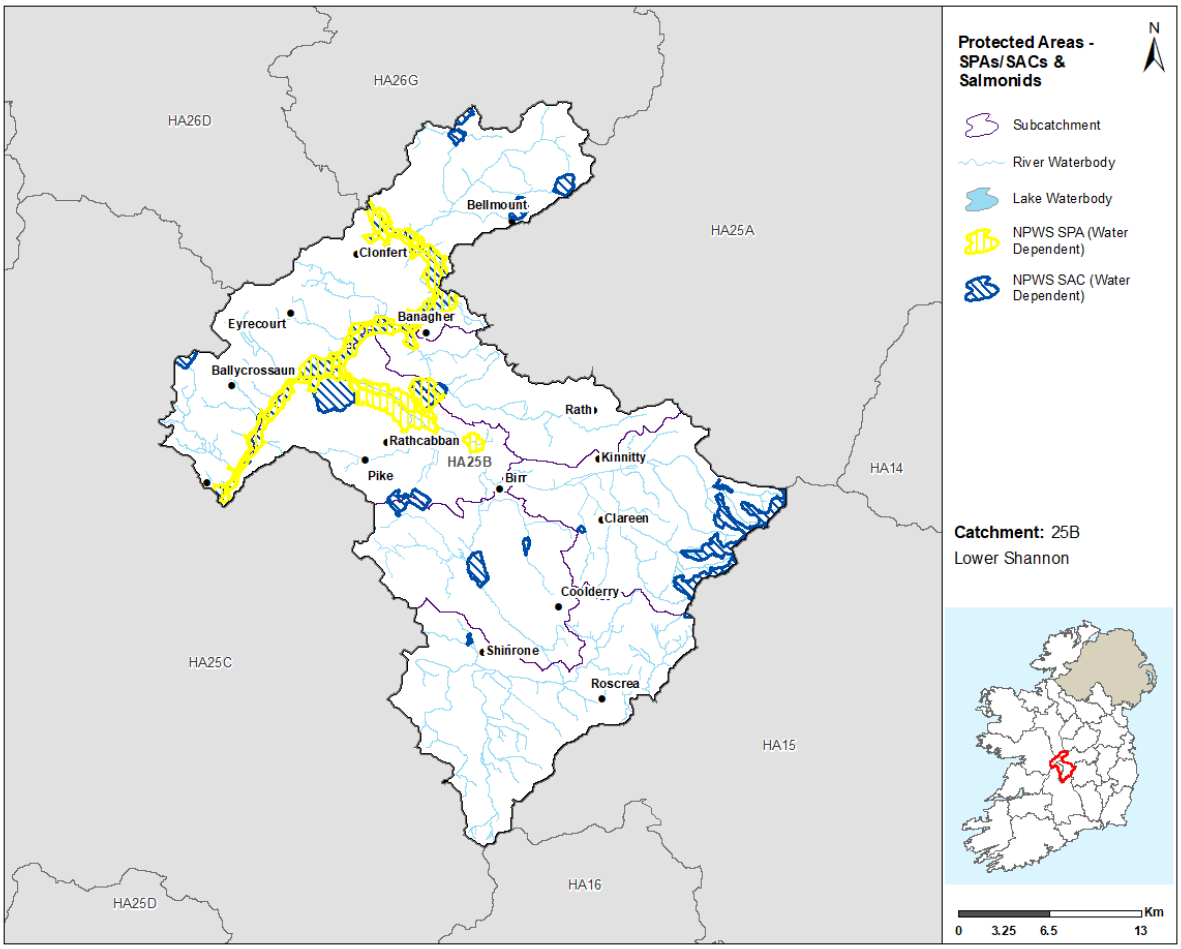


Figure 6: Water Dependent SPAs / SACs and Salmonid Waters

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 is one NSA in the catchment downstream of Roscrea urban wastewater agglomeration, the NSA objective is being met (Table 3).

Table 3: Nutrient sensitive areas in the catchment

Nutrient Sensitive Area	Agglomeration		Water body		Objective met?		Comment
	Name	Code	Name	Code	Yes	No	
Little Brosna River (020)	Roscrea	D0025-01	Little Brosna_020	IE_SH_25L020400	✓		Tertiary Treatment in place

2.3 Heavily Modified Waterbodies

- Based on the 1st and 2nd RBMPs there are currently no heavily modified water bodies (HMWBs) in the catchment.

2.4 Artificial Waterbodies

- There are no Artificial Waterbodies (AWBs) present in the Lower Shannon Catchment.

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 72 waterbodies in the Lower Shannon Catchment and 20 (28%) are currently *At Risk*, 13 (18%) in *Review* and 39 (54%) are *Not At Risk*.

3.2 Surface Waters

- For the 44 rivers waterbodies, 19 (43%) are *At Risk* five (11%) are in *Review* and 20 (45%) are *Not At Risk*.

- 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 five *At Risk* waterbodies and five *Not At Risk* waterbodies, and a decrease of 10 waterbodies in *Review* between Cycle 2 and Cycle 3.

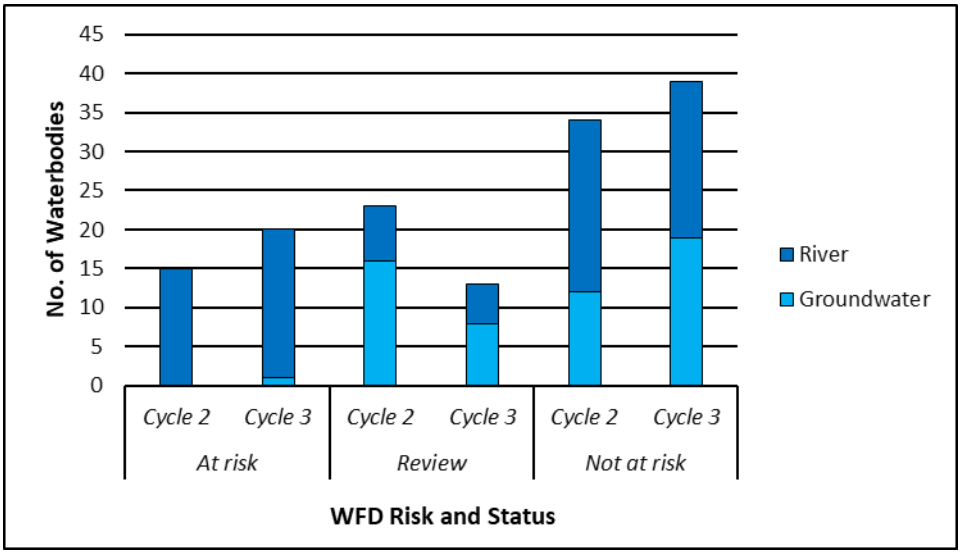


Figure 7: Number of waterbodies in each risk category

- 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.

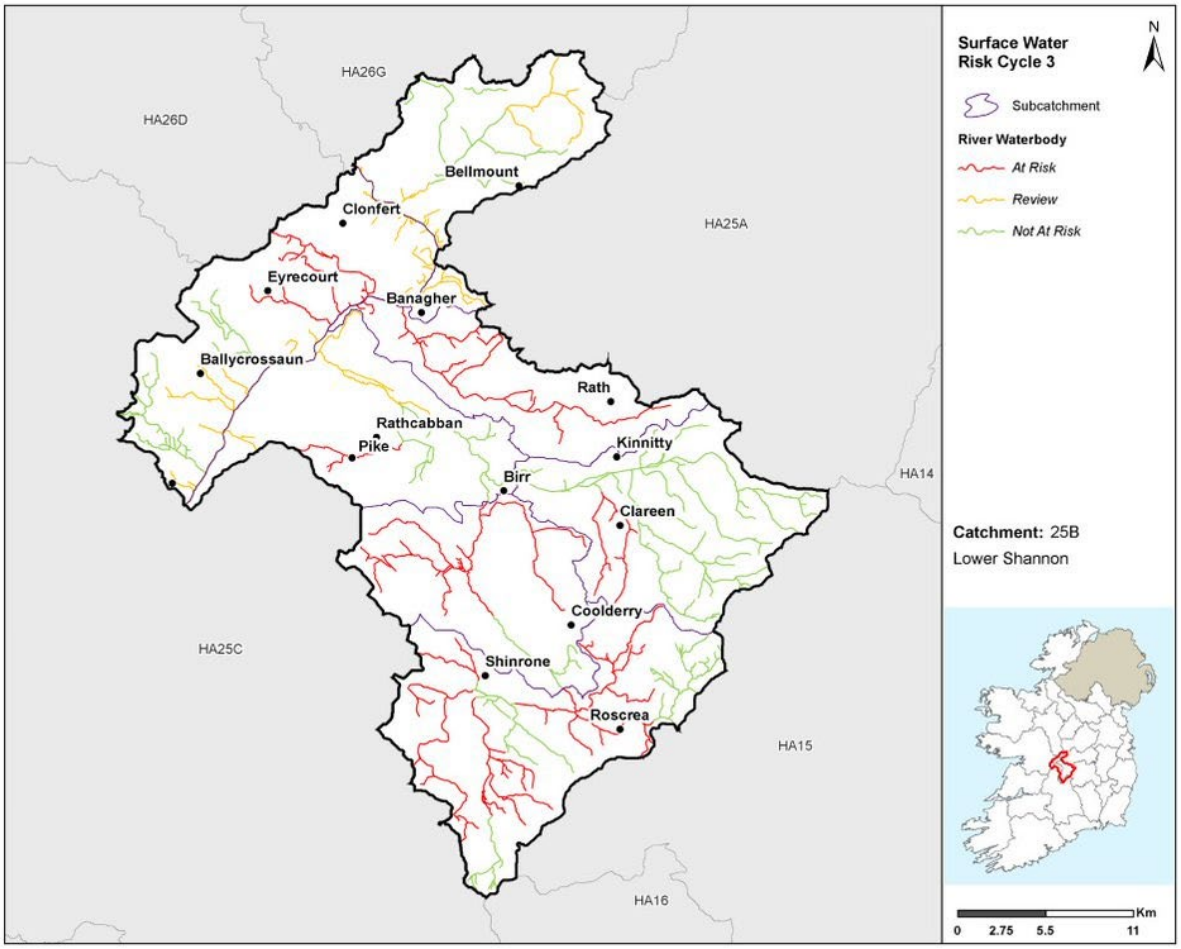


Figure 8: Surface Water Risk Cycle 3

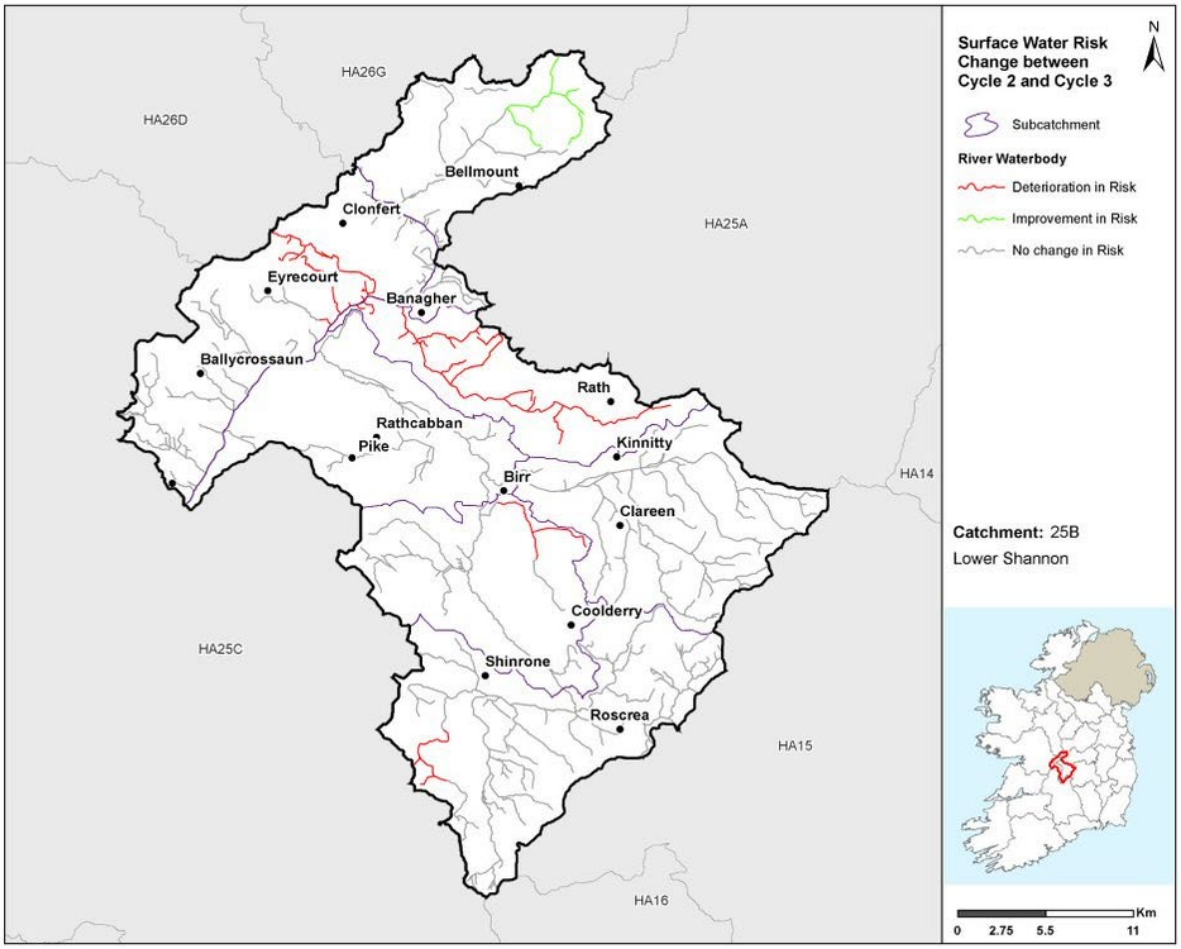


Figure 9: Surface Water Risk Change between Cycle 2 and Cycle 3

3.3 Groundwater

- For the 28 groundwater bodies, one (4%) is *At Risk* (Tullamore), eight (29%) are in *Review* and 19 (68%) are *Not At Risk*. Only a minor portion of the Tullamore groundwater is within the Lower Shannon Catchment boundary.

- In Cycle 2, there were 16 groundwater bodies in *Review* in this catchment and 12 *Not At Risk*.

- The location of the *At Risk, Review and Not At Risk* groundwater bodies for Cycle 3 are shown in Figure 10.

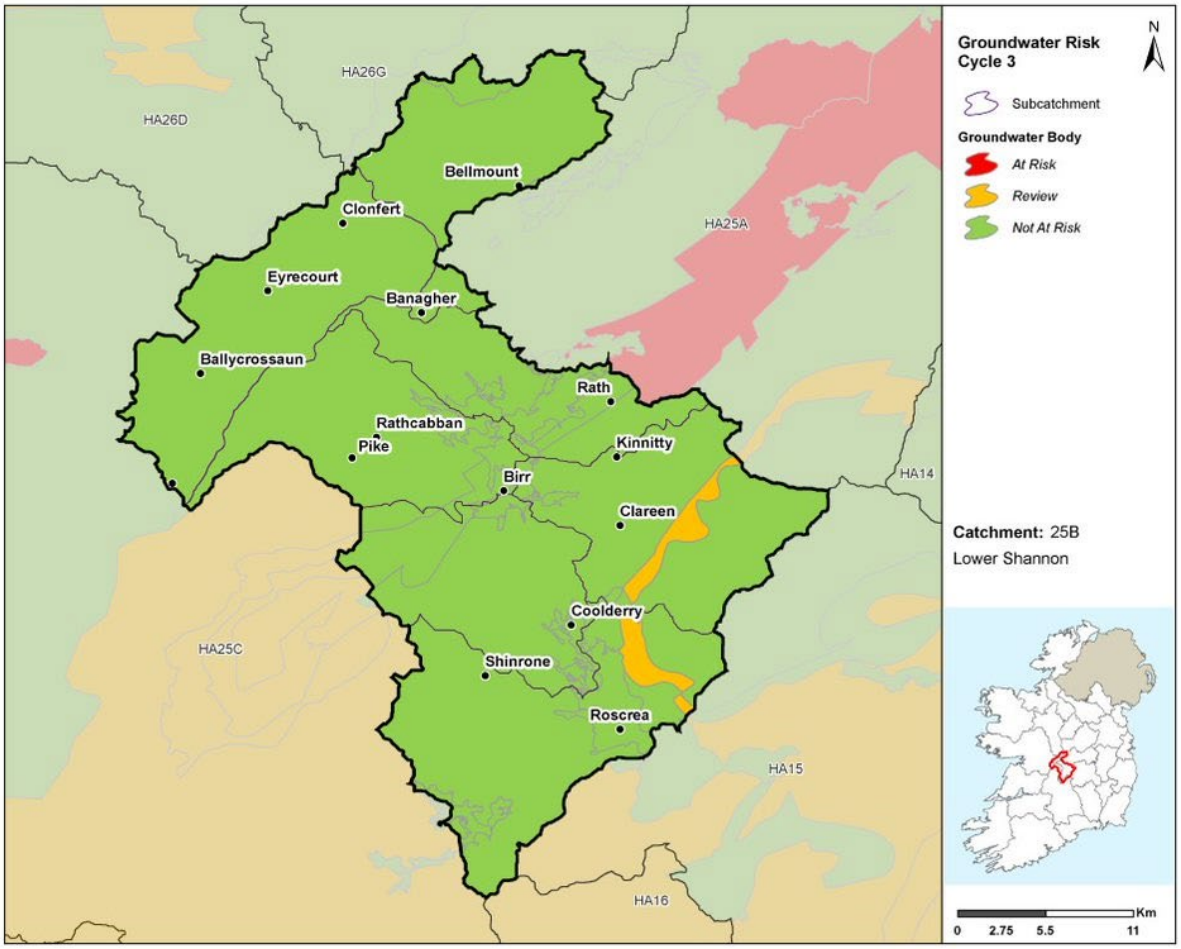


Figure 10: Cycle 3 Groundwater Body Risk

3.4 Heavily Modified Waterbodies

- There are no HMWBs in the catchment. 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

- There are no Artificial Waterbodies (AWBs) present in the Lower Shannon Catchment.

4 Significant Issues in *At Risk* Waterbodies

4.1 All Waterbodies

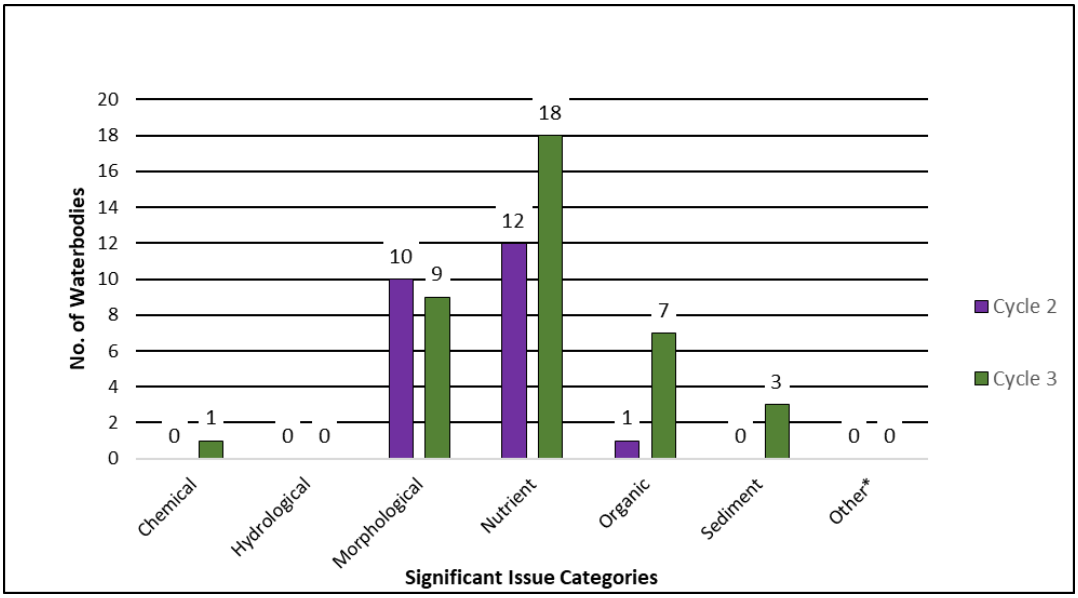
- Excess nutrients and morphological impacts remain the most prevalent issues in the Lower Shannon catchment (Figure 11) impacting 18 and nine waterbodies, respectively, in Cycle 3. Organic pollution is impacting seven waterbodies, while sediment and chemical issues are impacting three and one waterbody, respectively.
    - For river waterbodies, the main significant issues are nutrient pollution (18), morphological impacts (9), organic (7) and sediment impacts (3).

- For the one *At Risk* groundwater body (Tullamore) the significant issue is chemical pollution.

- Between Cycle 2 and Cycle 3 the number of waterbodies with nutrient and organic pollution have both increased by six, from 12 to 18 and from one to seven waterbodies impacted respectively.

- The numbers of waterbodies with sediment and chemical issues have also both increased from no waterbodies in Cycle 2 to three and one respectively in Cycle 3.

- The number of waterbodies impacted by morphological impacts has decreased from 10 in Cycle 2 to nine 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

- The Lower Shannon Catchment currently has two High Status Objective waterbodies, Camcor_010 and Roscomore Stream_010. Neither of these waterbodies are *At Risk* in Cycle 3.

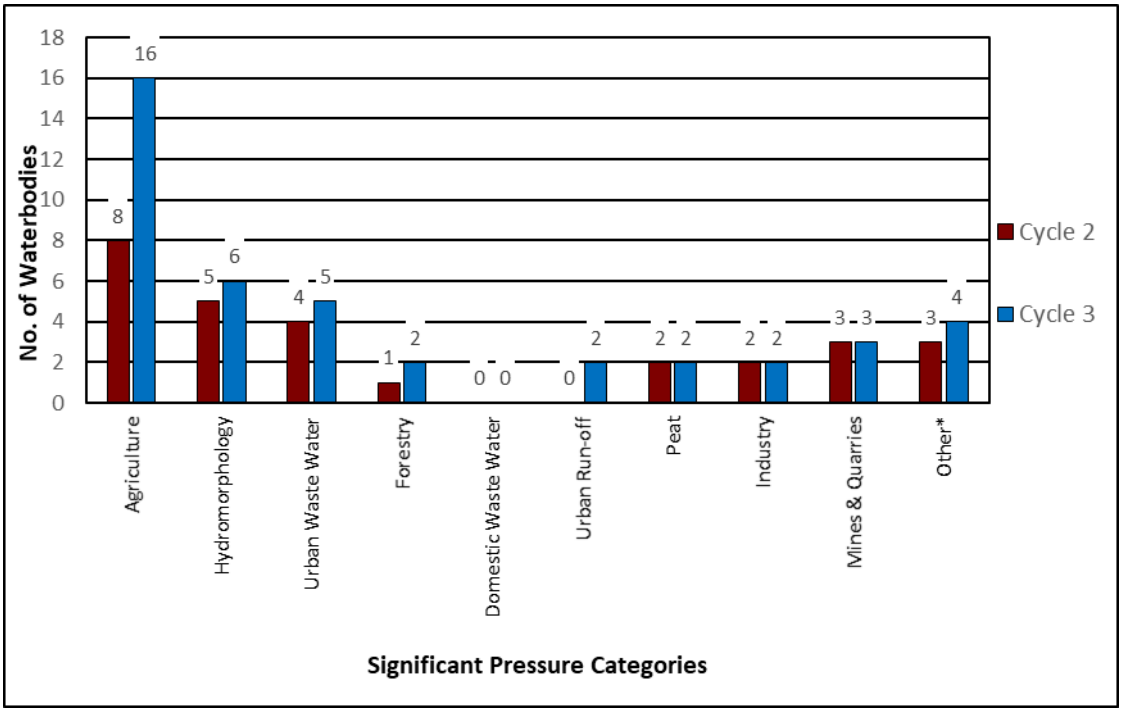
5 Significant pressures in *At Risk* Waterbodies

5.1 All Waterbodies

- Where waterbodies have been classed as *At Risk*, significant pressures have been identified.
- Figure 12 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 hydromorphology, urban waste water, other[6], mines & quarries and forestry, urban run-off, peat and industry.

- When comparing Cycle 2 and Cycle 3 the biggest change is an increase of five waterbodies where agriculture is a significant pressure from eight waterbodies in Cycle 2 to 13 waterbodies in Cycle 3.



*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 12: Significant Pressure (All *At Risk* Waterbodies)

5.1.1 Pressure Type

5.1.1.1 Agriculture

- Agriculture is a significant pressure in 16 waterbodies. The issues related to farming in this catchment are predominantly due to phosphorus loss to surface waters from, for example, direct discharges; or runoff from yards, roadways or other compacted surfaces, or runoff from poorly draining soils. Sediment can also be a problem from land drainage works or tillage, bank erosion from animal access or stream crossings. Total oxidised nitrogen conditions were noted to be moderate within the three of the Lower Shannon subcatchments (25B_2, 25B_6 and 25B_7).

5.1.1.2 Hydromorphology

- Hydromorphology is a significant pressure in six waterbodies, Eyrecourt Stream_010, Kilcomin Stream_020, Kilcomin Stream_030, Bunow_020, Rock (Birr)_010 and Little Brosna_040. Extensive modification has occurred within three river water bodies of the Shannon [Lower] and Little Brosna subcatchments due to drainage schemes, and within two river waterbodies of the Little Brosna

[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

sub catchment due to unauthorised drainage works. Such activities have led to excessive siltation. The degradation of bank protection has also contributed to the excessive input of fine sediment within a river waterbody (Bunow_020) of the Little Brosna sub catchment.

5.1.1.3 Urban Waste Water

- Urban Waste Water Treatment agglomerations have been identified as a significant pressure in five *At Risk* waterbodies (all river waterbodies. None of the four agglomerations identified as significant pressures are scheduled for upgrades under Irish Water's Capital Investment Programme (2020-2024)

Table 4: 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]
Eyrecourt D0375	500 to 1,000 p.e.	Eyrecourt Stream_010	Poor	N/A
Roscrea D0025	> 10,000 p.e.	Bunow_020	Moderate	N/A
Roscrea D0025	> 10,000 p.e.	Little Brosna_020	Poor	N/A
Coolderry A0166	< 500 p.e.	Rock (Birr)_010	Poor	N/A
Birr (D0109)	Combined Sewer Overflows	Rock (Birr)_020	Moderate	N/A

- Urban waste water significant pressures impacted one additional waterbody than in Cycle 2 (an increase from four to five waterbodies impacted). Birr (D0109) agglomeration was not listed as a pressure in Cycle 2 but has been added in Cycle 3.

5.1.1.4 Other Significant Pressures

- *Aquaculture*
  Aquaculture has been identified as a significant pressure in two river waterbodies, Golden Grove Stream_020 and Bunow_020. There are two fish farms which have contributed to elevated concentrations of ammonia in these rivers.

- *Anthropogenic unknown*
  There are unknown significant pressures impacting on the Shinrone Stream_010 and Clareen Stream/Fuarawn_020 river waterbodies.

5.1.1.5 Mines and Quarries

- Quarries have been identified as a significant pressure in three waterbodies, Clareen Stream/Fuarawn_010, Clareen Stream/Fuarawn_020 and Golden Grove Stream_020. The quarries on the Clareen Stream/Fuarawn_010 and _020 have been known to cause extreme siltation with moderate to heavy siltation recorded at the monitoring site in 2014. The substrate is also calcareous. The quarry impacting the Golden Grove Stream_010 is active and appears to be responsible for intermittent siltation issues.

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

5.1.1.6 Forestry

- Forestry has been identified as a significant pressure in two waterbodies, Shinrone Stream_010 and Clareen Stream/Fuarawn_020. The significant issue in these river waterbodies is from silt due to general forestry activities and possible felling.

5.1.1.7 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 from Birr town (Rock (Birr)_020) and Banagher (Shannon (Lower)_020). Nutrient pollution, organic pollution and sedimentation are the significant issues.

5.1.1.8 Peat

Peat harvesting, and drainage have been identified as significant pressures in two waterbodies, Rapemills_020 and Little Brosna_040 respectively. There has been intensive peat cutting throughout which is contributing elevated total oxidised nitrogen. In the Little Brosna_040 it is noted that there is some peat extraction however there is an extensive drainage network which has resulted in increased sediment loads, which alters habitats, morphology and hydrology.

5.1.1.9 Industry

Industrial discharges have been identified as a significant pressure in two rivers, Little Brosna_020 and Bunow_020 (Table 5), with organic concentrations being the main issues of concern.

Table 5: Breakdown of Cycle 3 Industry Significant Pressures in the Lower Shannon Catchment

Waterbody Code	Waterbody Name	Waterbody Type	Emission Type	Name	Impact
IE_SH_25B250400	BUNOW_020	River	Section 4	N/A*	Organic
IE_SH_25L020400	LITTLE BROSNA_020	River	Section 4	N/A*	Organic

*Name of facility not provided during characterisation

Figure 13 – Figure 16 illustrates the locations of waterbodies for the four most common pressures in order of prevalence (agriculture, hydromorphology, urban waste water and other) within the catchment in Cycle 3.

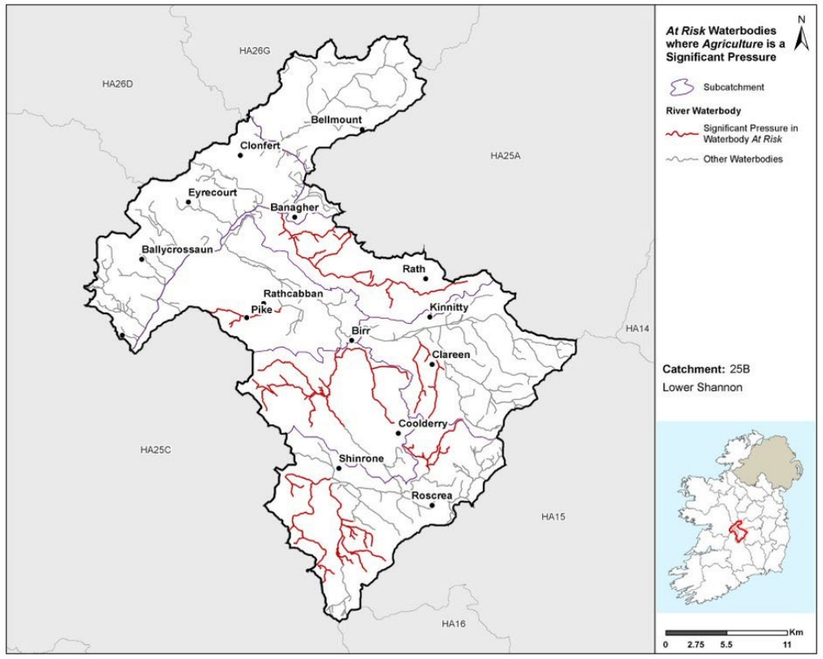


Figure 13: Locations of Waterbodies where Agriculture is a Significant Pressure

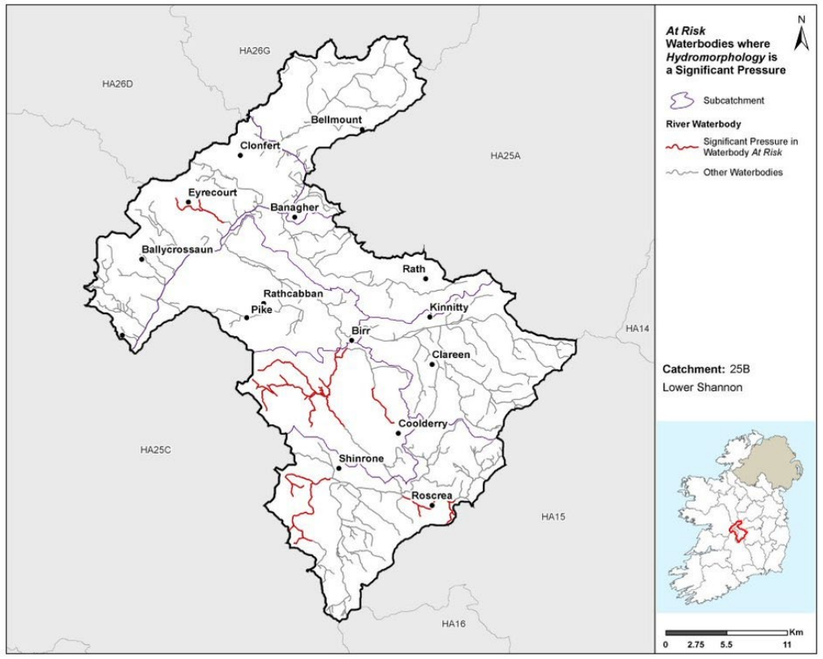


Figure 14: Locations of Waterbodies where Hydromorphology is a Significant Pressure

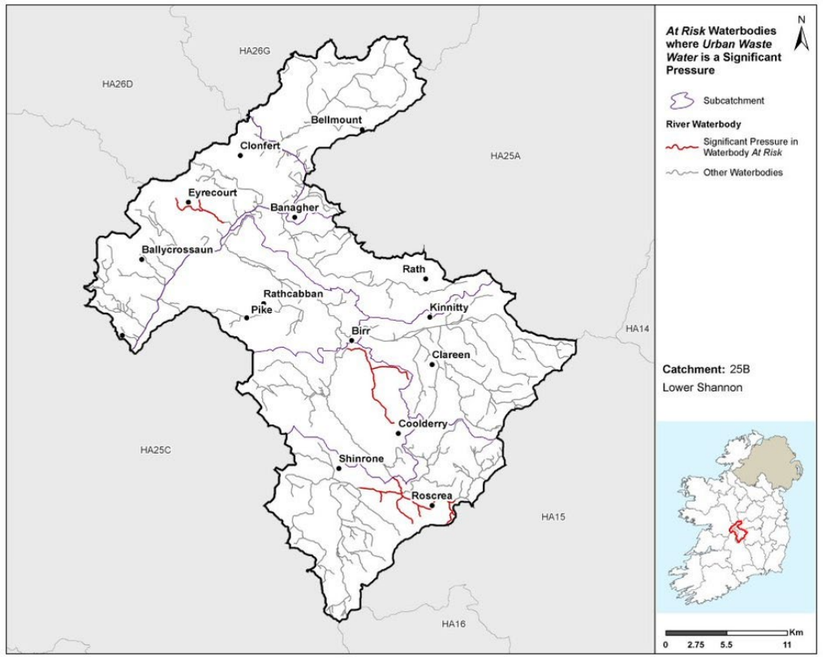


Figure 15: Locations of Waterbodies where Urban Waste Water is a Significant Pressure

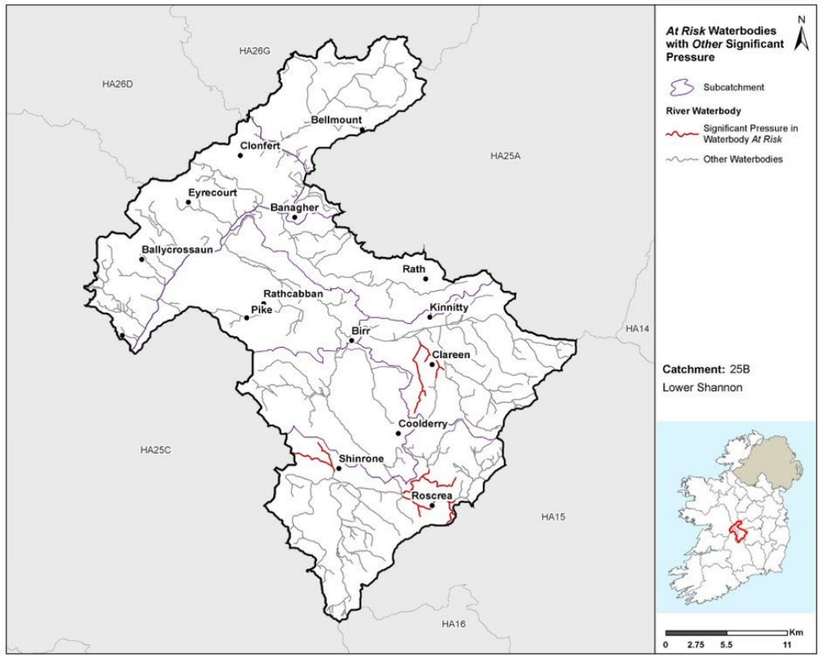


Figure 16: Locations of Waterbodies where Other is a Significant Pressure

5.2 High Status Objective Waterbodies

- As stated in Section 4.2, the Lower Shannon Catchment has two High Status Objective waterbodies, Camcor_010 and Roscomore Stream_010. Neither of these waterbodies are *At Risk* in Cycle 3.

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 pasture is responsible for 86% of the nitrogen load while land in pasture, forestry and discharges from urban waste water contribute 44%, 17% and 14% of the phosphorus loadings for the catchment respectively (Figure 17).

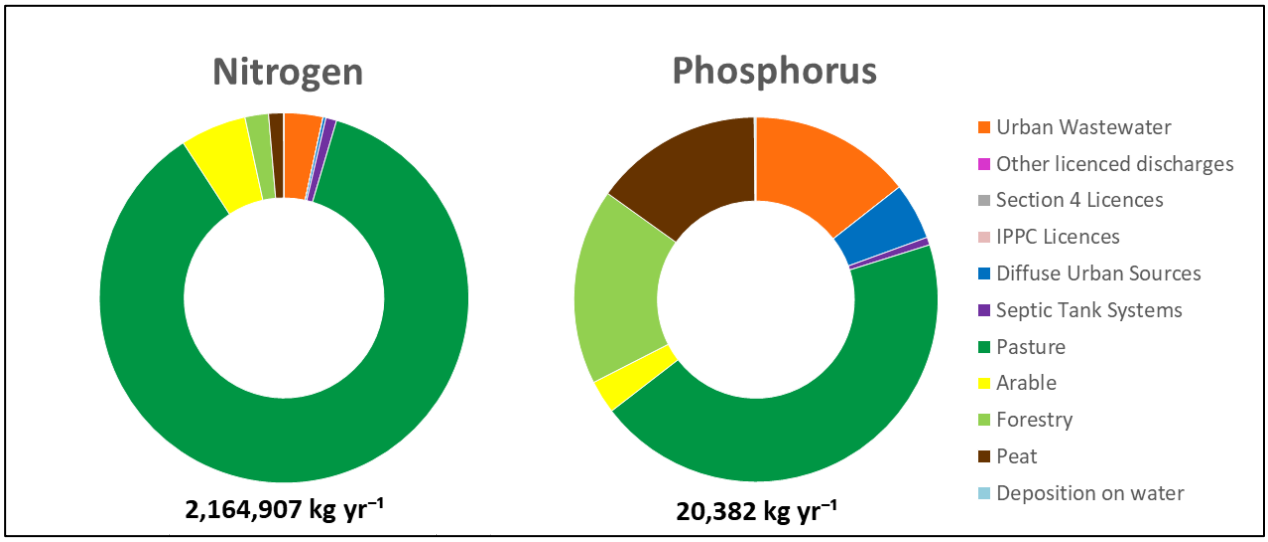


Figure 17: Estimated Proportions of N & P from Each Sector in the Lower Shannon Catchment

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 Lower Shannon Catchment.

7.2 Phosphorus / Sediment Load Reduction

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

Figure 18 highlights areas where agricultural measures for nitrogen, sediment and phosphorus should be targeted. Waterbodies with orange fill are areas where nitrogen measures should be targeted, waterbodies with blue fill are areas where sediment or phosphorus should be targeted and waterbodies with orange and blue hatching highlight areas where multiple measures (phosphorus /sediment and nitrogen) are required. Pollution Impact Potential mapping for both phosphorus and nitrogen in the catchment are provided in Appendix 2.

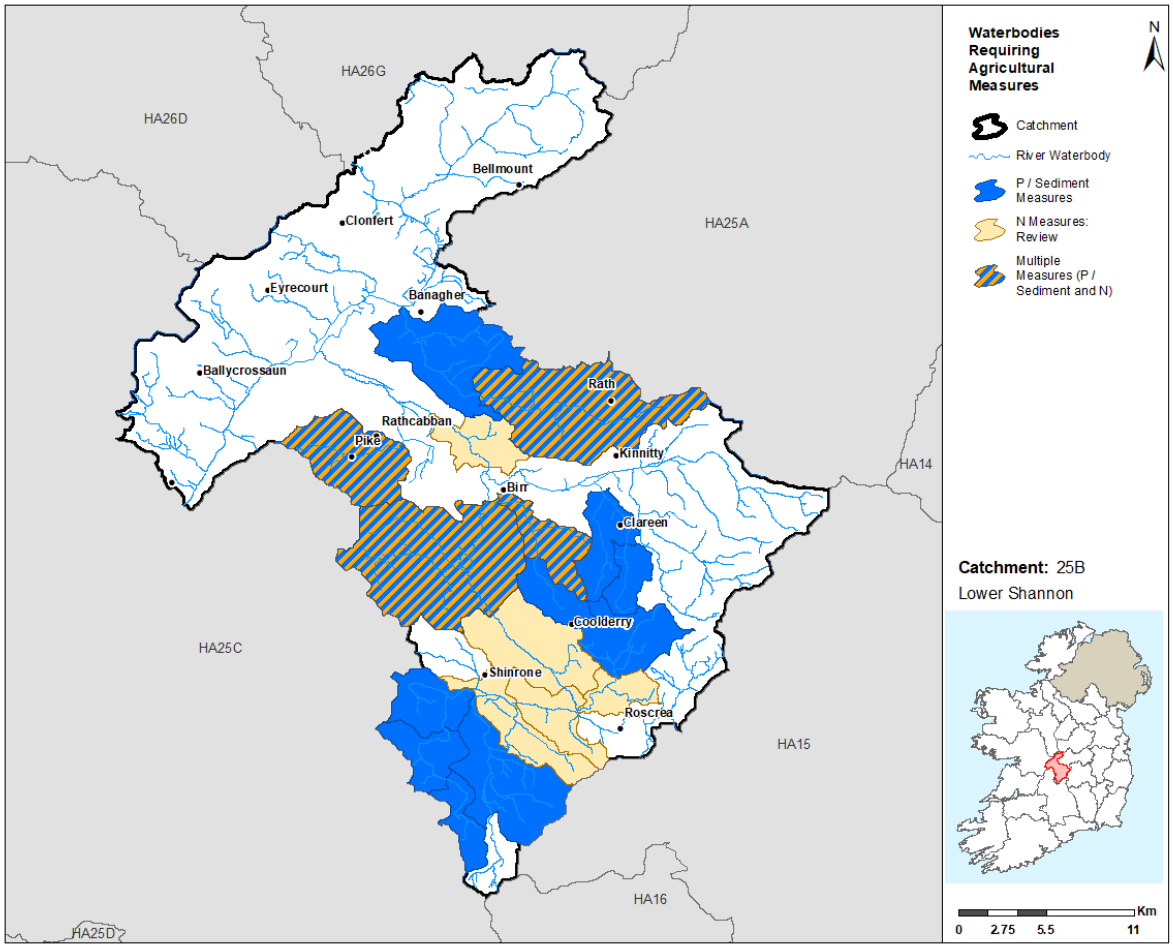


Figure 18: Waterbodies where Agricultural Measures should be Targeted

8 2nd Cycle Areas for Action

8.1 Area for Action Overview

- There were three Areas for Action, comprising of four 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 6 and shown in Figure 19. LAWPRO,

in conjunction with local authorities and stakeholders from the Midlands and East, West and South East Regional Operational Committee, have been working in these areas since 2018.

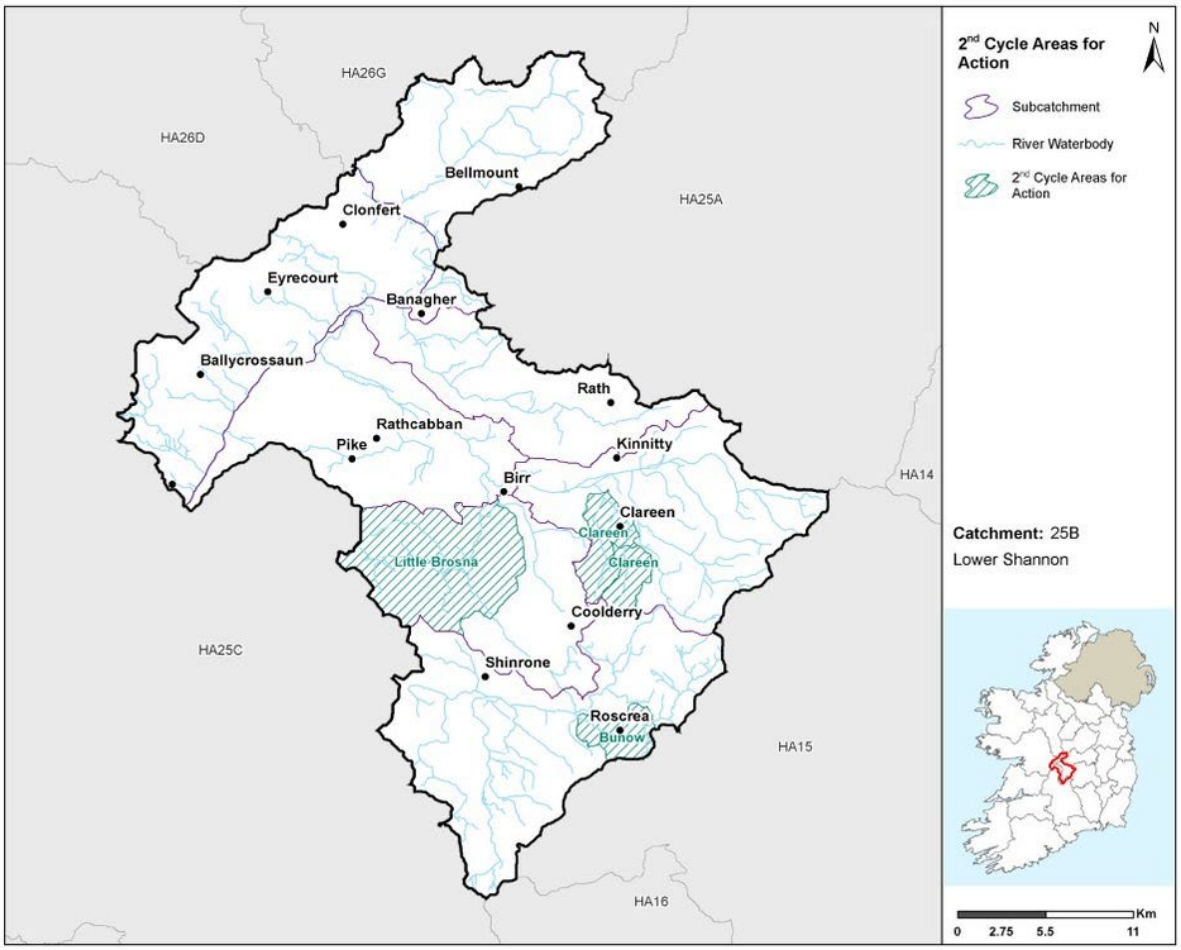


Figure 19: 2nd Cycle Areas for Action Locations

Table 6: 2nd Cycle Areas for Action

2nd Cycle Area for Action	Number of waterbodies	Sub-catchment	Local Authority	Reason for Selection
Clareen	2	25B_3	Offaly	• Building on existing knowledge from works completed by Offaly County Council. • Manageable area. • Large Group water scheme in the area.
Little Brosna_040	1	25B_7	Offaly	• Little Brosna_040 returned to good in 2010-12. • Sharavoge Bog is in the area; important raised bog. • Riverstown drinking water abstraction in area.
Bunow	1	25b_6	Tipperary Laois Offaly	• Build on ongoing work by Tipperary County Council.

2nd Cycle Area for Action	Number of waterbodies	Sub-catchment	Local Authority	Reason for Selection
				• Important for rural town (Roscrea) that it flows through.

8.2 Status Change in 2nd Cycle Areas for Action

- For Cycle 3, of the four waterbodies in the 2nd Cycle Areas for Action, there are three waterbodies at Moderate Status and one waterbody at Poor Status.

- There is an overall decline in the status of one of the 2nd cycle Areas for Action waterbodies across the catchment.[8]

- Of the four waterbodies within the 2nd Cycle Areas for Action which had status assigned, three experienced no change in status between Cycle 2 and Cycle 3 and one was subject to a deterioration in status (Figure 20). The waterbody which experienced a decline was in Clareen Area for Action.

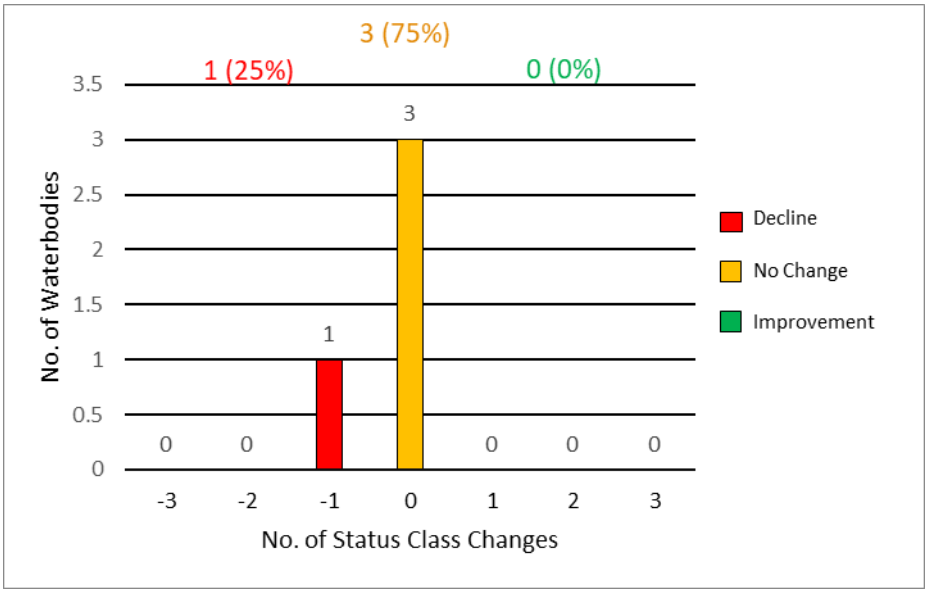


Figure 20: 2nd Cycle Area for Action Waterbody Status Class Changes between Cycle 2 and Cycle 3

8.3 Waterbody Risk in 2nd Cycle Areas for Action

- For the four waterbodies in the 2nd Cycle Areas for Action, all of these are currently *At Risk*.

- All four *At Risk* waterbodies are river waterbodies. Figure 21 gives an overview of the breakdown of risk across waterbody types for both Cycle 2 and Cycle 3 in 2nd Cycle Areas 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.

- Overall there is no change in the number of *At Risk* waterbodies in 2nd Cycle Areas for Action between Cycle 2 and Cycle 3.

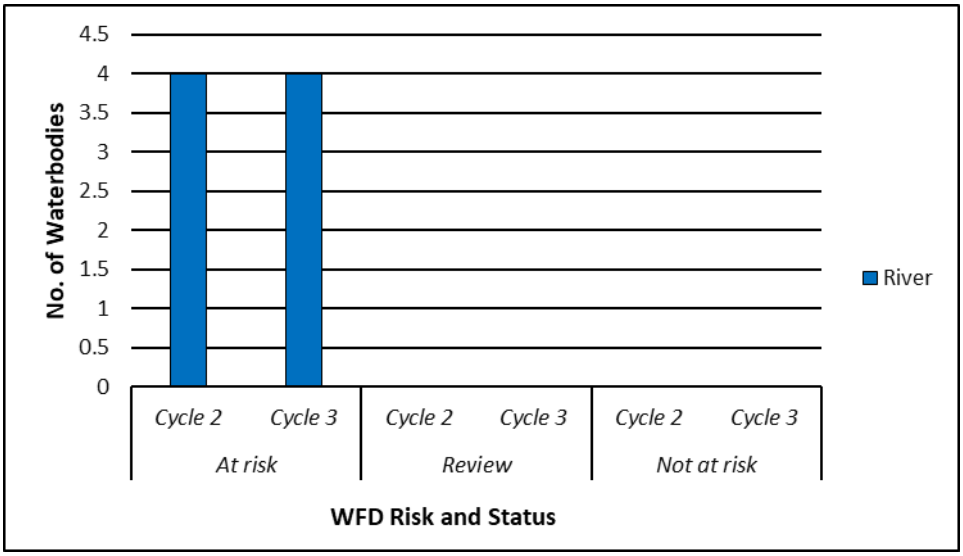
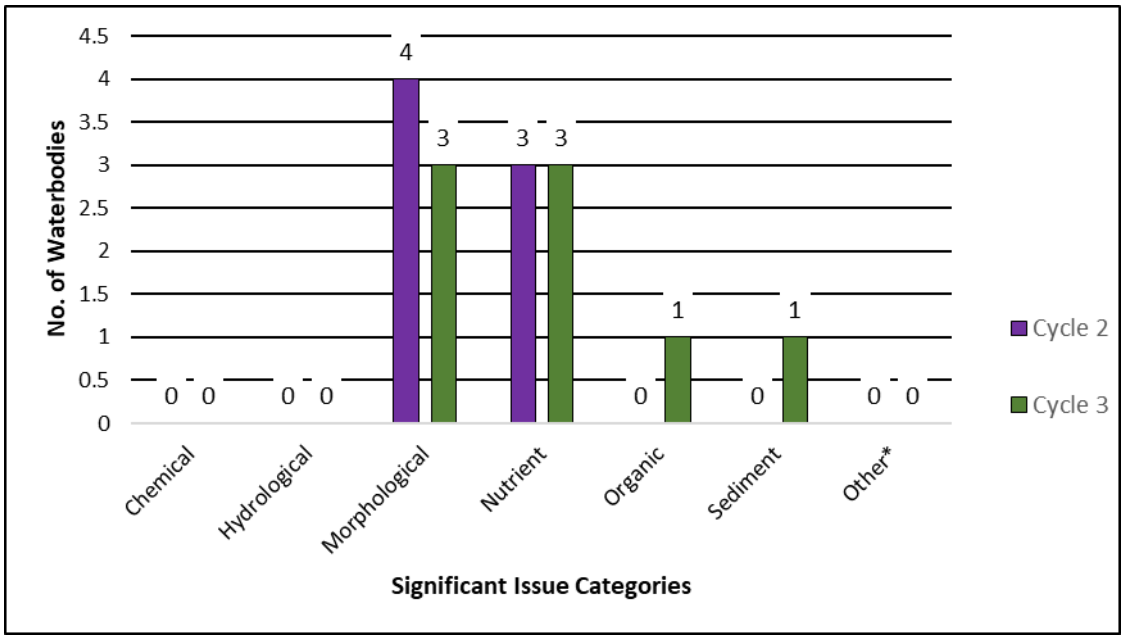


Figure 21: Number of waterbodies in each risk category in 2nd Cycle Areas for Action

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 morphological impacts and nutrient pollution, each impacting three waterbodies (Figure 22). This is followed by sediment and organic pollution which are both impacting one waterbody.

- The number of 2nd Cycle Areas for Action waterbodies associated with each of the significant issues categories has increased or remained unchanged between Cycle 2 and Cycle 3 except for morphological which has decreased from four to three waterbodies.



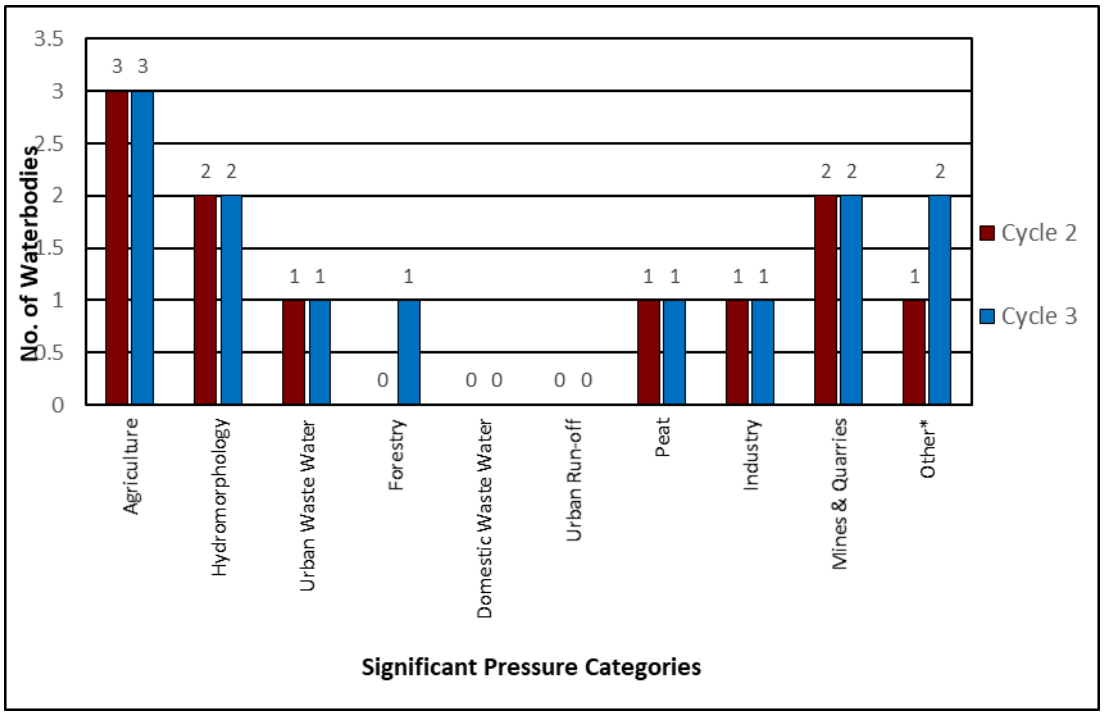
*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 22: 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 – remained unchanged with three waterbodies are impacted in both cycles.
  - Hydromorphology, mines and quarries and other impacts – each impacted two waterbodies. When compared with Cycle 2, both hydromorphology and mines and quarries remained unchanged while other issues increased by one since Cycle 2.
  - Forestry, urban waste water, peat and industry are all impacting one waterbody each. The categories are unchanged when compared with Cycle 2, with the exception of forestry which has increased by one waterbody.

- 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.



*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 23: 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.

- There are 13 Recommended Areas for Action, comprising of 34 waterbodies, selected for further characterisation and action in the catchment for the 3rd Cycle River Basin Management Plan. 16 of the 34 waterbodies in the 3rd Cycle Recommended Areas for Action are *At Risk*, two are in *Review* and 16 are *Not At Risk.* The 13 Recommended Areas for Action consist of six Areas for Protection and seven Areas for Restoration. LAWPRO are the proposed lead organisation in four Recommended Areas for Action, Offlay County Council are the proposed lead in eight Recommended Areas for Action and NFGWS are the proposed lead on the remaining Recommended Area for Action. The Recommended Areas for Action in the catchment are listed in Table 7 and shown in Figure 24. The reason for selecting for each waterbody in a Recommended Areas for Action is provided in Appendix 3.

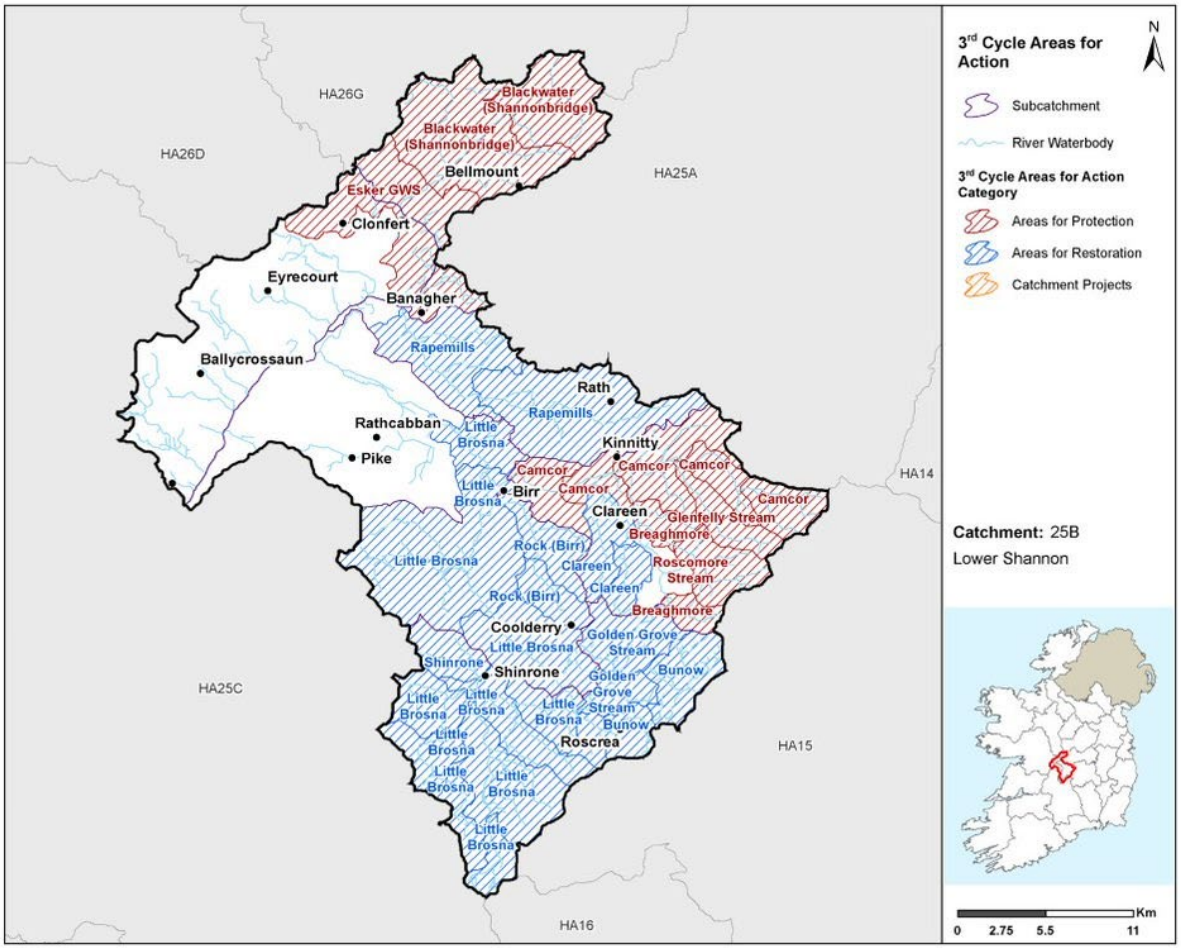


Figure 24: 3rd Cycle Recommended Areas for Action Locations

Table 7: 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
Breaghmore	2	Protection	LA Areas for Protection Local Authorities	Offaly County Council
Bunow	2	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Blackwater (Shannonbridge)	2	Protection	LA Areas for Protection Local Authorities	Offaly County Council
Camcor	5	Protection	LA Areas for Protection Local Authorities	Offaly County Council
Clareen	2	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Golden Grove Stream	2	Restoration	LA Areas for Restoration Local Authorities	Offaly County Council
Glenfelly Stream	1	Protection	LA Areas for Protection Local Authorities	Offaly County Council
Little Brosna	11	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Rapemills	2	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Rock (Birr)	2	Restoration	LA Areas for Restoration Local Authorities	Offaly County Council
Roscomore Stream	1	Protection	LA Areas for Protection Local Authorities	Offaly County Council
Esker GWS	1	Protection	Public Health Areas for Protection NFGWS, IW, HSE, LAs, SFPA	NFGWS
Shinrone	1	Restoration	LA Areas for Restoration Local Authorities	Offaly County Council

10 Catchment Summary

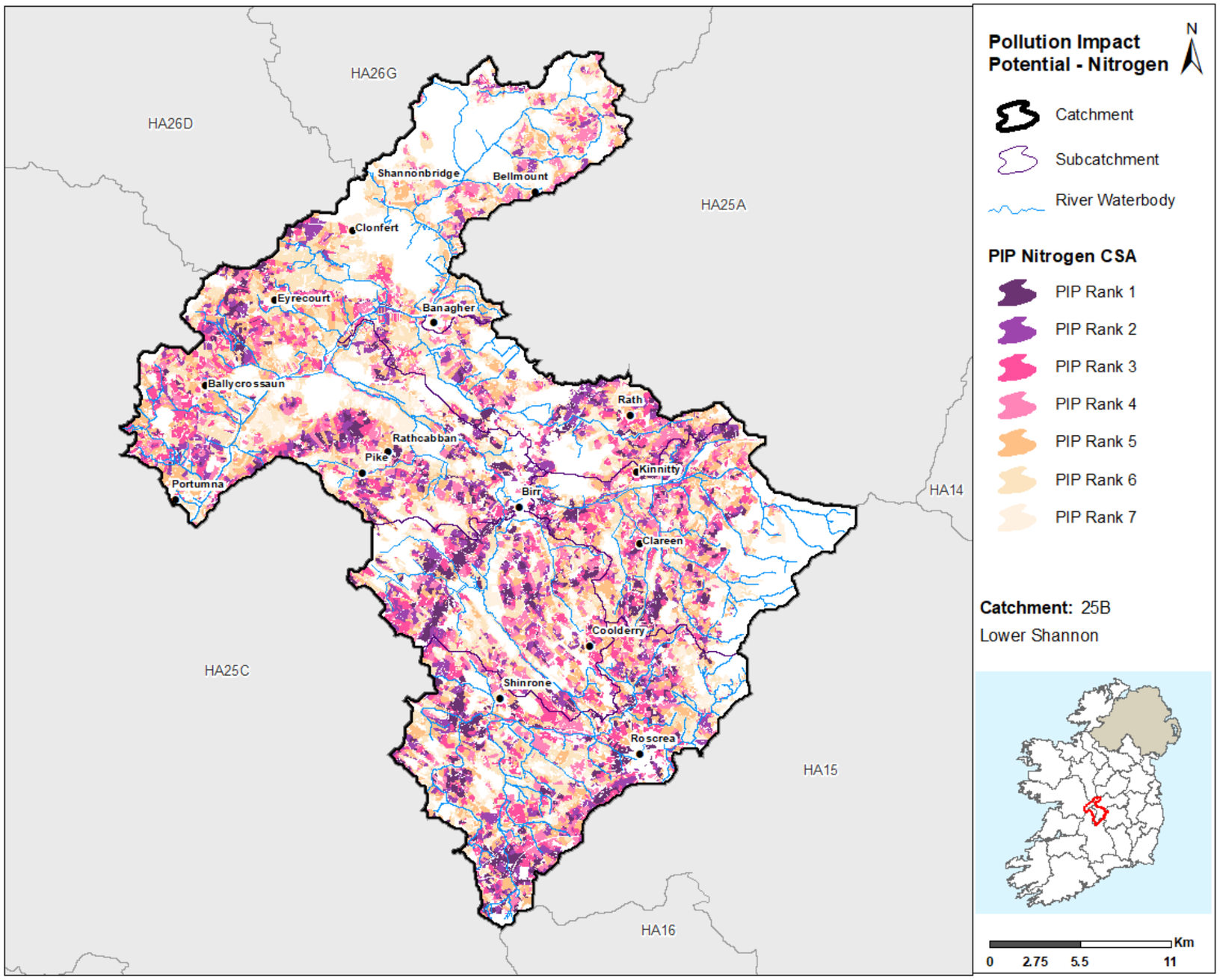
- Of the 44 river waterbodies, 19 are *At Risk* of not meeting their WFD objectives.
- One out of 28 groundwater bodies is *At Risk.*
- There has been an overall deterioration across the catchment with 20 waterbodies *At Risk* in Cycle 3 compared to 15 waterbodies *At Risk* in Cycle 2.
- The main significant issues are from nutrient pollution and morphological impacts, followed by organic pollution, sediment pollution and other impacts.
- The main significant pressures are agricultural pressures followed by hydromorphological, urban waste water, other[9] pressures, mines and quarries, forestry, urban run-off, peat and industry.
- The main impacts and pressures driving the change between Cycle 2 and Cycle 3 are increases in waterbodies impacted by nutrient and organic pollution.
- There was been no change in the 2nd Cycle Areas for Action since Cycle 2. Four waterbodies were *At Risk* in Cycle 2 and four waterbodies are *At Risk* in Cycle 3.
- There are 13 3rd Cycle Recommended Areas for Action for Cycle 3. They comprise of 34 waterbodies with 16 waterbodies *At Risk*, two in *Review* and 16 *Not At Risk*.

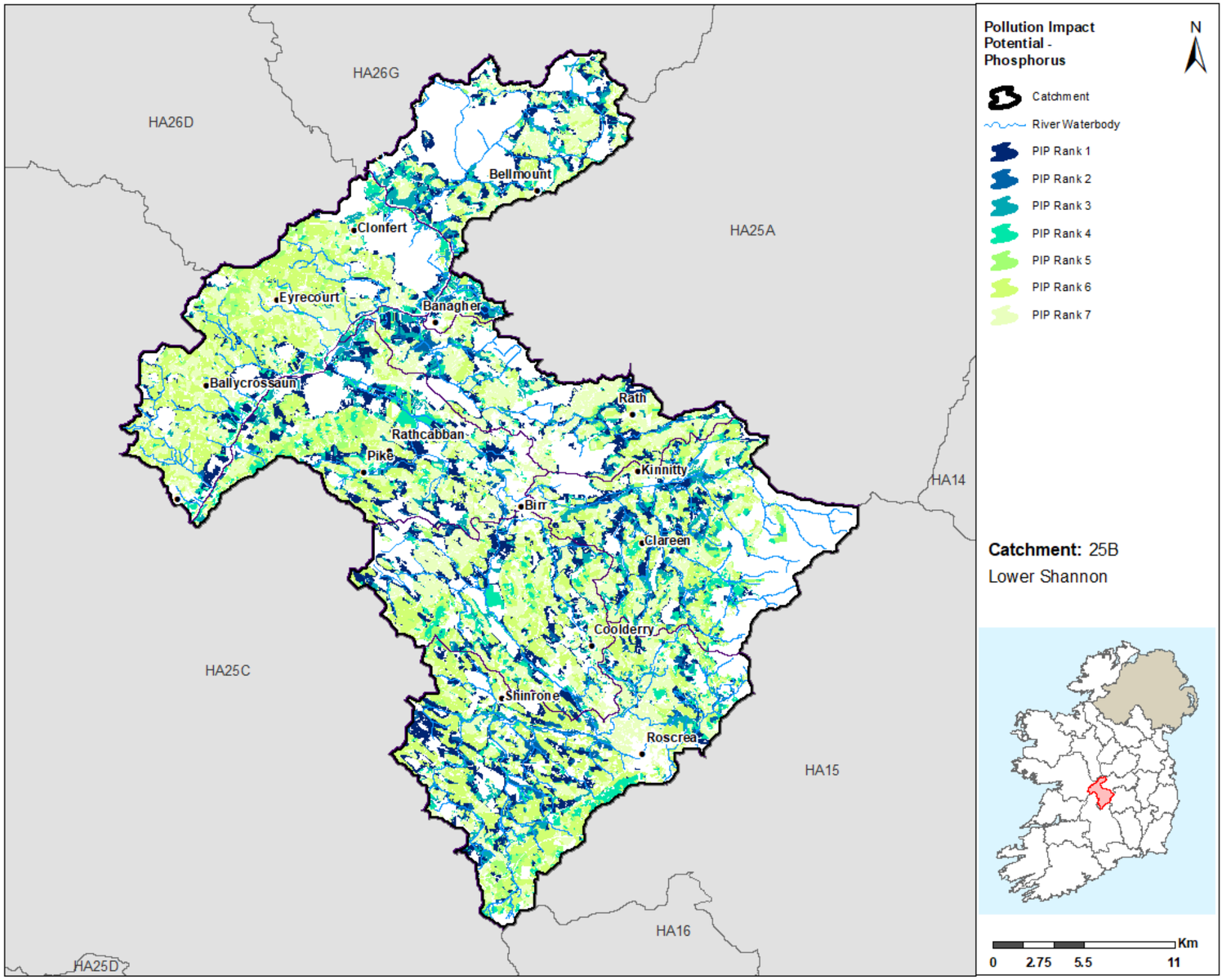
[9] Abstractions, aquaculture, atmospheric, anthropogenic pressures, historically polluted sites, waste, water treatment and invasive species have all been grouped into the "Other" pressure category for the purpose of this report

Appendix 1
High ecological status objective waterbodies

Waterbody Name	Waterbody Type	Waterbody Code	Status 2013-2018
CAMCOR_010	**River**	IE_SH_25C020100	High
Roscomore Stream_010	**River**	IE_SH_25R050100	High

Appendix 2
Pollution Impact Potential Mapping




Pollution Impact Potential - Phosphorus
N
Catchment
River Waterbody
PIP Rank 1
PIP Rank 2
PIP Rank 3
PIP Rank 4
PIP Rank 5
PIP Rank 6
PIP Rank 7
Catchment: 25B
Lower Shannon
Km
0
2.75
5.5
11
HA26G
HA26D
HA25A
HA14
HA25C
HA15
HA16
HA25D
Bellmount
Clonfert
Eyrecourt
Banagher
Ballycrossaun
Rath
Rathcabban
Pike
Kinnitty
Birr
Clareen
Coolderry
Shinrone
Roscrea

Appendix 3
Summary information on all waterbodies in the Lower Shannon 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)
25B_5	IE_SH_25A570490	ANNAGH_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
25B_3	IE_SH_25B120020	BREAGHMORE_010	River	Not at risk	Not at risk	Good	Good	No		Breaghmore	OY proposed for protection NFGWS Clareen GWS
25B_3	IE_SH_25B120080	BREAGHMORE_020	River	Not at risk	Not at risk	Good	Unassigned	No			
25B_3	IE_SH_25B120400	BREAGHMORE_030	River	Not at risk	Not at risk	Good	Good	No		Breaghmore	Between waterbodies that require restoration
25B_6	IE_SH_25B250100	BUNOW_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No		Bunow	Subcatchment of existing PAA
25B_6	IE_SH_25B250400	BUNOW_020	River	At risk	At risk	Moderate	Moderate	No	Hymo, Ind, Other, UWW	Bunow	LAWPRO: Existing PAA Offaly CC: propose Little Brosna_020 for SWO, S4 & WWTP inputs from Roscrea
25B_2	IE_SH_25B270110	BLACKWATER (SHANNONBRIDGE)_010	River	At risk	Review	Moderate	Good	No		Blackwater (Shannonbridge)	unassigned to complete Blackwater (Shannonbridge) sub catchment
25B_2	IE_SH_25B270200	BLACKWATER (SHANNONBRIDGE)_020	River	Not at risk	Not at risk	Good	Good	No		Blackwater (Shannonbridge)	Achieving EO. Proposed by OY for protection NFGWS - Clondelara / Blackwater GWS
25B_3	IE_SH_25C020100	CAMCOR_010	River	Not at risk	Not at risk	High	High	Yes		Camcor	OY proposed for protection
25B_3	IE_SH_25C020300	CAMCOR_020	River	Not at risk	Not at risk	Good	Good	No		Camcor	OY proposed for protection
25B_3	IE_SH_25C020500	CAMCOR_030	River	Not at risk	Not at risk	Good	Good	No		Camcor	OY proposed for protection
25B_3	IE_SH_25C020600	CAMCOR_040	River	Not at risk	Not at risk	Good	Good	No		Camcor	OY proposed for protection
25B_3	IE_SH_25C020700	CAMCOR_050	River	Not at risk	Not at risk	Good	Good	No		Camcor	OY proposed for protection
25B_3	IE_SH_25C130200	CLAREEN STREAM/FUARAWN_010	River	At risk	At risk	Moderate	Moderate	No	Ag, M+Q	Clareen	existing PAA - transition strategy to be developed
25B_3	IE_SH_25C130600	CLAREEN STREAM/FUARAWN_020	River	At risk	At risk	Moderate	Poor	No	Ag, For, M+Q, Other	Clareen	existing PAA - transition strategy to be developed
25B_4	IE_SH_25C180820	Carrownafinnoge_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
25B_4	IE_SH_25E010200	EYRECOURT STREAM_010	River	At risk	At risk	Poor	Poor	No	Ag, Hymo, UWW		
25B_6	IE_SH_25G060080	GOLDEN GROVE STREAM_010	River	At risk	At risk	Moderate	Moderate	No	Ag	Golden Grove Stream	1. Headwaters, 2 .support Brosna 020 (proposed PAA)
25B_6	IE_SH_25G060200	GOLDEN GROVE STREAM_020	River	At risk	At risk	Moderate	Moderate	No	M+Q, Other	Golden Grove Stream	1. Support Brosna 020 (proposed PAA)
25B_3	IE_SH_25G210090	GLENFELLY STREAM_010	River	Not at risk	Not at risk	Good	Good	No		Glenfelly Stream	OY proposed for protection
25B_4	IE_SH_25G560730	GORTAHA_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No			
25B_5	IE_SH_25I020930	INCHERKY_010	River	Review	Review	Unassigned	Unassigned	No			
25B_6	IE_SH_25K140016	KEELOGE STREAM_010	River	Not at risk	Not at risk	Good	Good	No		Little Brosna	Complete Sub-catchment of Little Brosna

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)
25B_6	IE_SH_25K140027	KEELOGE STREAM_020	River	At risk	At risk	Moderate	Moderate	No	Ag	Little Brosna	Complete Sub-catchment of Little Brosna
25B_6	IE_SH_25K150040	KILCOMIN STREAM_010	River	At risk	At risk	Poor	Poor	No	Ag	Little Brosna	Ag significant pressure 2027 EO expand Little Brosna PAA to complete sub catchment OY propose for LAWPRO 1. Headwater 2. Building on Improvements
25B_6	IE_SH_25K150052	KILCOMIN STREAM_020	River	Review	At risk	Unassigned	Moderate	No	Ag, Hymo	Little Brosna	Ag, hymo significant pressure 2027 EO expand Little Brosna PAA to complete sub catchment OY propose for LAWPRO 1. Building on Improvements
25B_6	IE_SH_25K150085	KILCOMIN STREAM_030	River	At risk	At risk	Moderate	Poor	No	Ag, Hymo	Little Brosna	Ag, hymo significant pressure 2027 EO expand Little Brosna PAA to complete sub catchment OY propose for LAWPRO 1. Reverse recent decline,
25B_6	IE_SH_25L020100	LITTLE BROSNA_010	River	Not at risk	Not at risk	Good	Good	No		Little Brosna	Complete Sub-catchment of Little Brosna PAA
25B_6	IE_SH_25L020400	LITTLE BROSNA_020	River	At risk	At risk	Moderate	Poor	No	Ag, Ind, UWW	Little Brosna	UWW significant pressure 2027 EO expand Little Brosna PAA to complete sub catchment OY Proposed for LAWPRO 1. SWO for Roscrea, 2. 2 Section 4's and Roscrea WWTP inmputs, 3. Nutrient Sensitive Area, 4. Support Little Brosna 040 PAA (2020) downstream.
25B_7	IE_SH_25L020600	LITTLE BROSNA_030	River	Not at risk	Not at risk	Good	Good	No		Little Brosna	Complete Sub-catchment of Little Brosna PAA
25B_7	IE_SH_25L020700	LITTLE BROSNA_040	River	At risk	At risk	Moderate	Moderate	No	Ag, Hymo, Peat	Little Brosna	Existing PAA expand Little Brosna PAA to complete sub catchment Ag, hymo significant pressuers 2027 EO
25B_5	IE_SH_25L020800	LITTLE BROSNA_050	River	Not at risk	Not at risk	Good	Good	No		Little Brosna	Complete Sub-catchment of Little Brosna PAA

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)
25B_5	IE_SH_25L021000	LITTLE BROSNA_060	River	Not at risk	Not at risk	Good	Good	No		Little Brosna	Complete Sub-catchment of Little Brosna PAA
25B_5	IE_SH_25P010500	PALLAS_010	River	At risk	At risk	Moderate	Moderate	No	Ag		
25B_1	IE_SH_25R010300	RAPEMILLS_010	River	Not at risk	At risk	Good	Moderate	No	Ag	Rapemills	Ag significant pressure 2027 EO OY propose for LAWPRO 1. Reverse recent decline, NFGWS Rath GWS
25B_1	IE_SH_25R010500	RAPEMILLS_020	River	Review	At risk	Unassigned	Unassigned	No	Ag, Peat	Rapemills	Ag, peat significant pressure 2027 EO OY propose for LAWPRO 1. Build on RapemillS 010
25B_7	IE_SH_25R020050	ROCK (BIRR)_010	River	At risk	At risk	Moderate	Poor	No	Ag, Hymo, UWW	Rock (Birr)	1. Headwater, 2. Coolderry WWTP Sig Pressure
25B_7	IE_SH_25R020200	ROCK (BIRR)_020	River	Review	At risk	Unassigned	Moderate	No	Ag, UR, UWW	Rock (Birr)	1. Building on previous work by OCC
25B_3	IE_SH_25R050100	Roscomore Stream_010	River	Not at risk	Not at risk	High	High	Yes		Roscomore Stream	OY proposed for protection
25B_2, 25B_4	IE_SH_25S012000	SHANNON (LOWER)_010	River	Review	Review	Unassigned	Unassigned	No		Esker GWS	Esker GWS
25B_1, 25B_4	IE_SH_25S012060	SHANNON (LOWER)_020	River	Not at risk	At risk	Good	Moderate	No	UR		
25B_4, 25B_5	IE_SH_25S012350	SHANNON (LOWER)_030	River	Review	Review	Unassigned	Unassigned	No			
25B_6	IE_SH_25S110100	SHINRONE STREAM_010	River	At risk	At risk	Poor	Poor	No	For, Other	Shinrone	1. Headwaters, 2 .support Brosna 020 (proposed PAA)
25B_4	IE_SH_25Y150770	Derryholmes_010	River	Review	Review	Unassigned	Unassigned	No			
14_15, 15_1, 15_13, 15_9, 25A_12, 25A_6, 25B_3, 25B_6	IE_SE_G_027	Camross	Groundwater	Not at risk	Not at risk	Good	Good	No			
14_15, 15_1, 15_10, 15_13, 15_9, 25B_6	IE_SE_G_047	Coolrain	Groundwater	Not at risk	Not at risk	Good	Good	No			
15_13, 25B_6	IE_SE_G_050	Derrymore Gravels	Groundwater	Review	Not at risk	Good	Good	No			
14_11, 14_15, 15_1, 15_10, 15_13, 15_14, 15_15, 15_16, 15_9, 16_21, 16_22, 25B_6	IE_SE_G_114	Rathdowney	Groundwater	Review	Review	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)
15_13, 15_14, 15_15, 16_10, 16_11, 16_13, 16_18, 16_2, 16_20, 16_21, 16_22, 16_28, 16_4, 16_5, 16_6, 16_9, 24_12, 24_2, 24_3, 25B_6, 25C_4, 25C_5, 25D_2, 25D_5, 25D_7	IE_SE_G_131	Templemore	Groundwater	Review	Review	Good	Good	No			
25B_4, 25C_12, 26D_2, 26D_3, 26D_5, 26G_1, 26G_3, 29_5, 29_9	IE_SH_G_019	Aughrim	Groundwater	Not at risk	Not at risk	Good	Good	No			
25B_7, 25C_2, 25C_9	IE_SH_G_021	Ballinderry	Groundwater	Review	Review	Good	Good	No			
25A_1, 25A_8, 25B_1, 25B_2, 25B_4, 25B_5, 25B_7, 25C_10, 25C_2	IE_SH_G_040	Banagher	Groundwater	Not at risk	Not at risk	Good	Good	No			
25A_1, 25A_11, 25B_1, 25B_3, 25B_5, 25B_7, 25C_2	IE_SH_G_041	Birr	Groundwater	Review	Not at risk	Good	Good	No			
25B_7, 25C_2, 25C_9	IE_SH_G_042	Borrisokane	Groundwater	Review	Review	Good	Good	No			
15_13, 25A_12, 25B_3, 25B_6	IE_SH_G_045	Bredagh	Groundwater	Review	Review	Good	Good	No			
25B_2, 26G_3	IE_SH_G_060	GWDTE-Fin Lough Fen (SAC000571)	Groundwater	Review	Not at risk	Good	Good	No			
14_15, 25A_12, 25A_6, 25B_3	IE_SH_G_066	Clonaslee West	Groundwater	Not at risk	Review	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)
25B_3, 25B_6	IE_SH_G_097	Industrial Facility (P0320-02)	Groundwater	Not at risk	Not at risk	Good	Good	No			
07_11, 14_14, 14_15, 14_20, 25A_11, 25A_12, 25A_2, 25A_3, 25A_4, 25A_5, 25A_6, 25B_1, 25B_3	IE_SH_G_103	Geashill	Groundwater	Not at risk	Not at risk	Good	Good	No			
07_10, 07_12, 07_13, 07_7, 07_9, 25A_10, 25A_8, 25A_9, 25B_2, 26C_1, 26C_6, 26C_7, 26E_1, 26E_4, 26E_6, 26F_1, 26F_10, 26F_2, 26F_3, 26F_4, 26F_5, 26F_6, 26F_7, 26F_8, 26F_9, 26G_1, 26G_2, 26G_3, 36_18, 36_8, 36_9	IE_SH_G_110	Inny	Groundwater	Review	Not at risk	Good	Good	No			
25B_7, 25C_11, 25C_2, 25C_9	IE_SH_G_147	Lismaline	Groundwater	Review	Review	Good	Good	No			
16_22, 16_28, 16_5, 25B_5, 25B_6, 25B_7, 25C_1, 25C_10, 25C_11, 25C_2, 25C_4, 25C_5, 25C_9, 25D_1, 25D_4, 25D_5, 25D_6	IE_SH_G_178	Nenagh	Groundwater	Review	Review	Good	Good	No			
15_13, 16_22, 25A_11, 25A_12, 25B_1, 25B_3, 25B_6, 25B_7,	IE_SH_G_205	Shinrone	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)
25C_2, 25C_4, 25C_9											
14_15, 15_9, 25A_12, 25A_6, 25B_3	IE_SH_G_210	Slieve Bloom North	Groundwater	Not at risk	Not at risk	Good	Good	No			
15_13, 15_9, 25A_12, 25B_3, 25B_6	IE_SH_G_211	Slieve Bloom South	Groundwater	Not at risk	Not at risk	Good	Good	No			
25A_1, 25A_11, 25A_12, 25A_2, 25A_3, 25A_4, 25A_5, 25A_6, 25A_7, 25A_9, 25B_1	IE_SH_G_232	Tullamore	Groundwater	Review	At risk	Good	Good	No	Ag		
25B_1, 25B_2, 25B_4, 25B_5, 25C_10, 25C_12, 25C_3, 25C_6, 25C_7, 25C_8, 26D_3, 26G_1, 26G_3, 29_1, 29_7, 29_8, 29_9	IE_SH_G_236	Tynagh	Groundwater	Not at risk	Not at risk	Good	Good	No			
07_11, 07_2, 07_9, 25A_1, 25A_10, 25A_11, 25A_2, 25A_3, 25A_5, 25A_7, 25A_8, 25A_9, 25B_1, 25B_2, 25B_4, 26F_1, 26F_2, 26F_4, 26F_5, 26G_1, 26G_3	IE_SH_G_240	Clara	Groundwater	Not at risk	Not at risk	Good	Good	No			
25A_1, 25A_11, 25B_1, 25B_3, 25B_5, 25B_7	IE_SH_G_244	Birr Gravels	Groundwater	Review	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)
15_13, 25B_6, 25B_7	IE_SH_G_247	Roscrea Gravels	Groundwater	Review	Not at risk	Good	Good	No			
25B_6, 25C_4, 25C_9	IE_SH_G_251	Cloughjordan-Moneygall Gravels	Groundwater	Review	Not at risk	Good	Good	No			
25A_1, 25A_11, 25A_8, 25B_2	IE_SH_G_256	Gageborogh-Brosna Gravels Group 3	Groundwater	Review	Not at risk	Good	Good	No			

Ag: Agriculture

DWW: Domestic Waste Water

For: Forestry

Hymo: Hydromorphology

Ind: Industry

M+Q: Mines and Quarries

Peat: Peat Drainage and Extraction

UR: Urban Run-off

UWW: Urban Waste Water

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