

# **3<sup>rd</sup> Cycle Draft Upper Shannon (Suck) Catchment Report (HA 26D)**



**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 Upper Shannon (Suck) 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 3<sup>rd</sup> 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 2<sup>nd</sup> Cycle Areas for Action and a list of proposed 3<sup>rd</sup> 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.

<b>Water Framework Directive – key dates and terminology</b>	
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 <sup>nd</sup> 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 <sup>nd</sup> 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 <sup>rd</sup> 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 <sup>rd</sup> 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 3<sup>rd</sup> Cycle River Basin Management Plan. In addition, a comparative overview of the water quality in the Upper Shannon (Suck) catchment between Cycle 2 and Cycle 3 characterisation is provided along with a summary of the progress made in the 2<sup>nd</sup> Cycle Areas for Action. The recommended list for the 3<sup>rd</sup> Cycle Areas for Action is also provided.

To provide context, the Upper Shannon (Suck) catchment covers an area of 1,598km<sup>2</sup> and is underlain completely by karstified bedrock, apart from some isolated pockets and the most southerly part of the catchment downstream of Ballinasloe (Figure 1). The catchment is dominated by a flat undulating topography and the groundwater and surface water drainage systems are highly interlinked throughout the catchment.

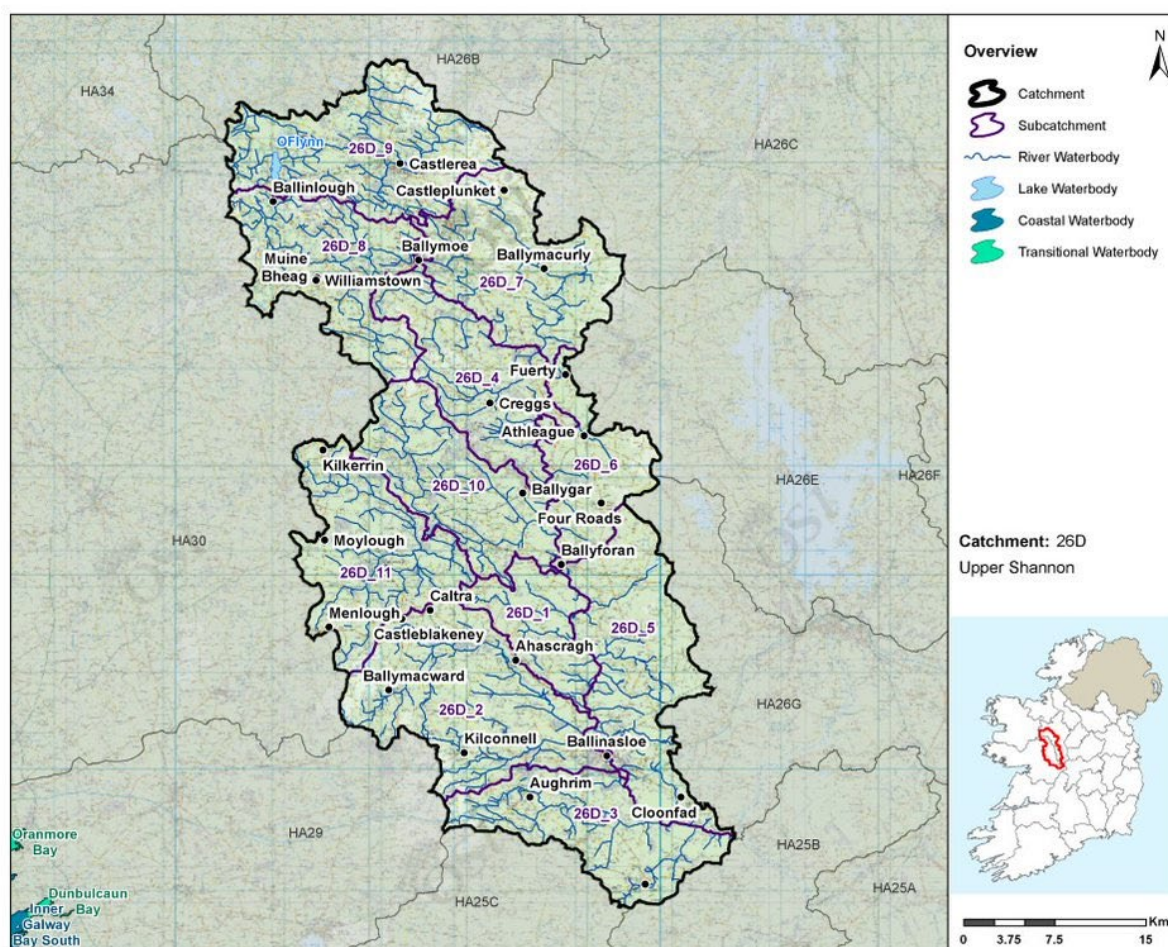


Figure 1: Overview of subcatchments in the Upper Shannon (Suck) catchment

The Upper Shannon (Suck) catchment is divided into 11 subcatchments (Figure 1) with 58 river waterbodies, one lake waterbody and 17 groundwater bodies (Figure 2).

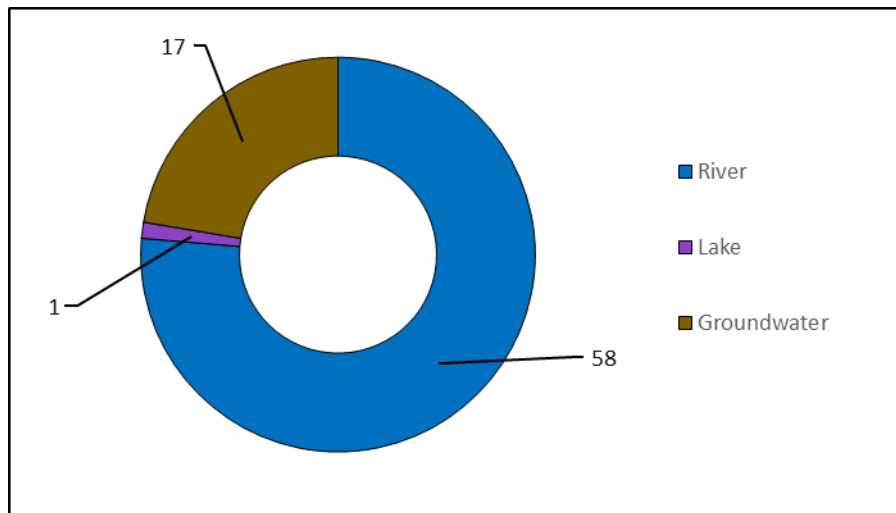


Figure 2: Waterbody types and numbers in the Upper Shannon (Suck) Catchment.

## 2 Waterbody Overview

### 2.1 Waterbody Status

- ◆ This assessment to inform the 3<sup>rd</sup> 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 three waterbodies achieving High Status, 42 achieving Good Status, 14 achieving Moderate Status and seven achieving Poor Status. 10 waterbodies in the catchment do not have a status classification assigned. All waterbodies must achieve at least Good Ecological status.
- ◆ There are five river waterbodies that must achieve High Ecological Status (HES) in this catchment. These waterbodies are listed in Appendix 1. Of the five HES Environmental Objective waterbodies, three waterbodies are achieving High Status (all river waterbodies, Killian\_030, Suck\_020 and Suck\_040) while two waterbodies (Shiven (South)\_050 and Island\_030) are at Good Status.
- ◆ There have been reductions of four waterbodies achieving Good Status and one river waterbody achieving Bad Status between Cycle 2 and Cycle 3. There have been increases in one river waterbody achieving High Status, two river waterbodies achieving Moderate Status and two waterbodies achieving Poor Status (Figure 3 & Table 1).



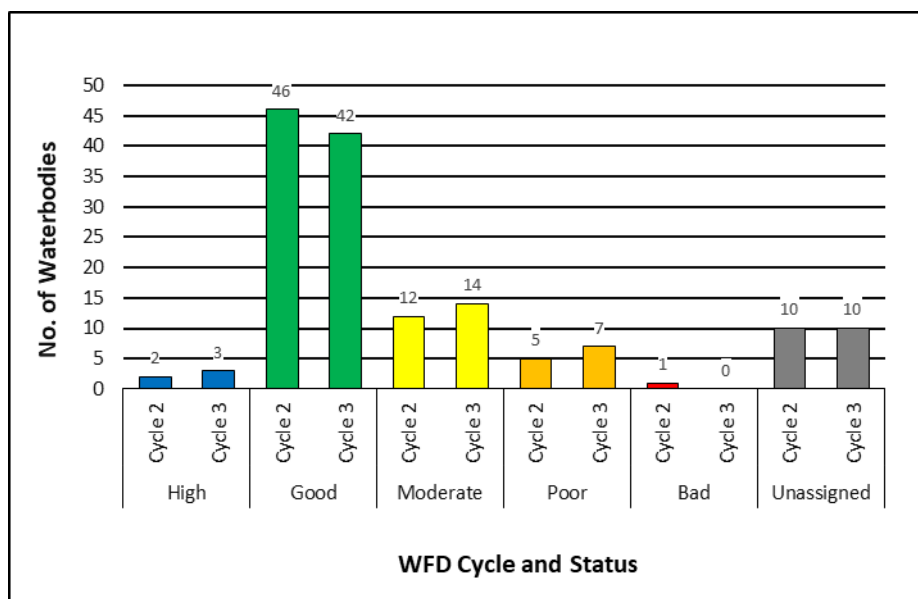


Figure 3: Waterbody Status Breakdown (All waterbodies)

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	3	0	0	0	0	0	0	0	0	2	3
Good	29	24	0	1	0	0	0	0	17	17	46	42
Moderate	12	14	0	0	0	0	0	0	0	0	12	14
Poor	4	7	1	0	0	0	0	0	0	0	5	7
Bad	1	0	0	0	0	0	0	0	0	0	1	0
Un-assigned	10	10	0	0	0	0	0	0	0	0	10	10
<b>Total</b>	<b>58</b>	<b>58</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>17</b>	<b>76</b>	<b>76</b>

- ◆ 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, six (9%) waterbodies have improved in status, 52 (79%) waterbodies have remained unchanged and eight (12%) waterbodies have declined in status.<sup>1</sup>
- ◆ There is an overall decline in the status of two waterbodies across the catchment since the Cycle 2 assessment.

<sup>1</sup> 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.



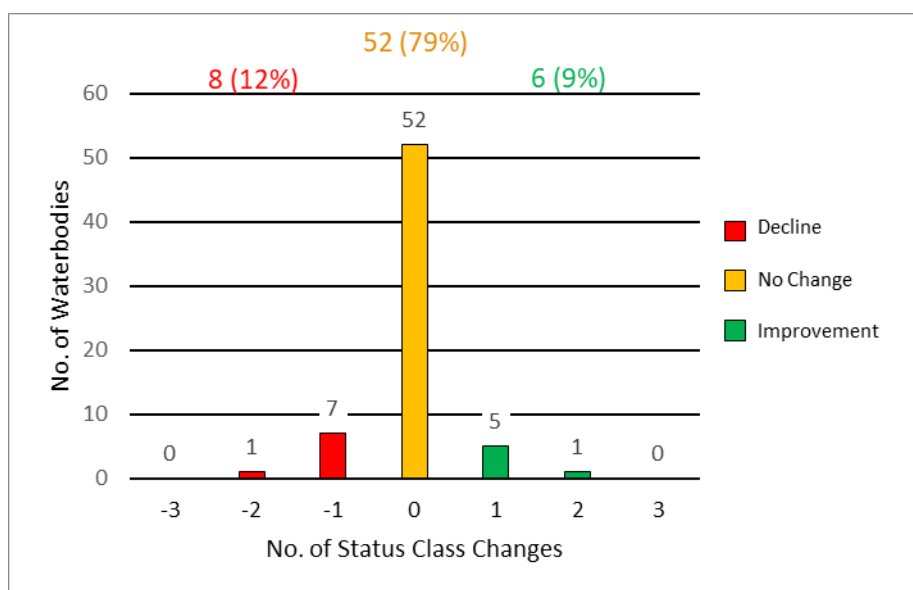


Figure 4: Status Class Changes between Cycle 2 and Cycle 3

## 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*.
- ◆ Two river waterbodies in the catchment did not meet the DWPA objective in 2019:
  - AHASCRAUGH\_040 (IE\_SH\_26A010500) river waterbody is the source for the Ballinasloe Public Supply (1200PUB1004) public supply which had MCPA pesticide exceedances;
  - SUCK\_140 (IE\_SH\_26S071400) river waterbody is the source for Ballinalsoe public water supply (1200PUB1004) which had MCPA pesticide exceedances.
- ◆ For more detailed information please see the EPA reports on drinking water quality in 2019 for [Public Supplies](#)<sup>2</sup> and [Private Supplies](#)<sup>3</sup>.

### 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](#)<sup>4</sup>.

### 2.2.3 Shellfish Areas

- ◆ There are no designated shellfish areas in the catchment.

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

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

<sup>4</sup><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.

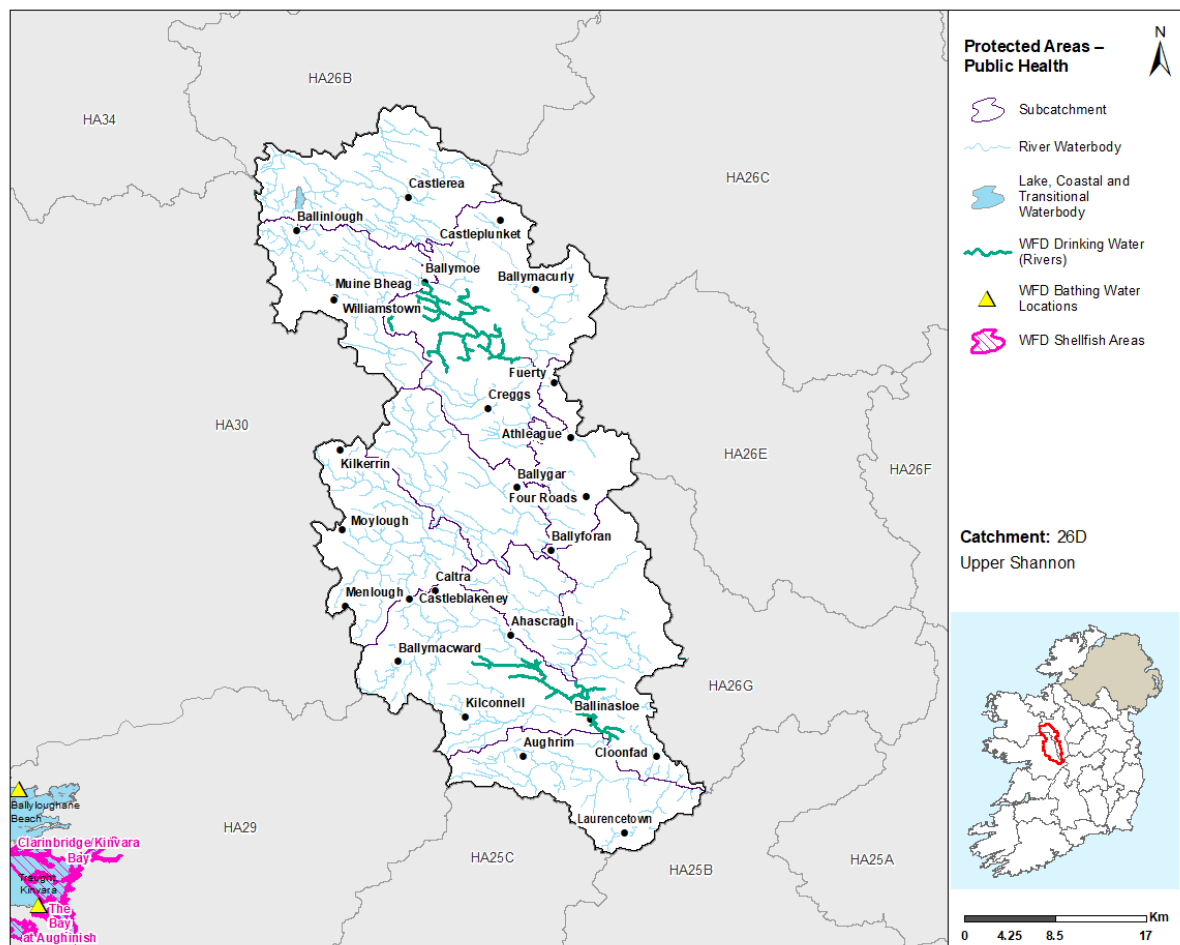


Figure 5: Protected Areas – Public Health

#### 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 26 SACs in this catchment, 24 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.
- ◆ Information at a waterbody level can be viewed at [Catchments.ie](https://www.catchments.ie).<sup>5</sup>
- ◆ There are no river waterbodies with FWPM in the catchment.
- ◆ There are three groundwater bodies delineated and assessed as Groundwater Dependent Terrestrial Ecosystems for this catchment. All three associated groundwater bodies (GWDTE-Bellanagare Bog (SAC000592), GWDTE-Glenamaddy Turlough (SAC000301) & GWDTE-Rahasane Turlough (SAC000322)) are at Good Status (2013-2018).
- ◆ Water dependent SACs/ SPAs in the catchment are illustrated in Figure 6.

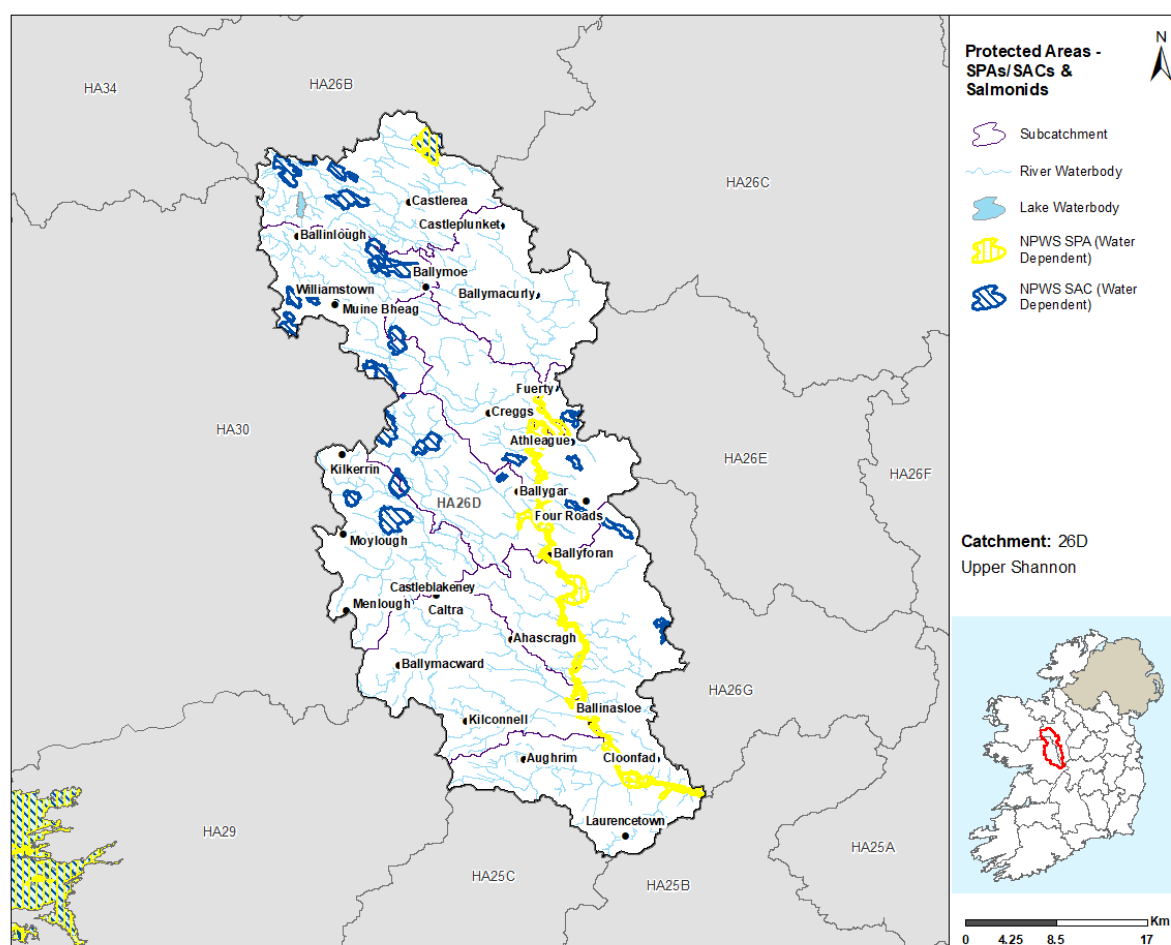


Figure 6: Water Dependent SPAs / SACs

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

### 2.2.5 Nutrient Sensitive Areas

- ◆ There are no Nutrient Sensitive Areas in the catchment.

## 2.3 Heavily Modified Waterbodies

- ◆ Based on the 1<sup>st</sup> and 2<sup>nd</sup> RBMPs there are currently no designated heavily modified water bodies (HMWB) in the catchment.

## 2.4 Artificial Waterbodies

- ◆ There are no Artificial Waterbodies (AWBs) within the Upper Shannon (Suck) 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 76 waterbodies in the Upper Shannon (Suck) Catchment and 26 (34%) are currently *At Risk*, 16 (21%) in *Review* and 34 (45%) are *Not At Risk*.

## 3.2 Surface Waters

- ◆ For the 58 rivers waterbodies, 23 (40%) are *At Risk*, 13 (22%) are in *Review* and 22 (38%) are *Not At Risk*.
- ◆ The only lake waterbody in the catchment (OFlynn) is *Not At Risk*.
- ◆ The largest proportion of *At Risk* waterbodies are found in river waterbodies, accounting for 23 (88%) of 26 *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 *two At Risk* waterbodies and four *Review* waterbodies, and a decline of six *Not At Risk* waterbodies between Cycle 2 and Cycle 3.

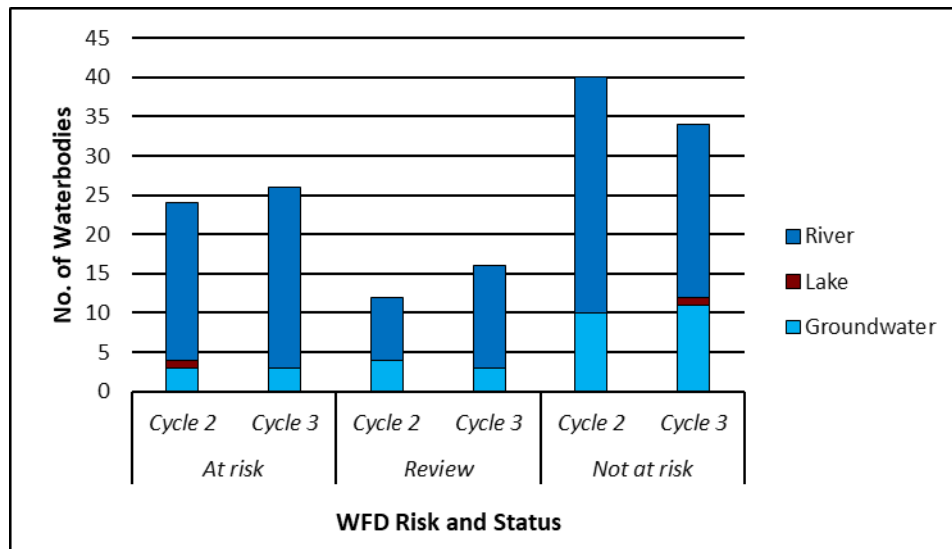


Figure 7: Number of waterbodies in each risk category

- ◆ 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.

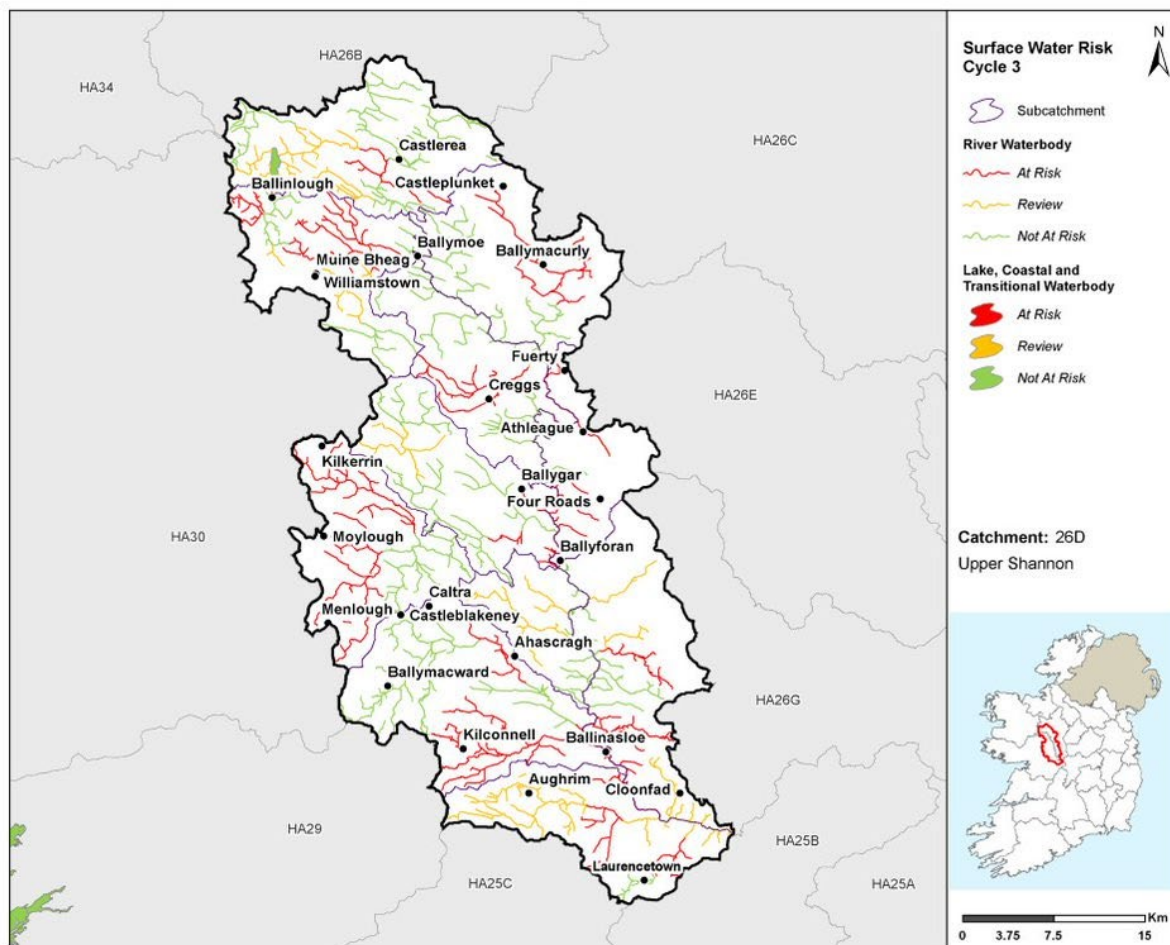


Figure 8: Surface Water Risk Cycle 3

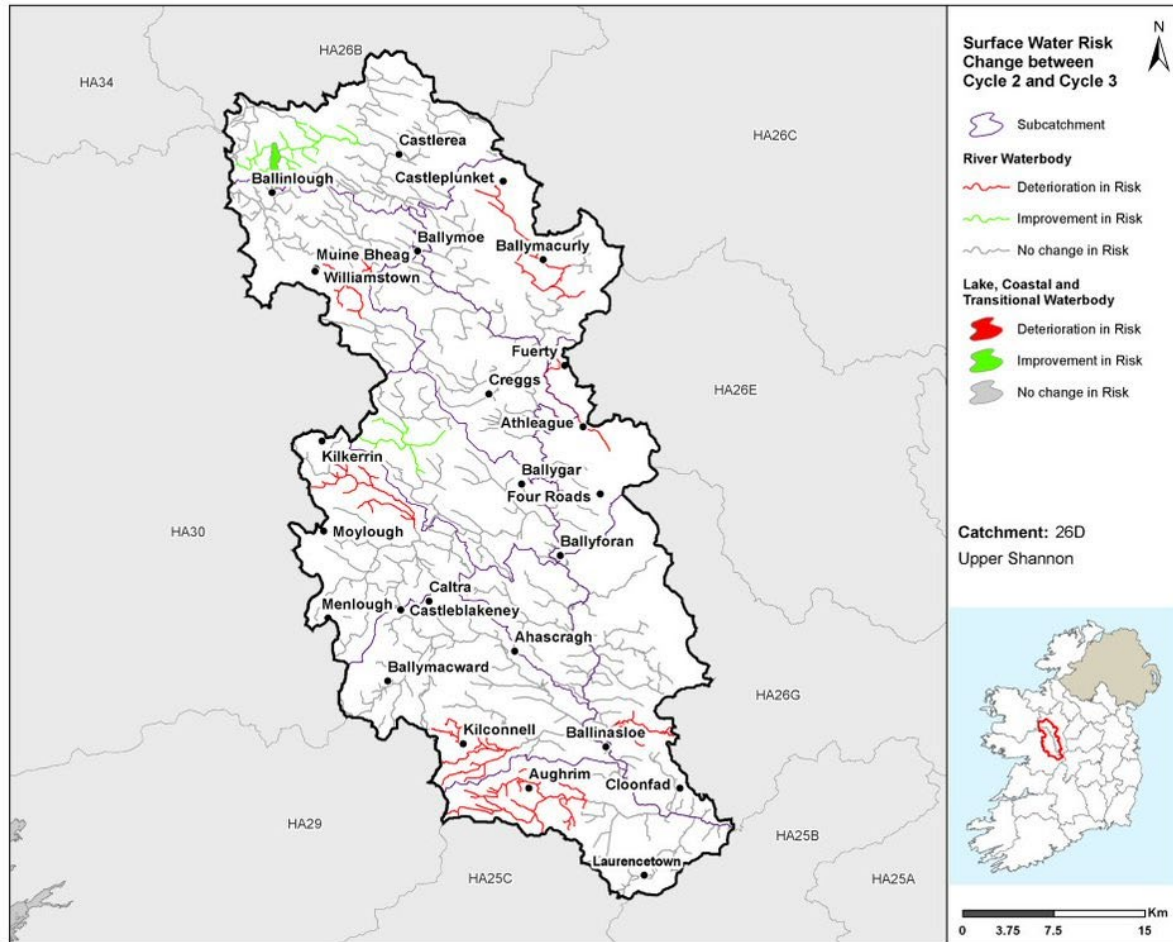


Figure 9: Surface Water Risk Change between Cycle 2 and Cycle 3

### 3.3 Groundwater

- ◆ For the 17 groundwater bodies, three (18%) are *At Risk* (Funshinagh, Clare-Corrib and GWDTE-Rahasane Turlough (SAC000322)), three (18%) are in *Review* and 11 (65%) are *Not At Risk*. The groundwater bodies that are *At Risk* are mainly outside the catchment boundary with only a negligible portion of each within the Upper Shannon (Suck) extent.
- ◆ In Cycle 2, there were three groundwater bodies (Carrick on Shannon, Clare-Corrib and GWDTE-Rahasane Turlough (SAC000322)) *At Risk* in this catchment, four in *Review* and 10 *Not At Risk*.
- ◆ The location of the *At Risk*, *Review* and *Not At Risk* groundwater bodies for Cycle 3 are shown in Figure 10.



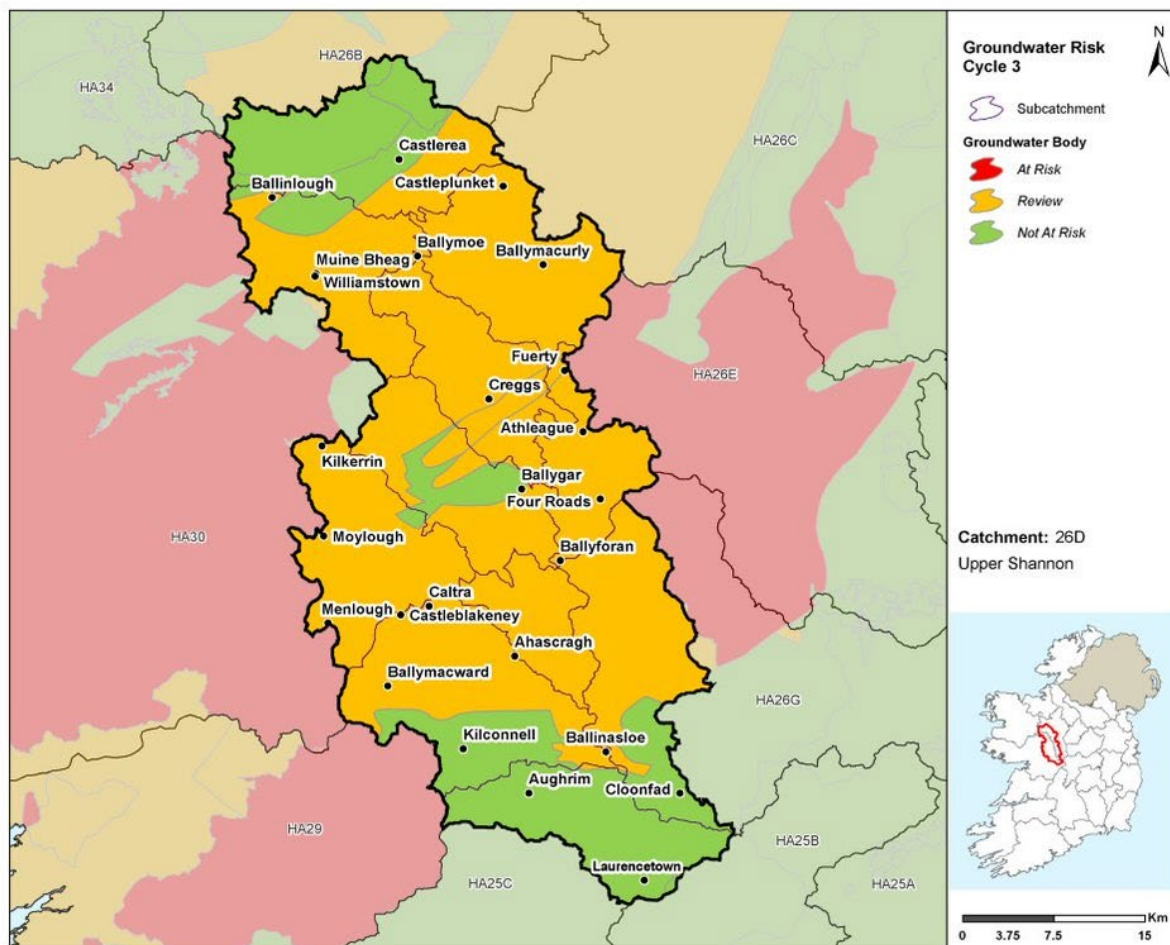


Figure 10: Cycle 3 Groundwater Body Risk

### 3.4 Heavily Modified Waterbodies

- ◆ There are currently no designated heavily modified water bodies (HMWB) in the catchment. There may be changes to HMWB designation once the Cycle 3 HMWB assessment has been completed and consulted on for the 3<sup>rd</sup> Cycle Final RBMP.

### 3.5 Artificial Waterbodies

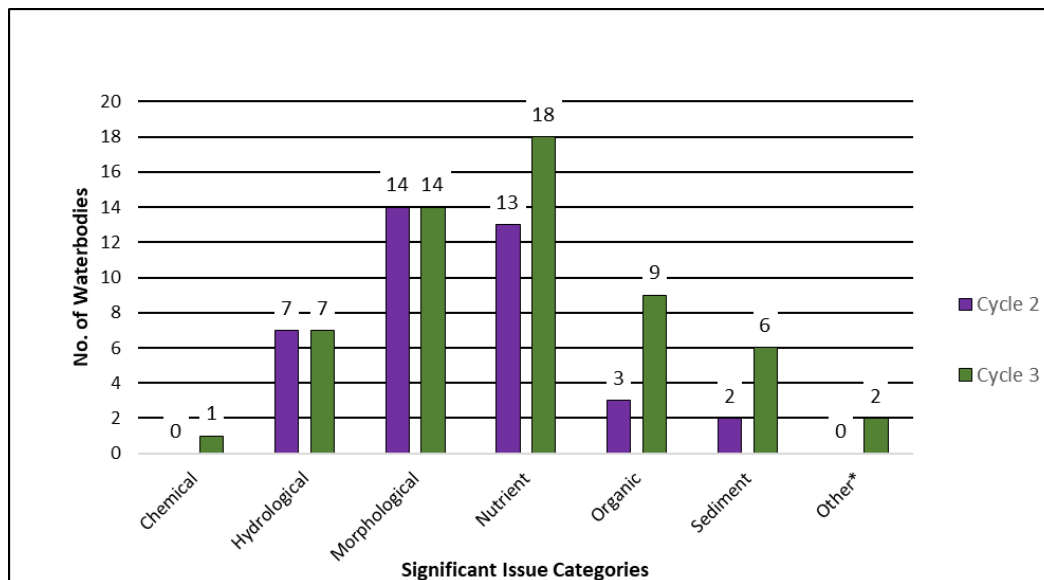
- ◆ As stated in section 2.3, there are no artificial waterbodies within the Upper Shannon (Suck) Catchment.

## 4 Significant Issues in *At Risk* Waterbodies

### 4.1 All Waterbodies

- ◆ Excess nutrients and morphological impacts remain the most prevalent issues in the Upper Shannon (Suck) catchment (Figure 11) impacting 18 and 14 waterbodies respectively in Cycle 3. Organic pollution is impacting eight waterbodies and hydrological and sediment are impacting seven and six waterbodies, respectively.

- For river waterbodies, the main significant issues are nutrient pollution (16), morphological impacts (14), organic pollution (9), sediment (6) and hydrological impacts (7).
  - There are three *At Risk* groundwater bodies Clare-Corrib and GWDTE-Rahasane Turlough (SAC000322)) are impacted by nutrient and diminution of quality of associated surface waters for chemical reasons. The significant issue in Funshinagh is chemical pollution.
- ◆ Between Cycle 2 and Cycle 3, the number of waterbodies with organic issues have increased by six from three and nine. The number of waterbodies impacted by nutrients has increased by five, from 13 to 18. The number of waterbodies impacted by sediment issues has increased by four from two to six.
  - ◆ The numbers of waterbodies with hydrological and morphological issues have remained unchanged at seven and 14 waterbodies respectively.
  - ◆ The number of waterbodies impacted by other issues has increased from no waterbodies in Cycle two to one waterbody in Cycle 3 and there is now one waterbody impacted by chemical pollution.

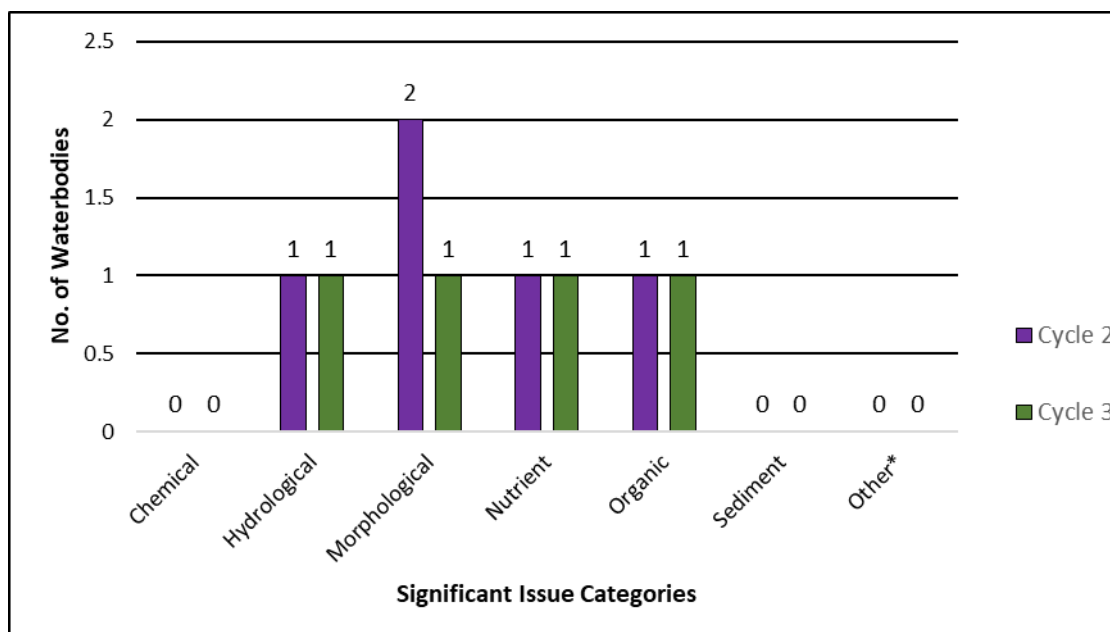


\*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

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 morphological, hydrological, nutrient and organic issues are impacting one High Status Objective waterbodies currently *At Risk* (Figure 12).
  - All High Status Objective waterbodies are river waterbodies, Island\_030 and Shiven (South)\_050.
- ◆ Between Cycle 2 and Cycle 3, the number of waterbodies with morphological issues has decreased by one waterbody from two waterbodies in Cycle 2.



\*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

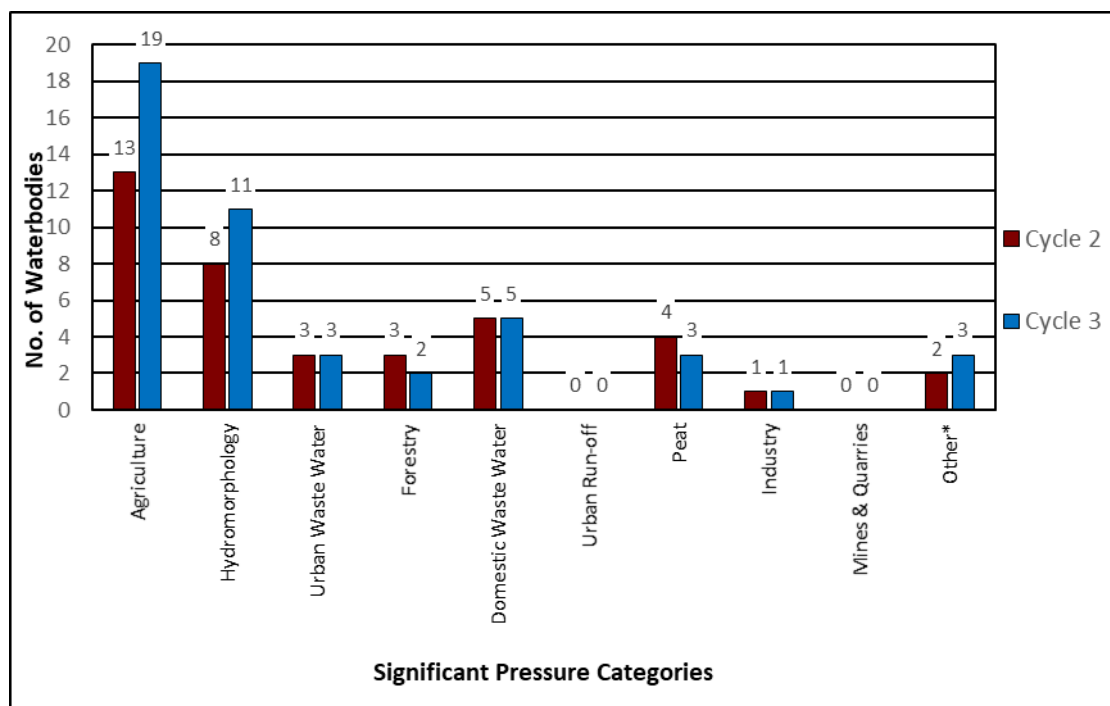
Figure 12: Significant Issues in *At Risk* High Status Objective Waterbodies

## 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 hydromorphology, domestic waste water, urban waste water, other<sup>6</sup>, peat, forestry 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 13 waterbodies in Cycle 2 to 18 waterbodies in Cycle 3.

<sup>6</sup> 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 16 river waterbodies and three groundwater bodies (Clare-Corrib and GWDTE-Rahasane Turlough (SAC000322) & Funshinagh). The issue related to farming in this catchment are diffuse and point source phosphorous loss to surface waters from 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, bank erosion from animal access, poaching or stream crossings. In addition, this catchment has outcropping and extremely vulnerable karstified limestone areas which introduces groundwater-based interactions with phosphorus. Farmyards were listed as a pressure in one river waterbody, Cuilleen Stream\_010, with bad storage practices noted.

### 5.1.1.2 Hydromorphology

- ◆ 11 river waterbodies are subject to extensive modification by arterial drainage schemes, with two waterbodies (Island\_010 and Suck\_030) influenced by land drainage modifications and 11 by channelisation.

### 5.1.1.3 Domestic Waste Water

- ◆ Domestic waste water has been identified as a significant pressure in four river waterbodies (Cuilleen Stream\_010, Shiven (South)\_010, Ahascragh\_030 and Ballinure\_020) and one groundwater body (GWDTE-Rahasane Turlough (SAC000322)). This is due to a concentration of inadequate septic tank systems being located on areas of poorly draining soils and subsoils or on shallow bedrock, where soil percolation is unable to mitigate the discharge.

#### 5.1.1.4 Urban Waste Water

- ◆ As in Cycle 2, Urban Waste Water agglomerations have been identified as a significant pressure in three *At Risk* water bodies. Ahascragh agglomeration, which impacts Ahascragh\_030, is scheduled to be upgraded under Irish Water's Capital Investment Programme (2020-2024) in 2022.

Table 2: 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 <sup>7</sup>
Ahascragh A0548	Agglomeration PE < 500	Ahascragh_030	Poor	2022
Mountbellew D0219	Agglomeration PE of 1,001 to 2,000	Castlegar_020	Poor	N/A
Ballymoe A0105	Agglomeration PE < 500	Island_030	Good (High Status Objective waterbody)	N/A

#### 5.1.1.5 Other

- ◆ *Waste*  
Smaghraan Stream \_020 is impacted by illegal dumping, causing both nutrient and organic pollution.
- ◆ *Anthropogenic unknown*  
Derrymullan Stream\_020 has no indications of nutrient or siltation issues, and therefore, the specific pressure that has driven the biology status requires further investigation. The groundwater body, Funshinagh, is also being impacted by unknown anthropogenic causes.

#### 5.1.1.6 Peat

- ◆ Peat extraction and drainage has been identified as a significant pressure in three waterbodies (Suck\_150, Derryhippoo\_010 and Killeglan\_010). Impacts are due to sediment. In addition, high phosphate concentrations can arise from peaty soils areas where sources of phosphate are present, such as from agriculture or septic tank systems.

#### 5.1.1.7 Forestry

Forestry has been identified as a significant pressure in two waterbodies (Derryhippoo\_010 and Smaghraan\_010). Forestry related impacts include sedimentation and nutrient inputs following clear felling and inadequate buffers.

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

#### 5.1.1.8 Industry

An industrial discharge, resulting in elevated nutrient and organic concentrations, has been identified as a significant pressure impacting Laurencetown Stream\_020.

Table 3: Breakdown of Cycle 3 Industry Significant Pressures in the Upper Shannon (Suck) Catchment

Waterbody Code	Waterbody Name	Waterbody Type	Emission Type	Name	Impact
IE_SH_26L070500	LAURENCETOWN STREAM_020	River	Section 4	N/A*	Nutrient & Organic

\*Name of facility not provided during characterisation

Figure 14 – Figure 16 illustrates the locations of waterbodies for the three most common pressures in order of prevalence (agriculture, hydromorphology and domestic waste water) within the catchment in Cycle 3.



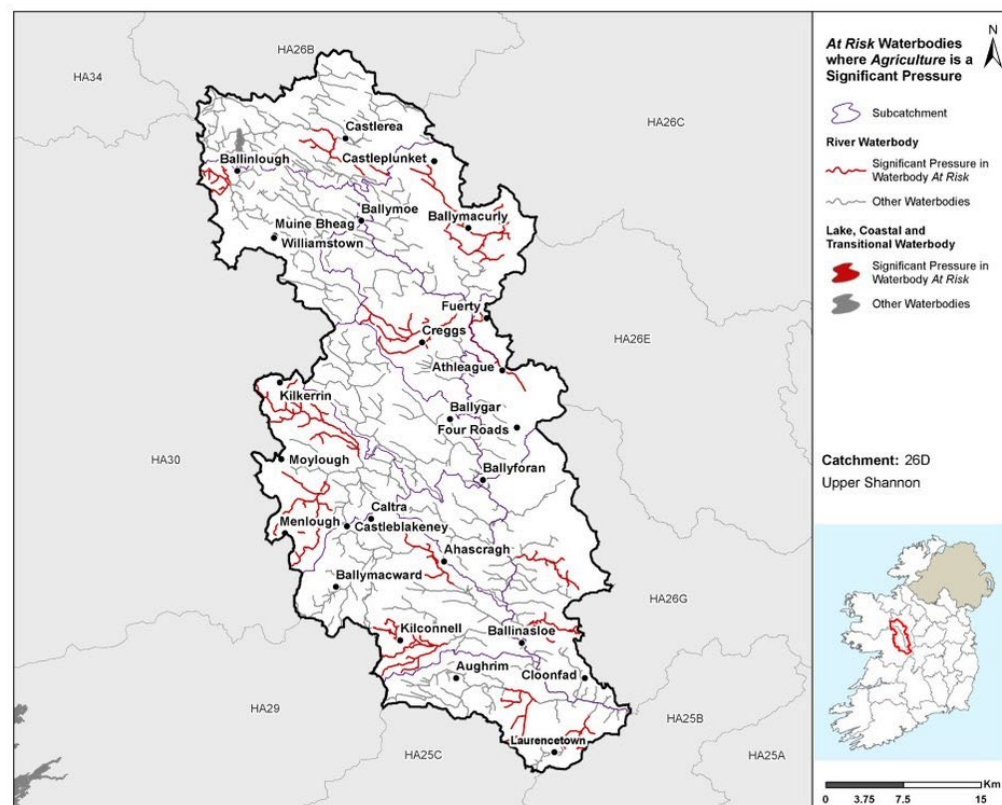


Figure 14: Locations of Waterbodies where Agriculture is a Significant Pressure

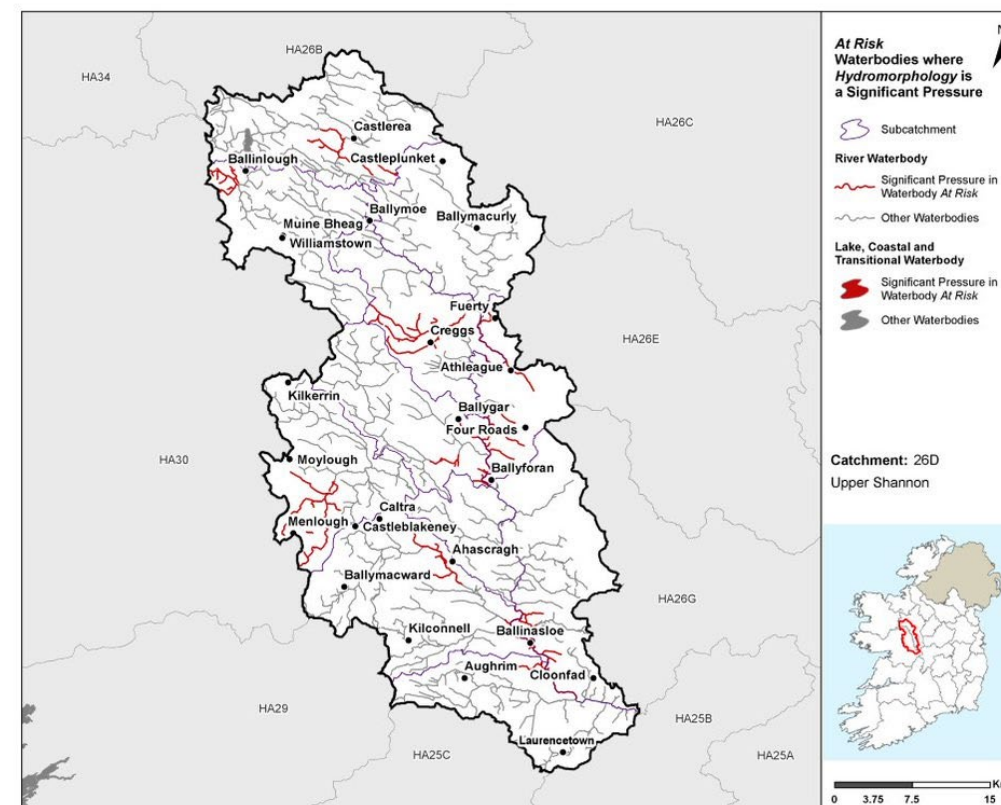


Figure 15: Locations of Waterbodies where Hydromorphology is a Significant Pressure

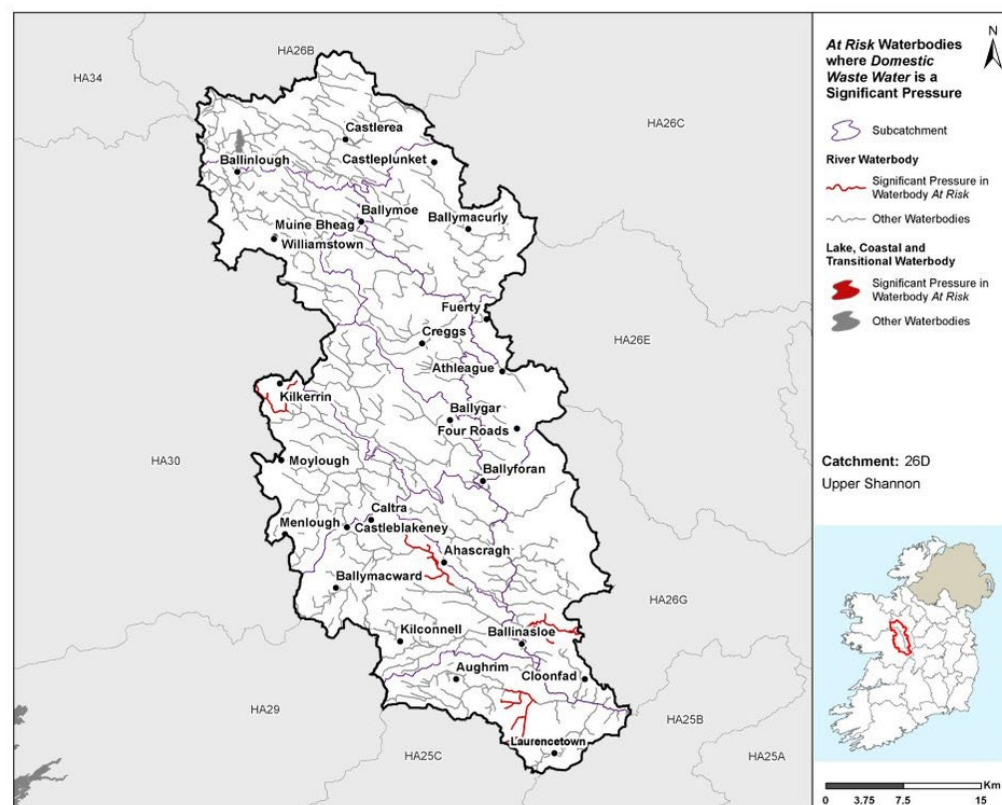
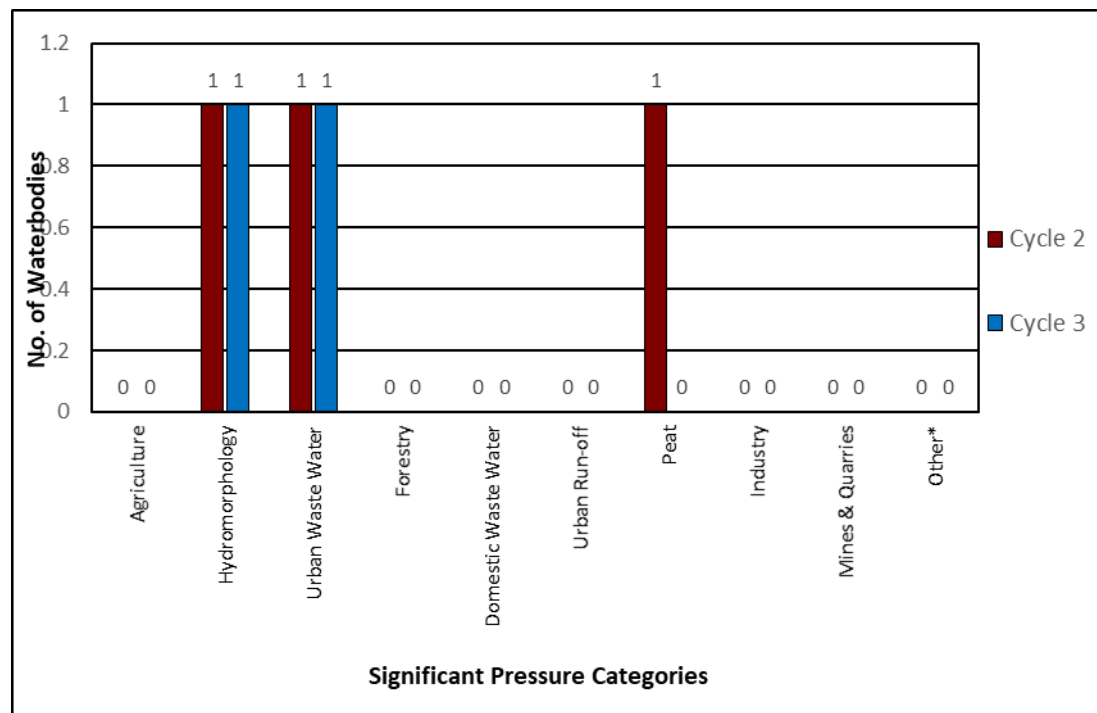


Figure 16: Locations of Waterbodies where Domestic Waste Water is a Significant Pressure



## 5.2 High Status Objective Waterbodies

- ◆ Hydromorphology and urban waste water is also the dominant significant pressure in the two High Status Objective waterbodies, Island\_030 and Shiven (South)\_050.



\*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 17: Significant Pressure in *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 pasture is responsible for 86% of the nitrogen load while land in pasture, forestry and peat contribute 48%, 17% and 16% of the phosphorus loadings for the catchment respectively (Figure 17).

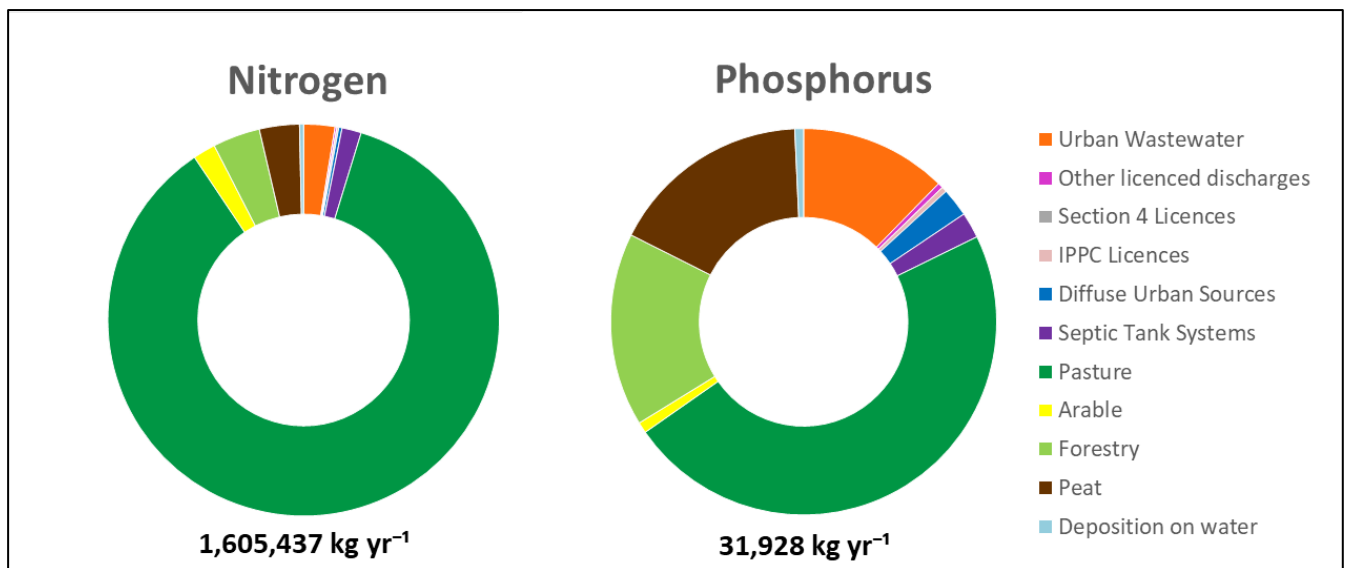


Figure 18: Estimated Proportions of N & P from Each Sector in the Upper Shannon (Suck) Catchment

## 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 Upper Shannon (Suck) Catchment.

### 7.2 Phosphorus / Sediment Load Reduction

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

Figure 19 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.

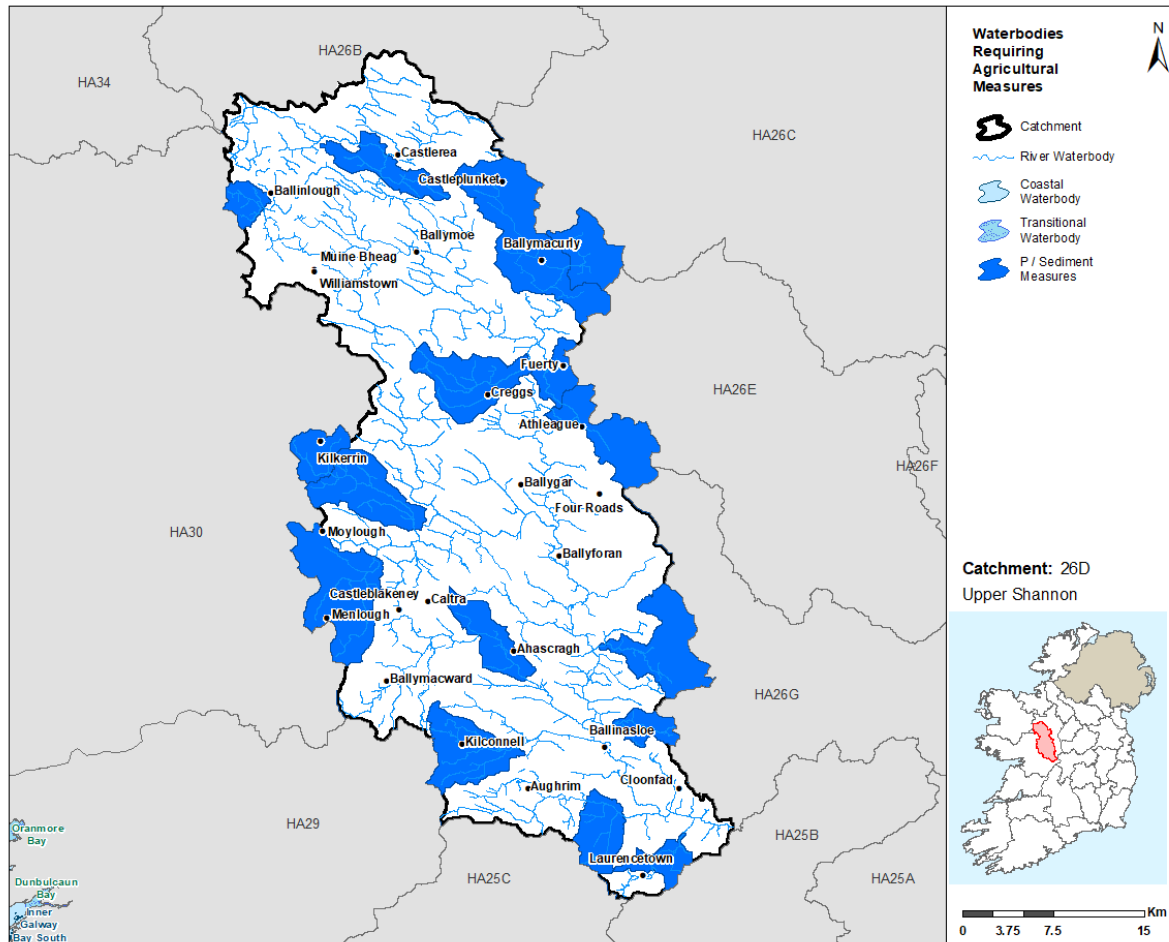


Figure 19: Waterbodies where Agricultural Measures should be Targeted

## 8 2<sup>nd</sup> Cycle Areas for Action

### 8.1 Area for Action Overview

- ◆ There were four Areas for Action, comprising of 20 waterbodies, selected for further characterisation and action in the catchment for the 2<sup>nd</sup> Cycle River Basin Management Plan. The Areas for Action in the catchment are listed in Table 4 and shown in Figure 20. LAWPRO, in conjunction with local authorities and stakeholders from the Western Regional Operational Committee, have been working in these areas since 2018.

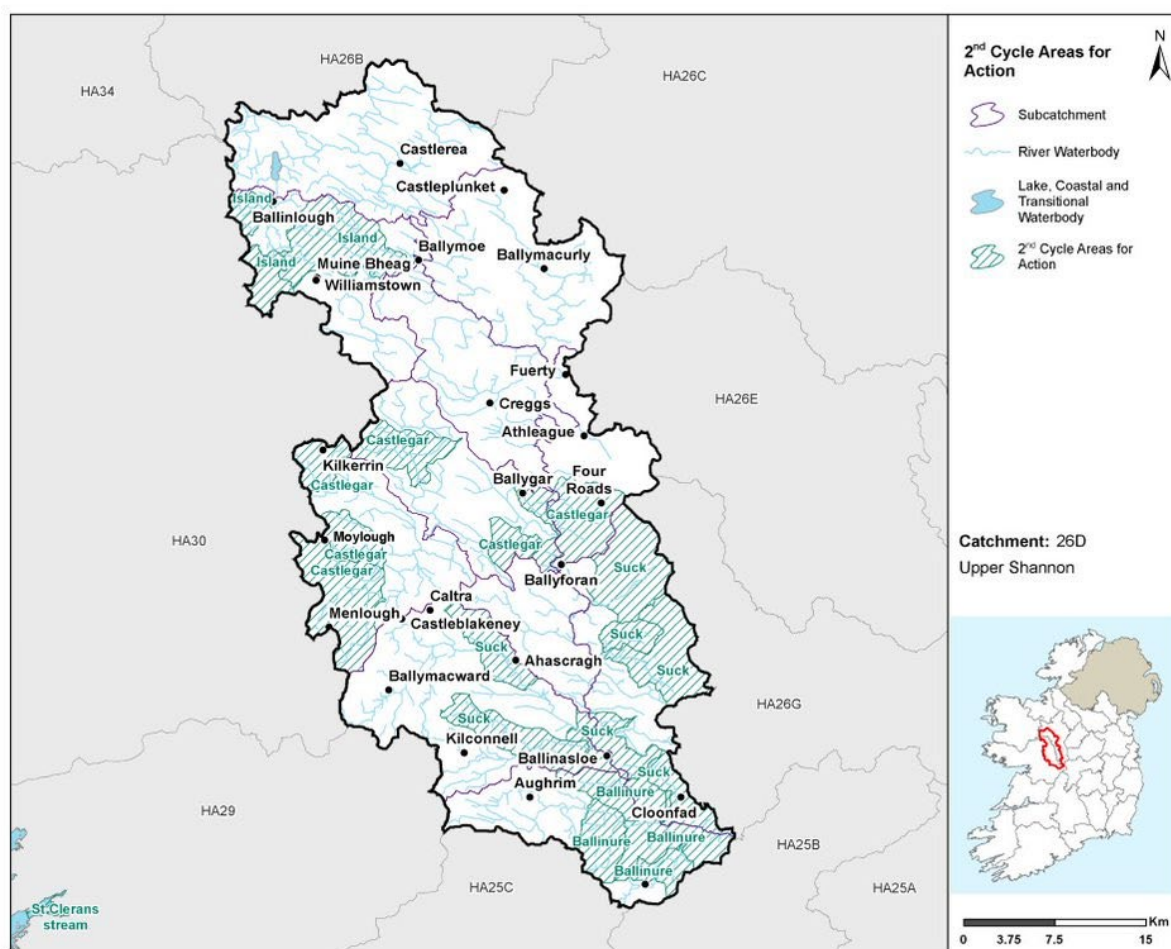


Figure 20: 2<sup>nd</sup> Cycle Areas for Action Locations

Table 4: 2<sup>nd</sup> Cycle Areas for Action

2 <sup>nd</sup> Cycle Area for Action	Number of waterbodies	Sub-catchment	Local Authority	Reason for Selection
Island	3	26D_8	Galway	<ul style="list-style-type: none"> <li>Two recently deteriorated water bodies.</li> <li>One At Risk High Ecological Status objective water body.</li> <li>Building on recent incident response work by Inland Fisheries Ireland.</li> <li>GSI source protection report is available.</li> <li>Subcatchment headwaters.</li> </ul>
Castlegar	6	26D_11, 26D_10	Galway	<ul style="list-style-type: none"> <li>Building on proposed improvements at Mountbellew WWTP.</li> <li>One deteriorated water body.</li> </ul>
Suck	7	26D_2, 26D_5	Galway	<ul style="list-style-type: none"> <li>MCPA issue at the drinking water abstraction on Suck_140. Need to rule out tribs before entering Suck to identify sources of MCPA.</li> <li>Two deteriorated water bodies.</li> </ul>
Ballinure	4	26D_3	Galway	<ul style="list-style-type: none"> <li>Recent deterioration.</li> <li>Potential quick win.</li> <li>Manageable area.</li> </ul>

## 8.2 Status Change in 2<sup>nd</sup> Cycle Areas for Action

- ◆ For Cycle 3, of the 20 waterbodies in the 2<sup>nd</sup> Cycle Areas for Action, there are three waterbodies at Good Status, eight waterbodies at Moderate Status, three waterbodies at Poor Status and five waterbodies where status has not been assigned.
- ◆ There is an overall improvement in the status of two of the 2<sup>nd</sup> Cycle Areas for Action waterbodies across the catchment.<sup>8</sup>
- ◆ Of the 15 waterbodies within the 2<sup>nd</sup> Cycle Areas for Action which had status assigned, 11 experienced no change in status between Cycle 2 and Cycle 3, three waterbodies experienced an improvement and one was subject to deterioration in status (Figure 21). The three waterbody improvements were across Castlefar Area for Action, Suck Area for Action and Ballinure Area for Action. The one waterbody which experienced a decline was in the Suck Area for Action.

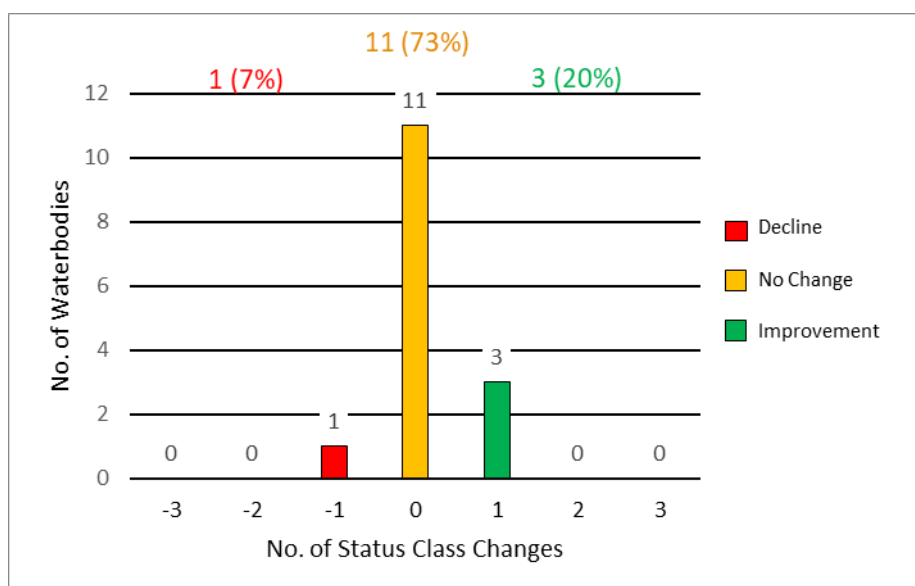


Figure 21: 2<sup>nd</sup> Cycle Area for Action Waterbody Status Class Changes between Cycle 2 and Cycle 3

## 8.3 Waterbody Risk in 2<sup>nd</sup> Cycle Areas for Action

- ◆ For the 20 waterbodies in the 2<sup>nd</sup> Cycle Areas for Action, 14 (70%) of these are currently *At Risk* and six (30%) in *Review*. All Areas for Action waterbodies are river waterbodies.
- ◆ All 14 *At Risk* waterbodies are river waterbodies. Figure 22 gives an overview of the breakdown of risk across waterbody types for both Cycle 2 and Cycle 3 in 2<sup>nd</sup> Cycle Areas for Action.

<sup>8</sup> 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 a decrease from 15 to 14 *At Risk* waterbodies in 2<sup>nd</sup> Cycle Areas for Action between Cycle 2 and Cycle 3.

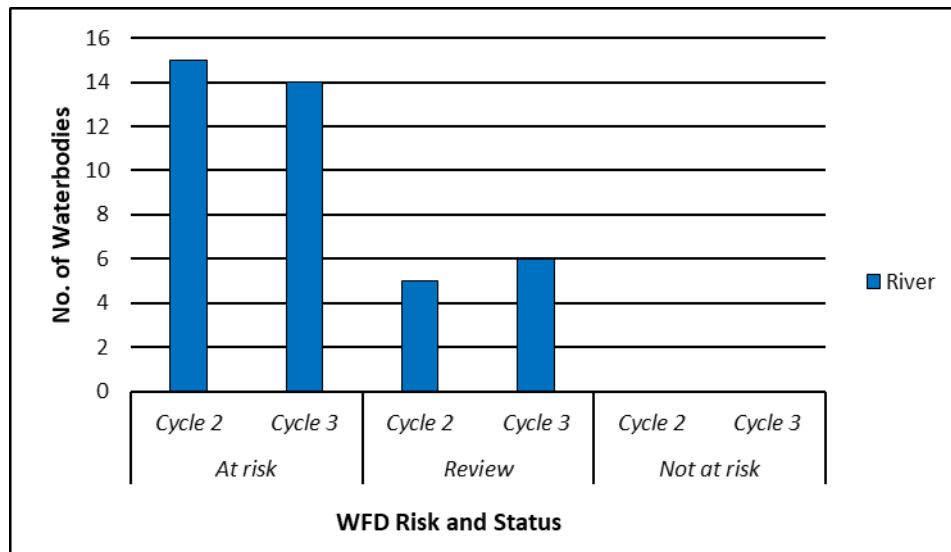
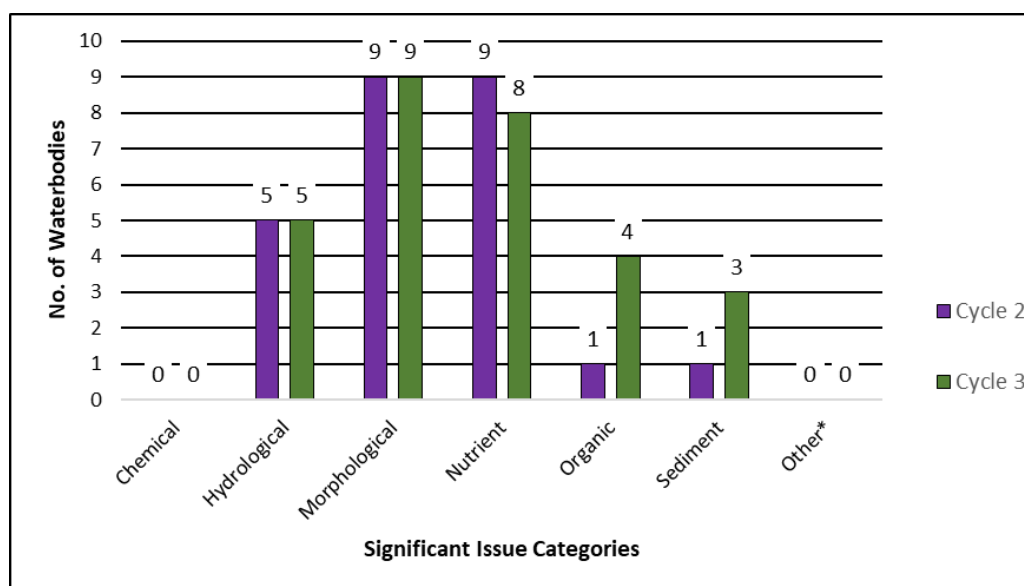


Figure 22: Number of waterbodies in each risk category in 2<sup>nd</sup> Cycle Areas for Action

#### 8.4 Significant Issues in 2<sup>nd</sup> Cycle Areas for Action

- ◆ Based on the EPA assessment for Cycle 3, the significant issues in the 2<sup>nd</sup> Cycle Areas for Action are morphological impacts and nutrient pollution, each impacting eight and eight waterbodies respectively (Figure 23). This is followed by hydrological which is impacting five waterbodies while organic impacts and sediment pollution are impacting five and three waterbodies, respectively.
- ◆ The number of 2<sup>nd</sup> 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 nutrient issues which has decreased from eight to eight waterbodies.

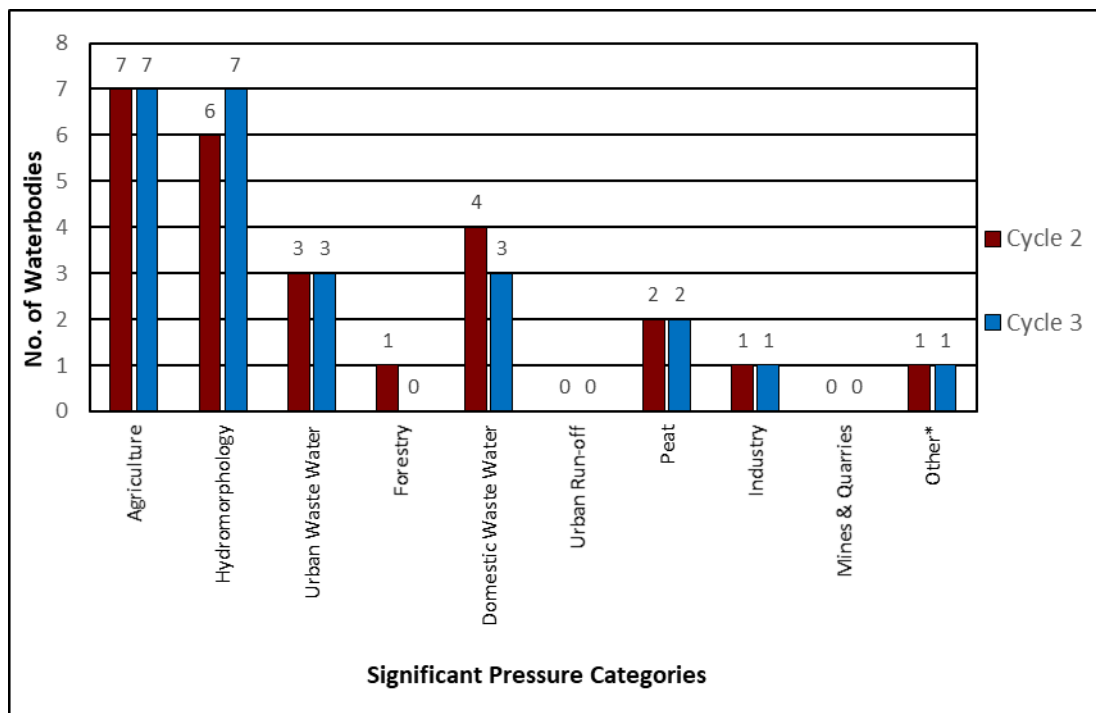


\*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 23: Significant Issues across all 2<sup>nd</sup> Cycle Areas for Action Waterbodies

## 8.5 Significant Pressure in 2<sup>nd</sup> Cycle Areas for Action

- ◆ For Cycle 3, in 2<sup>nd</sup> Cycle Areas for Action waterbodies in the catchment the dominant significant pressures are:
  - Hydromorphology - seven waterbodies are impacted compared to six impacted in Cycle 2.
  - Agriculture, urban waste water, peat, industry and other impacts all remained unchanged and continues to impact the same number of waterbodies in both cycles.
  - Forestry is no longer impacting any waterbodies, while it impacted one waterbody in Cycle 2.
  - Domestic waste water is impacting one less waterbody in Cycle 3 when compared with Cycle 2, having reduced from four to three waterbodies.
- ◆ When comparing the significant pressures in the 2<sup>nd</sup> Cycle Areas for Action between Cycle 2 and 3 there has been a decrease or no change in all significant pressure categories in the catchment with the exception of hydromorphology which has increased by one waterbody 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 24: Significant Pressures in 2<sup>nd</sup> Cycle Area for Action Waterbodies

## 9 3<sup>rd</sup> Cycle Recommended Areas for Action

### 9.1 Recommended Areas for Action Overview

- ◆ For the 3<sup>rd</sup> 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 3<sup>rd</sup> Cycle Plan is to capture all activity that is working to restore, improve and/or protect waterbodies.

- ◆ The Recommended 3<sup>rd</sup> 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 10 Areas for Action, comprising of 57 waterbodies, recommended for further characterisation and action in the catchment for the 3<sup>rd</sup> Cycle River Basin Management Plan. 22 of the 57 waterbodies in the 3<sup>rd</sup> Cycle Recommended Areas for Action are *At Risk*, 14 are in *Review* and 21 are *Not At Risk*. The 10 Recommended Areas for Action consist of one Area for Protection, eight Areas for Restoration and one Catchment Project. LAWPRO are the proposed lead organisation in seven Recommended Areas for Action, GSI are the proposed lead on one Recommended Area for Action and NFGWS are the proposed lead on the remaining two Recommended Areas for Action. The Recommended Areas for Action in the catchment are listed in Table 5 and shown in Figure 25. The reason for selecting for each waterbody in a Recommended Area for Action is provided in Appendix 2.

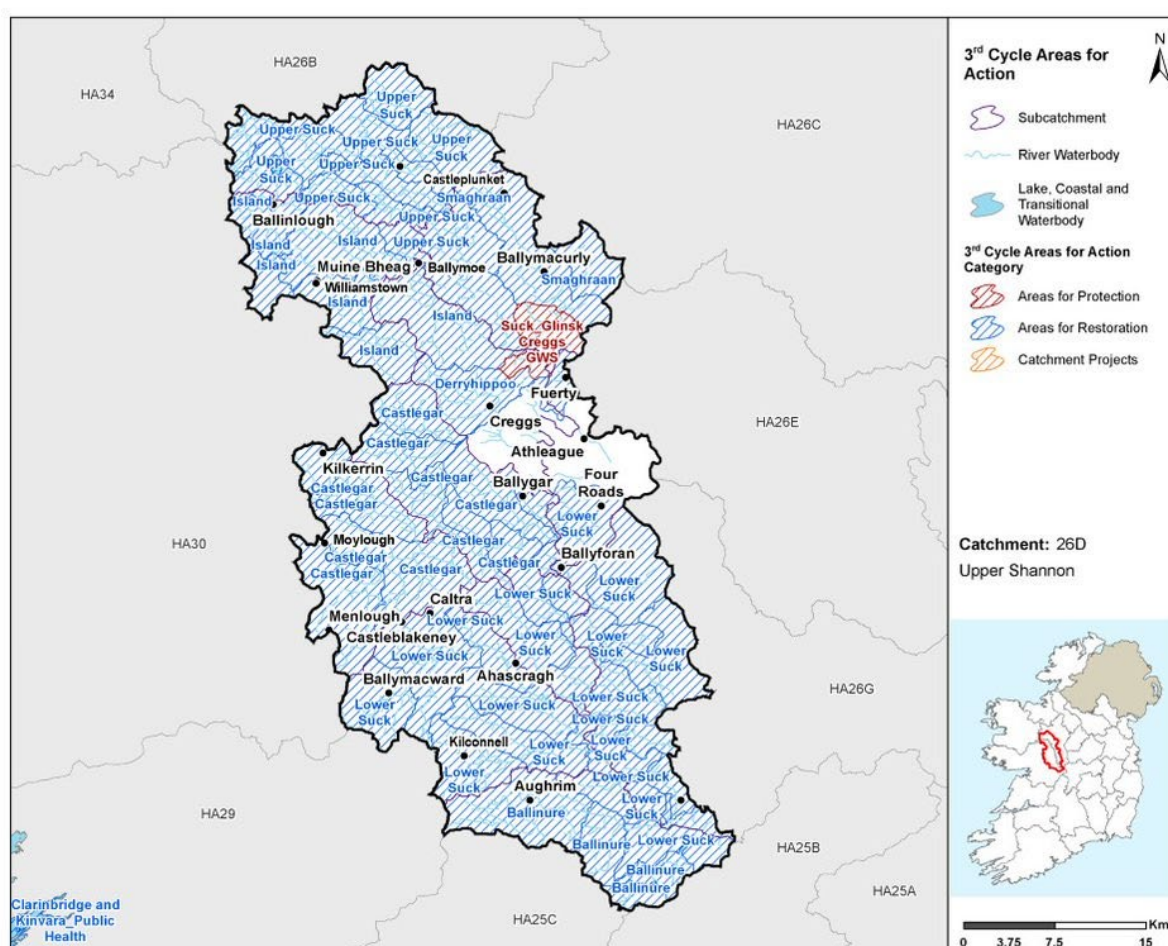


Figure 25: 3<sup>rd</sup> Cycle Recommended Areas for Action Locations

Table 5: 3<sup>rd</sup> 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
Lower Suck	18	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Ballinure	4	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Castlegar	11	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Upper Suck	11	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Derryhippoo	1	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Island	7	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Smaghraan	2	Restoration	Prioritised Areas for Action LAWPRO	LAWPRO
Suck_Glinsk Creggs GWS	1	Protection	Public Health Areas for Protection NFGWS, IW, HSE, LAs, SFPA	NFGWS
Suck_Castlestrange GWS	1	Restoration	Public Health Areas for Restoration NFGWS, IW, HSE, LAs, SFPA	NFGWS
Suck South GWB	1	Catchment Projects	Public Body Research	GSI

## 10 Catchment Summary

- Of the 58 river waterbodies, 23 are *At Risk* of not meeting their WFD objectives.
- Three out of 17 groundwater bodies are *At Risk*.
- There are 26 waterbodies *At Risk* in Cycle 3 compared to 24 waterbodies *At Risk* in Cycle 2.
- The main significant issues are from nutrients pollution and morphological impacts, followed by organic, hydrological impacts, sediment pollution and other impacts.
- The main significant pressures are agricultural pressures followed by hydromorphological pressures, domestic waste water, urban waste water, other pressures, peat, forestry and industry.
- The main impacts and pressures driving the change between Cycle 2 and Cycle 3 are increases in waterbodies impacted by nutrient, organic and sediment.
- In the 2<sup>nd</sup> Cycle Areas for Action, 15 waterbodies were *At Risk* in Cycle 2 and 14 waterbodies are *At Risk* in Cycle 3.
- There are 10 3<sup>rd</sup> Cycle Recommended Areas for Action recommended for Cycle 3. They comprise of 57 waterbodies with 22 waterbodies *At Risk*, 14 in *Review* and 21 are *Not At Risk*.

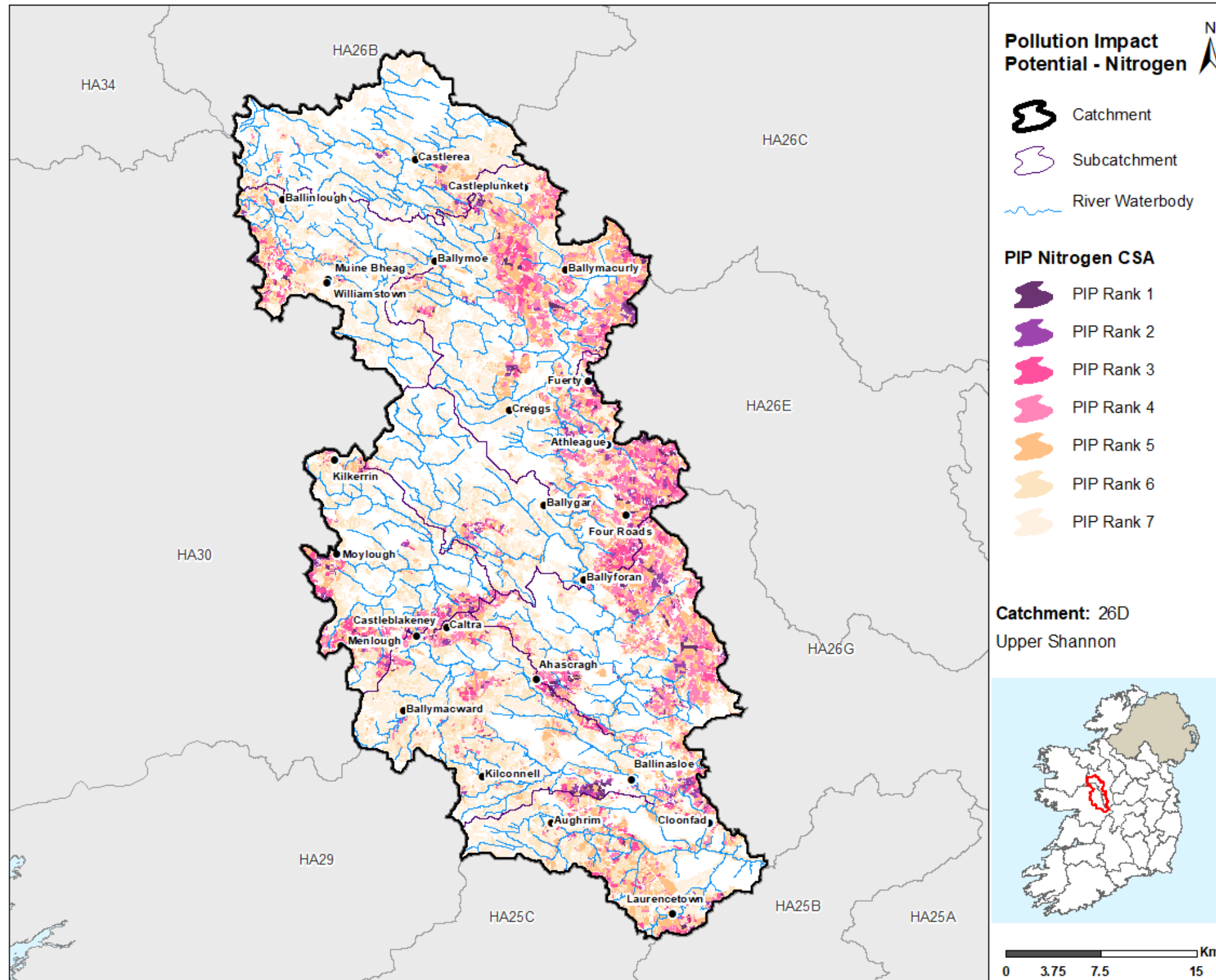
## Appendix 1

### High ecological status objective waterbodies

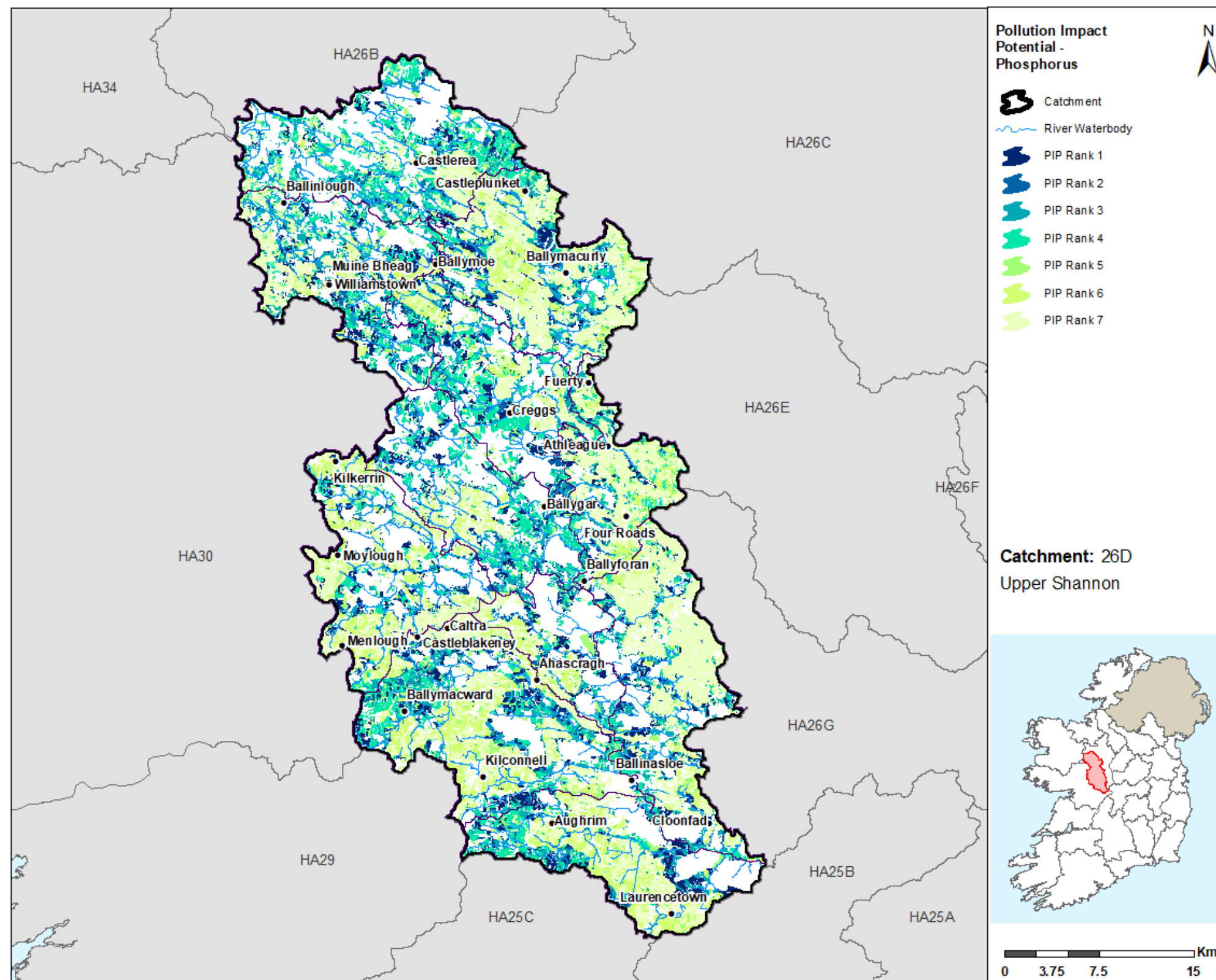
Waterbody Name	Waterbody Type	Waterbody Code	Status 2013-2018
ISLAND_030	River	IE_SH_26I030400	Good
KILLIAN_030	River	IE_SH_26K010300	High
SHIVEN (SOUTH)_050	River	IE_SH_26S030400	Good
SUCK_020	River	IE_SH_26S070100	High
SUCK_040	River	IE_SH_26S070400	High

## Appendix 2

### Pollution Impact Potential Mapping







## Appendix 3

### Summary information on all waterbodies in the Upper Shannon (Suck) 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)
26D_2	IE_SH_26A010050	AHASCRAUGH_010	River	Not at risk	Not at risk	Good	Good	No		Lower Suck	Add to be inclusive for SC approach & ensure characterisation of expanded PAA is complete
26D_2	IE_SH_26A010200	AHASCRAUGH_020	River	Not at risk	Not at risk	Good	Good	No		Lower Suck	Add to be inclusive for SC approach & ensure characterisation of expanded PAA is complete. CBC GWS. Cloonatleva GWS.
26D_2	IE_SH_26A010400	AHASCRAUGH_030	River	At risk	At risk	Moderate	Poor	No	Ag, DWW, Hymo, UWW	Lower Suck	Existing PAA. LCA yet to start. Require additional time in this PAA.
26D_2	IE_SH_26A010500	AHASCRAUGH_040	River	Not at risk	Not at risk	Good	Good	No		Lower Suck	Add to be inclusive for SC approach & ensure characterisation of expanded PAA is complete
26D_3	IE_SH_26B010300	BALLINURE_010	River	Not at risk	Review	Good	Good	No		Ballinure	Newcastle GWS. Cappataggle GWS. LAWPRO adding this WB now so SC water body above existing PAA is included in characterisation reporting, although currently NAR.
26D_3	IE_SH_26B010400	BALLINURE_020	River	At risk	At risk	Moderate	Moderate	No	Ag, DWW	Ballinure	Existing PAA. Characterisation has not started yet.
26D_5	IE_SH_26B150840	BALLYGLASS_010	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	Existing PAA. Currently unassigned and awaiting characterisation. Change name from Suck to Suck Lower.
26D_11	IE_SH_26C030100	CASTLEGAR_010	River	At risk	At risk	Moderate	Moderate	No	Ag, Hymo	Castlegar	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep. Meenlough GWS.
26D_11	IE_SH_26C030200	CASTLEGAR_020	River	At risk	At risk	Poor	Poor	No	UWW	Castlegar	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep.
26D_5	IE_SH_26C090740	Culliaghbeg_010	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	Existing PAA. Currently unassigned and awaiting characterisation. Change name from Suck to Suck Lower.
26D_5	IE_SH_26C170400	CUILLEEN STREAM_010	River	Not at risk	At risk	Good	Moderate	No	Ag, DWW	Lower Suck	In the subcatchment of the Suck PAA. Change name from Suck to Suck Lower.
26D_9	IE_SH_26C210200	CLOONFOWER STREAM_010	River	Not at risk	Not at risk	Good	Good	No		Upper Suck	Include to complete Upper Suck SC.
26D_9	IE_SH_26C520790	CLOONROUGHAN_010	River	Review	Review	Unassigned	Unassigned	No		Upper Suck	Include to complete Upper Suck SC.
26D_4	IE_SH_26D010200	DERRYHIPPOO_010	River	At risk	At risk	Poor	Poor	No	Ag, For, Hymo, Peat	Derryhippoo	At Risk WB - proposed by CWO & GCC.
26D_2	IE_SH_26D070400	DERRYMULLAN STREAM_010	River	Not at risk	At risk	Good	Moderate	No	Ag	Lower Suck	Add as upstream of existing PAA water body Derrymullan Stream_020 which is also at risk.
26D_2	IE_SH_26D070700	DERRYMULLAN STREAM_020	River	At risk	At risk	Moderate	Moderate	No	Other	Lower Suck	Existing PAA. LCA yet to start. Require additional time in this PAA. Ballinabanaba GWS.
26D_9	IE_SH_26F050050	FRANCIS_010	River	Not at risk	Not at risk	Good	Good	No		Upper Suck	Include to complete Upper Suck SC.

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)
26D_9	IE_SH_26F050300	FRANCIS_020	River	Not at risk	Not at risk	Good	Good	No		Upper Suck	Include to complete Upper Suck SC.
26D_8	IE_SH_26I030040	ISLAND_010	River	At risk	At risk	Moderate	Moderate	No	Ag, Hymo	Island	In an existing PAA. Characterisation yet to be started. Also proposed by GCC.
26D_8	IE_SH_26I030100	ISLAND_020	River	Not at risk	Not at risk	Good	Good	No		Island	Based on subcatchment approach. Island_010 and Island_030 already in an existing PAA &AR.
26D_8	IE_SH_26I030400	ISLAND_030	River	At risk	At risk	Good	Good	Yes	UWW	Island	In an existing PAA. Characterisation yet to be started. Also proposed by GCC. HSO WB.
26D_10	IE_SH_26K010050	KILLIAN_010	River	Not at risk	Not at risk	Good	Good	No		Castlegar	Include in Castlegar PAA. u/s of existing PAA WB.
26D_10	IE_SH_26K010100	KILLIAN_020	River	At risk	Review	Moderate	Good	No		Castlegar	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep. Keep to ensure subcatchment approach is adopted.
26D_10	IE_SH_26K010300	KILLIAN_030	River	Not at risk	Not at risk	High	High	Yes		Castlegar	Include in Castlegar PAA. u/s of existing PAA WB.
26D_5	IE_SH_26K040200	KILLEGLAN_010	River	At risk	At risk	Poor	Moderate	No	Ag, Peat	Lower Suck	Existing PAA. LCA yet to start. Require additional time in this PAA. Feeding into GSI proposal for Suck South GWB. Change name from Suck to Suck Lower.
26D_1	IE_SH_26K050940	Killaderry stream_010	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	
26D_5	IE_SH_26K080460	KILLEGAN TRIB NORTH_010	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	Existing PAA. Currently unassigned and awaiting characterisation. Change name from Suck to Suck Lower.
26D_3	IE_SH_26L070200	LAURENCETOWN STREAM_010	River	Not at risk	Not at risk	Unassigned	Unassigned	No		Ballinure	Unassigned & upstream of At Risk PAA water body (poor status). Also proposed by GCC.
26D_3	IE_SH_26L070500	LAURENCETOWN STREAM_020	River	At risk	At risk	Bad	Poor	No	Ag, Ind	Ballinure	Existing PAA. Characterisation has not started yet.
26D_1	IE_SH_26L530780	LUGHANAGH_010	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	
26D_8	IE_SH_26P040810	POLLYNOON_010	River	Review	Review	Unassigned	Unassigned	No		Island	In an existing PAA. Characterisation yet to be started. Unassigned RWB strategy required. Also proposed by GCC.
26D_11	IE_SH_26S030040	SHIVEN (SOUTH)_010	River	At risk	At risk	Moderate	Moderate	No	Ag, DWW	Castlegar	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep.
26D_11	IE_SH_26S030100	SHIVEN (SOUTH)_020	River	Not at risk	At risk	Good	Moderate	No	Ag	Castlegar	Has deteriorated from good to moderate. Shiven_010 also moderate and in PAA. Both feeding into the good status Shiven_030. Killasmuggan GWS
26D_11	IE_SH_26S030200	SHIVEN (SOUTH)_030	River	Not at risk	Not at risk	Good	Good	No		Castlegar	Add to be inclusive for SC approach & ensure characterisation of expanded PAA is complete
26D_10	IE_SH_26S030300	SHIVEN (SOUTH)_040	River	Not at risk	Not at risk	Good	Good	No		Castlegar	Include in Castlegar PAA. u/s of existing PAA WB.
26D_10	IE_SH_26S030400	SHIVEN (SOUTH)_050	River	At risk	At risk	Good	Good	Yes	Hymo	Castlegar	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep. Blue Dot.
26D_10	IE_SH_26S030820	SHIVEN (SOUTH)_060	River	Not at risk	Not at risk	Unassigned	Unassigned	No		Castlegar	Include in Castlegar PAA. u/s of existing PAA WB.

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)
26D_7	IE_SH_26S040100	SMAGHRAAN_010	River	At risk	At risk	Poor	Poor	No	Ag, For	Smaghraan	
26D_7	IE_SH_26S040200	SMAGHRAAN_020	River	Not at risk	At risk	Good	Poor	No	Ag, Other	Smaghraan	
26D_8	IE_SH_26S050100	SPRINGFIELD_010	River	Not at risk	Not at risk	Good	Good	No		Island	Keellogues & Kilcolum GWS. WB feeds into AR Island_030.
26D_8	IE_SH_26S050200	SPRINGFIELD_020	River	Not at risk	Review	Good	Good	No		Island	Knockauns GWS. WB feeds into AR Island_030.
26D_9	IE_SH_26S070050	SUCK_010	River	At risk	Review	Moderate	Good	No		Upper Suck	Proposed by RCC. Suck_030 AR. Include u/s WBs in characterisation.
26D_9	IE_SH_26S070100	SUCK_020	River	At risk	Review	Good	High	Yes		Upper Suck	Suck_030 AR. Include u/s WBs in characterisation.
26D_9	IE_SH_26S070300	SUCK_030	River	At risk	At risk	Moderate	Poor	No	Ag, Hymo	Upper Suck	Suck_030 AR. Create new upper Suck AFA.
26D_9	IE_SH_26S070400	SUCK_040	River	Not at risk	Not at risk	High	High	Yes		Upper Suck	Include to complete Upper Suck SC. Blue Dot.
26D_7, 26D_8	IE_SH_26S070500	SUCK_050	River	Not at risk	Not at risk	Good	Good	No		Upper Suck	Include to Complete Upper Suck AFA proposal which mainly comprises of SC 26D_9. Suck_050 also receives inputs from the Island AFA.
26D_4, 26D_7	IE_SH_26S070600	SUCK_060	River	Not at risk	Not at risk	Good	Good	No		Island	The NFGWS would like to propose that the Lough Loung catchment is included within a PAA on the basis of Public Health. The lake is used for water abstraction by Glinsk Creggs GWS. While the lake is currently unclassified, the downstream waterbodies (Suck_060 and Suck_070) is classified as being of 'Good' status and worthy of protection. In addition, the lakes outflow flows into the River Suck Callows SPA. Glinsk Greggs GWS. Lough Loung is not a WFD lake.
26D_4, 26D_7	IE_SH_26S070650	SUCK_070	River	Not at risk	Not at risk	Good	Good	No		Suck_Glinsk Creggs GWS	The NFGWS would like to propose that the Lough Loung catchment is included within a PAA on the basis of Public Health. The lake is used for water abstraction by Glinsk Creggs GWS. While the lake is currently unclassified, the downstream waterbodies (Suck_060 and Suck_070) is classified as being of 'Good' status and worthy of protection. In addition, the lakes outflow flows into the River Suck Callows SPA. Glinsk Greggs GWS. Lough Loung is not a WFD lake.
26D_4, 26D_6	IE_SH_26S070700	SUCK_080	River	Not at risk	At risk	Good	Moderate	No	Ag, Hymo	Suck_Castlestrange GWS	Castlestrange GWS
26D_4, 26D_6	IE_SH_26S070870	SUCK_090	River	Not at risk	At risk	Good	Moderate	No	Ag, Hymo		
26D_4, 26D_6	IE_SH_26S070900	SUCK_100	River	Not at risk	Not at risk	Good	Good	No			
26D_4, 26D_6	IE_SH_26S071000	SUCK_110	River	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)
26D_10, 26D_6	IE_SH_26S071100	SUCK_120	River	At risk	At risk	Moderate	Moderate	No	Hymo	Lower Suck	Existing PAA. Characterisation ongoing. Proposed by GCC also to keep. Change PAA name to Suck Lower.
26D_1, 26D_5	IE_SH_26S071200	SUCK_130	River	Not at risk	Not at risk	Good	Good	No		Lower Suck	Include to complete Suck SC 26D_5 & proximity to Ballinasloe RWSS. Important for IW. Change name from Suck to Suck Lower.
26D_2, 26D_5	IE_SH_26S071400	SUCK_140	River	At risk	At risk	Moderate	Moderate	No	Hymo	Lower Suck	Existing PAA. LCA yet to start. Require additional time in this PAA. IW:: EPA Pesticide Act and Watch list - Watch. Very large catchment size. Change name from Suck to Suck Lower.
26D_3, 26D_5	IE_SH_26S071500	SUCK_150	River	At risk	At risk	Moderate	Moderate	No	Hymo, Peat	Lower Suck	Existing PAA. Characterisation has not started yet. Was part of Ballinure PAA - proposed to change name.
26D_3, 26D_5	IE_SH_26S071550	SUCK_160	River	Review	Review	Unassigned	Unassigned	No		Lower Suck	Existing PAA. Unassigned WB. Characterisation has not started yet. IW proposed Suck_140 due to issues with Ballinasloe WTP pesticide issues (watch list). Was part of Ballinure PAA - proposed to change name.
26D_9	IE_SH_26T030300	TERMON STREAM_010	River	Not at risk	Not at risk	Good	Good	No		Upper Suck	Include to complete Upper Suck SC.
26D_9	IE_SH_26_693	OFlynn	Lake	At risk	Not at risk	Poor	Good	No		Upper Suck	Proposed by RCC. Suck_030 AR. Include u/s WBs in characterisation.
26D_5, 26E_6, 26G_1, 26G_2, 26G_3	IE_SH_G_014	Athlone West	Groundwater	Not at risk	Not at risk	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			
26D_10, 26D_11, 26D_4	IE_SH_G_028	Ballygar	Groundwater	Not at risk	Not at risk	Good	Good	No			
26A_3, 26B_1, 26B_2, 26B_3, 26B_4, 26B_5, 26B_6, 26C_10, 26C_11, 26C_12, 26C_3, 26C_4,	IE_SH_G_048	Carrick on Shannon	Groundwater	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)
26C_5, 26D_7, 26D_9, 26E_3, 34_4, 36_15											
26B_1, 26D_8, 26D_9, 30_10	IE_SH_G_053	Castlerea	Groundwater	Not at risk	Not at risk	Good	Good	No			
26B_1, 26D_9	IE_SH_G_054	Castlerea Bellanagare	Groundwater	Not at risk	Not at risk	Good	Good	No			
26C_1, 26C_12, 26C_7, 26C_8, 26C_9, 26D_5, 26D_6, 26D_7, 26E_1, 26E_2, 26E_3, 26E_5, 26E_6, 26G_2, 26G_3	IE_SH_G_091	Funshinagh	Groundwater	Review	At risk	Good	Good	No	Ag		
26D_10, 26D_4, 26D_6, 26D_7, 26E_5	IE_SH_G_173	Mount Mary	Groundwater	Not at risk	Review	Good	Good	No			
26B_1, 26B_2, 26B_6, 26D_8, 26D_9, 30_10, 34_4	IE_SH_G_224	Suck North	Groundwater	Not at risk	Not at risk	Good	Good	No			
26B_1, 26C_12, 26D_1, 26D_10, 26D_11, 26D_2, 26D_3, 26D_4, 26D_5, 26D_6, 26D_7, 26D_8, 26D_9, 26E_2, 26E_3, 26E_5, 26G_1, 26G_2, 29_5, 30_10, 30_12, 30_19, 30_8	IE_SH_G_225	Suck South	Groundwater	Review	Review	Good	Good	No		Suck South GWB	<p>This GWB is in Review as it is hydrologically linked to surface waters that are not meeting water quality objectives where it is considered likely that groundwater is a contributing source of phosphorus. So this type of deterioration may be observed in the future.</p> <p>Also there are numerous groundwater fed drinking water sources with water quality issues in the area.</p> <p>GSI are involved in karst mapping and flood monitoring within this GWB. A PAA status would allow this already existing work to be highlighted via the WFD process.</p> <p>Risk of GWB deteriorating; Public health areas for restoration.</p>

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)
											Build on existing programmes and community group initiatives.
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			
26B_1, 26D_9	IE_SH_G_241	GWDTE-Bellagare Bog (SAC000592)	Groundwater	Review	Not at risk	Good	Good	No			
26D_8, 30_10, 30_5, 30_8	IE_WE_G_0005	Dunmore	Groundwater	Not at risk	Not at risk	Good	Good	No			
26D_11, 26D_2, 26D_8, 26D_9, 29_4, 29_5, 29_6, 30_1, 30_10, 30_11, 30_12, 30_13, 30_18, 30_19, 30_2, 30_4, 30_5, 30_6, 30_8, 30_9, 34_15, 34_4	IE_WE_G_0020	Clare-Corrib	Groundwater	At risk	At risk	Good	Good	No	Ag, Other		
26B_2, 26D_9, 30_10, 30_3, 30_6, 30_7, 30_9, 32_6, 34_1, 34_15, 34_16, 34_17, 34_18, 34_2, 34_20, 34_21, 34_22, 34_3,	IE_WE_G_0033	Swinford	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)
34_4, 34_7, 35_4											
26D_10, 26D_11, 26D_8, 30_8	IE_WE_G_0094	GWDTE-Glenamaddy Turlough (SAC000301)	Groundwater	Review	Not at risk	Good	Good	No			
25C_12, 25C_6, 26D_2, 26D_3, 29_2, 29_4, 29_5, 29_8, 29_9, 30_12	IE_WE_G_0100	GWDTE-Rahasane Turlough (SAC000322)	Groundwater	At risk	At risk	Good	Good	No	Ag, DWW		

**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.