# 3rd Cycle Draft
# Bandon Ilen Catchment Report
# (HA 20)

**Catchment Science & Management Unit**

**Environmental Protection Agency**

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epaCatchments
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# Preface

This document provides a summary of the water quality assessment outcomes for the Bandon Ilen 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. |

# Table of Contents

# List of Figures



# List of Tables

# 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 Bandon Ilen 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 Bandon Ilen catchment includes the area drained by the Rivers Bandon and Ilen and all streams entering tidal water between Templebreedy Battery and Mizen Head, Co. Cork, draining a total area of 1,803km² (Figure 1). he largest urban centre in the catchment is Bandon. The other main urban centres in this catchment are Kinsale, Clonakilty, Skibbereen and Dunmanway. The total population of the catchment is approximately 71,211 with a population density of 39 people per km².

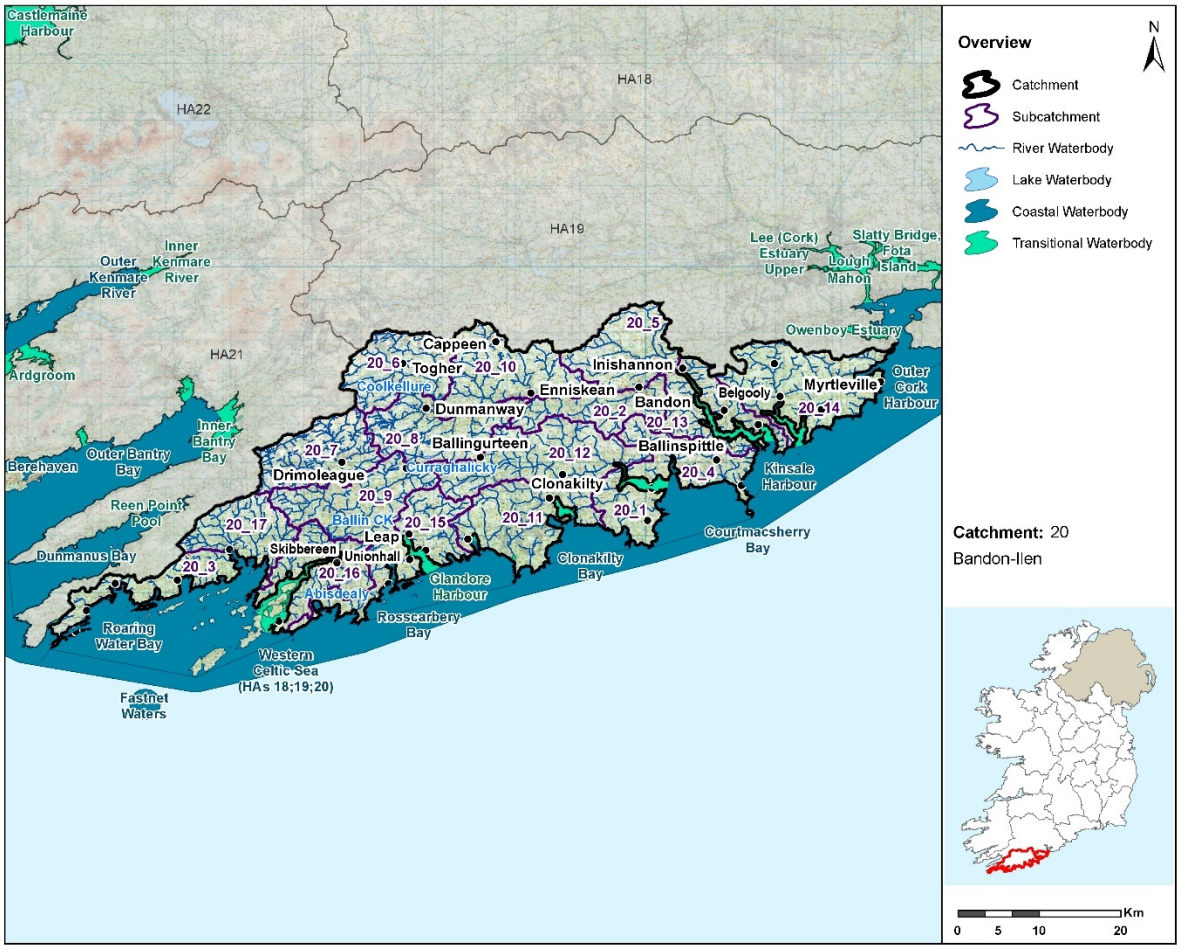



Figure 1: Overview of subcatchments in the Bandon Ilen catchment

The Bandon Ilen catchment is divided into 17 subcatchments (Figure 1) with 87 river waterbodies, six lakes, 11 transitional, 15 coastal waterbodies and nine groundwater bodies (Figure 2).

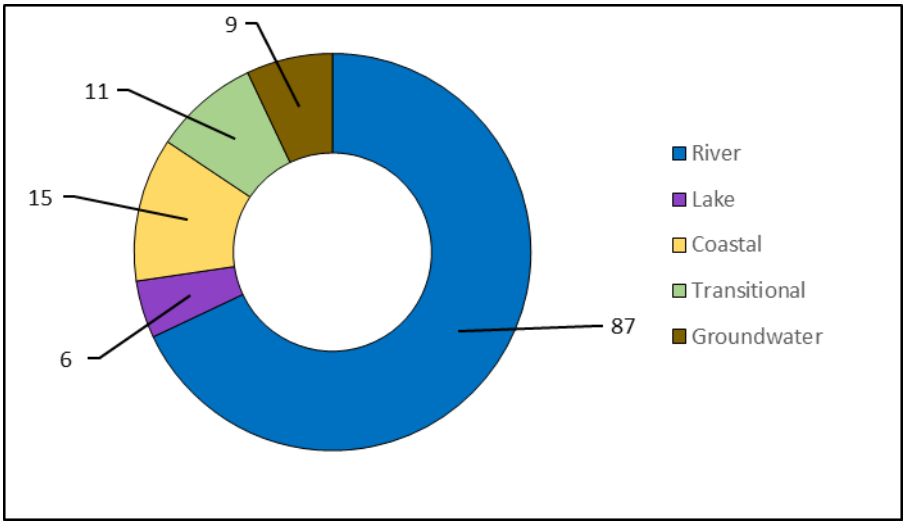



Figure 2: Waterbody types and numbers in the Bandon Ilen Catchment.

# 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 nine waterbodies achieving High Status, 51 achieving Good Status, 13 achieving Moderate Status, six Poor Status waterbodies and one Bad Status waterbody (Kilkeran Lake). There are 48 waterbodies in the catchment that do not have status assigned for Cycle 3. All waterbodies must achieve at least Good Ecological status.

- There are 15 river waterbodies that must achieve High Ecological Status (HES) in this catchment. These waterbodies are listed in Appendix 1. Of the 15 HES Environmental Objective waterbodies, seven river waterbodies are achieving High Status while six waterbodies are at Good Status, one waterbody (Bandon_030) is at Moderate Status and one waterbody (Diny_010) is at Poor Status.

- The overall number of waterbodies achieving High Status has increased from eight to nine between Cycle 2 and Cycle 3 (Figure 3 & Table 1). However, one river waterbody (Burncourt_020) declined from High Status to Good Status and two river waterbodies (Lingaun_010 & Aughnaglanny_010) declined from High Status to Moderate Status. There was an improvement from Moderate Status to High Status in two river waterbodies (Aherlow_040 & Clodiagh (Portlaw)_010) and an improvement from Good Status to High Status in the Aherlow_070.

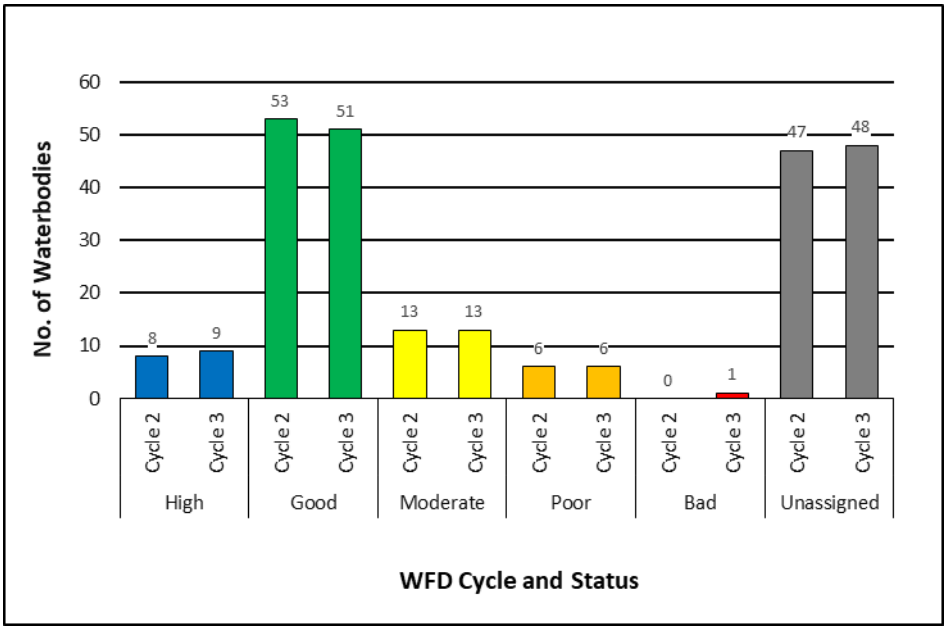



Figure 3: Waterbody Status Breakdown (All waterbodies)

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 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **8** | **9** |
| Good | 41 | 35 | 1 | 2 | 0 | 0 | 3 | 5 | 8 | 9 | **53** | **51** |
| Moderate | 5 | 8 | 3 | 3 | 4 | 2 | 1 | 0 | 0 | 0 | **13** | **13** |
| Poor | 0 | 2 | 2 | 1 | 2 | 3 | 1 | 0 | 1 | 0 | **6** | **6** |
| Bad | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | **0** | **1** |
| Un-assigned | 33 | 33 | 0 | 0 | 5 | 5 | 9 | 10 | 0 | 0 | **47** | **48** |
| **Total** | 87 | 87 | 6 | 6 | 11 | 11 | 14 | 15 | 9 | 9 | **127** | **128** |

- 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 nine (11%) waterbodies have improved in status, 60 (75%) waterbodies have remained unchanged and 11 (14%) waterbodies have declined in status.[1]

[1] Unassigned waterbodies have not been considered in this Status class change assessment and therefore are not represented in Figure 5. Percentage displayed in 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.

- There is an overall decline in the status of two waterbodies across the catchment since the Cycle 2 assessment.

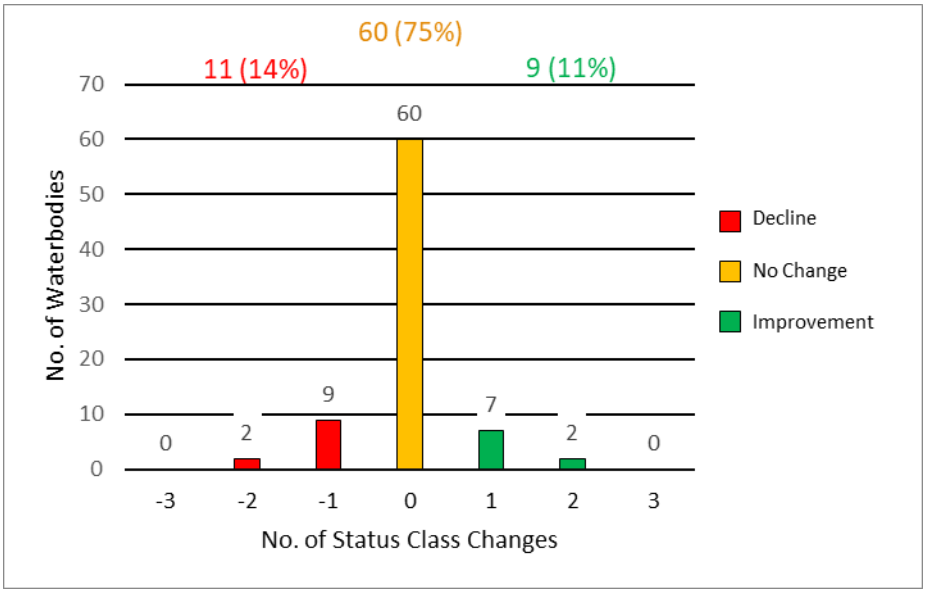



Figure 4: Status Class Changes between Cycle 2 and Cycle 3

## 2.2 Protected Areas

### 2.2.1 Drinking Water

- There are 15 surface waterbodies in the catchment identified as Drinking Water Protected Areas (DWPA) based on water abstraction data on the abstraction register and from other sources in 2018. All groundwater bodies nationally are identified as DWPA. DWPA layers can be viewed at https://gis.epa.ie/EPAMaps/Water - see *Protected Areas - Drinking Water*.

- All drinking waters in the catchment met the DWPA objective in 2019:

- For more detailed information please see the EPA reports on drinking water quality in 2019 for Public Supplies[2] and Private Supplies[3].

### 2.2.2 Bathing Waters

- There are nine bathing waters in or directly adjacent to the catchment identified under the Bathing Water Regulations 2008.

- eight of the nine bathing waters had an Excellent classification for 2020, the remaining bathing water (Coolmaine) had a Good classification.

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

[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

### 2.2.3 Shellfish Areas

- There are four designated shellfish area in the catchment.

- The Marine Institute assessed the average dissolved concentrations for metals in shellfish waters for the period 2016-2019 and the microbial quality in shellfish flesh for 2018. This assessment was used to determine if the WFD protected area objective for shellfish areas was met.

- Details on the shellfish area and its associated waterbody is summarised in Table 2.

Table 2: Designated shellfish areas in the catchment

| Shellfish area | | Water body intersection | | Objective met? | |
|---|---|---|---|---|---|
| Name | Code | Name | Code | Yes | No |
| Roaring Water Bay | IEPA2_0014 | Roaring Water Bay | IE_SW_140_0000 | ✓ | |
| Oyster Haven | IEPA2_0050 | Oysterhaven | IE_SW_070_0100 | ✓ | |
| Baltimore Harbour/Sherkin | IEPA2_0051 | Ilen Estuary | IE_SW_130_0100 | | ✓ |
| | | Roaring Water Bay | IE_SW_140_0000 | | |
| Kinsale | IEPA2_0062 | Lower Bandon Estuary | IE_SW_080_0100 | | ✓ |

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

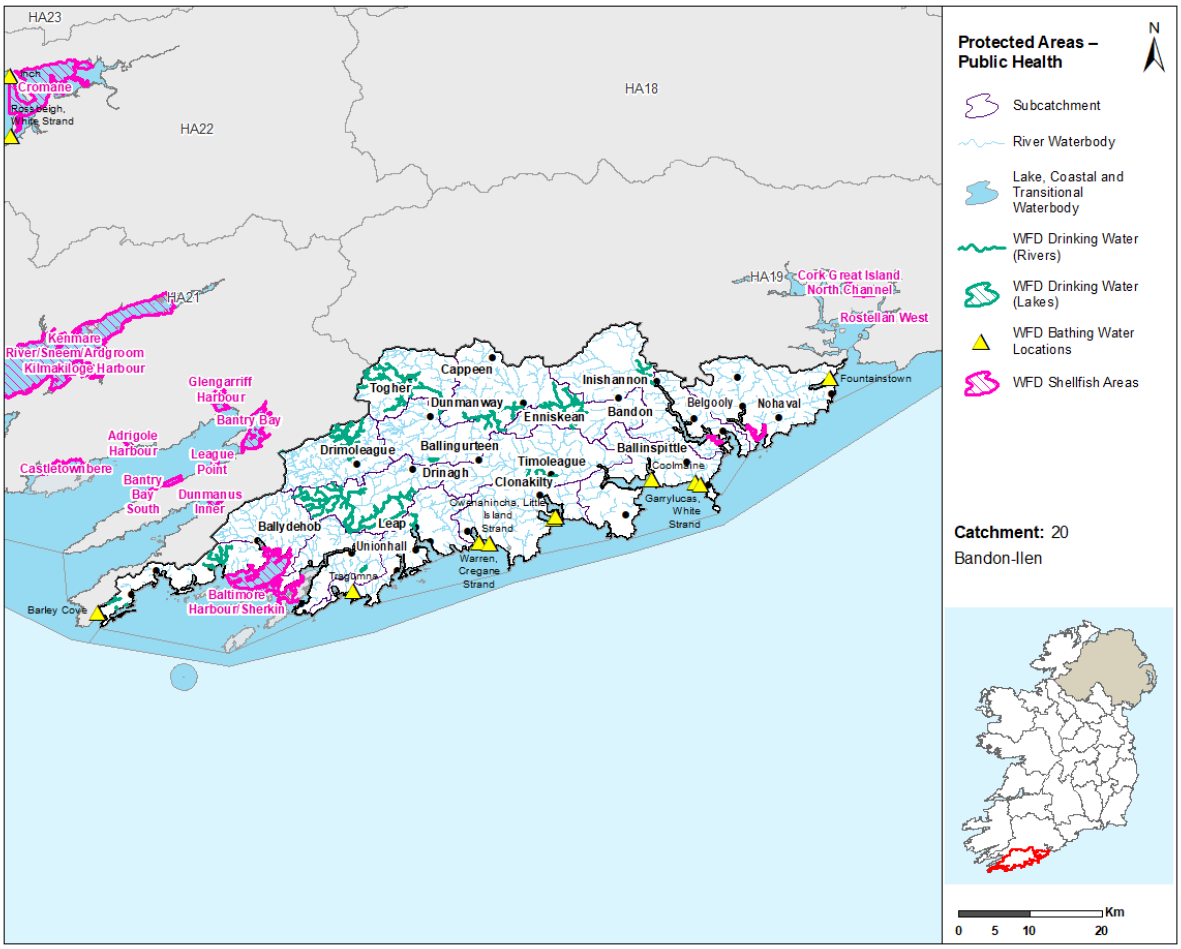



Figure 5: Protected Areas – Public Health

### 2.2.4 Natura 2000 Sites and Salmonid Waters

- 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 nine SACs in this catchment, all of which have water dependent habitats or species. The waterbodies within these SACs were assessed for associated water dependent habitats and species and if they met the supporting requirements for habitats and species using their 2013-2018 WFD status. For the purposes of the assessment, it was assumed that Good ecological status is adequate to meet the supporting conditions of all habitats and species with the exception of the Freshwater Pearl Mussel, which has additional requirements for supporting conditions set out in the Freshwater Pearl Mussel Regulations (S.I. No 296 of 2009) for macroinvertebrates, filamentous algae, phytobenthos, macrophytes and siltation.

- Specific water supporting conditions have not been identified for the dependent bird species in the SPAs and so waterbodies associated with SPAs are not included in this assessment.

Results of the overall assessment for this catchment are outlined in

Table 3 below, information at a waterbody level can be viewed at Catchments.ie.[5]

Table 3: Natura 2000 Network Assessment Summary

| Water Body Type | Total No. | Meeting the Requirements | Did not meet the Requirements | Unknown* |
|---|---|---|---|---|
| Rivers | 9 | 1 | 3 | 5 |
| Transitional & Coastal | 4 | 3 | 1 | 0 |

**As the waterbody status was unassigned.*

- There are three river waterbodies with FWPM habitats, none of which had achieved the required macroinvertebrate standard as set out in the FWPM Regulations.

- There are no groundwater bodies delineated and assessed as Groundwater Dependent Terrestrial Ecosystems for this catchment.

- Water dependent SACs/ SPAs (including FWPM SAC sub-catchments) and salmonid waters in the catchment are illustrated in Figure 6.

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

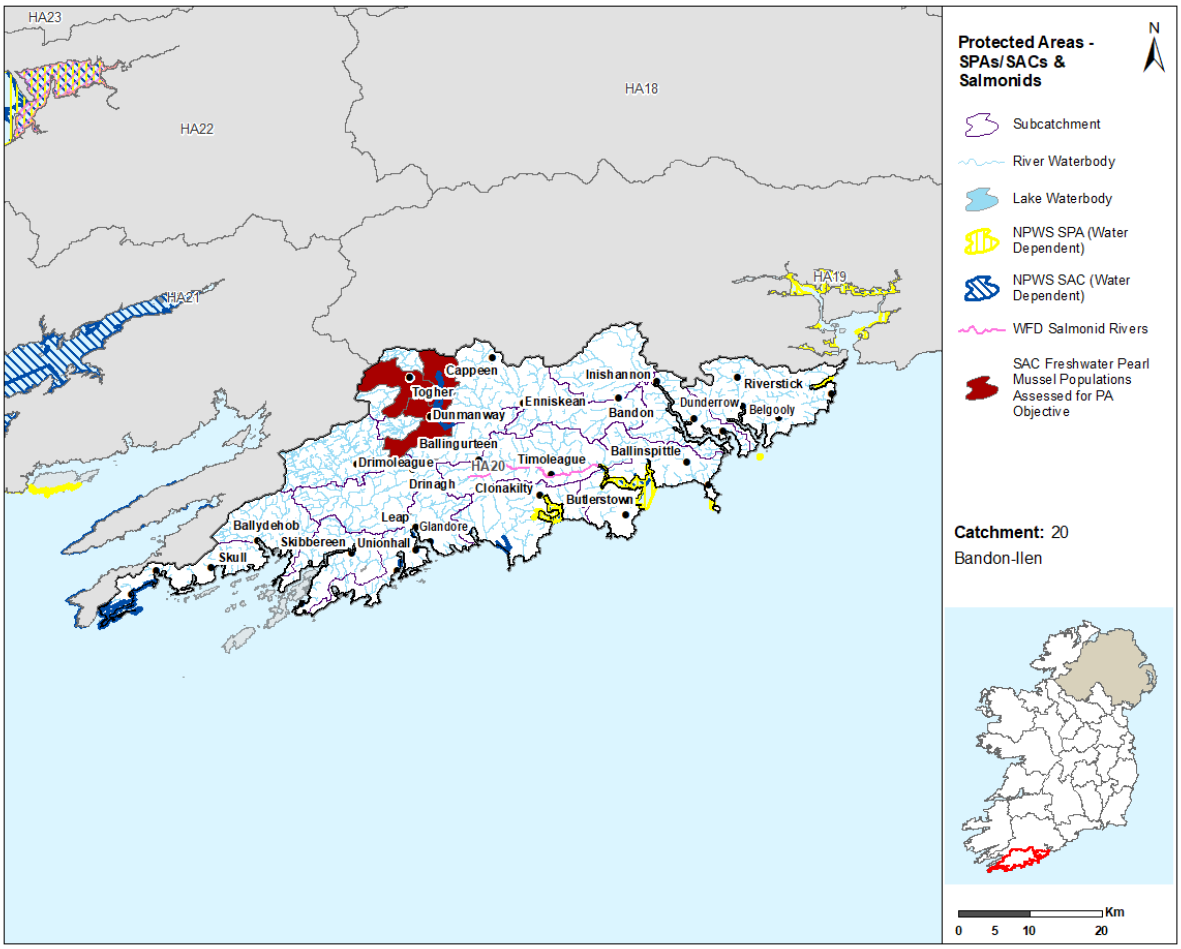



Figure 6: Water Dependent SPAs / SACs and Salmonid Waters

### 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 are two NSAs in the catchment and these are downstream of two urban wastewater agglomerations. The list of NSAs, associated agglomerations and intersecting water bodies are provided in Table 4.
- NSA objectives are being met in one of the two NSAs in the catchment.

Table 4: Nutrient sensitive areas in the catchment

| Nutrient Sensitive Area | Agglomeration | | Water body | | Objective met? | | Comment |
|---|---|---|---|---|---|---|---|
| | Name | Code | Name | Code | Yes | No | |
| Bandon Estuary (upper and Lower) | Bandon | D0136-01 | Lower Bandon Estuary | IE_SW_080_0100 | | | Secondary Treatment in Place |
| | | | Upper Bandon Estuary | IE_SW_080_0300 | | ✓ | |
| Clonakility Harbour | Clonakilty | D0051-01 | Clonakilty Harbour | IE_SW_100_0100 | ✓ | | Tertiary Treatment in place |

## 2.3 Heavily Modified Waterbodies

- Based on the 1st and 2nd RBMPs there are currently no designated heavily modified water bodies (HMWB) in the Bandon Ilen catchment. There will be a consultation period on HMWBs for the 3rd Cycle RBMP and this will be completed for inclusion in the 3rd Cycle Final RBMP.

## 2.4 Artificial Waterbodies

- There are no Artificial Waterbodies (AWBs) present in the Bandon Ilen 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 128 waterbodies in the Bandon-Ilen Catchment and 27 (21%) are *At Risk*, 34 (27%) in *Review* and 67 (52%) are *Not At Risk*.

## 3.2 Surface Waters

- For the 87 river waterbodies in the catchment, 13 (15%) are *At Risk*, 19 (22%) are in *Review* and 55 (63%) are *Not At Risk*.

- For the six lake waterbodies in the catchment, four (67%) are *At Risk* and two (33%) are *Not At Risk*. Abisdealy, Ballin CK, Coolkellure & Curraghalicky are the *At Risk* lake waterbodies in Cycle 3.

- For the 11 transitional waterbodies in the catchment, seven (64%) are *At Risk* and four (36%) are in *Review*.

- For the 15 coastal waterbodies in the catchment, two (13%) are *At Risk*, eight (53%) are in *Review* and five (33%) are *Not At Risk*. Clonakilty Bay & Rosscarbery Bay are the *At Risk* coastal waterbodies in the catchment.

- The largest proportion of *At Risk* waterbodies are found in rivers, accounting for 13 (48%) of 27 *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 by one in the number of *At Risk* waterbodies and a reduction of one in the number of *Not At Risk* waterbodies between Cycle 2 and Cycle 3. There is one additional waterbody (Lough Hyne coastal waterbody) in the catchment in Cycle 3 which explains the additional *Review* waterbody.

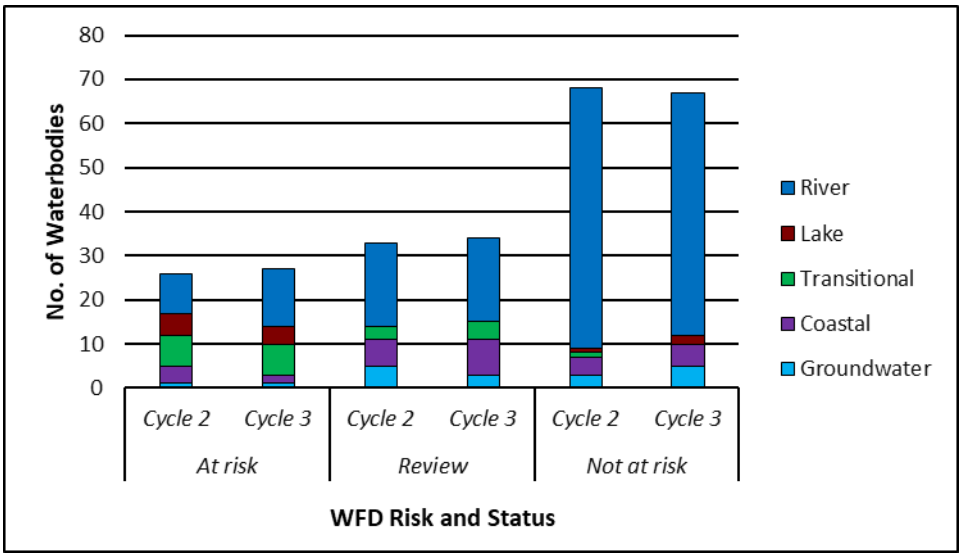



Figure 7: Number of waterbodies in each risk category

- 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.

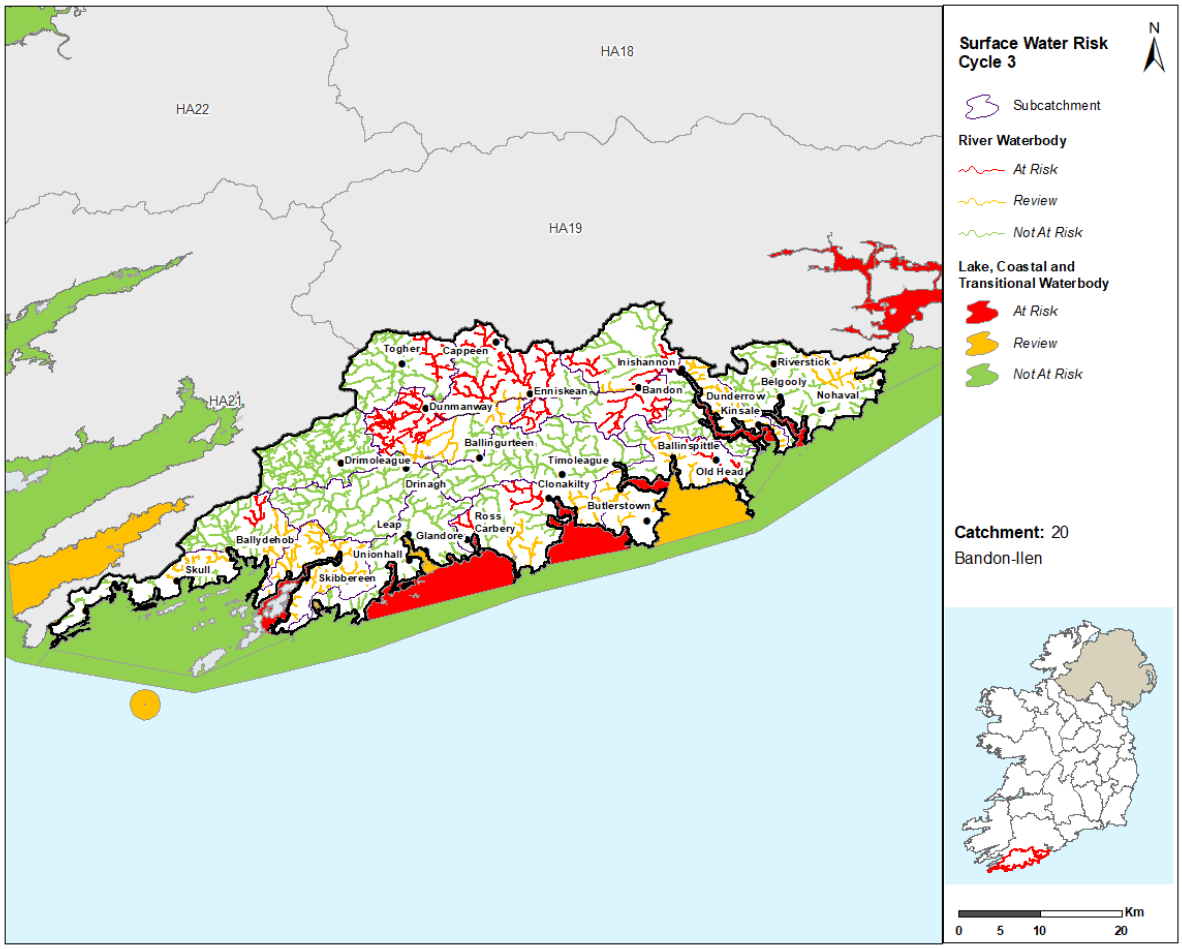



Figure 8: Surface Water Risk Cycle 3

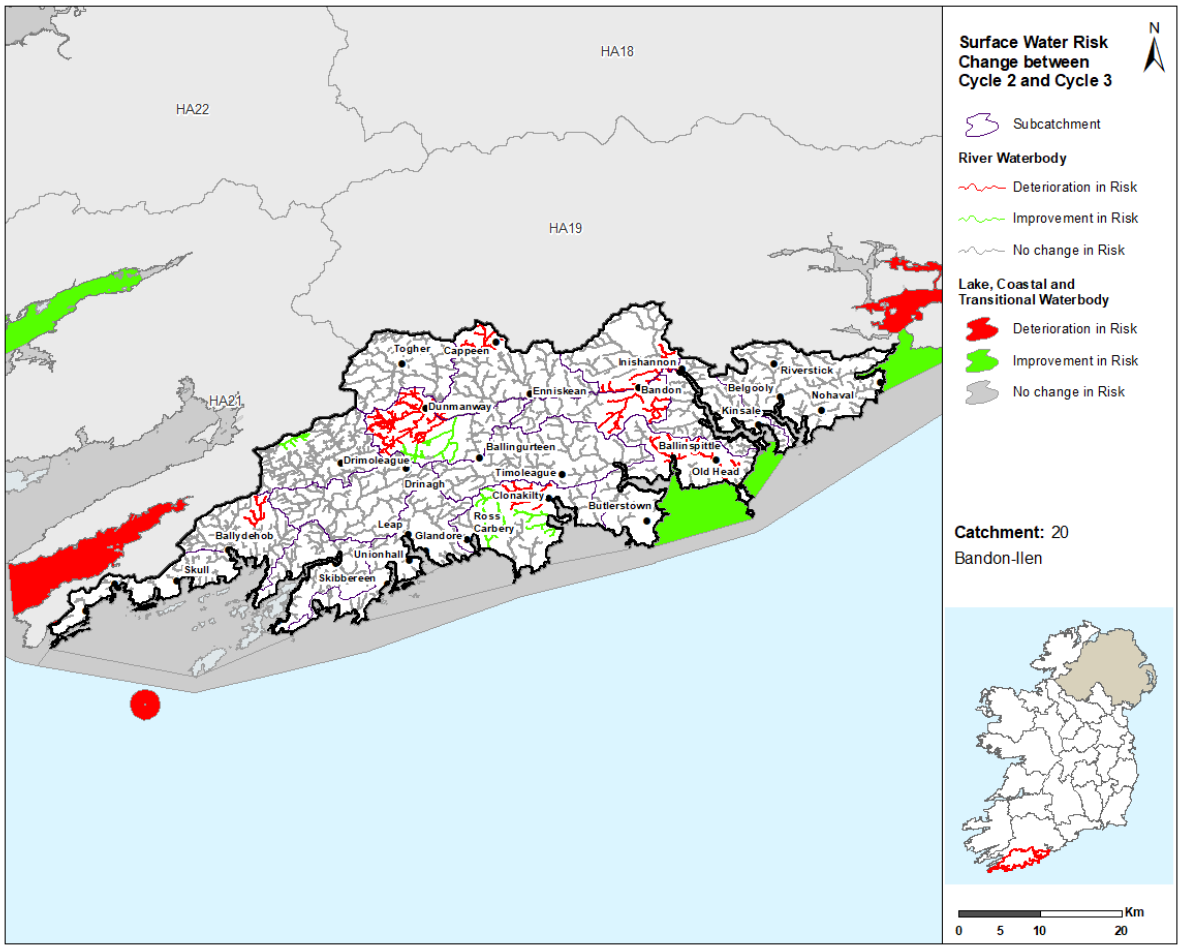



Figure 9: Surface Water Risk Change between Cycle 2 and Cycle 3

## 3.3 Groundwater

- For the nine groundwater bodies in the catchment, one (11%) is *At Risk*, three (33%) are in *Review* and five (56%) are *Not At Risk*. Ballinhassig East is the *At Risk* groundwater body in Cycle 3. However, it should be noted that the majority of the Ballinhassig East groundwater underlies the Lee Catchment (HA19) and only a negligible portion crosses the Bandon Ilen Catchment boundary in the north east of the catchment.

- In Cycle 2, there was one groundwater body (Waste Facility (W0089-02)) *At Risk* in this catchment, 16 in *Review* and 13 *Not At Risk*.

- The location of the *At Risk, Review and Not At Risk* groundwater bodies for Cycle 3 are shown in Figure 10 while the groundwater bodies that have experienced a change in risk between Cycle 2 and 3 are shown in Figure 11.

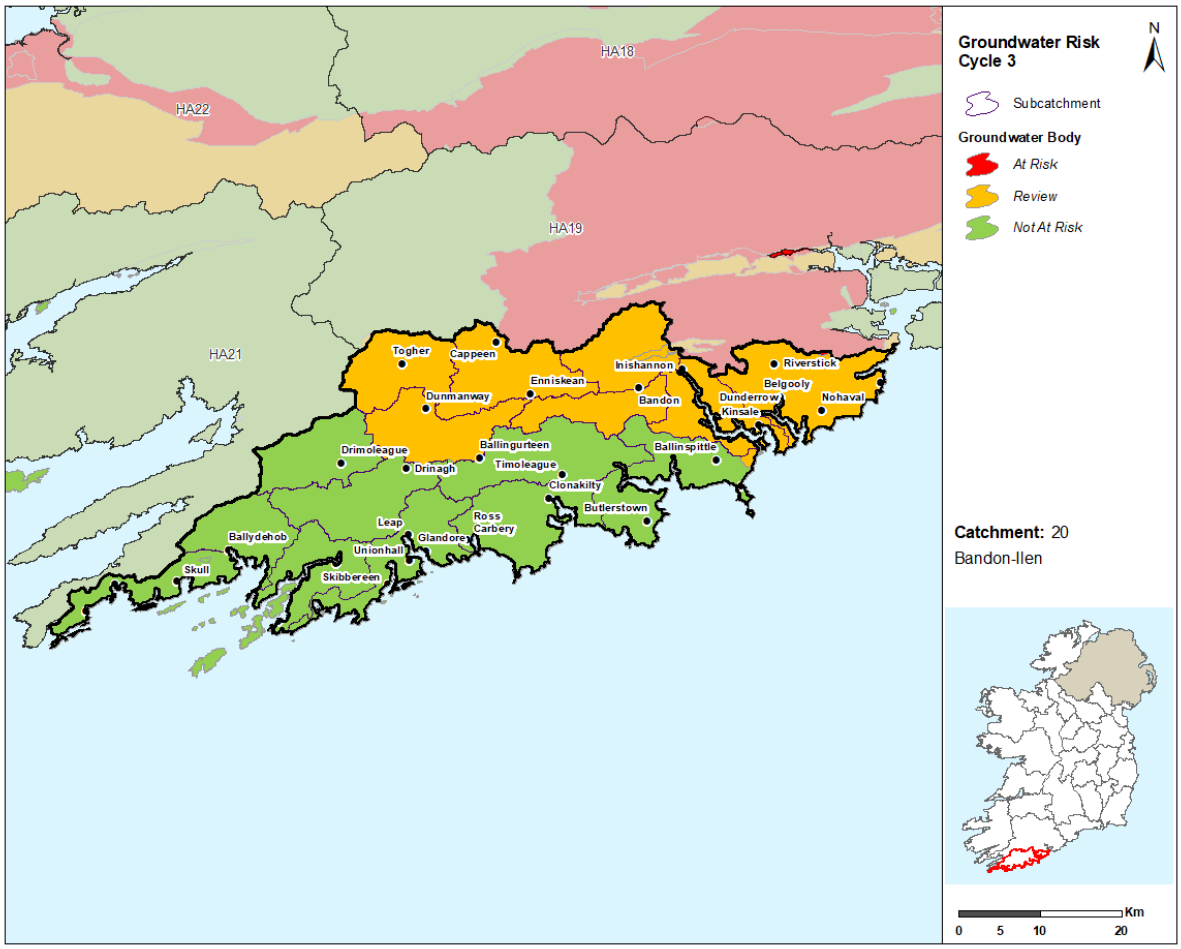



Figure 10: Cycle 3 Groundwater Body Risk

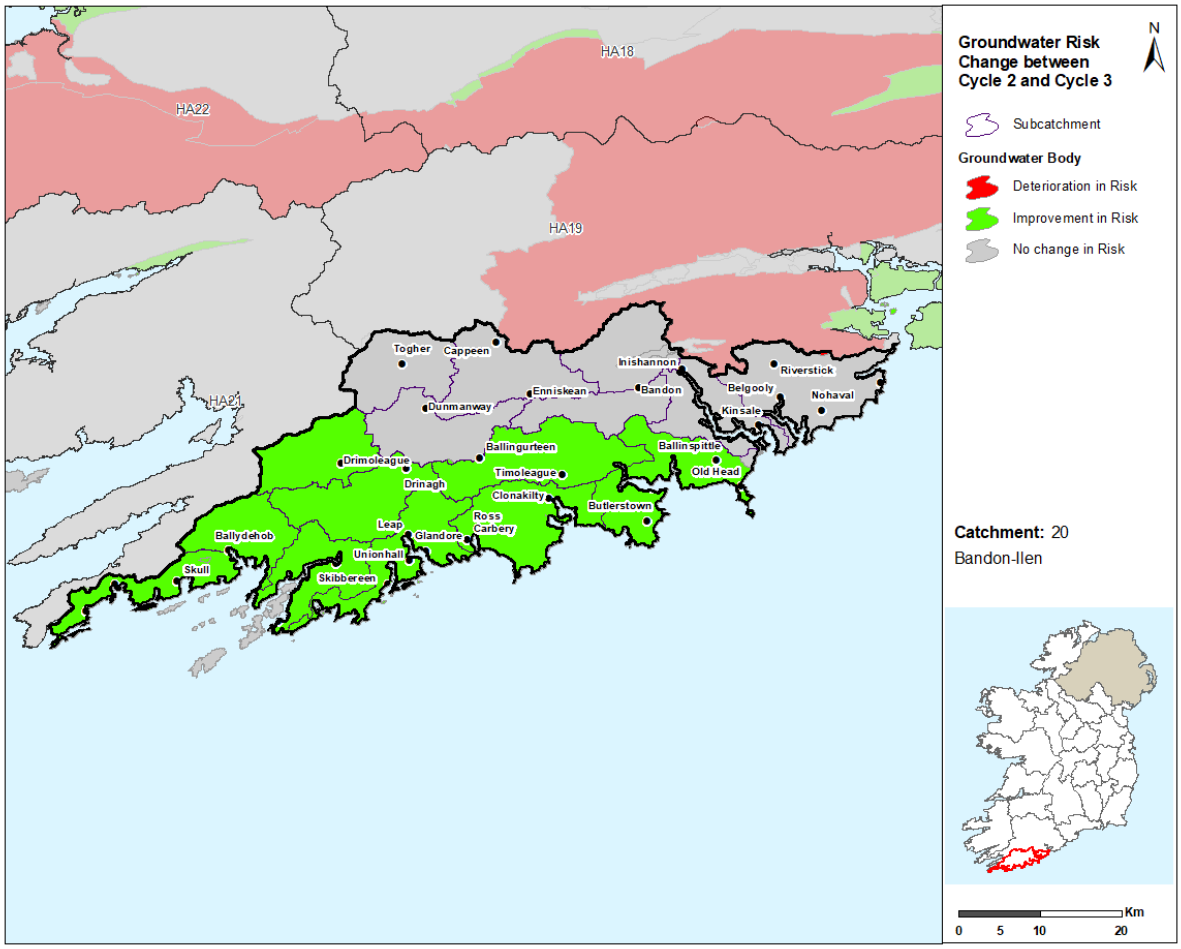



Figure 11: Groundwater Body Risk Change between Cycle 2 & Cycle 3

## 3.4 Heavily Modified Waterbodies

- There are no designated heavily modified water bodies (HMWB) in the Bandon Ilen 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 present in the Bandon-Ilen Catchment.

# 4 Significant Issues in *At Risk* Waterbodies

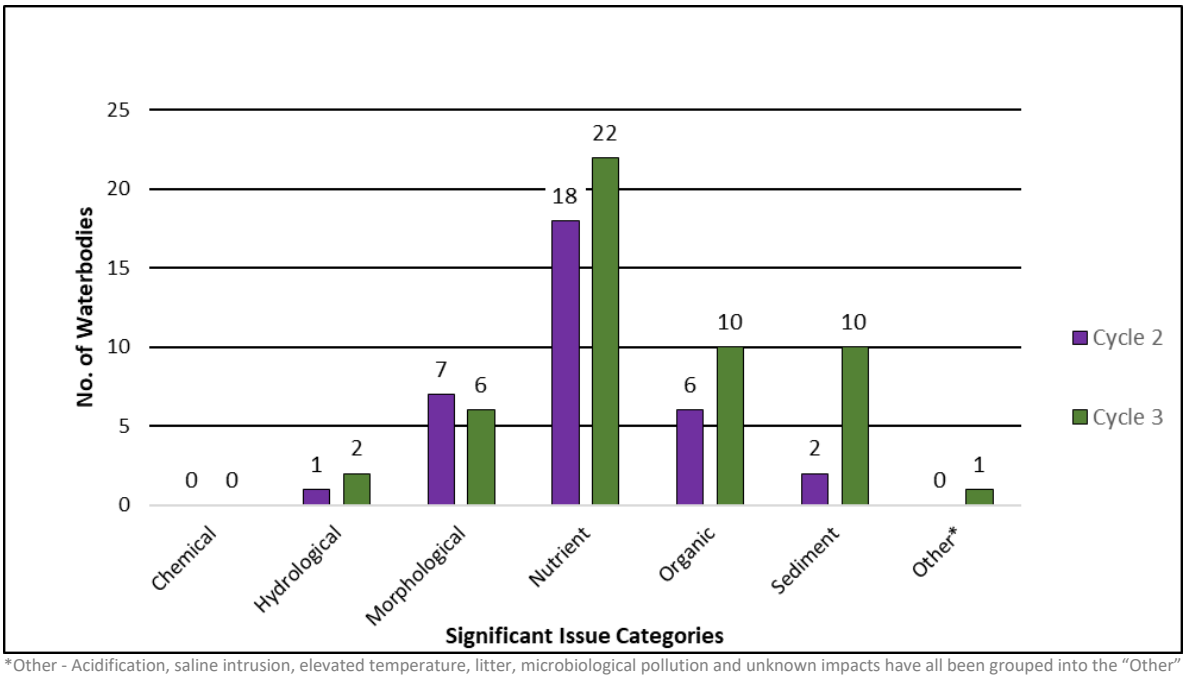
## 4.1 All Waterbodies

- Excess nutrients remain the most prevalent issue in the Bandon Ilen Catchment (Figure 12) impacting 22 waterbodies in Cycle 3. Organic pollution and sediment issues are each impacting 10 waterbodies, morphological and hydrological impacts are affecting six and two waterbodies, respectively.
    - For rivers, the main significant issues are nutrient pollution (10), sediment (9), morphological impacts (6), organic pollution (4) and hydrological impacts (1).

- For Lakes, the main significant issues are nutrient pollution (2), sediment (1) and hydrological impacts (1).
- For transitional waterbodies the significant issues are nutrient (7) and organic (5) pollution.
- Nutrient pollution is the issue in Rosscarberry Bay and Clonakilty Bay coastal waterbodies. Organic pollution is also an issue in Clonakilty Bay.
- The impact type in the *At Risk* groundwater body (Ballinhassig East) is unknown for Cycle 3.

- Between Cycle 2 and Cycle 3 the number of waterbodies with sediment issues have increased by eight, from two to 10. The number of waterbodies with nutrients issues have increased by four from 18 to 22. The number of waterbodies impacted by organic pollution has increased by four from six to 10. The number of waterbodies impacted by hydrological issues has increased by one from one to two.

- The numbers of waterbodies with morphological issues have reduced from seven to six between Cycle 2 and Cycle 3.

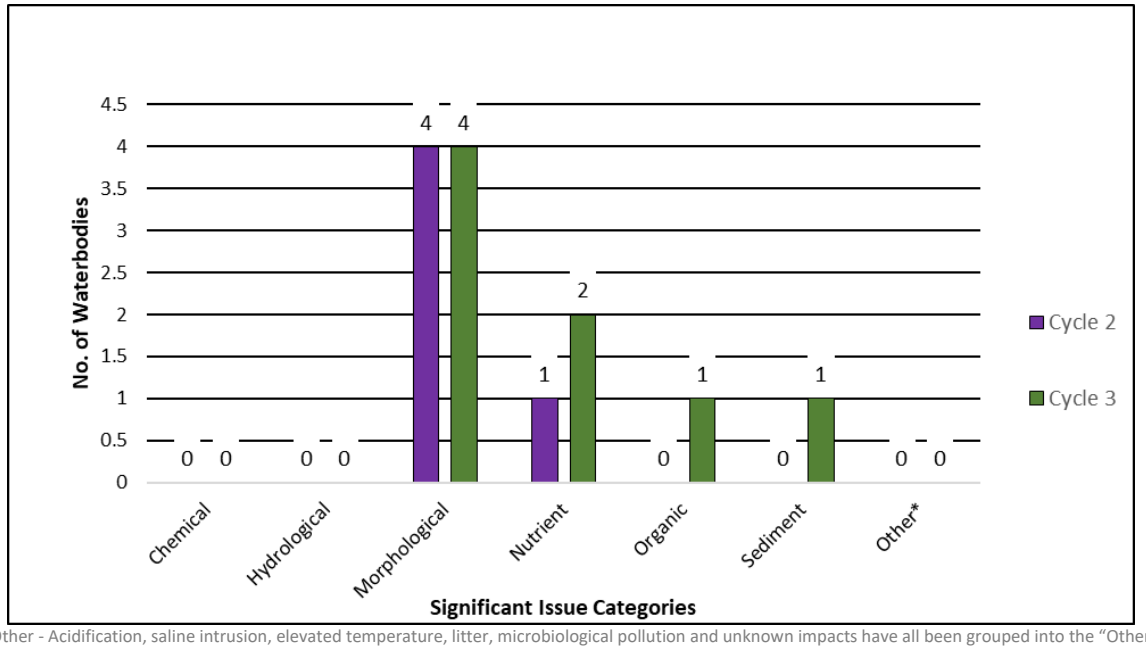



*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 12: 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 issues are impacting all four High Status Objective waterbodies (Leamawaddra_010, Caha_020, Blackwater (Bandon)_030 & Ballymahane_010) currently *At Risk* (Figure 13). Caha_020 is also impacted by sediment, nutrients and organic pollution. In addition to morphological issues, Blackwater (Bandon)_030 is impacted by nutrients.




*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

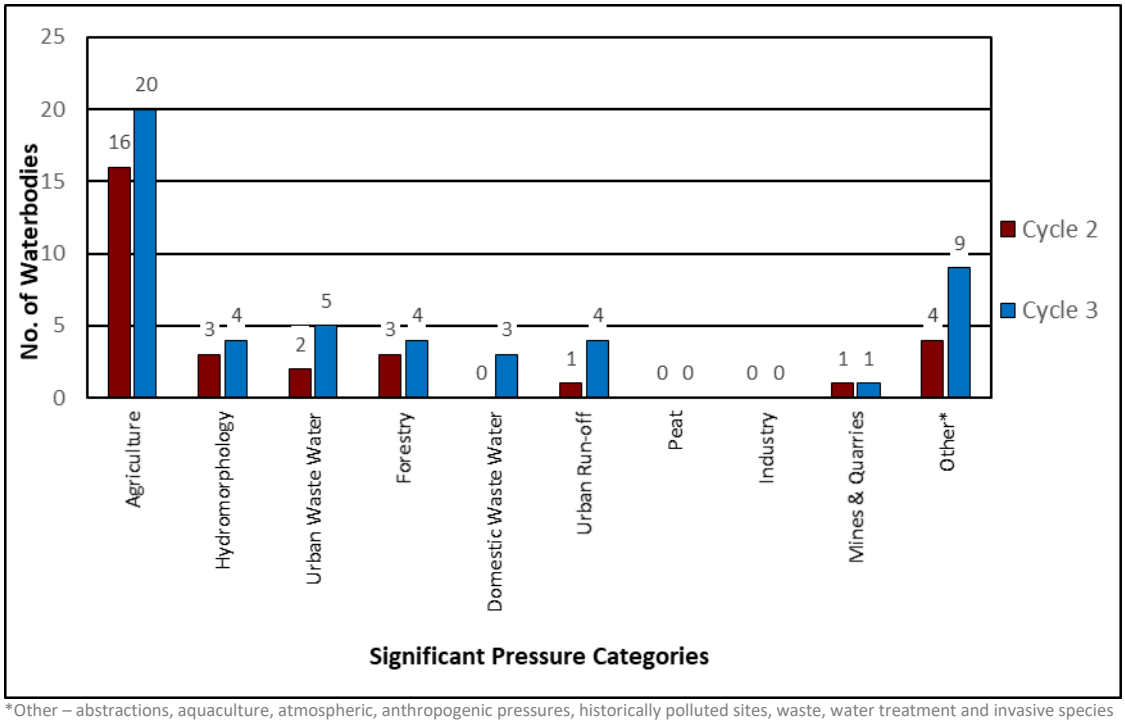
Figure 13: Significant Issues in *At Risk* High Status Objective Waterbodies

# 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 14 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 other[6], urban waste water, forestry, hydromorphology, urban run-off, domestic waste water and mines & quarries.
- When comparing Cycle 2 and Cycle 3 the biggest change is an increase of four waterbodies where agriculture is a significant pressure, from 16 waterbodies in Cycle 2 to 20 waterbodies in Cycle 3. This suggests that agricultural pressures are the main reason for the overall decline in status of waterbodies since Cycle 2. However, all other significant pressure categories have experienced an increase with the expectation of mines & quarries which remained at one.

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




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

Figure 14: Significant Pressure (All *At Risk* Waterbodies)

### 5.1.1 Pressure Type

#### *5.1.1.1 Agriculture*

- Agriculture is a significant pressure in nine river waterbodies, one lake waterbody (Abisdealy), seven transitional waterbodies, two coastal waterbodies (Clonakilty Bay & Rosscarberry Bay) and Ballinhassig East groundwater body in Cycle 3. The issues related to farming in this catchment are generally related to loss of phosphorus and ammonia loss to surface waters from, for example, direct discharges; or runoff from yards, roadways or other compacted surfaces, or runoff from poorly draining soils on pastoral lands. Sediment can also be a problem from land drainage works, bank erosion from animal access or stream crossings.

#### *5.1.1.2 Other significant pressures*

- *Invasive species*
  Invasive non-native (montbretia and non-native pine) plant species were identified during the 2018 as one of the significant pressures along the banks of the Leamawaddra_010 river waterbody. These invasive species are altering habitats and contributing to the less than High hydromorphological conditions and preventing the waterbody from achieving its High Status Objective.

- *Other Anthropogenic Pressure – Windfarms*
  Siltation from construction activities associated with a windfarm was identified as the pressure leading to sediment issues in Caha_020.

- *Unknown anthropogenic*
  The significant pressures impacting five river waterbodies (Bandon_060, Bandon_090, Bandon_100, Ballinspittle_010 & Clonakilty Stream_010), one lake waterbody (Curraghalicky) and one groundwater body (Ballinhassig East) are unknown.

#### 5.1.1.3 Urban waste water

- Urban waste water agglomerations have been identified as a significant pressure in five *At Risk* river waterbodies (
- Table 5). Two out of the five agglomeration (Courtmacsherry and Timoleague and Bandon) identified as significant pressures, are scheduled to be upgraded in 2021.

Table 5: 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] |
|---|---|---|---|---|
| Courtmacsherry and Timoleague D0294 | Agglomeration PE > 10,000 | Argideen Estuary | Poor | 2021 |
| Skibbereen D0166 | Combined Sewer Overflows | Ilen Estuary | Moderate | N/A |
| Dunmanway D0160 | Combined Sewer Overflows | BANDON_030 | Moderate | N/A |
| Bandon D0136 | Combined Sewer Overflows | BANDON_090 | Moderate | 2021 |
| Bandon D0136 | Combined Sewer Overflows | BANDON_100 | Moderate | 2021 |

- Urban waste water significant pressures impacted three more waterbodies than in Cycle 2 (an increase from two to five waterbodies impacted). The following Agglomerations are pressures in Cycle 3 but were not significant pressures in Cycle 2.
    - Dunmanway (D0160)
    - Bandon (D0135)

#### 5.1.1.4 Forestry

- Forestry is a significant pressure in three river waterbodies (Blackwater (Bandon)_010, Caha_020 & Diny_010) and one lake waterbody (Coolkellure) in Cycle 3. The issues are a range of forestry activities taking place particularly clearfelling and drainage, which have resulted in heavy siltation and altered habitats due to hydrological changes in surface water bodies. Nutrients issues in the Coolkellure lake water body have been attributed to forestry pressures.

#### 5.1.1.5 Hydromorphology

- Hydromorphology is a significant in three river waterbodies (Ballymahane_010, Caha_020 & Leamawaddra_010) and one lake waterbody (Ballin CK) in Cycle 3. Channelisation is impacting Ballymahane_010. Land drainage is impacting Caha_020. Overgrazing is impacting on Leamawaddra_010 river waterbody, altering habitat due to morphological changes and sediment issues. A weir present at the outlet of Ballin CK lake waterbody is restricting flows out of the lake and is deemed to be altering habitat due to hydrological changes.

#### 5.1.1.6 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 three river waterbodies (Bandon_090, Bandon_100 & Clonakilty Stream_010) and one transitional waterbody (Ilen

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

Estuary) impacted by bandon, Clonakilty and Skibbereen urban areas. Nutrient and organic pollution are the significant issues.

#### *5.1.1.7 Domestic waste water*

- Domestic waste water has been identified as a significant pressure in two river waterbodies (Bandon_090, Bandon_100) and Ballinhassig East groundwater body. This is due to a concentration of domestic waste water treatment systems in close proximity to the water bodies. The significant issue is excess nutrients entering surface waters. Castlewoods DPI site was identified as the communal domestic waste water system deemed a significant pressure in the bandon_090 and contributing to nutrient and organic loads in the downstream Bandon_100.

#### *5.1.1.8 Mines & Quarries*

- Cork County Council reported that there are two quarries (unnamed) that do not have section 4 licences. The quarries are listed as significant pressures on the Caha_020 river waterbody with altered habitats due to morphological changes as the impact.

Figure 15 – Figure 19 illustrates the locations of waterbodies for the five most common pressures in order of prevalence (agriculture, urban waste water, hydromorphology, forestry and urban run-off) within the catchment in Cycle 3.

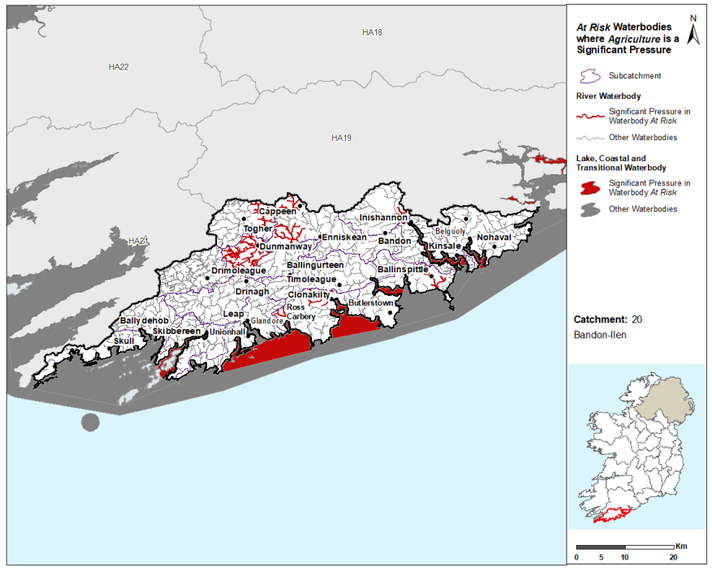



Figure 15: Locations of Waterbodies where Agriculture is a Significant Pressure

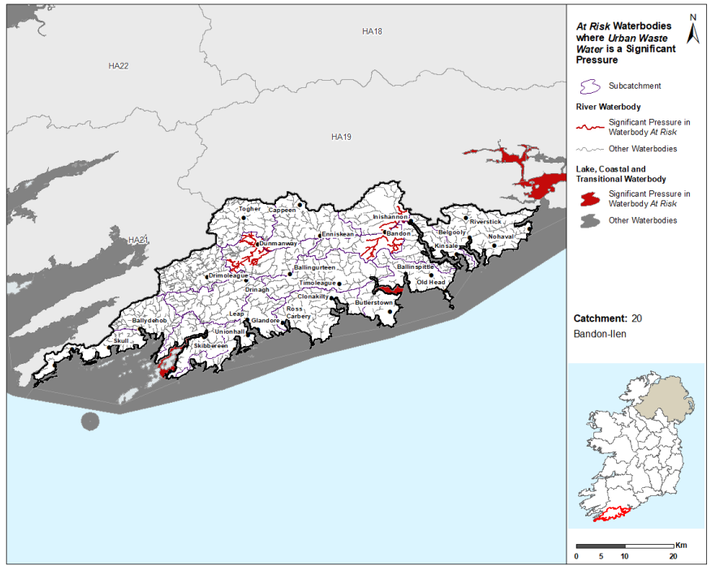



Figure 16: Locations of Waterbodies where Urban Waste Water is a Significant Pressure

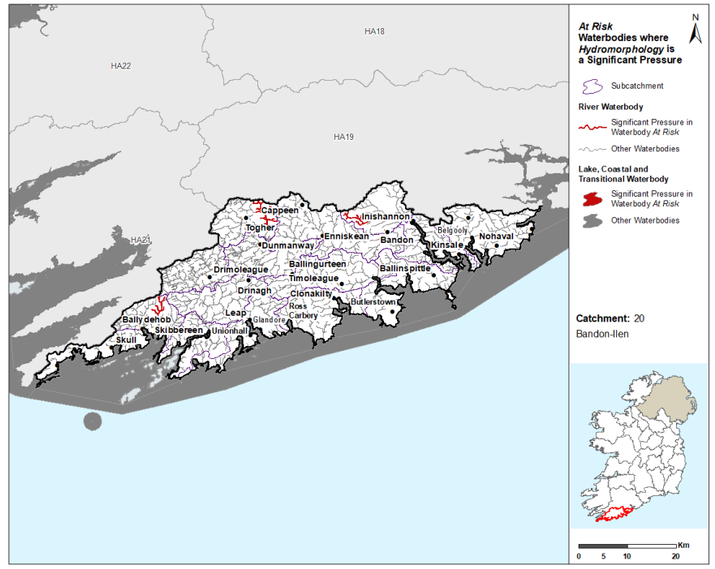



Figure 17: Locations of Waterbodies where Hydromorphology is a Significant Pressure

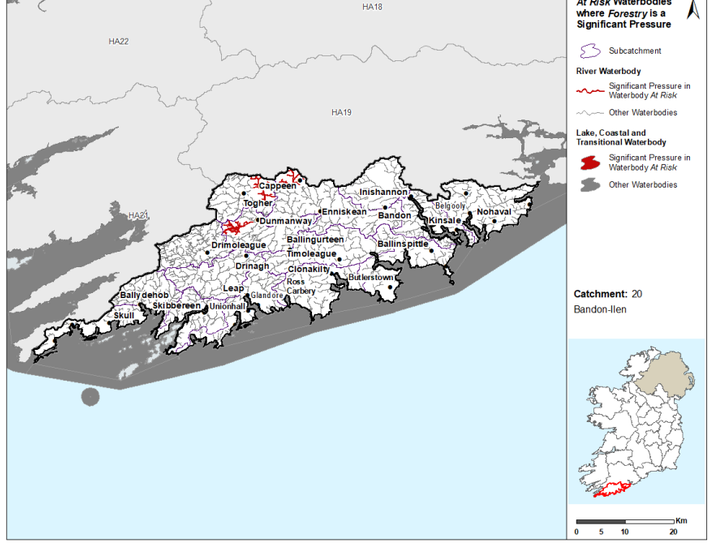



Figure 18: Locations of Waterbodies where Forestry is a Significant Pressure

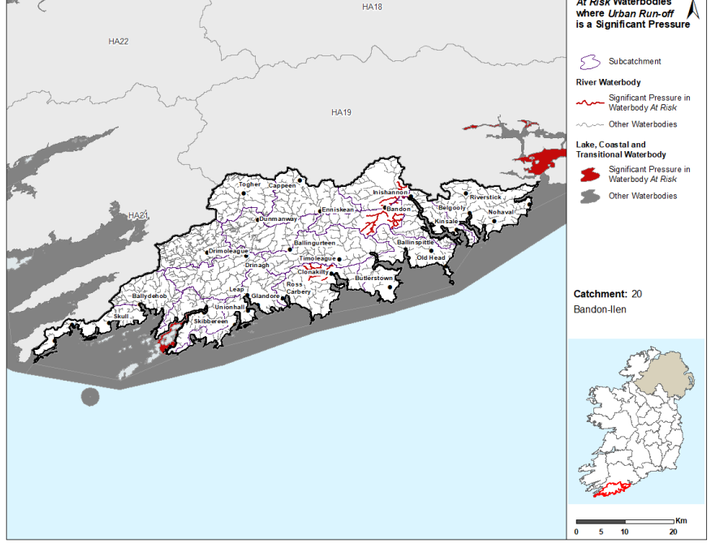
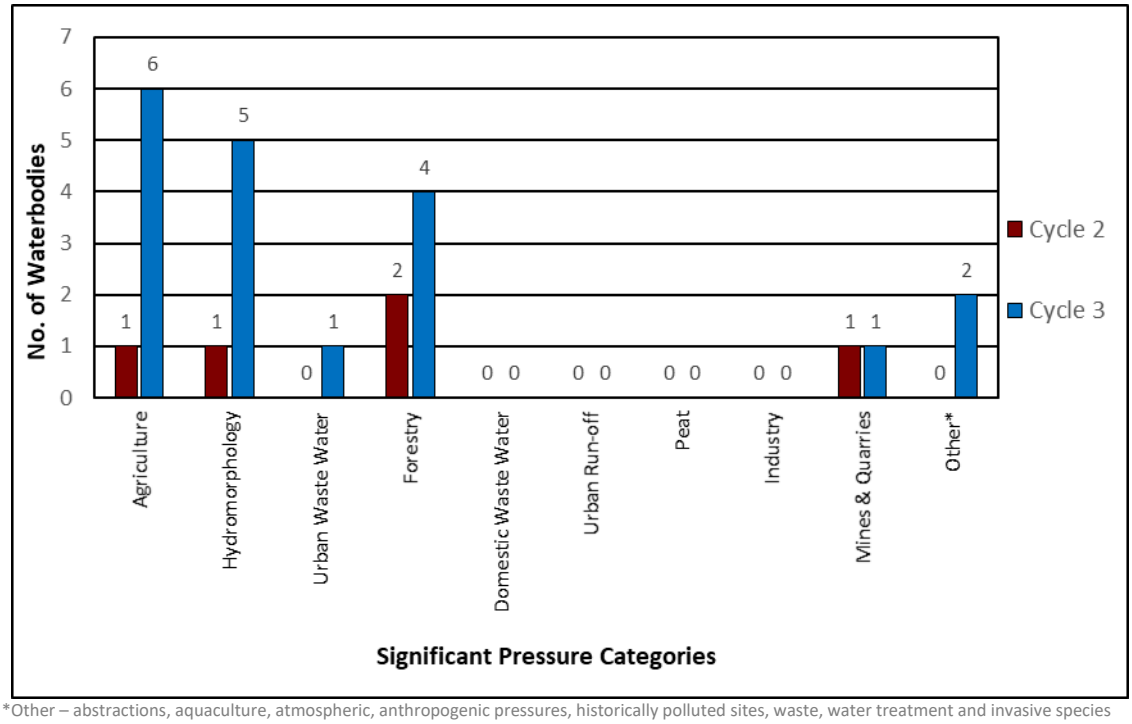



Figure 19: Locations of Waterbodies where Urban Run-off is a Significant Pressure

## 5.2 High Status Objective Waterbodies

- Hydromorphological pressures are the main significant pressure in High Status Objective waterbodies, identified in three out of the four *At Risk,* High Status Objective waterbodies. Agricultural pressures are impacting two waterbodies, forestry and mines & quarries are each impacting one waterbody.




*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 20: 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 and arable land is responsible for 90% and 7% of the nitrogen load respectively while land in pasture contributes 26% and discharges from urban waste water, IPPC discharges and other Licenced discharges each contribute 19% of the phosphorus loadings for the catchment (Figure 17).

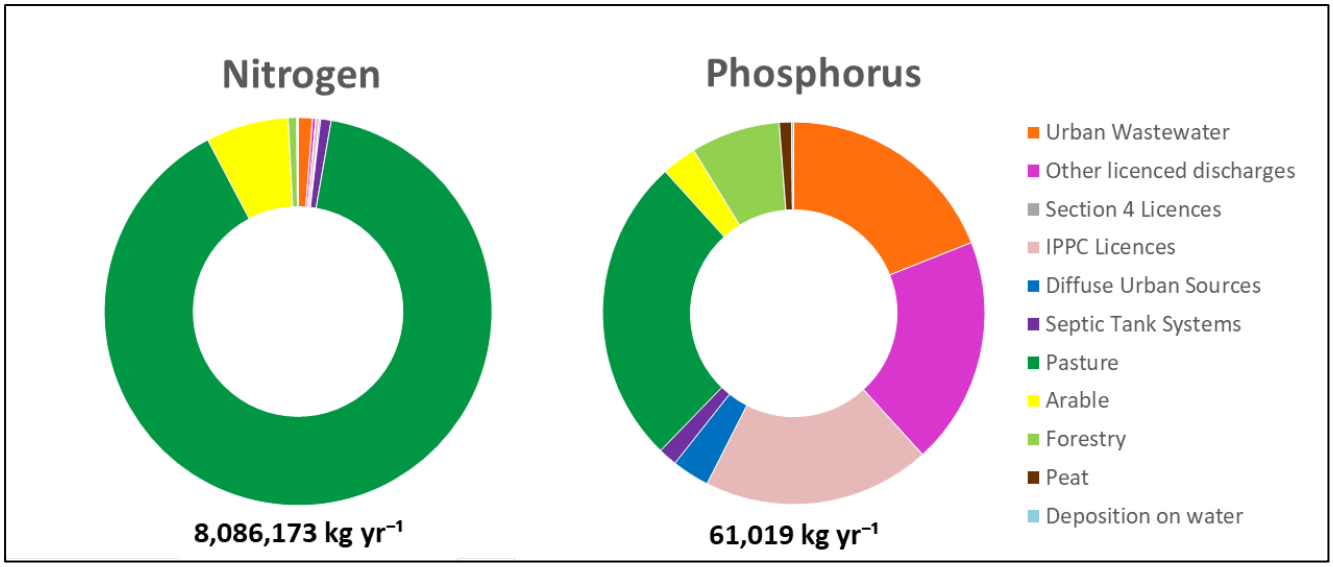



Figure 21: Estimated Proportions of N & P from Each Sector in the Bandon Ilen Catchment

# 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. The assessment report can be found at https://www.catchments.ie/assessment-of-the-catchments-that-need-reductions-in-nitrogen-concentrations-to-achieve-water-quality-objectives.

- The N reduction required in the Bandon Ilen Catchment is considered to be high and ranges from 500-2000 t N/yr.

- Source load apportionment modelling indicates that the main sources of N in the catchment are 90% pasture, 7% arable, 1% Urban waste water and 2% from miscellaneous sources.

## 7.2 Phosphorous / Sediment Load Reduction

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

Figure 22 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.

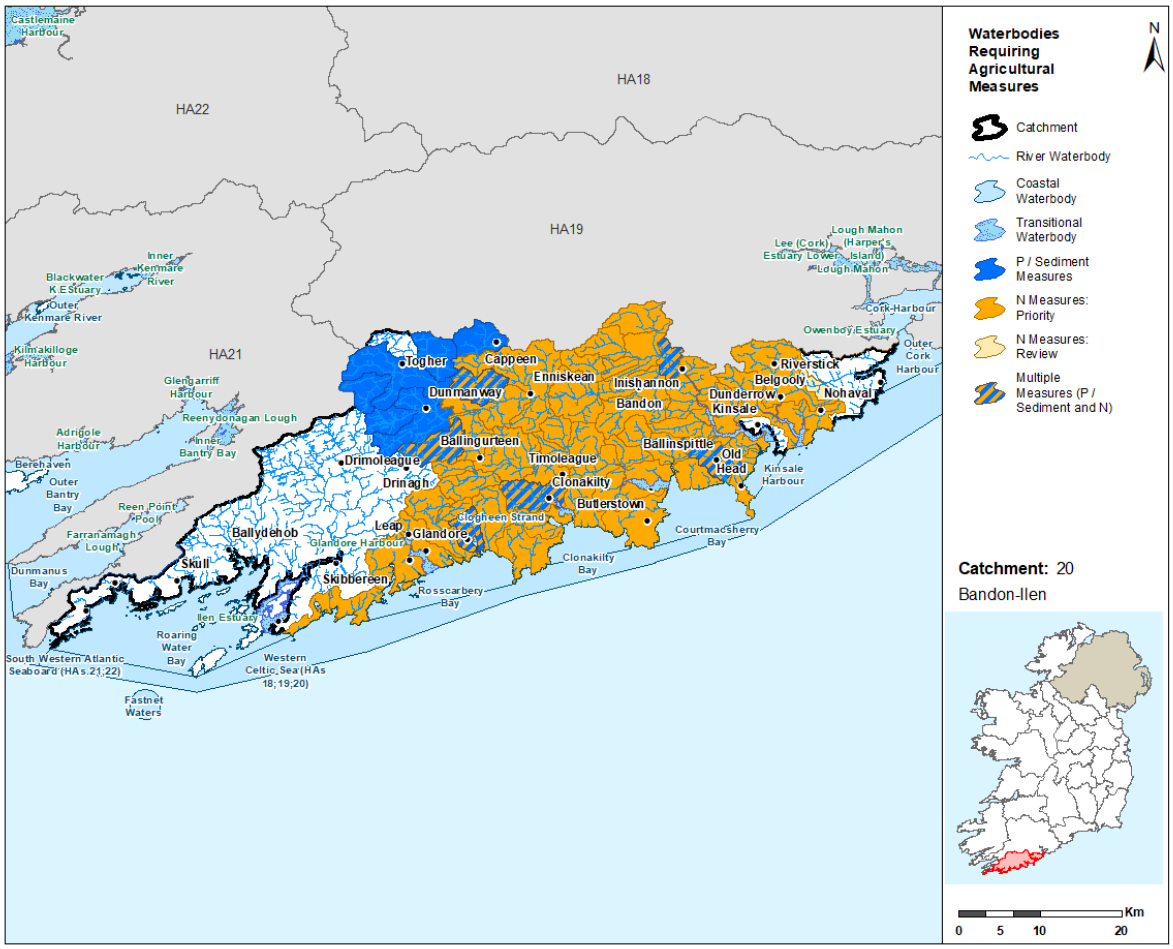



Figure 22: Waterbodies where Agricultural Measures should be Targeted

# 8 2nd Cycle Areas for Action

## 8.1 Area for Action Overview

- There were five Areas for Action, comprising of 16 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 23. LAWPRO, in conjunction with local authorities and stakeholders from the South-western Regional Operational Committee, have been working in these areas since 2018.

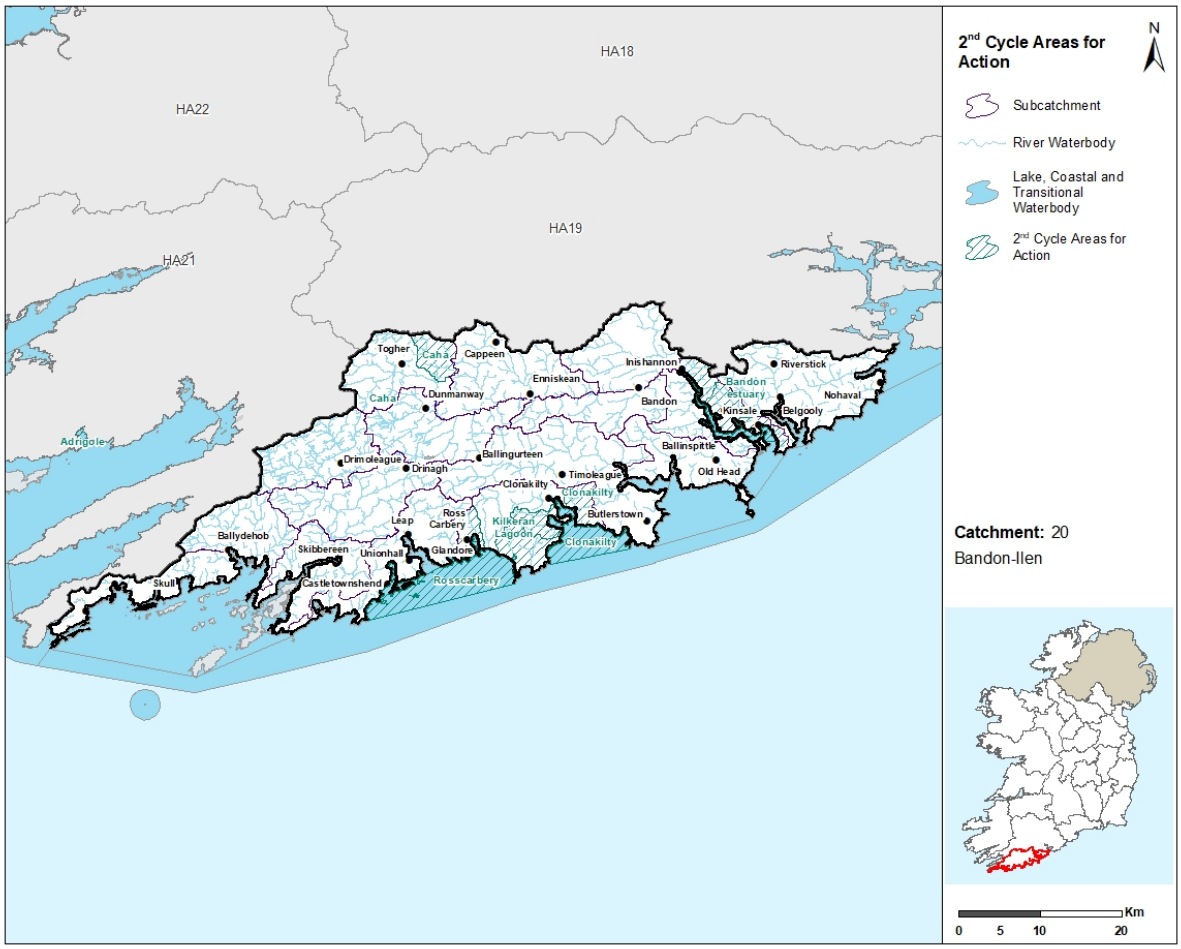



Figure 23: 2nd Cycle Areas for Action Locations

Table 6: 2nd Cycle Areas for Action

| 2nd Cycle Area for Action | Number of Waterbodies | Sub-catchment | Local Authority | Reason for Selection |
|---|---|---|---|---|
| **Kilkeran Lagoon** | 2 | 20_11 | Cork | • Failing to meet protected area objectives for a Natura habitat (1150 coastal lagoon).<br>• Active community group linked to heritage issues<br>• Manageable area<br>• High amenity area. |
| **Clonakilty** | 4 | 20_11 | Cork | • Potential estuary project<br>• Building on proposed improvements for WWTP.<br>• Small catchment discharging into estuary.<br>• Headwaters flowing into Clonakilty harbour.<br>• The coastal waterbody is failing to meet protected area objectives for bathing water.<br>• One deteriorated waterbody. |
| **Bandon estuary** | 5 | 20_13 | Cork | • Potential estuary project.<br>• Lower Bandon estuary is failing to meet protected area objectives for Shellfish (Kinsale).<br>• Building on proposed improvements at Bandon and Innishannon WWTP.<br>• Headwater streams to Bandon estuary. |
| **Caha** | 2 | 20_6 | Cork | • Failing to meet protected area objectives for Freshwater Pearl Mussel (19 of 27 catchments of |

| 2nd Cycle Area for Action | Number of Waterbodies | Sub-catchment | Local Authority | Reason for Selection |
|---|---|---|---|---|
| | | | | S.I. 296 2009).<br>• Bandon rivers trust in the area.<br>• Deteriorated HES objective waterbody. |
| **Rosscarbery** | 3 | 20_11 | Cork | • Rosscarbery harbour is unassigned but algal blooms have increased in size and frequency.<br>• Building on proposed improvements at Cortmascherry and Timoleague WWTP<br>• Headwater streams flowing directly into Rosscarbery Harbour and Bay. |

## 8.2 Status Change in 2nd Cycle Areas for Action

- For Cycle 3, of the 16 waterbodies in the 2nd Cycle Areas for Action, there are three waterbodies at Good Status (Caha_020, Carhoo_010 & Clonakilty Bay), three waterbodies at Moderate Status (Tinneel Stream_010, Coolkellure lake waterbody & Lower Bandon Estuary), two waterbodies at Poor Status (Clonakilty Harbour coastal waterbody & Upper Bandon Estuary), one waterbody at Bad Status (Kilkeran Lake) and seven waterbodies where status has not been assigned.

- There is an overall decline in the status of one 2nd cycle Areas for Action waterbody (two improvements and three declines) across the catchment.[8]

- Of the nine waterbodies within the 2nd Cycle Areas for Action which had status assigned, four experienced no change in status between Cycle 2 and Cycle 3, two waterbodies (Carhoo_010 & Clonakilty Bay) experienced an improvement and three waterbodies (Upper Bandon Estuary, Clonakilty Harbour & Kilkeran Lake) were subject to deterioration in status (Figure 24). The two waterbody improvements were in the Clonakilty Area for Action. The waterbodies which experienced decline were in Bandon estuary, Clonakilty and Kilkeran Lagoon 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.

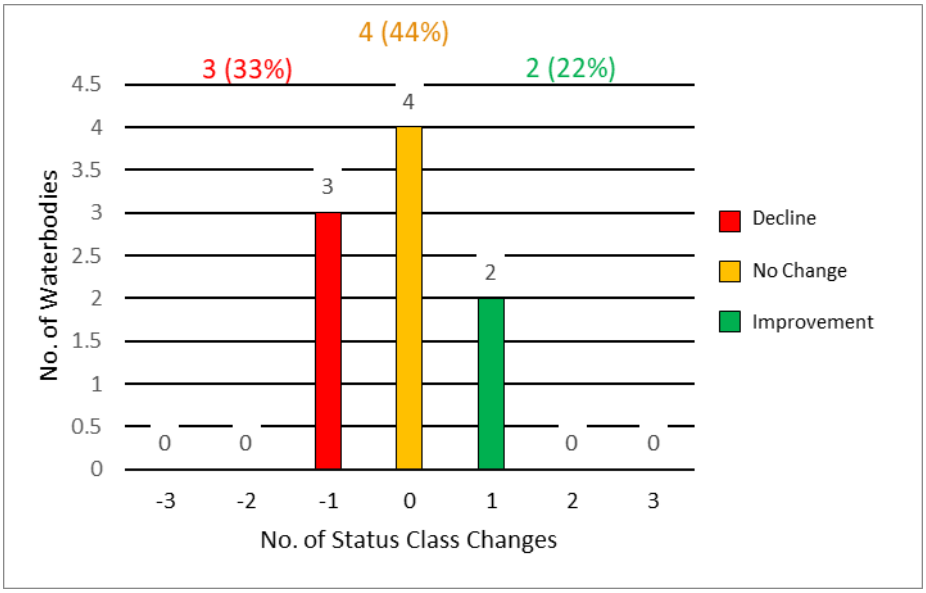



Figure 24: 2nd Cycle Area for Action Waterbody Status Class Changes between Cycle 2 and Cycle 3

## 8.3 Waterbody Risk in 2nd Cycle Areas for Action

- For the 16 waterbodies in the 2nd Cycle Areas for Action, nine (56%) of these are *At Risk*, six (38%) in *Review* and one (6%) is *Not At Risk*.

- Of the eight river waterbodies in 2nd Cycle Areas for Action, two (25%) are *At Risk*, five (63%) are in *Review* and one (13%) is *Not At Risk*. Caha_020 and Tinneel Stream_010 are the *At Risk* river waterbodies.

- The only lake waterbody (Coolkellure) in a Cycle 2 Area for Action is *At Risk*.

- Of the five transitional waterbodies in 2nd Cycle Areas for Action, four (80%) are *At Risk* and one (20%) is in *Review*. Lower Bandon Estuary, Upper Bandon Estuary, Clonakilty Harbour & Rosscarbery Harbour are the *At Risk* transitional waterbodies.

- Both of the coastal waterbodies (Clonakilty Bay & Rosscarbery) Bay in 2nd Cycle Areas for Action are *At Risk*.

- Figure 25 gives an overview of the breakdown of risk across waterbody types for both Cycle 2 and Cycle 3 in 2nd Cycle Areas for Action.

- Overall there is a decrease from 10 to nine *At Risk* waterbodies in 2nd Cycle Areas for Action between Cycle 2 and Cycle 3. Carhoo_010 river waterbody improved to *Not At Risk*.

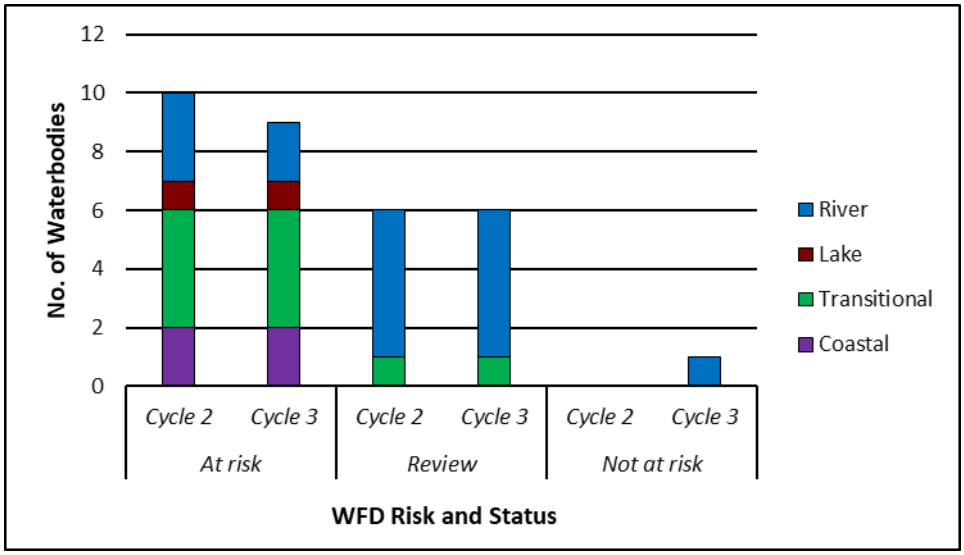
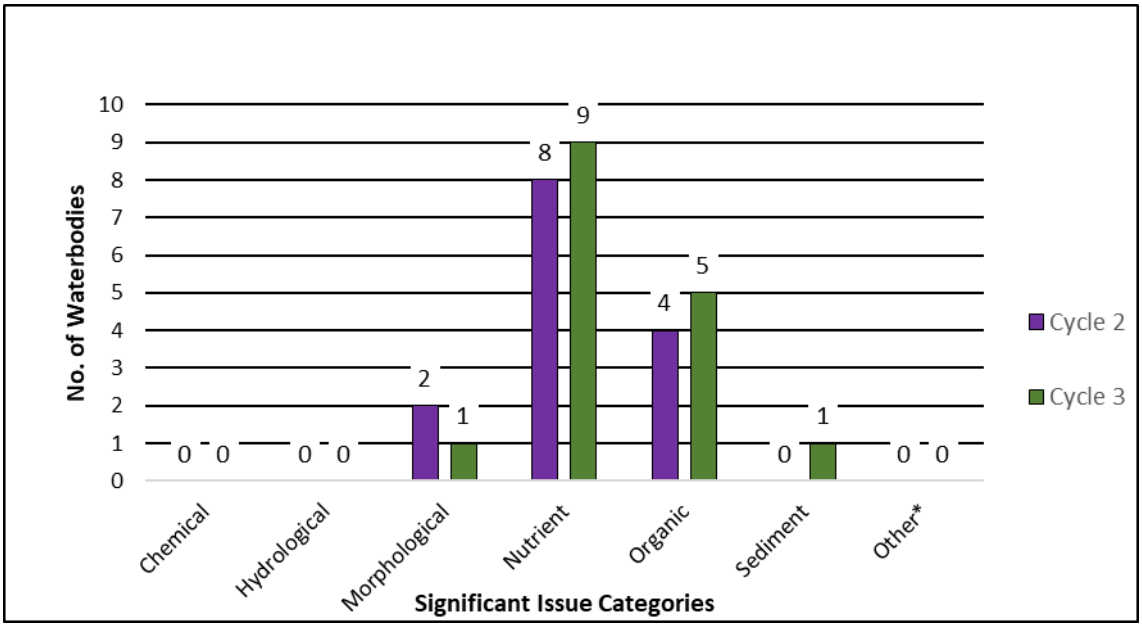



Figure 25: Number of waterbodies in each risk category in 2nd Cycle Areas for Action

## 8.4 Significant Issues in 2nd Cycle Areas for Action

- Based on the EPA assessment for Cycle 3, the significant issue in the 2nd Cycle Areas for Action is nutrient pollution, impacting nine waterbodies (Figure 26). This is followed by organic pollution which is impacting five waterbodies, sediment impacting one waterbody (Caha_020) and morphological impacts, impacting one waterbody (Caha_020).

- The number of 2nd Cycle Areas for Action waterbodies associated with morphological significant issues have reduced by one, from two to one between Cycle 2 and Cycle 3. The number of waterbodies impacted by nutrient pollution, organic pollution and sediment issues have each increased by one since Cycle 2.



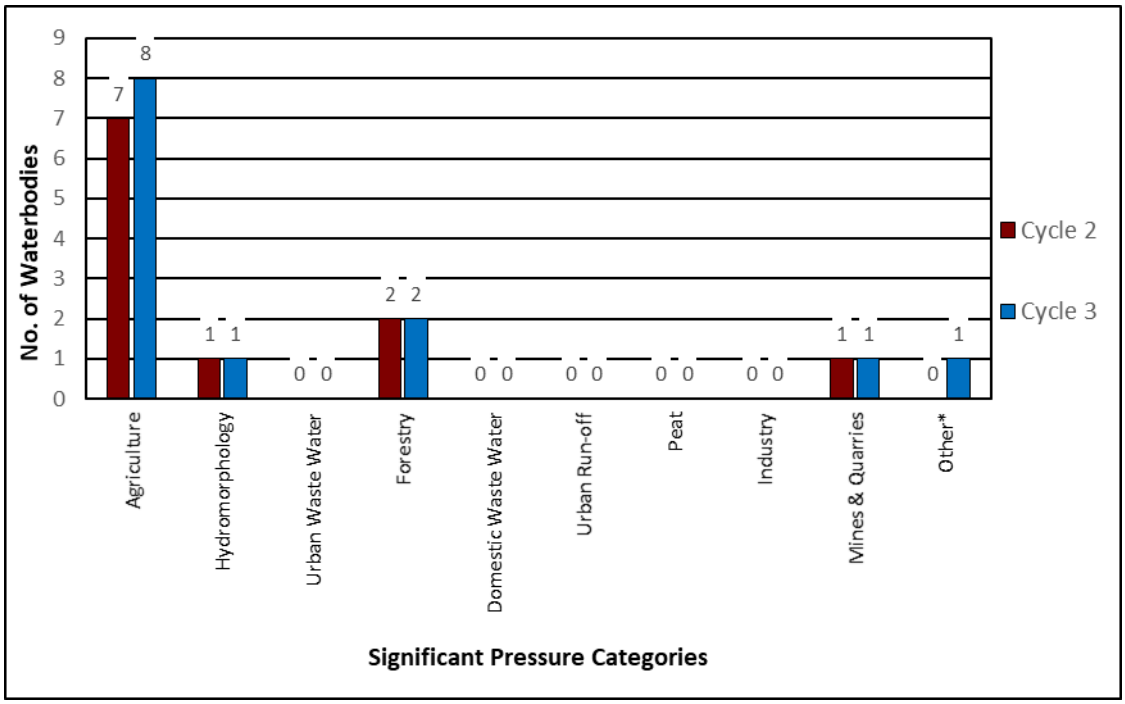

*Other - Acidification, saline intrusion, elevated temperature, litter, microbiological pollution and unknown impacts have all been grouped into the "Other" issues category for the purpose of this report

Figure 26: 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 – eight waterbodies are impacted in Cycle 3, an increase of from seven waterbodies in Cycle 2.
  - Forestry – two waterbodies (Caha_020 & Coolkellure) remain impacted in Cycle 3.
  - Hydromorphology – one waterbody (Caha_020) remains impacted in Cycle 3.
  - Mines & quarries – one waterbody (Caha_020) remains impacted in Cycle 3.
  - Other – In Caha_020 there is also an unknown additional pressure contributing to the sediment load which was not identified in Cycle 2.

- When comparing the significant pressures in the 2nd Cycle Areas for Action between Cycle 2 and 3 there has been there has been no change in the number of waterbodies affected by each significant pressure category in the catchment with the exception of agriculture and unknown anthropogenic pressure type which each increase by one waterbody.




*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 27: 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 14 Recommended Areas for Action, comprising of 39 waterbodies, selected for further characterisation and action in the catchment for the 3rd Cycle River Basin Management Plan. 21 of the 39 waterbodies in the 3rd Cycle Recommended Areas for Action are *At Risk*, nine are in *Review* and nine are *Not At Risk.* The 14 Recommended Areas for Action consist of one Area for Protection, 12 Areas for Restoration and one Catchment Project. LAWPRO are the proposed lead organisation in five Recommended Areas for Action, Cork County Council are the proposed lead in Recommended Areas for Action and IFI are the proposed lead in the remaining Recommended Area for Action (Ilen). The Recommended Areas for Action in the catchment are listed in Table 7 and shown in Figure 28. The reason for selecting each waterbody in a Recommended Area for Action is provided in Appendix 3.

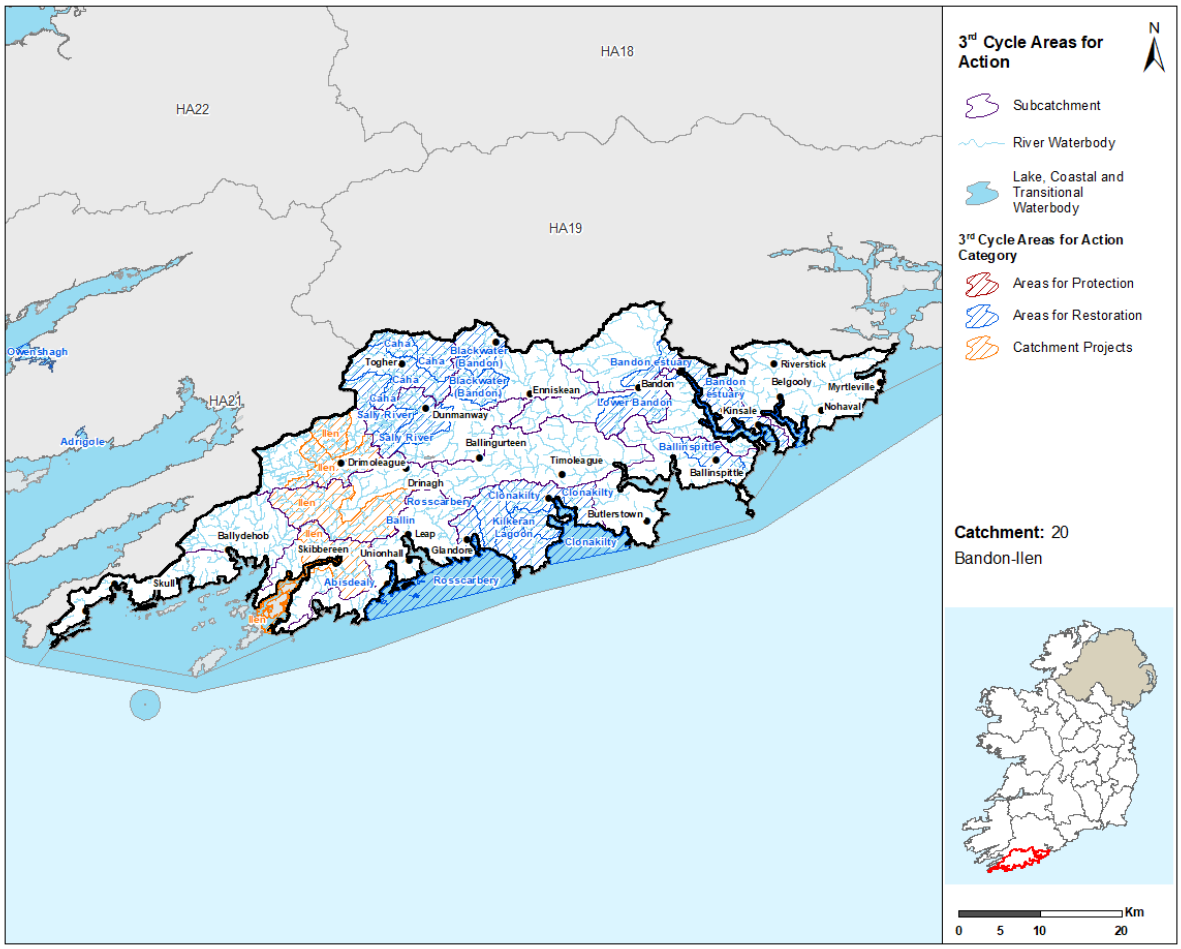



Figure 28: 3rd Cycle Recommended Areas for Action Locations

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 |
|---|---|---|---|---|
| Caha | 5 | Restoration | Prioritised Areas for Action LAWPRO | LAWPRO |
| Sally River | 2 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Lower Bandon | 2 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |

| 3rd Cycle Recommended Areas for Action | Number of Waterbodies | Recommended Areas for Action Category | Recommended Areas for Action Sub-category | Lead Organisation |
|---|---|---|---|---|
| Blackwater (Bandon) | 3 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Ballinspittle | 1 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Clonakilty | 5 | Restoration | Prioritised Areas for Action LAWPRO | LAWPRO |
| Bandon estuary | 5 | Restoration | Prioritised Areas for Action LAWPRO | LAWPRO |
| Kilkeran Lagoon | 2 | Restoration | Prioritised Areas for Action LAWPRO | LAWPRO |
| Ilen | 5 | Catchment Projects | Public Body Research | IFI |
| Rosscarbery | 4 | Restoration | Prioritised Areas for Action LAWPRO | LAWPRO |
| Abisdealy | 1 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Ballin | 1 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Oysterhaven | 2 | Restoration | LA Areas for Restoration Local Authorities | Cork County Council |
| Lissagriffin Lake | 1 | Protection | LA Areas for Protection Local Authorities | Cork County Council |

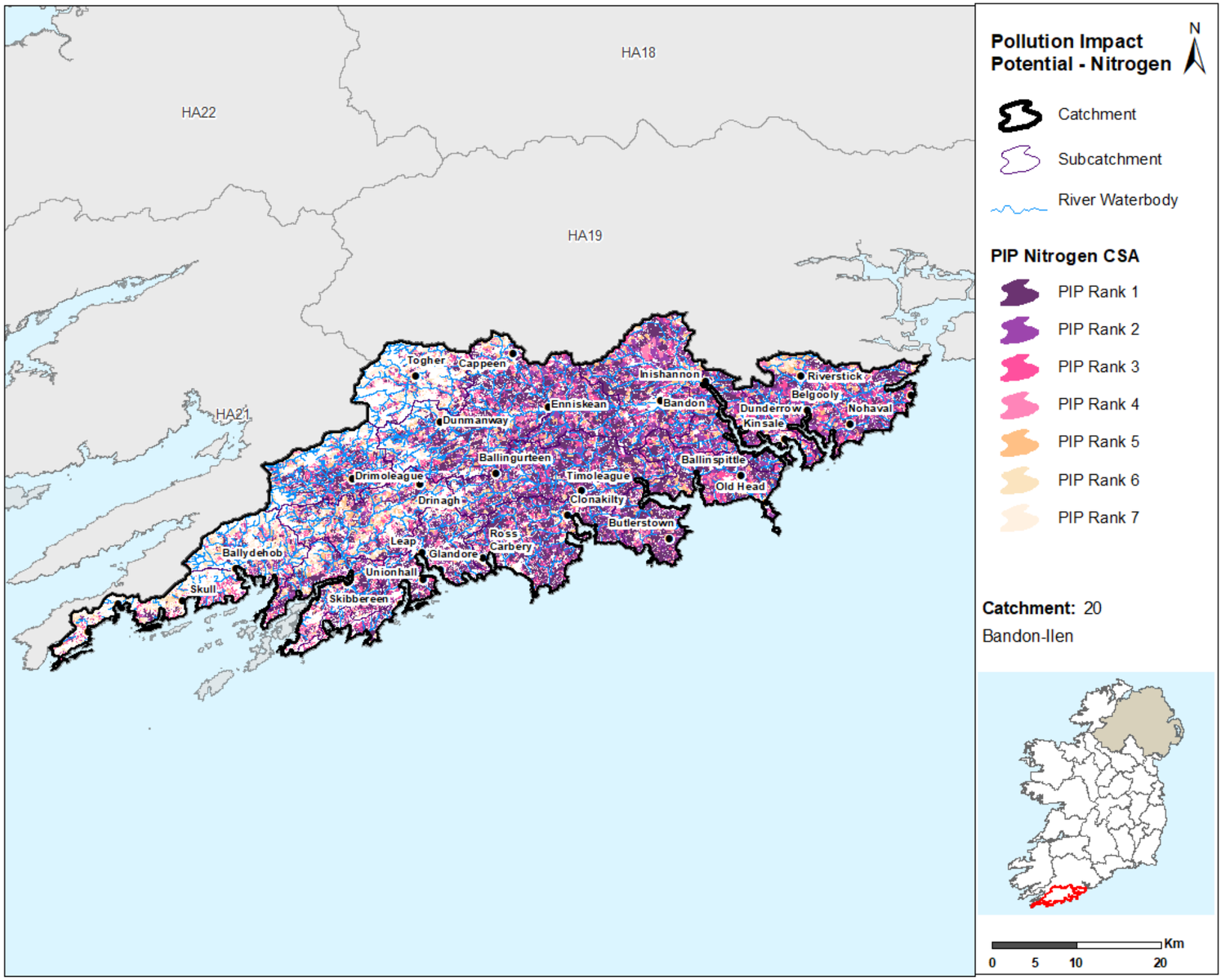
## 10 Catchment Summary

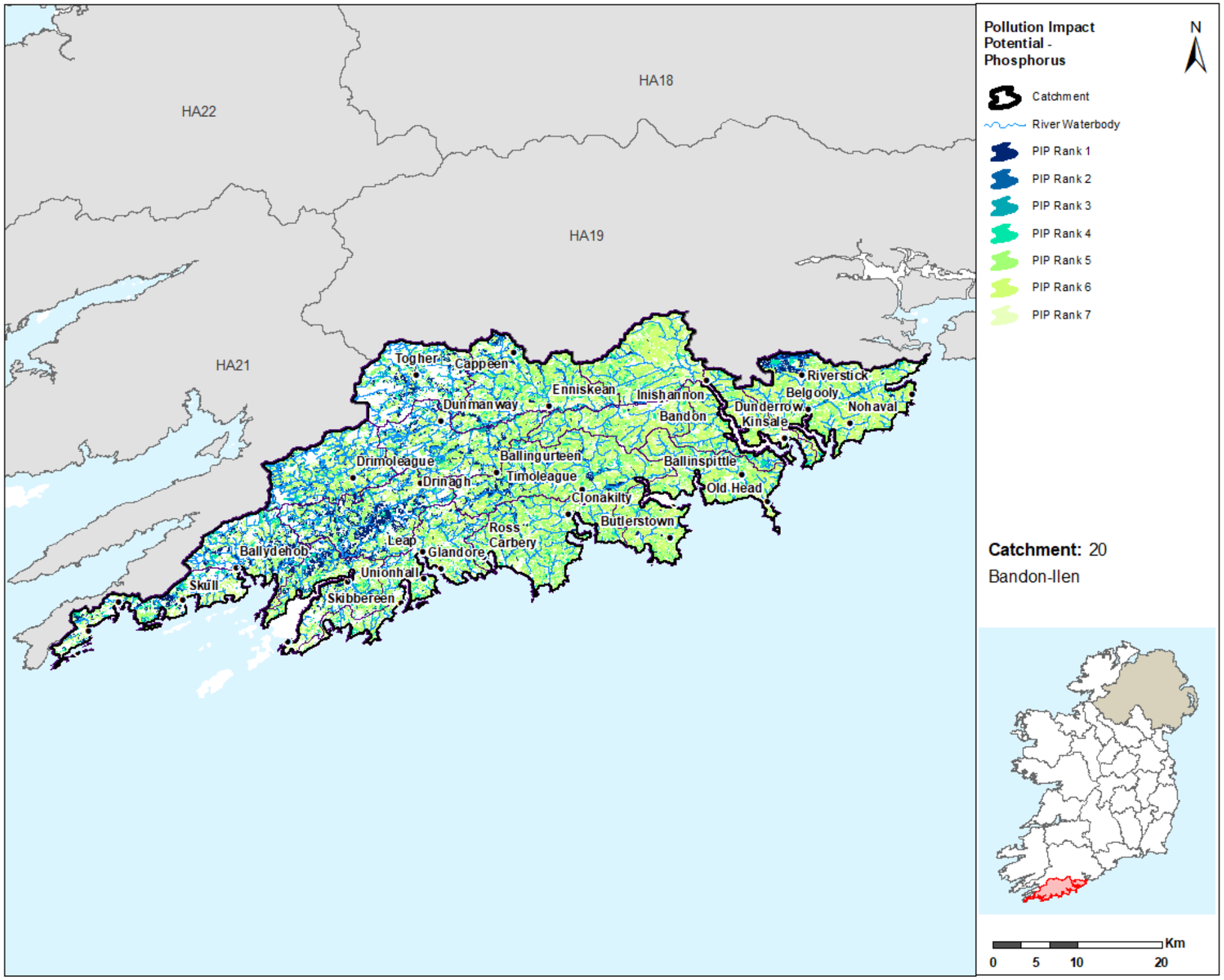
- Of the 87 river waterbodies, 13 are *At Risk* of not meeting their WFD objectives.
- Four out of six lake waterbodies are *At Risk* of not meeting their WFD objectives.
- Seven out of 11 transitional waterbodies in the catchment are *At Risk* and are impacted by eutrophication. Agriculture is the significant pressure.
- Two out of 15 coastal waterbodies are *At Risk* of not meeting their WFD objectives.
- One out of nine groundwater bodies is *At Risk*.
- There has been a slight deterioration across the catchment with 27 waterbodies *At Risk* in Cycle 3 compared to 26 waterbodies *At Risk* in Cycle 2.
- The main significant issues are impacts from nutrient pollution, followed by sediment, organic pollution and morphological impacts.
- The main significant pressures are agricultural pressures followed by urban waste water, forestry and hydromorphological pressures and urban run-off.
- Between Cycle 2 and Cycle 3 there was an increase in the number of waterbodies in all significant pressure categories with the exception of mines & quarries which remains the same.
- In the 2nd Cycle Areas for Action, 10 waterbodies were *At Risk* in Cycle 2 and nine waterbodies are *At Risk* in Cycle 3. Carhoo_010 changed from *At Risk* to *Not at Risk*. Hydromorphology (channelization) was a significant pressure in Cycle 2 but is no longer a significant pressure in Cycle 3.
- There are 14 3rd Cycle Recommended Areas for Action for Cycle 3. They comprise of 39 waterbodies with 21 waterbodies *At Risk*, nine in *Review* and nine *Not At Risk*.

# Appendix 1
# High ecological status objective waterbodies

| Waterbody Name | Waterbody Type | Waterbody Code | Status 2013-2018 |
|---|---|---|---|
| **BALLYMAHANE_010** | **River** | IE_SW_20B010700 | Good |
| **BLACKWATER (BANDON)_030** | **River** | IE_SW_20B040800 | Good |
| **BRINNY_020** | **River** | IE_SW_20B070100 | High |
| **CAHA_010** | **River** | IE_SW_20C010400 | High |
| **CAHA_020** | **River** | IE_SW_20C010700 | Good |
| **GLASHAGLORAGH (CORK)_010** | **River** | IE_SW_20G020400 | High |
| **ILEN_030** | **River** | IE_SW_20I010300 | High |
| **LEAMAWADDRA_010** | **River** | IE_SW_20L010200 | Good |
| **LEAMAWADDRA_020** | **River** | IE_SW_20L010400 | High |
| **OWENNASHINGAUN_010** | **River** | IE_SW_20O020200 | High |
| **OWENNASHINGAUN_020** | **River** | IE_SW_20O020700 | High |

## Appendix 2
## Pollution Impact Potential Mapping




HA22
HA18
HA19
HA21
Togher
Cappeen
Enniskean
Inishannon
Dunmanway
Bandon
Riverstick
Belgooly
Dunderrow
Nohaval
Kinsale
Drimoleague
Ballingurteen
Ballinspittle
Timoleague
Drinagh
Old Head
Clonakilty
Butlerstown
Ross Carbery
Leap
Glandore
Ballydehob
Unionhall
Skull
Skibbereen
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: 20
Bandon-Ilen
Km
0
5
10
20

# Appendix 3
## Summary information on all waterbodies in the Bandon Ilen 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20_12 | IE_SW_20A020045 | ARGIDEEN_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_12 | IE_SW_20A020060 | ARGIDEEN_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_12 | IE_SW_20A020100 | ARGIDEEN_030 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_12 | IE_SW_20A020200 | ARGIDEEN_040 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_4 | IE_SW_20A300900 | ARTITEIGE_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_3 | IE_SW_20A360930 | ARDUSLOUGH_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_15 | IE_SW_20A430910 | Ardgehane_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_5 | IE_SW_20B010700 | BALLYMAHANE_010 | River | At risk | At risk | Good | Good | Yes | Hymo | | |
| 20_5 | IE_SW_20B011000 | BALLYMAHANE_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_6 | IE_SW_20B020050 | BANDON_010 | River | Not at risk | Not at risk | Good | Good | No | | Caha | Expand PAA under SC approach for 20_6 |
| 20_6 | IE_SW_20B020200 | BANDON_020 | River | Not at risk | Not at risk | Good | Good | No | | Caha | Connects waterbodies identified for restoration/protection. Expand PAA |
| 20_10, 20_8 | IE_SW_20B020300 | BANDON_030 | River | Not at risk | At risk | Good | Moderate | No | Ag, UWW | Sally River | At Risk waterbody failing to meet its WFD objective.<br>Multiple pressures including urban, forestry, agriculture and hydromorphology (areas of land reclamation/improvement are evident in catchment). Also wind farm and sand/gravel pit.<br>Builds on existing work of CCC. |
| 20_10, 20_8 | IE_SW_20B020400 | BANDON_040 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_10, 20_8 | IE_SW_20B020550 | BANDON_050 | River | Review | Review | Good | Good | No | | | |
| 20_10, 20_2 | IE_SW_20B020600 | BANDON_060 | River | At risk | At risk | Moderate | Moderate | No | Other | | |
| 20_10, 20_2 | IE_SW_20B020700 | BANDON_070 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_2, 20_5 | IE_SW_20B020780 | BANDON_080 | River | Not at risk | Review | Unassigned | Unassigned | No | | | |
| 20_2, 20_5 | IE_SW_20B020800 | BANDON_090 | River | Review | At risk | Good | Moderate | No | DWW, Other, UR, UWW | Lower Bandon | Review status waterbody which is failing to meet its WFD objective. Level 1 abstraction catchment.<br>Builds on existing work of CCC.<br>Potential pressures from Bandon WWTP, & AIBP Bandon discharge, Major flood relief works, Intensive dairy & tillage catchment. |
| 20_13, 20_5 | IE_SW_20B020900 | BANDON_100 | River | Review | At risk | Good | Moderate | No | Ag, DWW, Other, UR, UWW | Lower Bandon | Review status waterbody which is failing to meet its WFD objective.<br>Builds on existing work of CCC.<br>Multiple pressures including licensed discharges and major flood relief works. Intensive agriculture in the Brinny catchment. Secondary pressure also suspected. |

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20_17 | IE_SW_20B030200 | BAWNAKNOCKANE_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_10 | IE_SW_20B040300 | BLACKWATER (BANDON)_010 | River | Not at risk | At risk | Good | Moderate | No | Ag, For | Blackwater (Bandon) | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 20_10 | IE_SW_20B040600 | BLACKWATER (BANDON)_020 | River | Not at risk | Not at risk | Good | Good | No | | Blackwater (Bandon) | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 20_10 | IE_SW_20B040800 | BLACKWATER (BANDON)_030 | River | At risk | At risk | Good | Good | Yes | Ag | Blackwater (Bandon) | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 20_5 | IE_SW_20B070070 | BRINNY_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_5 | IE_SW_20B070100 | BRINNY_020 | River | Not at risk | Not at risk | High | High | Yes | | | |
| 20_8 | IE_SW_20B080800 | BEALANASCARTANE_010 | River | At risk | Review | Moderate | Moderate | No | | | |
| 20_4 | IE_SW_20B090100 | BALLINSPITTLE_010 | River | Review | At risk | Good | Moderate | No | Ag, Other | Ballinspittle | Review status waterbody, failing to meet WFD objectives<br>Blue flag identified bathing waters downstream is in an SPA with the lower catchment in a proposed natural heritage area.<br>Multiple pressures including agriculture (intensive dairy & tillage), COA, construction works in recent years in village and small area of coillte forestry in catchment.<br>Nutrient and sediment issues noted by EPA biologist.<br>May be a rainfall driven catchment so pathways need to be broken or NMP's required. |
| 20_12 | IE_SW_20B100200 | BURRANE_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_1 | IE_SW_20B940880 | BARRERAGH_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_6 | IE_SW_20C010400 | CAHA_010 | River | Not at risk | Not at risk | High | High | Yes | | Caha | HSO waterbody.<br>Expand PAA to include headwaters |
| 20_6 | IE_SW_20C010700 | CAHA_020 | River | At risk | At risk | Good | Good | Yes | Ag, For, Hymo, M+Q, Other | Caha | Existing PAA and Proof of Concept waterbody. ASSAP work programme won't be complete |
| 20_15 | IE_SW_20C020810 | CASHEL (CORK)_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_7 | IE_SW_20C030400 | CLODAGH_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_11 | IE_SW_20C050300 | CLONAKILTY STREAM_010 | River | Not at risk | At risk | Good | Poor | No | Ag, Other, UR | Clonakilty | Expand PAA to include inputting waterbodies<br>Clonakilty Stream deteriorated in last monitoring period |
| 20_11 | IE_SW_20C060300 | CARHOO_010 | River | At risk | Not at risk | Moderate | Good | No | | Clonakilty | Existing PAA waterbody. ASSAP work may not be complete |
| 20_15 | IE_SW_20C120530 | CARRIGLUSKY_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20_8 | IE_SW_20D010050 | DINY_010 | River | Not at risk | At risk | Good | Poor | No | Ag, For | Sally River | Failing to meet its WFD objective. Upstream waterbody to Bandon 30, also at risk. Red dot site. Builds on existing work of CCC. Multiple pressures include forestry, Agricultre and urban. Evidence of ongoing land reclamation/improvement in the catchment. |
| 20_13 | IE_SW_20D600820 | DERRYNAGASHA_010 | River | Review | Review | Unassigned | Unassigned | No | | Bandon estuary | Existing PAA waterbody. FC not yet commenced so ASSAP work programme wont be complete |
| 20_14 | IE_SW_20D710620 | DOONAVANIG_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_13 | IE_SW_20D730990 | DROMDOUGH_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_3 | IE_SW_20D770630 | DERREENNATRA_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_1 | IE_SW_20E050970 | East Cruary_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_3 | IE_SW_20E070850 | SKULL_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_4 | IE_SW_20F310780 | Flaxfort Strand_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_14 | IE_SW_20F330850 | Farranamoy_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_12 | IE_SW_20G020400 | GLASHAGLORAGH (CORK)_010 | River | Not at risk | Not at risk | High | High | Yes | | | |
| 20_11 | IE_SW_20H070690 | Hayes' Cross Roads_010 | River | Review | Review | Unassigned | Unassigned | No | | Kilkeran Lagoon | Existing PAA waterbody. FC not yet commenced so ASSAP work programme wont be complete |
| 20_7 | IE_SW_20I010100 | ILEN_010 | River | Not at risk | Not at risk | Good | Good | No | | Ilen | IFI have included the Ilen catchment in their climate change research project |
| 20_7 | IE_SW_20I010160 | ILEN_020 | River | Not at risk | Not at risk | Good | High | No | | Ilen | IFI have included the Ilen catchment in their climate change research project |
| 20_9 | IE_SW_20I010300 | ILEN_030 | River | Not at risk | Not at risk | High | High | Yes | | Ilen | IFI have included the Ilen catchment in their climate change research project |
| 20_16 | IE_SW_20I010350 | ILEN_040 | River | Review | Review | Unassigned | Unassigned | No | | Ilen | IFI have included the Ilen catchment in their climate change research project |
| 20_4 | IE_SW_20K010100 | KILBRITTAIN_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_4 | IE_SW_20K010300 | KILBRITTAIN_020 | River | Not at risk | Review | Good | Good | No | | | |
| 20_17 | IE_SW_20K050700 | KNOCKROE_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_13 | IE_SW_20K190980 | KNOCKNABOHILLY_010 | River | Review | Review | Unassigned | Unassigned | No | | Bandon estuary | Existing PAA waterbody. FC not yet commenced so ASSAP work programme wont be complete |
| 20_13 | IE_SW_20K800990 | KILLANAMAUL_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_15 | IE_SW_20K950970 | KILLANGAL_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_13 | IE_SW_20K980910 | KNOCKNACURRA_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_17 | IE_SW_20L010200 | LEAMAWADDRA_010 | River | Not at risk | At risk | High | Good | Yes | Hymo, Other | | |
| 20_17 | IE_SW_20L010400 | LEAMAWADDRA_020 | River | Not at risk | Not at risk | High | High | Yes | | | |

| Subcatchment Code | Waterbody Code | Waterbody Name | Waterbody Type | Risk 10-15 | Risk 13-18 | Status 10-15 | Status 13-18 | High Ecological Status Objective Waterbody | Significant Pressures | Recommended Areas for Action Name | Recommended Areas for Action (reasons for selection) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20_15 | IE_SW_20L040100 | LEAP STREAM_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_16 | IE_SW_20L450850 | LETTERSHAW_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_13 | IE_SW_20L510960 | LAHERFINEEN_010 | River | Review | Review | Unassigned | Unassigned | No | | Bandon estuary | Existing PAA waterbody. FC not yet commenced so ASSAP work programme wont be complete |
| 20_3 | IE_SW_20L560540 | LOWERTOWN_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_14 | IE_SW_20M010100 | MINANE_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_14 | IE_SW_20M010200 | Minane (Cork)_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_16 | IE_SW_20M580810 | MALLAVONEA_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_14 | IE_SW_20N050960 | Newborough_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_11 | IE_SW_20N100620 | North Ring Curraghgrane_010 | River | Review | Review | Unassigned | Unassigned | No | | Clonakilty | Existing PAA waterbody. ASSAP work may not be complete |
| 20_12 | IE_SW_20O010200 | OWENKEAGH_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_12 | IE_SW_20O010600 | OWENKEAGH_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_7 | IE_SW_20O020200 | OWENNASHINGAUN_010 | River | At risk | Not at risk | Good | High | Yes | | | |
| 20_7 | IE_SW_20O020700 | OWENNASHINGAUN_020 | River | Not at risk | Not at risk | High | High | Yes | | | |
| 20_11 | IE_SW_20O030400 | OWNAHINCHY_010 | River | At risk | Not at risk | Moderate | Good | No | | Rosscarbery | Discharges to Rosscarbery Bay which is PAA with possible impacts on Warren & Ownahincha Bathing waters.<br>Catchment will require regular supervision to ensure protection of status.<br>Expand PAA.<br>Highly intensive dairy farming catchment, some tillage. |
| 20_3 | IE_SW_20O060910 | Oughter Callaros_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_17 | IE_SW_20R010400 | RATHRUANE_010 | River | Not at risk | Not at risk | High | High | No | | | |
| 20_15 | IE_SW_20R020800 | ROURY_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_15 | IE_SW_20R021000 | ROURY_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_17 | IE_SW_20R030900 | Roaring Water River_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_9 | IE_SW_20S010400 | SAIVNOSE_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_9 | IE_SW_20S010900 | SAIVNOSE_020 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_5 | IE_SW_20S020500 | SALL_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_14 | IE_SW_20S030800 | STICK_010 | River | Not at risk | Not at risk | Good | Good | No | | | |
| 20_3 | IE_SW_20S360700 | SHANAVAGH_010 | River | Review | Review | Unassigned | Unassigned | No | | | |
| 20_11 | IE_SW_20T020050 | TINNEEL STREAM_010 | River | At risk | At risk | Moderate | Moderate | No | Ag | Rosscarbery | Existing PAA waterbody. ASSAP work may not be complete |
| 20_3 | IE_SW_20T030990 | TOORMORE_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_4 | IE_SW_20W050990 | WHITE STRAND_010 | River | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_3 | IE_SW_20_133 | Tooreen | Lake | Not at risk | Not at risk | Good | Good | No | | | |
| 20_16 | IE_SW_20_148 | Abisdealy | Lake | At risk | At risk | Poor | Moderate | No | Ag | Abisdealy | At risk waterbody in an SAC. Level 1 abstraction catchment.<br>Builds on existing work of CCC. Significant dairy farming to south of lake with |

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | significant land improvement/reclamation works & drainage. Direct hydrological connection to lake. This may have caused sediment loss to lake, & also possibly nutrients due to potential loss of applied fertilisers when reseeding lands. |
| 20_15 | IE_SW_20_150 | Ballin CK | Lake | At risk | At risk | Poor | Poor | No | Hymo | Ballin | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 20_6 | IE_SW_20_153 | Coolkellure | Lake | At risk | At risk | Moderate | Moderate | No | For | Caha | Existing PAA waterbody. ASSAP work may not be complete |
| 20_8 | IE_SW_20_158 | Curraghalicky | Lake | At risk | At risk | Moderate | Moderate | No | Other | | |
| 20_3 | IE_SW_20_53 | Skeagh | Lake | At risk | Not at risk | Moderate | Good | No | | | |
| 17_5, 19_12, 20_1, 20_11, 20_13, 20_14, 20_15, 20_3, 20_4 | IE_SW_010_0000 | Western Celtic Sea (HAs 18;19;20) | Coastal | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 0 | IE_SW_010_0100 | Lough Hyne | Coastal | | Review | 0 | Unassigned | No | | | |
| 19_12, 19_15, 20_14 | IE_SW_050_0000 | Outer Cork Harbour | Coastal | Review | Not at risk | Good | Good | No | | | |
| 20_13, 20_4 | IE_SW_080_0000 | Kinsale Harbour | Coastal | At risk | Not at risk | Good | Good | No | | | |
| 20_13 | IE_SW_080_0200 | Kinsale Marsh, Commoge | Coastal | Review | Review | Unassigned | Unassigned | No | | | |
| 20_1, 20_4 | IE_SW_090_0000 | Courtmacsherry Bay | Coastal | At risk | Review | Poor | Good | No | | | |
| 20_1, 20_11 | IE_SW_100_0000 | Clonakilty Bay | Coastal | At risk | At risk | Moderate | Good | No | Ag | Clonakilty | Existing PAA waterbody. Further characterisation won't be complete |
| 20_11 | IE_SW_100_0200 | Inchydoney | Coastal | Review | Review | Unassigned | Unassigned | No | | | |
| 20_11 | IE_SW_100_0300 | White's Marsh | Coastal | Review | Review | Unassigned | Unassigned | No | | | |
| 20_11 | IE_SW_100_0400 | Clogheen Strand | Coastal | Review | Review | Unassigned | Unassigned | No | | | |
| 20_11, 20_15 | IE_SW_110_0000 | Rosscarbery Bay | Coastal | At risk | At risk | Unassigned | Unassigned | No | Ag | Rosscarbery | Existing PAA waterbody. Further characterisation won't be complete |
| 20_16 | IE_SW_120_0000 | Fastnet Waters | Coastal | Not at risk | Review | Unassigned | Unassigned | No | | | |
| 20_15, 20_16, 20_17, 20_3 | IE_SW_140_0000 | Roaring Water Bay | Coastal | Not at risk | Not at risk | Good | Good | No | | | |
| 20_3 | IE_SW_140_0100 | Ballyrisode Bridge Lagoon | Coastal | Review | Review | Unassigned | Unassigned | No | | | |
| 20_3, 21_1, 21_11, 21_2, 21_3, 21_9, 22_10, 22_11, 22_19, 23_11 | IE_SW_150_0000 | South Western Atlantic Seaboard (HAs 21;22) | Coastal | Not at risk | Not at risk | Unassigned | Unassigned | No | | | |
| 20_14 | IE_SW_070_0100 | Oysterhaven | Transitional | At risk | At risk | Unassigned | Unassigned | No | Ag | Oysterhaven | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 20_14 | IE_SW_070_0200 | Oysterhaven Lake, Clashroe | Transitional | Review | Review | Unassigned | Unassigned | No | | Oysterhaven | Proposed by Cork Co Co as lead. Builds on their existing work programme |

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20_13 | IE_SW_080_0100 | Lower Bandon Estuary | Transitional | At risk | At risk | Moderate | Moderate | No | Ag | Bandon estuary | Existing PAA waterbody. Further characterisation won't be complete |
| 20_13, 20_5 | IE_SW_080_0300 | Upper Bandon Estuary | Transitional | At risk | At risk | Moderate | Poor | No | Ag | Bandon estuary | Existing PAA waterbody. Further characterisation won't be complete |
| 20_1, 20_12, 20_4 | IE_SW_090_0200 | Argideen Estuary | Transitional | At risk | At risk | Poor | Poor | No | Ag, UWW | | |
| 20_11 | IE_SW_100_0100 | Clonakilty Harbour | Transitional | At risk | At risk | Moderate | Poor | No | Ag | Clonakilty | Existing PAA waterbody. Further characterisation won't be complete |
| 20_11 | IE_SW_110_0100 | Kilkeran Lake | Transitional | Review | Review | Poor | Bad | No | | Kilkeran Lagoon | Existing PAA waterbody. FC not yet commenced so ASSAP work programme wont be complete |
| 20_11 | IE_SW_110_0200 | Rosscarbery Harbour | Transitional | At risk | At risk | Unassigned | Unassigned | No | Ag | Rosscarbery | Existing PAA waterbody. FC still ongoing so ASSAP work won't be complete |
| 20_15 | IE_SW_110_0300 | Glandore Harbour | Transitional | Review | Review | Unassigned | Unassigned | No | | | |
| 20_16 | IE_SW_130_0100 | Ilen Estuary | Transitional | At risk | At risk | Moderate | Moderate | No | Ag, UR, UWW | Ilen | IFI have included the Ilen catchment in their climate change research project<br>Also proposed by BIM: Shellfish Designated Area; Oyster; Regular incident reports of WWTP breaches |
| 20_3, 21_11 | IE_SW_140_0200 | Lissagriffin Lake | Transitional | Not at risk | Review | Unassigned | Unassigned | No | | Lissagriffin Lake | Proposed by Cork Co Co as lead. Builds on their existing work programme |
| 18_11, 18_19, 18_23, 18_25, 18_7, 18_8, 19_1, 19_10, 19_11, 19_13, 19_14, 19_15, 19_16, 19_17, 19_18, 19_2, 19_3, 19_5, 19_6, 19_7, 19_8, 19_9, 20_10, 20_13, 20_14, 20_5 | IE_SW_G_004 | Ballinhassig East | Groundwater | Review | At risk | Good | Good | No | Ag, DWW, Other | | |
| 18_4, 18_7, 18_9, 19_10, 19_14, 19_18, 19_3, 19_4, 19_6, 19_7, 19_9, 20_10, 20_6, 21_19, 21_7, 22_8 | IE_SW_G_005 | Ballinhassig West | Groundwater | Not at risk | Not at risk | Good | Good | No | | | |
| 20_16 | IE_SW_G_013 | Bandon Islands | Groundwater | Not at risk | Not at risk | Good | Good | No | | | |
| 20_3 | IE_SW_G_016 | Waste Facility (W0089-02) | Groundwater | At risk | Not at risk | Poor | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 19_10, 19_14, 20_17, 20_3, 20_6, 20_7, 21_1, 21_10, 21_11, 21_12, 21_13, 21_14, 21_15, 21_16, 21_17, 21_18, 21_19, 21_2, 21_20, 21_3, 21_4, 21_5, 21_6, 21_7, 21_8, 21_9, 22_10, 22_11, 22_13, 22_14, 22_6, 22_7, 22_8 | IE_SW_G_019 | Beara Sneem | Groundwater | Not at risk | Not at risk | Good | Good | No | | | |
| 20_1, 20_11, 20_12, 20_13, 20_15, 20_16, 20_17, 20_2, 20_3, 20_4, 20_6, 20_7, 20_8, 20_9, 21_11, 21_20 | IE_SW_G_085 | Skibbereen-Clonakilty | Groundwater | Review | Not at risk | Good | Good | No | | | |
| 19_14, 19_15, 19_9, 20_10, 20_12, 20_13, 20_14, 20_2, 20_4, 20_5, 20_6, 20_7, 20_8, 20_9, 21_19, 21_20 | IE_SW_G_086 | Bandon | Groundwater | Review | Review | Good | Good | No | | | |
| 19_15, 20_5 | IE_SW_G_087 | Brinny Gravels East | Groundwater | Review | Review | Good | Good | No | | | |
| 19_15, 20_5 | IE_SW_G_088 | Brinny Gravels West | Groundwater | Review | Review | 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* water bodies have not been included as they will need to be confirmed as part of an Investigative Assessment.