

# Planning for third cycle River Basin Management Plan 2021 - 2027

December 2019

## Consultation on Significant Water management Issues

### Appendix 6: Working together

## Working together

- **CatchmentCare**

The CatchmentCare Project part funded by DAERA is designed to contribute to the INTERREG programme specific result “percentage of cross-border fresh water bodies in cross-border river basins with good or high quality. The current baseline is 32 % with the CatchmentCARE project contributing to achieving 65 % at good or better by 2023”. The project aims to establish three water quality improvement projects in the Finn, Blackwater and Arney Catchments and install 51 boreholes across the region. This will be achieved incorporating three critical criteria: measurable impact on water quality; transferable beyond the three catchments; and contribute to a project legacy.

The actions will address water quality issues related to hydromorphology, point and diffuse sources of pollution, farm nutrient management practices, characterisation and monitoring of groundwater quality, lag times in response to the implementation of measures and an economic analysis of the cost of achieving the objectives of the WFD in the three catchments. Community Incentive Scheme within the CatchmentCARE Project will facilitate initiatives in which communities develop local plans to assist in the management of their catchment.

Project examples are: Pollution watch, Community River walks, River Bio Blitz, Community Litter Awareness campaigns. This project commenced in 2018, so full benefits will not be achieved until after 2021.

**Project Partners:** DAERA, AFBI; Ulster University; Armagh, Banbridge and Craigavon Council; British Geological Survey; Loughs Agency; Donegal County Council; Geological Survey of Ireland and Inland Fisheries Ireland.

- **Source to Tap**

Source to Tap, aims to improve water quality on both sides of the border. This INTERREG VA project is a cross-border sustainable water quality improvement project of €5.3million, which aims to improve water quality in rivers and lakes in the Erne and Derg catchments.

This DAERA part funded INTERREG project explores sustainable, cost effective measures to reduce pollution in shared catchments, and to secure safe drinking

water supplies. The main aim of the project is to deliver a Sustainable Catchment Area Management Plan (SCAMP) for the Erne and Derg cross border catchments.

Source to Tap aims to restore 135 hectares of land back to natural peat habitat and in doing so will identify pioneering restoration solutions that can be shared across Northern Ireland, the Border Region of Ireland and Western Scotland. This will help to secure safe drinking water sources and it will contribute to improvements in cross-border raw water quality. Water quality data will be collected throughout the project. Realisation of project impact on behavioural change will be assessed post implementation through a targeted questionnaire. Ensuring there is a lasting legacy has been one of the drivers when selecting the most appropriate measures to implement. Skills will be developed, and networks established that will allow the local community to continue to protect the local water supply after project completion. This project commenced in 2017, so benefits will not yet be apparent.

**Project Partners:** DAERA; AFB; Rivers Trust; East Border Region Ltd; Ulster University; Irish Water.

- The **Shared Waters Enhancement and Loughs Legacy (SWELL)** Project will be implemented over two phases. The successful completion of Phase 1 resulted in a further application for Phase 2.
  - Phase 1: The cross-border project involved a detailed investigation into the causes of water pollution and the most effective ways to prevent it. It brought together key state-owned water companies from Northern Ireland and Ireland as it will be delivered by both NIW and Irish Water.  
Project Partners: NIW and Irish Water.
  - Phase 2 of the SWELL project aims to improve water quality in the shared transitional waters of Carlingford Lough & Lough Foyle through the improvement of wastewater assets.

The project will implement two sewerage network and wastewater treatment schemes which will deliver improved wastewater treatment for an additional 10,000 people in the eligible region. The mechanism for delivering improved water quality therefore will consider each shared water body as a single ecosystem. A holistic modelling strategy will amalgamate the various catchment and marine models to form an Ecosystem model that intends to be both unique and innovative in its detail

and scale. It is anticipated that the project will leave an ecosystem model for use by the water companies, environmental regulators and other stakeholders in the eligible area to identify future improvements to enhance water quality.

**Project Partners:** NIW; Irish Water; ABFI; Loughs Agency and East Border Region.

- The **Marine Protected Areas Management and Monitoring (MarPAMM)** project has been awarded to deliver four new cross-disciplinary models to support the conservation of marine habitats and species, through integrated elements including a seabirds model designed to quantify and help manage protected seabird species within the INTERREG VA region's Special Protection Areas and a marine mammal model aims to examine the movement of seals, levels of underwater noise, and the potential impacts of this noise on seal foraging behaviour.

Evidence generated from these models will be used to develop and implement six marine management plans. These plans will be developed alongside existing data and models produced by sister INTERREG VA projects. Two of these plans will be produced in Scotland, one in Northern Ireland and three in Northern Ireland and Ireland.

**Project Partners:** Marine Scotland Science, Scottish Natural Heritage, Scottish Association for Marine Science, Birdwatch Ireland, Ulster University and University College Cork.

- The **System for Bathing Water Quality Monitoring (SWIM)** Project aims to develop a system for the prediction of bathing water quality and install real time signage. This innovative project will enable short-term pollution to be predicted and the information disseminated to the public through a range of media channels, including automatic localised text alerts, web updates, and electronic signage at beach entry points. This will serve to help protect public health, significantly improve communication to members of the public, and in doing so contribute to the promotion of tourism.

**Project Partners:** University College Dublin (UCD), AFBI and Keep Northern Ireland Beautiful (KNIB).

- The **Collaborative Oceanography and Monitoring for Protected Areas and Species (COMPASS)** aims to deliver a project that will connect the regions' key marine research Institutes to deliver a coherent monitoring network to support the management of Marine Protected Areas and Species.

COMPASS will deliver regional scale scientific programmes of work for:

- Oceanography
- Data Management
- Salmon and Sea Trout
- Marine Mammals
- Modelling (Hydrodynamic & Connectivity)

The project will improve the flow of information between Northern Ireland, Scotland and Ireland to improve our understanding of the marine environment and help habitats attain a better conservation status.

**Project Partners:** Marine Scotland Science, Marine Institute, the Scottish Association for Marine Science and Inland Fisheries Ireland.

- **Rivers Trusts**

Over the past 12 months The Rivers Trust family on the island of Ireland has grown from strength to strength. Rivers Trusts are community-led charities started by local people to care for their local rivers. They concentrate on delivering practical improvements for their rivers, get involved in education, flora, fauna, fisheries, biodiversity, habitat, access, pollution and any other issues that impact their river catchment, such as climate change, acid rain, litter and underlying social problems leading to environmental decline.

There are seven Rivers Trusts in Northern Ireland, two of which in the Erne and the Blackwater (Ulster) river catchments are cross-border rivers trusts, and a further 10 Trusts in the Republic of Ireland stretching from northwest Donegal to southeast Wexford. As catchment-based organisations they collectively cover an area equivalent to about a quarter of the landmass of the island of Ireland and cover thousands of kilometres of rivers and streams. Working with stakeholders and interested parties is an essential element to the delivery of RBMPs.

## **6.2 Working with stakeholders to deliver**

In addition to INTERREG VA projects, there are a number of initiatives that are delivered through the collaboration of a range of Government Departments, Councils, Community groups & local stakeholders.

- **Inner Dundrum Bay Priority Catchment Working Group – Case study.**

The Inner Dundrum Bay Priority group was established in 2017 as a pilot programme to examine how water management issues are being addressed across Environment Marine and Fisheries Group (EMFG) and how to improve catchment working across the group.



### Inner Dundrum Bay

The reason for selection of this site was that it is failing to meet WFD objectives and a deterioration has also been measured in shellfish quality. The failing elements in the coastal water are on macroalgae and angiosperms (linked to nutrient enrichment) and *Escherichia coli*, also known as E. coli, in shellfish flesh. Some of the rivers in the catchment are also failing on nutrients (SRP) and benthic invertebrates.

The Priority Catchment Working Group aimed to assist in the delivery of the water quality objectives in the RBMPs by:

- improving the catchment approach across EMFG and wider
- empowering staff at all levels across EMFG in managing water in the catchment context.

Complementarily to ongoing departmental WFD monitoring, NIW conducted extensive surveys in the bay and catchments since 2015. A first report was produced

in 2017 which concluded that 80 % of the microbial loading over the Dundrum shellfishery was from the Carrigs River. The further study conducted over summer 2017 and reported in September 2018, demonstrated that in dry conditions, 80 % of the microbial loading in the Carrigs River is from ruminant sources (e.g. cattle), and that this proportion increases in wet weather. In the combined loadings from the Carrigs and Moneycarragh, 88 % of the E coli loading is from ruminant sources.

To date there has been 4 meetings with representation from across 10 groups (EMFG Branches, AFBI, NIW and their consultants). This group has been an excellent mechanism to share information on the catchment as a whole and to raise awareness of the totality of the issues. It has also been useful to explain the links between agricultural practices, waste water issues and water quality.

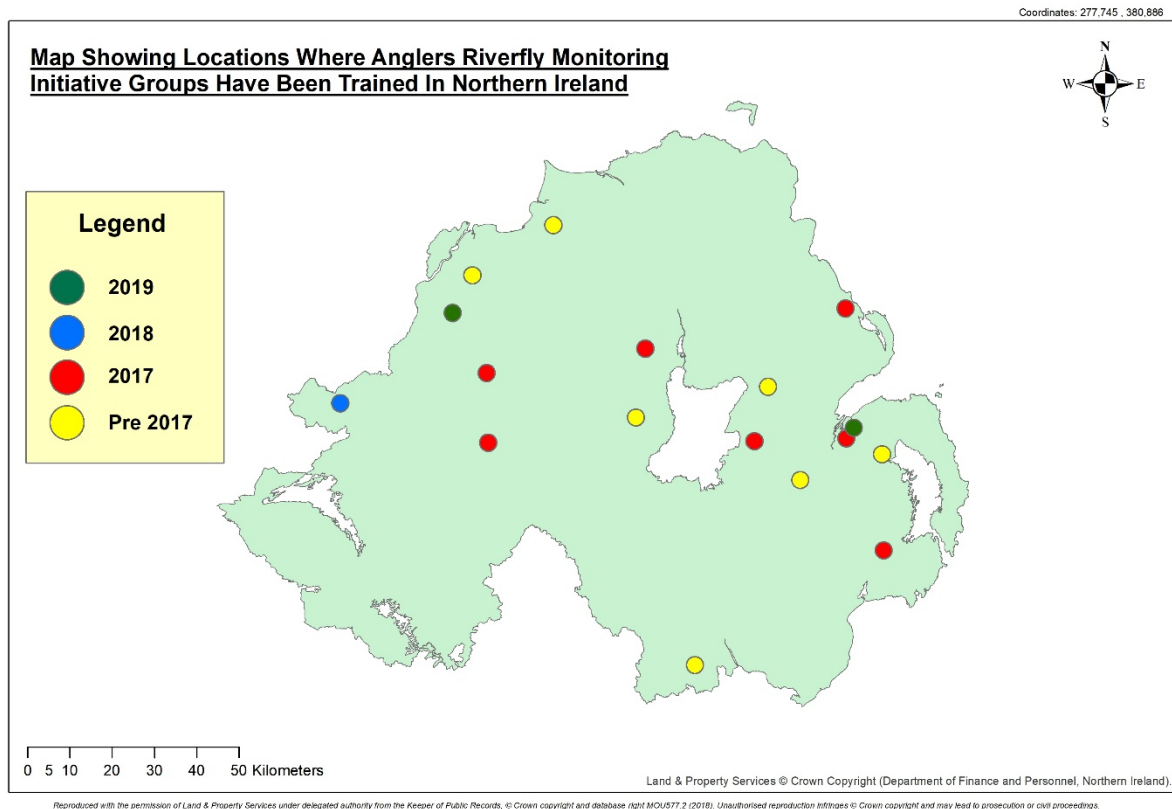
The Priority Catchment Working Group approach has been successful in helping members understand the complexity and catchment links in managing water quality. The failure to show improvement at this stage is disappointing, but perhaps not unexpected, as NIW is still carrying out upgrades, and the uptake of EFS within the catchment has been limited.

Although the catchment investigations by NIW, AFBI and EMFG have been resource intensive, the conclusions on improving agricultural practices may be relatively simple. At the last meeting, it was agreed that providing fencing and/or riparian strips and pasture pumps in key sections of the catchment, would go a long way in reducing agricultural pollution.

The new Knowledge Advisory Service (KAS) is designed to ensure that farmers are fully informed about how EFS can assist them in their businesses. The implementation of the KAS to ensure that water quality advice is included in the Service is another linkage the group has made to raise awareness and tackle the issues in Dundrum Bay.

### **6.2.1 Riverfly Monitoring Initiative**

The Angler's Riverfly Monitoring Initiative (ARMI) is a UK wide community scheme where fishing clubs and other interested parties monitor invertebrates to assess the biological water quality of their local river. NIEA has helped in the training of 17 groups in total since ARMI was introduced to Northern Ireland in 2010.



**Figure 19: Riverfly Monitoring initiative groups**

NIEA staff can support training events through attendance, providing guidance in ARMI site selection and also producing the relevant water quality maps & data. Invertebrate sampling is carried out by volunteers using the “3 minute kick sampling method”. Volunteers are trained to identify 8 separate “ARMI invertebrate groups” and record the presence (or absence) and abundance of each group. Adding together the individual score obtained for each of the 8 ARMI invertebrate groups gives an overall score for the site.

NIEA biologists carry out the technical work of setting trigger levels for sites. Exceeding trigger levels can be indicative of a pollution event at the site. When a breach of a trigger level has been confirmed by the organisation, its coordinator should make the NIEA Operations Team aware that a trigger level has been breached and should detail any other pollution indicators observed. An NIEA Water Quality Inspector (WQI) will investigate the report and feedback the result of the investigation to the organisation coordinator. Should the organisation desire, the trigger levels may be reviewed by NIEA annually and a meeting can be arranged to discuss any concerns.



## 6.2.2 Plastic & Litter Campaigns

### - North Western River Basin District

In the NWRBD the Camowen Community Anglers Association regularly carry out 'River Clean Up' work days along the Camowen and Cloughfin Rivers. This is one of the tasks that the Angling Club commit to in order to meet annual environmental targets. These rivers are widely recognised as being one of the main nursery areas for returning Atlantic salmon within the Foyle Catchment.

The club recognises that litter pollution could have a negative impact on spawning beds and reduces the potential to increase the salmon population. As well as undertaking River Clean Up days the club also educate the local community about the negative impact waste can have on the overall condition of rivers and our seas. During the river clean ups, the club has been welcomed and commended by local farmers and landowners for the work they are doing. The club was nominated for the 'Live Here Love Here' Community Award in 2018 and were one of several winners on the night. This was a great achievement for the club and for the aquatic environment.

### - North Eastern River Basin District

As a Borough with 110 miles of coastline that draws tourists as a result of its waterways, harbours and marinas, Ards and North Down is committed to reducing plastic pollution in its area. In November 2017, the Council agreed to reduce the use of plastics at meetings and events through providing recyclable, reusable alternatives. The council delivered an Environmental Education Programme (C.L.E.A.R.) to 1,800 year eight pupils from across the Borough. This covered a number of environmental themes including the issues around single-use plastics. It was very well received by the pupils and teachers alike.

Going further, Ards and North Down introduced sea bins to help in the fight against the eight million pieces of plastic that find their way into our oceans daily worldwide. This initiative, aims to make the sea a cleaner and safer place for residents and local wildlife. The first sea bin designed to trap marine plastics was installed in Northern Ireland in November 2018 by Ards and Down Borough Council. Situated in Bangor, it is anticipated the equipment can sieve two million litres of sea water a year. It moves up and down with the tide collecting all floating rubbish. Water passes through the bin, trapping debris in the mesh catch bag which is then disposed of

properly. The sea bin can catch an estimated 1.5 Kgs of floating debris per day including micro-plastics up to 2 mm diameter.

- **Neagh Bann River Basin District**

Ballinderry Rivers Trust has for many years worked closely with Keep Northern Ireland Beautiful which has provided litter grabbers, gloves, high-vis vests and bags to help with safe litter collection and has also adopted the Ballinderry River under its Adopt a Spot Scheme. In one small stretch of river alone, Ballinderry Rivers Trust collected 105 tyres which had been illegally dumped, with the then Cookstown District Council disposing of the tyres at its own cost in support of the trusts clean-up.

Rivers Trusts and other community groups are seemingly all that stands in the way of litter in our rivers reaching the ocean. By collecting the rubbish in the river, they are not only improving the river environment, but also helping to prevent the littering of our beaches and seas by intercepting the litter before it gets downstream. ***So the message is clear – make sure it is you who takes your litter home and not your river taking it out to sea.***