Planning for third cycle River Basin Management Plan 2021 - 2027

December 2019

Consultation on Significant Water management Issues

Appendix 5: Protected Areas

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INVESTORS IN PEOPLE

Protected Areas

Understanding the benefits of protecting and improving the water environment is at the heart of river basin management. There are areas where the water environment is particularly important for wildlife conservation, bathing, drinking water supply, shellfish harvesting, or because of its vulnerability to eutrophication. These areas are known as 'protected areas' and are given particular legal protection. These designated areas are vital to ensure that the diverse ecosystems and cultural and economic benefits within them are safeguarded.

5.1 Bathing Waters

DAERA works in partnership with Keep Northern Ireland Beautiful (KNIB), NIW, community groups, local councils and other land-owners like the National Trust to manage our bathing waters. Many aspects of how we manage bathing waters in Northern Ireland have changed since monitoring began over 25 years ago, not least of these changes was the introduction of more stringent bathing water quality standards in 2015. The Bathing Water Directive 2006/7/EC came into effect at the end of the 2015 bathing season. It introduced standards that are approximately twice as stringent compared with the outgoing Directive, despite this, our existing 26 EU "identified" bathing waters have performed well when compared with other parts of the UK, Ireland and further afield.

DAERA has recently reviewed its bathing waters in order to ensure the highest possible level of EU protection is provided for water quality in areas where the public swim. Whilst overall, bathing water quality is improving, there is no room for complacency. At Ballyholme, we saw the bathing water fail to meet the tighter standards of the revised Bathing Water Directive in both 2016 and 2017. However, this is something that is being actively addressed through sewerage infrastructure improvements, catchment investigations and remedial actions and in 2018 Ballyholme met 'Sufficient' water quality.

In 2018, 100 % of Northern Ireland's identified bathing water sites met the Bathing Water Directive 2006/7/EC standards. This means that 26 out of the 26 identified bathing waters complied with EU standards. The percentage of bathing waters at excellent water quality status has increased from 47 % in 2016 to 52 % in 2017 to 58 % in 2018. This represents fifteen beaches around Northern Ireland's coast

meeting the stringent water quality criteria enabling them to apply for Blue Flag status.

Three candidate bathing waters were nominated for identification during the Department's review of identified Bathing Waters in 2017. Cloughey, Kilclief and Ballyhornan were monitored for water quality since 2017. These bathing waters were officially identified in May 2018 and are now included on the list of 26 identified bathing waters that are monitored on an annual basis with classifications reported back to Europe.

5.2 Shellfish Water Protected Areas

Shellfish Water Protected Areas are areas designated for the protection of shellfish growth and production. Good water quality is important for the production of high quality shellfish. In Northern Ireland, there are currently ten Shellfish Water Protected Areas which were designated under the Shellfish Waters Directive and subsequently managed under the WFD. These are located within Lough Foyle (Longfield Bank and Balls Point), Larne Lough, Belfast Lough, Strangford Lough (Skate Rock, Reagh Bay/ Paddy's Point and Marlfield Bay), Killough Harbour, Dundrum Bay and Carlingford Lough[1].

In January 2014, the Shellfish Waters Directive was subsumed into the WFD, resulting in more stringent *E. coli* standards and a noticeable "drop" in the percentage of designated shellfish waters. A total of two out of nine designated shellfish waters (22 %) complied with the WFD guideline *E. coli* standard in 2018. This level of compliance is being actively addressed through sewerage infrastructure improvements, catchment investigations and remedial actions. No data was available for Marlfield in Strangford Lough which has not seen any shellfish harvesting for a number of years. The Department will consider the de-designation of this site if harvesting is not recommenced. In 2017, a total of three out of nine designated shellfish waters (33 %) complied with the guideline *E. coli* standards.

Comprehensive monitoring programmes are in place to assess the status of Shellfish Water Protected Areas under the WFD and classification under the EU Hygiene Regulations (854/2004). A suite of determinants are assessed to determine

[1] Further information regarding areas sampled can be found at https://www.daera-ni.gov.uk/publications/pollution-reduction-programmes-2015

ecological status and the overall objective under WFD. DAERA Environment Marine and Fisheries Division continue to manage Shellfish Water Protected Areas to ensure that there is no deterioration in water quality; also that steady progress is made towards compliance with guideline standards. Compliance with guideline standards are determined by measuring *E.coli* and other prescribed contaminants in shellfish flesh. Relevant shellfish waters contaminants are monitored under WFD Annex VIII and Annex X specific pollutants and priority hazardous substances.

Shellfish beds are classified by the Food Standards Agency in Northern Ireland (FSA in NI) to determine the levels of post-harvest treatment that is required before shellfish can be placed on the market for consumption. Monthly monitoring of shellfish flesh is conducted to ensure that the classification that has been awarded by the FSA in NI remains appropriate. Thus ensuring that levels of marine biotoxins and chemical contaminants within the shellfish flesh do not exceed regulatory limits or cause a risk to public health. DAERA Environment Marine and Fisheries Division work closely with the FSA in NI in managing shellfisheries from both an environmental and public health perspective.

5.3 Natura 2000 sites (Areas designated for the protection of habitats or species)

These protected areas represent the very best of our natural landscapes, biodiversity and geodiversity, forming the cornerstone of nature conservation by supporting plants, animals and habitats that are rare or unique. The designation of protected sites is largely complete and so the focus is now on improving their overall condition towards “favourable conservation status” (FCS). FCS is achieved through interventions deemed necessary to support the recovery of sites’ special features. The total terrestrial protected area increased from 1,384 km^2 (2009/10) to 1,489 km^2 (2017/18). The proportion of these areas under favourable management however has shown a decreasing trend since 2009/10. In 2017/18 the proportion under favourable management was 0.18 % (the same as for the baseline year, 2015/16). The total marine protected area increased from 269 km^2 (2009/10) to 2,566 km^2 (2017/18). The proportion of these areas under favourable management however has also shown a decreasing trend since 2009/10. In 2017/18 the proportion under

favourable management was 4.48 % (11.64 percentage points lower than the baseline year, 2015/16).[2]

The Department has now entered a phase where the necessary management measures will be identified and introduced for both terrestrial and marine protected areas, and the focus between 2018 and 2022 will be on bringing the protected area network into favourable management through the development of site specific Conservation Management Plans.

5.4 Drinking Water Protected Areas (DWPAs)

Drinking Water Protected Areas (DWPAs) are identified and designated under Article 7 of the WFD and aims to enhance the safety of drinking water supplies, and to reduce the need for additional treatment to be provided, taking into account the requirements of both the Drinking Water Directive (DWD)[3] and the WFD. In addition, Safeguard Zones (SGZs) may also be identified around DWPAs, when considered necessary. In Northern Ireland, there are 26 DWPAs. A Management Group has been established between NIW, NIEA and the NI Drinking Water Inspectorate (DWI) to share information on monitoring, pollution incidents, catchment initiatives and emerging pollutants.

The Water Supply (Water Quality) Regulations (Northern Ireland) 2017 implement a risk based approach, with the requirement for NIW to undertake risk assessments of its catchments, water treatment works, and distribution systems to produce Drinking Water Safety Plans (DWSPs). For each Water Treatment Works, a catchment management plan is in place which feeds into the DWSPs for each water supply. These plans identify and assess the risks to the raw water[4] supply and appropriate controls are then put in place within the DWSP to mitigate these risks.

Under the current 2018-2019 WFD risk assessment, which uses a process developed to risk assess sites for the Surveillance Monitoring Programme, seven of these DWPA sites are already being monitored for the Herbicides/Fungicides suite and three for the revised WFD Polycyclic aromatic hydrocarbon (PAH) suite. The

[2] https://www.daera-ni.gov.uk/consultations/esni-public-discussion-document
[3] http://ec.europa.eu/environment/water/water-drink/legislation_en.html
[4] 'raw waters' is the term used for water before entering treatment, i.e. the river or lake water abstracted

risk assessment has been revised to ensure that eleven of the DWPAs are monitored for both suites and monitoring commenced in February 2019.

Going forward it is proposed that the eleven DWPA sites will be monitored for all WFD substances for which a water column Environmental Quality Standard (EQS) has been derived, in line with the schedule for each six year rolling programme. It is proposed that stage two should involve a screening programme for the additional monitoring of the remaining DWPAs with analysis being carried out at predefined frequency for a large number of substances allowing the identification of potential pollutants.

5.5 Nitrate Vulnerable zones

The Nitrates Directive (91/676/EEC) requires areas of land that drain into waters polluted by nitrates to be designated as Nitrate Vulnerable Zones (NVZs). All of Northern Ireland was declared a nitrate vulnerable zone in 2005. This approach is called ‘total territory’. The Nutrient Action Programme aims to control water pollution caused by nitrate run-off from farmland related to the use of fertilisers and manure.

The Nitrates Directive (91/676/EEC) is currently implemented in Northern Ireland through the Nutrient Action Programme Regulations (Northern Ireland) 2019 (the 2019 NAP Regulations) and subsequent amending regulations. The Regulations limit the amount of nitrogen (N) from livestock manure that can be applied to land to 170 kg N/ (ha year) on all non-derogated farms. Northern Ireland currently has a derogation (last reviewed in 2019) permitting an increase in the amount of grazing livestock manure that may be applied to land from 170 kg N/ (ha year) up to a limit of 250 kg N/ (ha year) on grassland farms which meet certain criteria.

In the 2017 derogation report surface freshwater monitoring data indicated an increase in nitrate concentration trends at 43 sites (13.4 %) across Northern Ireland between 2012-2015 and 2017. This is a deterioration, as in the 2016 report zero stations showed an increase in nitrate concentrations between 2012-2015 and 2016.

However, nitrate concentrations in Northern Ireland surface freshwaters remain relatively low, with the average nitrate concentration for 99.8 % monitoring stations below 25 mg NO_3/l in 2017. Groundwater nitrate concentrations across Northern Ireland are also generally low with 50 of the 51 stations below 25 mg NO_3/l in 2017.

5.6 Sensitive areas (Urban Waste Water Treatment)

Sensitive areas need to be identified under the Urban Waste Water Treatment Directive (1991/271/EEC) where more stringent treatment is required:

- to prevent surface water becoming eutrophic
- exceeding the nitrates drinking water standard
- to meet other EC Directives such as the Bathing Waters Directive.

Any discharges into sensitive areas require tertiary treatment.

Member States are required under the UWWTD to review the trophic or nutrient status of all their water bodies (coastal, estuarine and freshwaters) every four years. Assessments for the review are carried out on the basis of scientific sensitive areas identification criteria and evidence.

In the 2015 sensitive area review the existing sensitive areas were reviewed in the North Western, North Eastern and Neagh Bann River Basin Districts. In the Neagh Bann River basin District the Castletown catchment and Newry transitional water bodies were suggested as new sensitive areas. No additional sensitive areas were identified in the North Western and North Eastern River Basin Districts.