Planning for third cycle River Basin Management Plan 2021 - 2027

December 2019

Consultation on Significant Water management Issues

Appendix 3: Further details on Agriculture

Northern Ireland Environment Agency
www.daera-ni.gov.uk

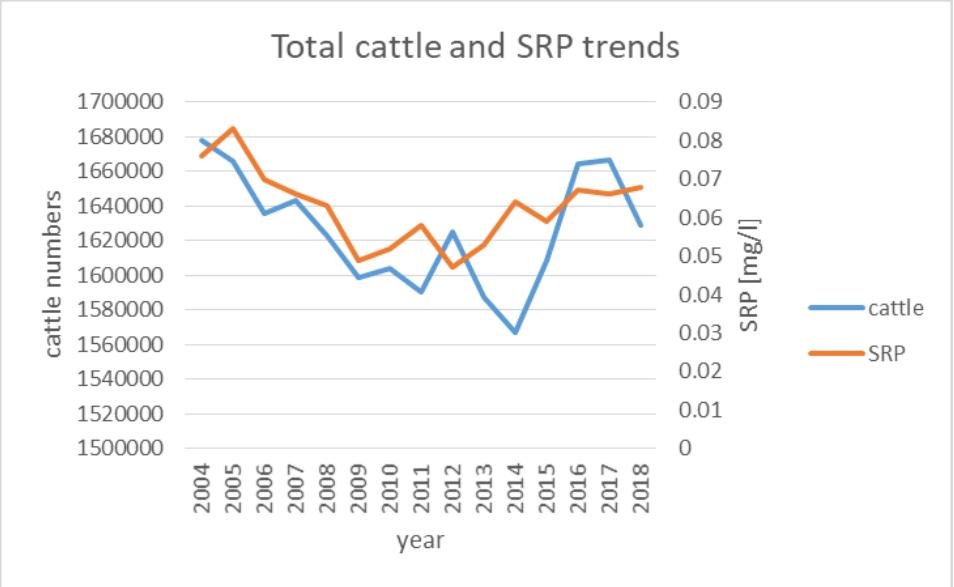
An Agency within the Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

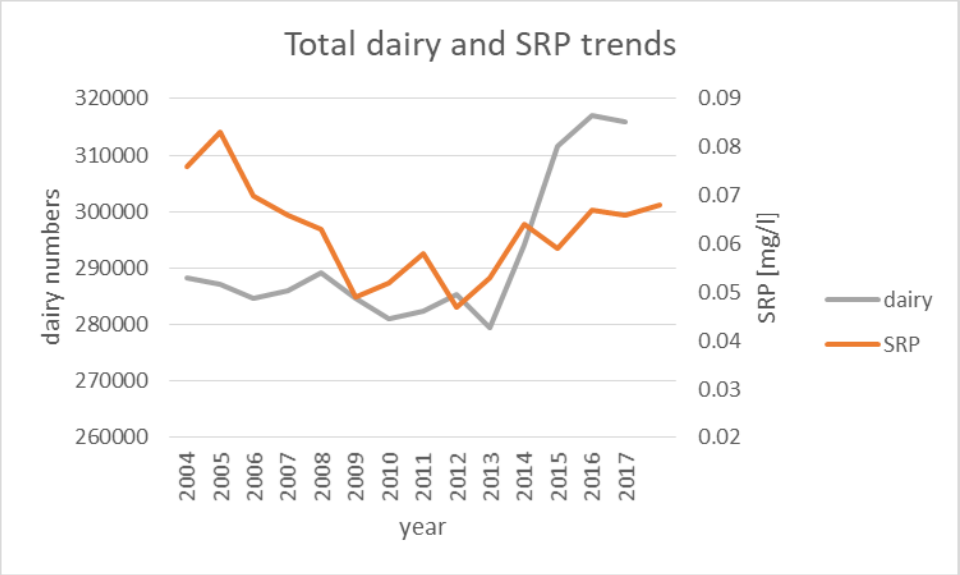
INVESTORS IN PEOPLE

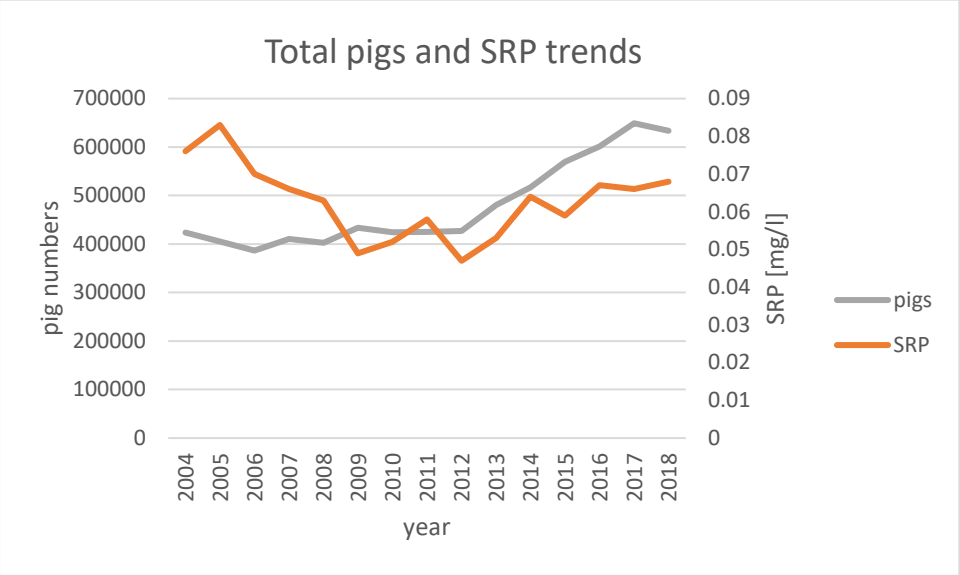
Further details on Agriculture

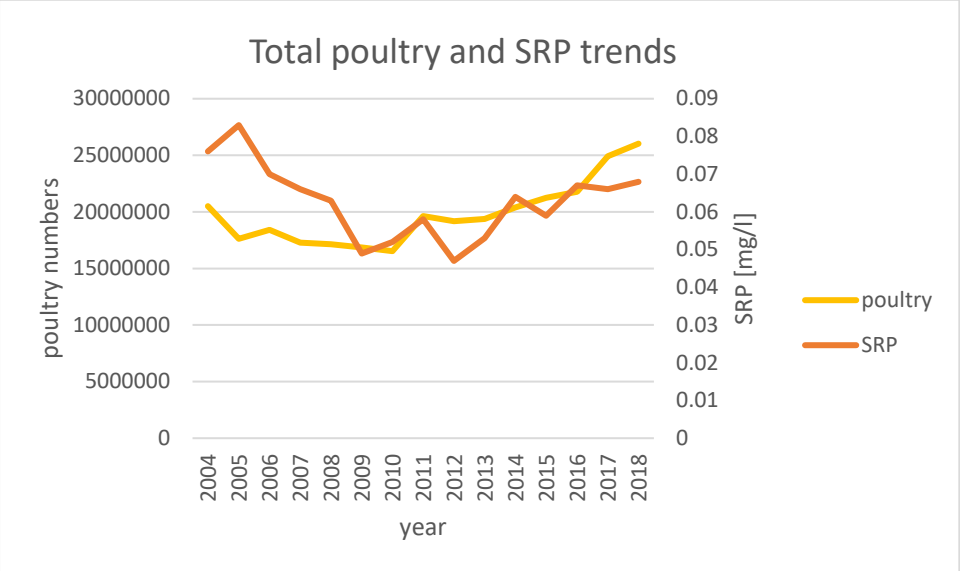
Diffuse agricultural pollution is believed to be the primary cause of pollution in impacted river sites assessed during the period 2015 – 2018, using Soluble Reactive Phosphorus (SRP) concentrations as an indicator. The agricultural sector has grown since 2015. Annual data on livestock numbers show increases between 2015 and 2018.

The following graphs give a qualitative comparison only between the increase in livestock numbers and the increase in soluble reactive phosphorus (SRP) concentration for the different livestock sectors. A trend analysis of monitoring data is planned for the draft river basin plan in 2020. However, the graphs show similarities between the changes in livestock numbers and SRP concentrations.




Total dairy and SRP trends
dairy numbers
SRP [mg/l]
year
dairy
SRP
320000
310000
300000
290000
280000
270000
260000
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017


Total pigs and SRP trends
pig numbers
SRP [mg/l]
year
pigs
SRP
700000
600000
500000
400000
300000
200000
100000
0
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018


Total poultry and SRP trends
poultry numbers
SRP [mg/l]
year
poultry
SRP
30000000
25000000
20000000
15000000
10000000
5000000
0
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
2004
2005
2006
2007
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2009
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2013
2014
2015
2016
2017
2018

- **Nutrients Action Programme 2019-2022**

The Nitrates Action Programme and the Phosphorus Regulations have been revised and combined into the Nutrients Action Programme (NAP) 2019-2022. The Nutrient Action Programme (Amendment) Regulations (Northern Ireland) 2019 came into operation on 15 October 2019[1]. The revised NAP has new measures to promote more efficient nutrient management and best practice[2]. Most of these additional measures will be phased in from January 2020, however, some new measures are in operation from 2019. For example, in early October and in February the buffer distances for spreading organic manures have increased, and the volume of slurry allowed to be spread has decreased. This is designed to reduce the potential loss of nutrients during a period when there is an increased risk. From January 2020, a valid soil analysis and a fertilisation plan is required if chemical fertiliser containing phosphorus, organic manure with a high proportion of phosphorus or anaerobic digestate is to be used on the farm. In addition for larger cattle and pig farms, requirements to use Low Emission Slurry Spreading Equipment (LESSE) are being introduced on a phased basis to increase nutrient efficiency and reduce emissions to the atmosphere. The Department has provided grant aid of £882,347 for LESSE equipment to date under Tier 1 of the Farm Business Improvement Scheme – Capital, to support the change to LESSE.

The NAP aims to improve water quality by protecting our rivers, lakes and groundwater from nutrient pollution coming from agriculture sources. The NAP is therefore the main agricultural measure for implementation of the WFD which aims to achieve at least "good status" for all water bodies.[3] Compliance with the NAP is one of the Cross Compliance Statutory Management Requirements (SMR1), therefore, farmers claiming under the Basic Payment Scheme and other direct payments are required to comply with the NAP Regulations.

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[1] https://www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20SR%202019%20183%20Nutrient%20Action%20Programme%20%28Amendment%29%20Regulations%20%28Northern%20Ireland%29%202019%20-%20Registered%20SR.PDF

[2] www.daera-ni.gov.uk/sites/default/files/publications/daera/new-nap-measures-information-for-farmers-11-July-2019.PDF

[3] www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20SR%202019%2081%20-%20Nutrient%20Action%20Programme%20Regulations%20%28Northern%20Ireland%29%202019%20-%20Registered%20SR.PDF

- **The Knowledge Advisory Service (KAS)**

KAS was set up in April 2018 as a new single advisory service aimed at supporting Northern Ireland's farm and food businesses. The primary role of KAS is the holistic development of farm and food businesses, where economic and environmental performance is inextricably linked, through the development and delivery of Knowledge and Technology Transfer (KTT), Industry Training, Benchmarking and Technical support to the Industry. This ensures that the productivity, environmental sustainability and resilience of the land based and food processing industries are the primary focus, allowing better integration of environmental advice to support the agri-food sector. The key areas covered by KAS include:

- The Business Development Group (BDGs) scheme which has almost 3000 farmer participants covering a range of environmental and water quality topics such as farm yard and slurry management, compliance with NAP, slurry and general nutrient management planning.
- Soil Analysis Interpretation and Nutrient Management Planning was provided to 583 participants in the Colebrooke & Strule Catchments and 553 from within the Upper Bann catchment.
- Access to online calculators which assist farmers in making best use of nutrients.
- KAS has cooperated with the feed and fertiliser industry in delivering training to their advisers in all aspects of nutrient management.
- KAS uses the College of Agriculture, Food & Rural Enterprise (CAFRE) Farm, which remains vital to the delivery of education, training and knowledge transfer through the demonstration of best practice to our farming industry.

- **Environmental Farming Scheme**

The Environmental Farming Scheme (EFS) is DAERA's agri-environment scheme funded under the Rural Development Programme 2014 - 2020. EFS has been designed to address specific environmental needs, primarily relating to biodiversity and water. EFS has incorporated options to protect water quality by fencing of waterways and creating riparian buffer zones. Two Tranches of EFS have been progressed in 2017 and 2018 with 2958 agreements in place. Sixty percent (60 %) of agreement holders are implementing Water Quality options incorporating 1450 km of waterways.

In addition, two pilot EFS Group Projects at a catchment scale are being progressed with the Lough Neagh Partnership and Rivers Trust.

- **The Sustainable Agricultural Land Management Strategy**

The Sustainable Agricultural Land Management Strategy for Northern Ireland was published in 2016 and contains further recommendations aimed at reducing phosphorus levels and managing agricultural land more effectively. The Department is currently taking forward some of the recommendations set out in the strategy in the form of pilot studies in two catchments using soil testing supported by Lidar scanning and training for farmers. Within the Colebrooke and Strule water catchments, 9,736 fields have been sampled and results provided to 584 farm businesses. In addition, the Department and AFBI delivered a pilot study which included a soil testing scheme in the Upper Bann catchment, sampling 19,990 fields and results were provided to 1035 farm businesses.

- **Ammonia Action Plan**

Northern Ireland faces a significant challenge in relation to its ammonia emissions. Ammonia is emitted into the air following many farming activities and is subsequently deposited as nitrogen onto land and water surfaces. To address the challenge of Ammonia, DAERA is developing an Ammonia Action Plan intended to deliver tangible and sustained reductions in ammonia, thus reducing the pressure on sensitive sites whilst facilitating the sustainable development of a prosperous agri-food industry. A Code of Good Agricultural Practice for the Reduction of Ammonia Emissions[4] has been published. This guidance document explains how farmers, growers, land managers, advisers and contractors can minimise ammonia emissions from agriculture. DAERA has also established a Stakeholder Forum on Ammonia to provide a platform whereby DAERA can work in partnership with stakeholders to develop its approach to ammonia. As part of the development of a comprehensive approach to ammonia, DAERA has identified a series of preferred measures aimed at reducing ammonia emissions. These are broadly split into two categories; measures which should apply across Northern Ireland and measures which will be targeted to zones around designated sites. Some of the measures addressing nutrient management and better control of slurry to reduce ammonia emission will also benefit the water environment.

[4] www.daera-ni.gov.uk/sites/default/files/publications/daera/code-of-good-agricultural-practice-for-the-reduction-of-ammonia-emissions.pdf

- **Priority catchments**

One of the key objectives of WFD is to prevent deterioration of our water bodies. Our most recent classification results in 2018 have indicated soluble reactive phosphorus (SRP) has led to 7.8 % of river water bodies deteriorating from good status since 2015. These water body areas have been prioritised for further investigation during 2019. Investigations have included desk top studies including analysing existing monitoring data and GIS pressure mapping to target locations for further localised chemical and biological monitoring and river walks. The data collated from the targeted investigations will assist in designing appropriate measures aimed in preventing further deterioration and improving status back to good.

- **The Water Catchment Partnership**

Pesticides used for weed control are often detected in rivers and lakes by NIEA and NIW. These pose a potential risk to human health, local aquatic life and subsequently, increase public costs for treating drinking water. The Water Catchment Partnership (WCP) was established in 2013 to help address significant water quality issues caused by pesticides in Northern Ireland. The WCP is a working partnership established with representatives from NIEA, Ulster Farmers Union (UFU), NIW, DAERA and the Voluntary Initiative. The WCP aim is to proactively work together to promote and raise awareness of best practice when using pesticides in the garden or on the farm, through a voluntary approach to improve water quality.

- **Sustainable Catchment Area Management Programme Northern Ireland (SCaMP NI)**

SCaMP NI aims to improve the quality and reliability of the water received at NIW's raw water abstraction points through sustainable catchment based solutions that focus on protecting and enhancing the natural environment. The SCaMP NI approach steers away from asset focussed, high energy, and high ongoing cost measures towards long-term, low cost, integrated solutions involving the pooling of resources across a range of public and private stakeholders. It aims to deliver the optimum quality and quantity of raw water to NIW's water treatment works through the reduction of diffuse pollution and improvement of land management practices.

- **INTERREG VA funded projects**

Source To Tap is an Interreg project aimed at improving water quality in the cross border Erne and Derg catchments.

Catchment Care is an Interreg project aimed at improving the water quality across 3 cross border catchments; the Finn, the Blackwater and the Arney. Further details on the INTERREG VA funded projects can be found in Appendix 5: Working Together.