The Northern Ireland Freshwater Taskforce (FWTF) represents a range of organisations working together to ensure that Northern Ireland preserves and improves freshwater eco-systems by encouraging Government and wider society to adopt a sustainable and integrated approach to water management. Members of the FWTF include: Northern Ireland Environment Link, RSPB, Ulster Wildlife, the National Trust, Wildfowl and Wetlands Trust, Friends of the Earth, Ulster Angling Federation, The River Trusts and the Woodland Trust.

The FWTF is a working group facilitated by Northern Ireland Environment Link (NIEL). Northern Ireland Environment Link (NIEL) is the networking and forum body for non-statutory organisations concerned with the natural and built environment of Northern Ireland. Its 66 Full Members represent 190,000 individuals, 262 subsidiary groups, have an annual turnover of £70 million and manage over 314,000 acres of land. Members are involved in environmental issues of all types and at all levels from the local community to the global environment. NIEL brings together a wide range of knowledge, experience and expertise which can be used to help develop policy, practice and implementation across a wide range of environmental fields.

If you have any further questions in relation to this submission, please contact;

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Question 1: Do you agree that reporting for surface water bodies should include ecological and chemical status in addition to the overall surface water status?

Yes, this is welcome and necessary.

Question 2: Do you agree with presenting chemical status for surface water bodies in three subgroups?

Yes, this is welcome and necessary. However, the FWTF would question the logic behind the statement on page 41 of the consultation that

“As a result there will be more failures in chemical status for water bodies, but they are due to an improved assessment methodology rather than a deterioration in chemical water quality.”

The rationale for saying that a future increase in failures for water bodies ‘are due’, rather than saying that ‘may be’ or ‘is expected to be’ due to any particular thing, is unclear. The FWTF would argue that DAERA could only claim that chemical water quality is not deteriorating in terms of cypermethrin if there is clear evidence that the levels of cypermethrin in our water bodies are falling. However, since no supporting evidence was provided by DAERA as to the levels or trend of the levels of cypermethrin in our water bodies, then it would appear that there is no solid basis for DAERA to make such a claim. If cypermethrin is now a priority substance, the issue is the level of cypermethrin in our water courses and how to reduce and ultimately eliminate it from our watercourses if possible. If there was no cypermethrin in our water courses then it wouldn’t matter if the status of cypermethrin changed. The issue is the presence of cypermethrin, and other toxic chemicals, in our water bodies, not that some things are being measured in a different way.

The statement on page 42 of the consultation that “It should be noted that cypermethrin was not analysed at every lake but that it failed for every lake for which it was tested resulting in moderate status for those lakes” also lacks clarity. On the basis that cypermethrin was found in every lake in which there was a test for cypermethrin, every lake should be tested for cypermethrin in order to accurately establish the extent and severity of the problems resulting from the presence of cypermethrin. The FWTF would like to know if DAERA tested Lough Neagh, which provides drinking water for approximately 40% of NI’s population, for the presence of cypermethrin.

Question 3: Do you agree with the proposal for the assessment of coastal river water bodies for the third cycle river basin management plan?

The FWTF recognises the minimum size threshold for water bodies in the WFD but would support the department reporting on environmental status of those coastal river water bodies below that threshold rather than continuing to not report on them.

Question 4: Do you agree with the ‘working target’ of 70% of water bodies to be at ‘good or better’ status by 2027?

Absolutely not, this is unacceptable.

Having failed to meet the original WFD targets for 2015, the ‘working target’ is for 70% of water bodies (rivers, lakes, transitional and coastal water bodies, and groundwater bodies) in Northern Ireland to have achieved good environmental status (GES) by 2021. As of 2018, only 36.6% of Northern Ireland’s water bodies were achieving GES, and this is lower than the level in 2015 when 37.4% of water bodies achieved GES. The decline in the 52 water bodies achieving good environmental status (GES) since
2015 is a clear indication that existing measures are not adequate to address the significant water management issues in NI and meet that 2021 target.

Furthermore, in 2018, 31.3% of 450 river water bodies in NI were classified as ‘high’ or ‘good’ quality, compared to 32.7% in 2015. According to the statistics on freshwater quality standards released in August 2020, 95% of NI’s lakes are now failing Water Framework Directive quality standards with only one lake out of twenty one in Good condition in 2019 compared to five out of twenty one lakes in Good condition in 2015. This is poor but maybe not unexpected, given that in 2019, an official UK report on Special Areas of Conservation in NI said that as regards freshwater pearl mussel, “the lack of juvenile recruitment and an ageing population will almost certainly lead to the future extinction of this species from NI, unless there is a fundamental improvement of their current habitat”.

For one of our supposedly most highly protected species to be at risk of extinction is a shocking prospect and an indication of a serious failure to appropriately protect and enhance our freshwater resources and meet our legal obligations - in this case those arising from the EU Habitats Directive and the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995. The FWTF would argue that it is clear that freshwater protection needs to improve, significantly and as a matter of urgency.

Given that originally the target of the WFD was to have GES in all water bodies by 2015, DAERA’s suggested target to only get to 70% of some water bodies to GES 12 years after the original target is unacceptable. This position is untenable and must be reconsidered. NI’s long term failure to meet WFD targets should be a source of embarrassment for the department and the NI Executive, as it is for FWTF members. The target must be for no less than 100% of NI’s water bodies to achieve good ecological status no later than 2027.

The many, ongoing failures in relation to water quality re-iterate need for an independent Environment Protection Agency to be established in NI with powers to compel bodies, including government departments to act on their mandate in law.

**Question 5:** Do you agree with the work flow process to set working targets for 2027 (see Figure 35).

No because the targets are unacceptable, as outlined in response to Q4.

**Question 6:** Do you agree with our suggested procedure to select priority areas?

No.

The FWTF believes that a more strategic approach is needed, based upon ensuring that catchments as a whole are assessed. Feedback from FWTF members in relation to the last priority works was negative, with a lack of clarity as to the outcomes of the last priority works cited as an example of how the approach being proposed by the department failed to meet the objectives set out and so failed to properly protect our water bodies. The FWTF believes that all waterbodies must be targeted equally, initially, to provide a base for further improvements. The aim should be for a general overall improvement of 20-25% by 2023/24 before prioritising.

**Question 7:** In relation to Question 6, if you do not agree, what changes would you make?

A core principle of the WFD is catchment management, but NI has repeatedly failed to meet WFD targets. A contributing factor in this long standing failure is the cuts in terms of budgets and staff as illustrated by the cut in the number of catchment officers which is now down from six to four and the
policy of limiting appropriate monitoring to targeted priority waterbodies. The failure to ensure that issues including the management of abstraction and the provision and/or facilitation of fish passage for example is in line with WFD requirement is a serious problem, not just terms of biodiversity but also in relation to proper governance. The FWTF is concerned at what appears to be a failure to comply with established national and international law based including the requirements of the WFD as well as other legislation relating to nationally and internationally protected habitats and species. FWTF members are seriously concerned about the failings of the department in that respect. FWTF members believe that the department should explore the opportunities offered by the use of technology to help with the monitoring and evaluation of our water bodies. For example, the use of remote telemetry equipment would increase the effectiveness of the Department, and often give advance warnings of pollution. Then there can be no excuse for not getting inspectors to the site in time to collect samples and locate the source.

Question 8: Do you agree with the draft Programme of Measures?

No, NIEA has failed to hit all WFD water quality targets and the program of measures to date has failed to prevent the reduction in water quality. The FWTF believes that what is planned is insufficient to prevent a further decline in water quality and as such does not support the draft programme of measures.

FWTF members have expressed serious concern about actions undertaken by DAERA including the those which appear to protect invasive species such as pike ahead of native species such as freshwater pearl mussel in Special Areas of Conservation (SACs). The lack of control of invasive species is a further concern.

FWTF members have expressed concern about the adequacy, or otherwise, of WFD111 fish barrier assessments and the lack of availability of data generated by those assessments. The FWTF would welcome the opportunity to explore this issue with the department so as to ensure that the department is fully compliant with all its obligations in relation to the provision of data.

The issue of diffuse pollution also needs to be addressed urgently. The FWTF notes with interest that while Chapter 6 deals with pressures, there was no reference in that chapter to the number of water pollution incidents due to agricultural based pollution. For those impacts not to have been considered or incorporated in this consultation is a serious omission and unacceptable, especially given that agriculture has long been the most significant source of water pollution incidents in Northern Ireland. According to the NI Environmental Statistics Report 2021, in 2019 there were 1,754 water pollution incidents either reported to NIEA or discovered by NIEA of which 941 were substantiated as having an impact on the water quality of the receiving waterway. Agriculture accounted for 36.5% of those substantiated incidents followed by industry (17.4%), other (17.1%) domestic (16%) NI Water (10.7%) and Transport (2.3%). According to the NI Environmental Statistics report 2020 in 2018, there were 1,793 water pollution incidents of which 924 were substantiated and agriculture accounted for the largest proportion (30.5%) of the 924 substantiated water pollution incidents investigated by NIEA. In fact, according to official DAERA figures, agriculture was responsible for the largest proportion of substantiated water pollution incidents investigated by NIEA or its predecessor, in 2017, 2016, 2015, 2014, 2013, 2012, 2011 and 2010. Given that agriculture has been the main source of water pollution in NI every year of the last decade, it seems clear that a different approach to how we manage our land, particularly in terms of water pollution, is needed as a matter of urgency. This seems to be a UK wide problem. As the UK Government’s 25 year plan for nature, ‘A Green Future’ stated

“Overall, farming is now the most significant source of water pollution and of ammonia emissions into the atmosphere in the UK.”
Question 9: In relation to 8, if you disagree, what would you differently? What measures would you remove or add from the draft Programme of Measures?

The FWTF would be satisfied to see the targets set by the WFD met by the deadlines set by the WFD. The UK Government previously committed to ensuring that there would be no deterioration in environmental legislation when the UK leaves the EU. The FWTF wishes to see this commitment adhered to. The FWTF believes it is essential that as a minimum the standards of the WFD are maintained in any and all relevant laws. There are a number of issues that the third RBMP also needs to address more fully and three main principles that should be adopted by all departments in relation to the management of water in Northern Ireland namely, the greater use of natural capital/nature based solutions, the application of the polluter pays principal and the need for integrated catchment management. Further detail on those principles and the other issues that need to be addressed is given below.

- Greater use of natural capital

The FWTF wishes to see much greater use of the natural capital approach as outlined in NI Water’s 2021-2046 strategy which states that NI Water’s aims to improve water quality at source and which acknowledges that while investment in treatment works and chemical treatment can remove the problem

“the sustainable long term solution is to work in partnership with land owners and other stakeholders to manage the source waters using catchment management.”

This approach was also reflected in the UK Government’s 25 year plan for nature ‘A Green Future’ in which the UK government committed to “using more natural flood management solutions where appropriate”.

It is important to learn from examples of where natural capital and ecosystem services have had a positive impact on the management of water resources, for example, South West Water’s Upstream Thinking project. This project works in eleven catchments across Devon and Cornwall, including in the Exmoor National Park, and aims to improve water quality, at source, by improved land management techniques to reduce soil and chemical run off in the upper reaches of rivers taking a whole catchment approach. According to South West Water

“It also has wide reaching, positive impacts on the environment by increasing biodiversity and improving raw water quality, reducing energy use, improving carbon sequestration and reducing the risk of flood and drought.”

“It is a cost-effective and environmental approach to tackling long-term problems facing the water industry and for relatively small amounts of expenditure, the scheme has the potential to reduce water treatment costs, reduce energy consumption and support our company vision and values – Pure Water, Pure Service & Pure Environment “

The project is also predicted to improve the probable water quality in the sub-catchment to ‘good ecological status’ for phosphate, something that should be of particular interest for those of us in Northern Ireland who seek to reduce the levels of phosphorous in our water bodies. This more natural, land management based approach also has very positive economic benefits. According to South West Water, Upstream Thinking has a potential 65:1 payback ratio over 30 years if it delays or even avoids capital expenditure for building and operating traditional treatment works.
There are a number of additional points FWTF members wish to put forward for inclusion in the draft Programme of Measures which use natural capital/nature based solutions. For example, in table 44 on page 117 the key targeted measure to reduce pesticides pollution from agriculture the use of natural capital/nature based solutions is a notable omission. The FWTF believes that riparian tree planting is another option that can contribute to the reduction of pesticides pollution from agriculture as trees can intercept granular fertiliser and drift from spray pesticides and thus contribute to reducing the contamination of water bodies.

Also on page 117, in table 45, there should be a role for using natural capital/nature based solutions for the key targeted measure Natural water retention measures, for example by improving peatland management and planting of native broadleaf trees in appropriate green urban spaces. Planting trees in addition to and as part of Sustainable Urban Drainage Schemes (SuDS) can reduce the risk of flooding, increase water infiltration and reduce peak flow.

Using natural capital/nature based solutions also fits with Outcome 2 (We live and work sustainably – protecting the environment) in the draft 2016-2021 Programme for Government and the approach outlined in NI Water’s 2021-2046 strategy as previously referred to. This type of integrated catchment management approach natural capital/nature based solutions is the type of approach the FWTF would like to see as the norm rather than the exception in catchment management in Northern Ireland.

- Application of the polluter pays principle

The FWTF also believes it is essential that ‘the polluter pays’ should be firmly established as a principle that is applied to pollution incidents across NI, not just in relation to freshwater pollution, though that is probably the area of greatest need.

The FWTF believes there should be tougher sentences for polluters including a requirement for polluters to pay for the rehabilitation of the damage caused by the pollution for which they were responsible. The FWTF would argue that the penalties for those found guilty of pollution incidents are far too small and do not act as an adequate deterrent. The fines also do not reflect the economic costs of re-instating the river or water body as closely as possible to before the pollution incident in question. Many of these issues relate to the effectiveness or otherwise of the regulation and management of our water bodies, though many are a matter for the judiciary, which is and must remain independent. Our MLAs also have a role for example by updating and amending the legislation, the Water (NI) Order 1999, which outlines the penalties which can be applied to those who are found to have polluted a water body. However, the FWTF believes that NI needs an independent environmental protection agency and there could be a sliding scale of fines depending on the size of the business, as happens with pollution incidents on land.

- Integrated catchment management

River basins and catchments need to be managed in an integrated fashion. This integration needs to be in terms of issues and geography. For example, the need for integration in catchment management was illustrated by the 1989 flooding of Marble Arch caves, now a UNESCO Global Geopark, which threatened the viability of the site as a tourist attraction. The flooding was found to be a result of overgrazing by sheep, commercial peat cutting and development of drainage channels, uncontrolled burning of vegetation and use of quad motor bikes, which were all contributing to the peatland erosion on Cuilcagh mountain. These factors combined to increase the volumes of peat enriched rainwater running off the mountain into the caves. By reducing the levels of grazing and the other threats, the flooding of the caves was reduced.
This integration also applies to how other aspects of the environment are managed, for example, livestock management and nutrient management. An important part of helping to establish buffer zones along our rivers would be to ensure there is fencing to prevent livestock accessing rivers and farmers should be required to ensure this fencing is installed and maintained. Pasture pumps could be installed to ensure livestock have access to drinking water.

There are other issues the FWTF wish to see addressed in greater detail. One of these is the role of buffer zones. In relation to managing the waste produced by livestock, given the vulnerability of manure applications to surface run-off at either end of the closed period for spreading slurry, the FWTF supports the use of a 15m spreading buffer zone from waterways and lakes and the reduction in the maximum slurry application rate. Buffer zones can contribute to other ecosystem services, many of which benefit the farmer directly, including carbon sequestration, soil formation and natural pest control. Non-spreading zones should also be increased close to designated sites given their increased susceptibility to issues associated with run-off and aerial deposition. We therefore believe that consideration should be given to increasing the width of buffer strips in line with the best available evidence. There may be a case for extending these buffer zones beyond February and October, especially with the potential for flash floods and extreme weather events in the summer months. Buffer zones could also be planted with native trees and this would also contribute to the key targeted measure Adaptation to climate change in table 47 on page 125 as a means of providing shade. This is important as the water temperature of rivers affects species like Atlantic salmon which are cold-blooded meaning their metabolism is intrinsically linked to the water temperature. As a river warms up, salmon will need more oxygen, but cold water can hold more dissolved oxygen than warm water so the availability of oxygen decreases as the water temperature rises. Thermal stress in Atlantic salmon starts at approximately 20°C, though according to WWF Scotland, independent research has shown that 20°C is the lethal threshold for the wild salmon in Scottish rivers, and temperatures of approximately 30°C are lethal to Atlantic Salmon. The limits of thermal stress for brown trout are around 3°C lower than for Atlantic salmon. By providing shade, trees can help keep rivers cooler and this can be a matter of life and death for certain fish species such as Atlantic salmon.

The potential of a nutrient cap for nitrogen and phosphorus should be evaluated for all land managers in a catchment. This nutrient cap should be set at a level which will ensure the water body achieves "Good" status as a minimum. This is particularly important for protected areas and the nutrient cap must enable the SACs, SPAs and ASSIs to achieve Favourable Conservation Status and all relevant condition targets. The Conservation Management Plans for Natura 2000 sites need to be integrated with River Basin Management Plans.

The FWTF believes there is a need for as significant improvement in awareness raising with farms, angling clubs and bodies like the Rivers Trusts in order to try to prevent pollution incidents occurring in the first place. A target for the reduction of water pollution incidents whose source is agriculture is necessary. The omission of such a target is a serious failing of this consultation and hard to understand given that agriculture has been the main source of substantiated water pollution incidents in NI every year of the previous decade.

The FWTF members feel that the Nitrates Action Program has been an abject failure. There is a need to account for rural needs and greater community involvement. This is compromised by the actions of Inland Fisheries through, for example, a refusal to help train bailiffs, a failure to accept water samples or fish as evidence from anyone but their own agents, a failure to report back on pollution incidents, a failure to act on earlier reports and a failure to be clear on what is required from them under their statutory duties. There is also a need for greater monitoring and enforcement and related to this is the need for an independent EPA.
The WFD111 fish barrier assessments need completed for all catchments, not just the 16 primary salmon rivers identified by Inland Fisheries, in order to achieve compliance with WFD. The FWTF recognises that the department and NIEA in particular will need more resource to implement the WFD.

The role of planning should also be considered. The granting of planning permission for inappropriate development such as on flood plains is undoubtedly contributing to freshwater pollution as well as causing misery for those people whose homes and/or businesses are flooded as a result of inappropriate developments. Factors such as the paving over of front gardens which increases the speed of runoff also need to be looked at.

There is a need for more pro-active involvement by NIEA and Rivers agency in the planning application process and this involvement should take a more strategic, broader view with regard to water issues and flooding. As previously referred to permitting development on flood plains is a problem - flood plains should not be built on – and upland development must be done with great care. There is also a role in relation to the provision of the relevant infrastructure and connections which should be in place, or made available within 5 years. Consents should be at a minimum.

All contractors for spraying and disposal must be trained, licensed, and insured.

It is important that all branches of government are much more transparent and co-operative in relation to the provision and sharing of pollution information to community groups, anglers, River Trust and other relevant stakeholders.

Given there are three international river basins, it is essential that there is much more cross border co-operation on freshwater conservation and protection, as per the WFD.

The FWTF also feel that action must be taken to remove or alleviate disused weirs immediately. This is long overdue.

At a strategic level there is also a need for reform and restructuring of Inland Fisheries.

The lack of clarity and SMART targets in this consultation is very disappointing and it weakens this consultation to the point of being ineffectual and irrelevant. For example, the key target measure ‘Remediation of contaminated sites (historical pollution including sediments, groundwater, soil)’ on page 126 in Table 48 has as a measure to “Seek to exercise powers to ensure remediation of Mobuoy Road Waste Site”. Seeking to exercise a power is no guarantee that power will be exercised or properly exercised or that the exercise of that power will achieve any particular goal. As such, this plan needs to be reviewed and SMART targets included which will ensure NI meets the overall goals of the WFD to have GES by 2027.

In summary, although almost ten years old, the Freshwater Task Force’s ten point action plan for NI to achieve sustainable water use “From Source to Sea”26 (2012) is still relevant. The ten points are

- Implementation of European Water Policy
- Keep our rivers flowing and wetlands wet
- Restore our water dependent protected areas
- Slow, manage and clean up drainage from roads and buildings
- Stop pollutants contaminating our water
- Keep sewage out of homes and rivers and off beaches
- Retain water on floodplains and wetlands
- Help farmers deliver a healthy freshwater environment
- Waste less water
- Working together for good water quality
Question 10: Do you agree with the findings of the screening and impact assessments?

The FWTF believes water policy needs to be better integrated with all relevant environmental and conservation based legislation and policy, for example through the integration of Conservation Management Plans for Natura 2000 sites into River Basin Management Plans to better protect habitats and species. For example, the construction and installation of weirs that inhibit the passage of fish species, including Atlantic salmon and lampreys, which are protected species, should not be permitted and the examples of weirs which have a negative impact on the life cycle of protected species must be reviewed so as to minimise and preferably eliminate those no negative impact on those protected species.
18 Ibid page 52
19 https://wwtonline.co.uk/features/moorland-project-delivers-multiple-benefits
20 https://wwtonline.co.uk/features/moorland-project-delivers-multiple-benefits