



Proposals for New Water Legislation Consultation

A response from the FWTF, August 2014

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 and The River Trusts.

Question 1.1: Do you agree that the Department should extend the power to pay subsidy to NI Water on behalf of domestic customers to 2017 and take an enabling power in the proposed Water Bill to make subordinate legislation to extend the subsidy-paying power further if necessary?

Given that the term of the current Assembly is to be extended to 2016 it would appear appropriate that the power to pay subsidy to NI Water is also extended to match this new time frame. However, this position is not sustainable in the longer term as water is currently often considered as a 'free' resource among the general public. The FWTF would point out that the Water Framework Directive (WFD) requires Member States to promote the efficient use of water by their customers. Article 9(1) of the WFD also requires 'adequate contribution' from households to water management and supply costs. The general public also need to be better educated about the cost of providing high quality water to our homes, the cost of removing and treating waste water and the damaging effect that pollution has on both our water resources and the general environment. Investment in infrastructure is required to improve the supply and sewerage management network and we therefore support itemised charging, based on consumption, for the following reasons:

- The legacy of under-investment in water and sewerage infrastructure must be addressed
- Poor infrastructure, both existing and planned, leads to pollution
- Charging for services increases their perceived value
- Water is a finite and valuable resource, especially as climate is changing at an unprecedented rate

Furthermore we believe that:

- Water provision and treatment should become less energy demanding; at present NI Water is the largest single user of electricity in NI
- While it is obvious that it will take some time to introduce universal metering, this should be a visible, time bound and major goal

- Pricing should be closely related to water consumption, with only a small percentage of the total bill being a 'standing charge' unrelated to the amount consumed. This will maximise the stimulus for conservation
- Pricing alone will not reduce individual water use. Most households, 85% of respondents to Consumer Council research, would like more information about how to save water
- NI Water should support individuals who want to install water efficiency devices and appliances in their homes
- Regulators should also play their part, with all houses ultimately but perhaps restricted to new buildings initially, being subject to design principles which would enable strict water use
- If customers are to accept water and sewerage charges and embrace a culture of water efficiency they must be confident that the service provider is as cost effective and resource efficient as possible

Question 2.1: Do you think that discretionary Social and Environmental Guidance issued to the Utility Regulator should be replaced by mandatory Strategic Social and Environmental Directions?

The FWTF believe discretionary Social and Environmental Guidance issued to the Utility Regulator should be replaced by mandatory Strategic Social and Environmental Directions as a matter of urgency and are supportive of the view point expressed in Section 3.1 of the current discretionary Social and Environmental Guidance that priority should be: Given to reducing the risks of pollution from unsatisfactory discharges from sewerage networks. Success in reducing these risks is becoming increasingly important to meeting environmental quality obligations under various European Directives. We welcome the recognition of the strong environmental benefits associated with the local transposition of these various directives. In order to meet these obligations such as those required within the WFD, UWWTD, BWD, DWD and SWD requirements, additional investment for improvement of our local infrastructure is essential. The legal requirement to comply with these various European directives again highlights the tough decisions which need to be made in relation to financing the actions required under European directives. Costing all the work that needs to be undertaken as part of our current and future European commitments must be made a priority. The guidance issued to the Utility Regulator therefore needs to be urgently replaced by mandatory direction to ensure this is the case and our environmental obligations are met.

Question 3.1: Do you agree that the Department should require NI Water to prepare a single Plan in each Price Control period to address the management of water resources, drought and resilience?

The FWTF is supportive of this proposal. As highlighted earlier if customers are to accept water and sewerage charges in the future and embrace a culture of water efficiency they must be confident that the service provider is as cost effective and resource efficient as possible. Consolidation of reports, alignment of reporting periods and reduction of administrative costs would be in line with this necessary cost reduction measures.

Question 4.1: Do you agree that all residential sewerage systems that are to be connected to the public network in the future and which serve five or more houses should be adopted by NI Water and protected by Sewer Adoption Agreements (and surety bonds)?

The FWTF note the findings of the Regional Development Committee's Inquiry into Unadopted Roads in Northern Ireland (November 2012) which found that there was estimated to be between 1,200 and 3,500 unadopted roads and some 1,200 sewerage schemes in backlog with DRD and NIW unable to quantify the precise numbers. It was also estimated that it would take some £300 million to bring roads up to a standard sufficient to allow for adoption and somewhere in the range of £41 million and £100 million to allow for adoption of sewerage and waste water schemes. We believe this substandard infrastructure to be a major contributor to our poor water quality standards in Northern Ireland.

The FWTF is very supportive therefore of this proposal and while improvements have been made in sewerage collection treatment, with benefits to the wildlife in many rivers and lakes, these improvements must continue. Sewage discharges can contain a wide range of substances, such as nutrients, organic matter, ammonia, faecal pathogens, toxic substances and sewage-related debris. Many smaller sewage treatment works still fail to meet modern standards, while un-sewered areas with often poorly-maintained septic tanks are causing considerable damage through nutrient and faecal pollution. The European Commission places the UK barely above Spain, and substantially below France, Germany and other northern European countries, in our implementation of the Urban Wastewater Treatment Directive - particularly the requirement for tertiary treatment upstream of sensitive areas. Key to improvement will be tackling the issue of misconnections and we the NI Water estimates that approximately a quarter of leakage comes from private supply pipes, or 46 million litres every day. This equates to 18 Olympic-sized swimming pools, or the average daily water consumption of 120,000 households.

We would also like to see further information on what measures are planned to address pollution issues caused by small developments of less than five houses as the cumulative effect of these smaller developments can also have significant impact on water quality. For example, it is estimated that there are approximately 120,000 septic tanks in NI. However, there are no accurate records, as regulatory controls were only introduced in the early 1970s. While a properly installed and maintained septic tank system is not likely to have any adverse impact on the environment, it is estimated that at least 12 000 septic tanks are not in possession of necessary discharge consents. The FWTF believe the NI Executive should commit to better regulation of septic tanks supported by community awareness campaigns to ensure compliance. Upgraded septic tanks must be installed in accordance with manufactures instructions. The FWTF would also like to see a commitment towards innovative natural solutions to treat water such as constructed wetlands.

Question 4.2: Do you agree that all new residential sewerage systems in private streets (serving five houses or more) should be adopted by NI Water and if so, do you agree that sewer adoption should be a pre-requisite of private streets adoption?

For the reasons outlined above we are supportive of both aspects of this proposal.

Question 4.3: Should the current level of sewer bond (i.e. 40% for gravity sewers and 50% for pumping stations/mains) be retained, increased or decreased for the PC15 investment period (2015-21)? Please give your reasons why.

We believe the level of sewer bond should be increased. We would reiterate Recommendation 28 of the 2012 Inquiry which stated that: Whilst the Committee does not wish to prohibit recovery within the construction industry, it has received sufficient evidence to indicate that the level of bond coverage is currently insufficient to cover remedial works that might be required to bring infrastructures to a standard where they could be adopted. In addition, as the process for calling in the bond can take a significant period of time, it is often the case that costs have increased by a compounded inflationary figure. This has the significant potential of exposing the statutory authorities, and ultimately the taxpayer, with this burden.

In order to ensure protection of the environment and ultimately the cost to the taxpayer, the FWTF believes the bond level needs to be increased to a point whereby it no longer exposes anyone or anything, other than the developer, for the cost of remedial work.

Question 5.1: Do you agree that surface water connections for all new nonresidential sites should be prohibited?

Yes. We believe that management measures should include greater efforts to remove combined sewer overflows (CSOs). Overflow from sewers results in untreated sewage being dumped straight into rivers which will include FIOs & sanitary pollutants. These excess volumes are predominantly caused by significant amounts of surface water runoff generated by extreme weather events – e.g. intense storms, or the substantial rain of 2012. We believe that the Government should look to prevent phosphate use in all domestic and commercial cleaning products. In 2008 DEFRA reported that they had been discussing this issue with detergent companies and that voluntary bans and regulatory bans were achievable by the end of 2015. Progression on this issue could lead to an 11% drop in levels of phosphates entering our water systems.

We believe SuDS are a low impact, natural way of reducing surface water run-off. They also can provide a wealth of additional benefits, such as silting out fine sediment and treating low levels of pollution. SuDS can therefore be used to help reduce levels of chemicals, faecal pollutants, phosphorus, nitrates and fine sediments in a similar way to treatment wetlands.

Question 5.2: Do you agree that developers should be (i) prevented from connecting surface drainage from residential areas to the combined sewerage network; and (ii) required to use sustainable drainage systems to manage surface water locally on site?

Yes. As outlined above we believe that management measures should include greater efforts to remove combined sewer overflows (CSOs). In England it is mandatory for Government to enact

Schedule 3 of the Flooding and Water Management Act requiring all new developments to include SuDS in their plans can help to reduce chemicals, nitrates, phosphates, fine sediment and faecal pollutants from entering our rivers. The FWTF would like to see SuDS implemented and integrated from design phase of all new planned developments as part of a holistic approach to sustainable development. This would align with guidance given under PPS15 We would also like to see clarity provided on the role of SuDS retrofitting to deal with surface water overflows that affects both urban and rural environments. A strategy for promoting the use of SuDS across both of these environments needs to be implemented as a matter of urgency.

Question 5.3: Do you agree that conditions should be introduced for the Reasonable Cost Allowance for sewer requisitions to encourage Sustainable Drainage Systems and reduce surface water connections?

Connecting water run off to public sewers would be conditional on meeting new standards for the construction and operation of SuDS. We would suggest that this should be sufficient to provide adequate incentive to encourage developers to adopt SuDS techniques and would help to address the slow uptake of SuDS currently experienced. Furthermore we believe:

- There is a need to keep SuDS simple, as this will reduce maintenance costs and the likelihood of system being well maintained into the future
- SuDS should be implemented and integrated from the beginning of the design phase as part of a holistic approach to sustainable development. This should be at Master Planning stage and preferably as part of the Development Plan
- SuDS requires highly integrated project management and structured communications. It is vital that there is close engagement and cooperation with all parties
- Clear performance standards/criteria should be set from the start, and everyone should be aware and sign up to them. The design brief should be clear, precise and simple

FWTF Specific environmental suggestions are:

- All new buildings should have a greenfield run-off rate
- All developments should submit a water management train as part of their applications
- All developments should seek to add biodiversity and amenity value to their on-site drainage systems. Planning authorities should give preference to developments that add value in this way
- Rainwater recycling should be considered for all developments types
- Any developments that incorporate SuDS measures such as swales and filter strips should only use native species for implementation

Question 6.1: Do you agree that an information campaign should be funded to educate people about the risks of lead supply pipes?

Yes. FWTF believe that such a campaign should be part of a wider campaign raising awareness the need to conserve and protect our water environment as already required under the Water Framework Directive. In our 2012 publication entitled [From Source to Sea – 10 Steps the Sustainable Water Use in Northern Ireland](#), we suggest that increased effort is needed to

educate the public about: the cost of providing high quality water to our homes, including the cost of removing and treating waste water and the related energy use associated with treating water; the damaging effect that pollution has on both our water resources and the general environment; and the need to use water more efficiently. Information on water quality and the risk from lead piping could be easily added to this awareness raising campaign.

The FWTF is aware that the UK's widespread use of orthophosphate to dissolve lead in water, contrasts with many other European countries where its use is considered to be unacceptable on environmental grounds. These environmental concerns relate to the eutrophication of water bodies and the possible prolific growth of algae, some of which can be toxic.

We note from NIW website that it intends to introduce orthophosphate here and the admission 'The introduction of orthophosphoric acid to drinking water will add to the overall levels of phosphates in the environment in Northern Ireland. High levels of phosphate can increase growth of algae in lakes and estuaries. Algae uses up oxygen and reduces light in the water; this can affect the health and diversity of fish and plant life. Our larger wastewater treatment works have treatment stages, which reduce the levels of phosphates being discharged to the environment'. The Chartered Institution of Water and Environmental Management state that *Where orthophosphate dosing of water supplies is practised, an objective assessment of its environmental impact in wastewater catchments should be considered, to ensure that any subsequent environmental controls are justified*'. Until such assessments are undertaken, we would therefore caution against the introduction of this chemical to the full environmental implications are assessed.

Given that the Nitrates Directive and Nitrates Action Programme in Northern Ireland is trying to reduce the amount of damaging phosphates in our freshwater environment (Nitrate levels in local rivers and lakes are generally low and excess phosphorous is the main cause of nutrient enrichment) in order to meet our European obligations, NIW must ensure that as an unintended consequence of its use of orthophosphate that it is not ultimately worsening water quality.

Question 6.2: Should NI Water be permitted to enter private land with the owner's consent to replace or repair private supply pipes that contain lead or to address leakage?

Yes - given not only the health benefits for consumers but also for the purposes of conserving a precious and costly resource.

Question 6.3: Should the Department incentivise people to replace lead supply pipes by making financial support available?

Yes – As above - given not only the health benefits for consumers but also for the purposes of conserving a precious and costly resource.

Question 6.4a: Should anyone selling or letting any property (residential or nonresidential) be required to declare whether there is any lead in the supply pipes?

The FWTF has no specific comment to make on this proposal.

Question 6.4b: Should anyone selling or letting any residential or non-residential property be required to replace any private supply pipes containing lead?

The FWTF has no specific comment to make on this proposal.

Question 6.5: Should NI Water be permitted to enter private land without the agreement of the property owner, to repair burst private supply pipes where critical issues arise?

The FWTF is content with this proposal and believe it may well be necessary if we are to address our leakage reduction targets. However a clear and agreeable definition of constitutes a 'critical issue' may be required.

Additional Comment - Integrated Constructed Wetlands (ICWs)

FWTF would be like to work with NI Water and other stakeholders in the development of local integrated constructed wetlands projects in order to test their capacity to address many of the issues raised in this consultation. Benefits of ICWs are said to include their capacity to:

- Treat and greatly improve the effluent quality of a wide range of point and diffuse sources of polluted water, through the removal of nutrients and other contaminants such as heavy metals, pathogens and harmful organic compounds, thus meeting both regulatory and ecological requirements
- Impede water flow during high rainfall events, thereby reducing the potential impacts of flooding whilst also providing storage of water for use
- Facilitate de-watering, composting (fungal and bacterial) and re-use of accumulated detritus and organic matter
- Reuse intercepted water from different sources and at selected stages in the ICW treatment-train (whether; municipal, industrial or agricultural, etc.)
- Support biodiversity through the reanimation of habitat-infrastructure
- Interface and facilitate other land uses; agricultural, forestry and fishing enterprises
- Sustain long-term in situ sequestration of carbon-C, phosphorus-P and nitrogen-N
- Advance education, amenity and recreation use

The FWTF believe therefore that it is imperative that we investigate how this relatively low cost, low maintenance, yet environmentally friendly technology could help improve our local water quality.