



Consultation on Draft Environmental & Social Guidance for Water and Sewerage Services (2010-13)

Comments by

Northern Ireland Environment Link

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Northern Ireland Environment Link (NIEL) is the networking and forum body for non-statutory organisations concerned with the environment of Northern Ireland. Its 55 Full Members represent over 90,000 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.

These comments are agreed by Members, but some members may be providing independent comments as well. If you would like to discuss these comments we would be delighted to do so.

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General Comments

2 Introduction

NIEL comments to the NIAUR consultation on the Regulator's role in delivering sustainable development have been attached as we believe that they are also relevant in this consultation response. We would encourage officials to consider this information when deciding how to instruct the NIAUR.

In the introductory summary (Section 2.2) the consultation lists the key strategic investment priorities in this Guidance as: Affordability; EU Compliance; Service Improvements; and, Sustainability. NIEL believes that a much greater emphasis needs to be placed upon the conservation of our water supply using measures to encourage people to use less water. Adaptation to and mitigation of climate change should also be identified as a cross-cutting priority of the investment programme.

There is a public and political perception that there is no shortage of water in Northern Ireland and, therefore, there is no necessity to reduce demand. However, this view appears to ignore not only the carbon cost of water services (NI Water is the largest single user of electricity in Northern Ireland) but also the potential for future water shortages. In 2004 the then Minister of State, John Spellar MP, said: "Demand for water is expected to increase by more than 20% by 2030. Long-term planning is essential if we are to be in a position to meet the needs for this and future generations." The increasing demand could well coincide with decreasing supply according to climate change expert Dr John Sweeney, who has said, "Water Service should act now to prepare for drier summers and lower predictability of supply."

NIEL is concerned by the funding assumptions made in the draft guidance, and particularly if the projections made in the 2008-2013 Investment Strategy still apply. The credit crunch and increasing pressures for efficiency savings within the *Northern Ireland Block* will make realising the expected funding and lending levels very difficult. Many of the assumptions on available resources in the Investment Strategy have already been shown to be overly optimistic and the recent UK Budget resulted in a reduced settlement for Northern Ireland.

Costing all the work that needs to be completed in order to meet European and other commitments must be made a priority. While we agree that not everything can happen at once, and that prioritisation is necessary, we must recognise the level of investment needed in the coming years before setting spending and pricing structures. When these figures are calculated a budgeted action plan and funding strategy should be produced.

Without the necessary investment in our water and sewerage services we cannot realistically deliver on our sustainability targets. Given the availability of funding from the UK Exchequer is likely to continue to decrease at a time when greater investment in our water and sewerage infrastructure is required, water charges based on the principle of paying for what is used will have to be introduced without further delay.

While we welcome the decision to install metering facilities in all new buildings NIEL believes these facilities should be introduced to all existing housing stock as a matter of urgency.

3 Social Policies

Independent Review of Water & Sewerage services

Section 3.3 refers to the decision by the Northern Ireland Executive in November 2008 to defer the proposed introduction of additional household water and sewerage payments in April 2009 with the balance of income required from customers being paid on their behalf through DRD. NIEL is aware the Executive is currently considering a further deferral of water charges until 2012. NIEL believe that this status quo can no longer be maintained.

NIEL believes that capital valuation charging and other flat rate systems do not encourage the efficient use of water. On the contrary, they promote the attitude *I have paid for it therefore I should use it*. Metering is essential if we are to encourage water conservation and have people accept that they are paying for a valuable service. The Consumer Council research has shown that the public is more comfortable with a usage based charging system; 86% of respondents agreed that charges should be based on something other than the value of the house and 77% agreed that charges should be based on the amount of water used.

While it is obvious that it will take some time to introduce universal metering (although we should be aware that the UK is one of the last European countries without universal water 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. It should be noted that the Environment Agency has recommended 'near-universal' metering in England and Wales.

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. Installing low flush toilets and water efficient taps and showers in the home could reduce household water consumption by 40%. Such schemes should be targeted particularly at low income and high water need households. Water should remain affordable for the majority and people must be satisfied that they are getting what they pay for. An increasing block price based on per capita consumption has recently been shown to effectively meet the objectives of both affordability and efficiency.

Metering helps indicate the limited nature of water generally but is also a useful tool when combined with variable block tariffs during periods of water stress. The introduction of universal metering will require considerable social and logistical preparation, but the benefits are likely to become apparent in the long term.

Ultimately NIEL agrees that water should be self-financing, but charges must be based upon usage and provisions must be made to ensure those least able to pay are protected. While we welcome the decision to install metering facilities in all new buildings NIEL believes these facilities should be introduced to all existing housing stock as a matter of urgency.

4 Environmental Obligations

Environmental Quality Requirements

NIEL is supportive of the view point expressed in Section 4.1 namely 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.*

NIEL welcomes 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.

5 Service Improvements

Environmental Service Factors

NIEL endorses the findings of the Consumer Council's research that preventing sewage pollution to inland waters (rivers and lakes) and coastal waters were the top two environmental preferences for consumers and welcome the inclusion of measures in Investment Priority 1 to reduce sewerage pollution. While the hotline number for reporting pollution incidents appears to work well it is over-dependent upon the vigilance of the general public. NIEL believes that an upgrade of existing sewerage system is required and that regular monitoring of potential pollution sites is regularly undertaken.

6 Key Investment Priorities for 2010-13

Overview

In its Investment Strategy, the Executive has identified "a high quality water and waste water infrastructure for the region, capable of meeting EU requirements" as a key environmental goal. However while the consultation document states that a *major consideration in achieving this goal is affordability for customers and for the taxpayer. Not everything can be fixed at once and it would not be good use of investment to try to do so*, consideration should be given as to the implications and costs of deferring investment. Such costs include potential EU infraction cases for non-compliance of European directives, higher capital costs required to undertake deferred infrastructural projects and the increased costs to the Northern Ireland environment.

Sustainability & Climate Change (Priority 6)

- **Improve resource efficiency by:**

- **Setting targets and developing and implementing action plans to deliver operational/energy efficiencies,**

Energy efficiency must be addressed. NI Water should continue to work with UK Water to develop engineering standards which will reduce energy demand in all of its activities, from water pumping to heating of its premises.

- **Planning infrastructure development that balances the requirements of future development, the needs of people, and protection of the environment – both pollution prevention and mitigation of climate change, and**

The decisions made today will have a long-term impact on our ability to protect our environment and in particular to meet the challenges of climate change. Investment now will help deliver a more sustainable future.

- **Developing a Sustainable Economic Level of Leakage to include carbon costs and determine future capital investment needs for achievement in PC13.**

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.

NI Water has set a target of a reduction in leakage of 50% by 2010 compared with 2001. This sounds impressive but it still means that the company will be losing 21% of the water it has treated. This has obvious negative environmental and economic impacts given the cost - in pounds and in carbon - of treating and distributing water, but probably the largest negative aspect is the public relations impact. While there is obviously a leakage level which must be tolerated given our aging pipes, efforts should be made to tackle this to demonstrate the fundamental principle that 'water is precious and valuable'. Other European countries regularly achieve leakage rates of 10-15% and we should aspire to a similar level. Current 'economic levels of leakage' may become outmoded as the cost of electricity, and hence the cost of both treatment and transport of water, increase.

- **Agree appropriate targets to plan and deliver a contribution to the Programme for Government greenhouse gas emissions reduction target – for example through increased use of green energy.**

NIEL believes that as the largest electricity user in Northern Ireland (the 1999/2000 electricity bill was £10.7 million) and a significant user of building materials and other resources, Northern Ireland Water should set and achieve extremely high standards of sustainable procurement and management of resources. It should set an example and demonstrate sustainability in all areas of its activities, including producing a substantial proportion of its electrical needs from its own resources (for example, by anaerobic digestion of sewage) and other renewable technology on its sites. Northern Ireland Water should also significantly reduce its carbon footprint. Procurement decisions should be based on long term environmental and carbon costings, so that technologies that are more expensive in the short term but more sustainable in the long term should be encouraged by the environmental and economic regulators.

At present, NI Water produces 5.6 GWh (3% of its total electricity demand) of 'green electricity' per annum using a variety of generation processes. Two Combined Heat and Power (CHP) plants and the Sewage Sludge Incinerator produce a total of 3.75 GWh, with the remainder being produced by water turbines. By way of comparison, Thames Water generates approximately 13% of its electricity requirement. Much of this is generated from biogas, a by-product of the treatment of sewage sludge. Thames Water continues to explore new opportunities to maximise its generation capacity such as improving digester and heating system insulation to improve the production of sewage gas and reduce thermal losses and installation of new generation technology. NI Water must actively pursue opportunities for increasing the amount of energy it produces from its resources.

• Promote the recycling and reuse of sewage and water sludge in an environmentally friendly manner where this is economically viable - for example through sustainable application to forestry and agriculture.

Northern Ireland must better use the resources it has available to it much more wisely. Anaerobic digestion is used widely in Britain and Europe as a means to reduce the volume of waste, produce a useful by-product and produce useful energy as heat and/or electricity. The technologies are proven and are constantly improving and NI Water (and Northern Ireland's agriculture industry) should be encouraged/required to develop these technologies to utilise the resources it has available to it.

Sewage sludge is the main solid waste produced by wastewater treatment processes. It is essential that this material is utilised in a sustainable and beneficial way. There is no technical reason why 100% of sewage sludge should not be put to a beneficial use, rather than being disposed of to landfill, in the near future. Uses include:

- Agricultural: Recycling valuable nutrients to the soil and improving soil properties, this can reduce the need for chemical fertilisers. This is perhaps most attractive when utilised with the growing of industrial crops such as willow for coppicing.
- Composting: Either on its own or with other materials, this offers an alternative to peat products and produces energy, helping to protect rare habitats and endangered species.
- Energy recovery: Incineration with energy recovery is preferable to landfill, but is energy intensive and does not make the best use of the resource.

All the options above should only be pursued with the relevant permissions and after a full investigation and utilisation of environmental best practice scenarios.

• NIW should continue to invest in education campaigns to promote efficient water usage (water bus).

In order for NIW to ensure that the amount consumers pay is directly related to the amount they consume, with conservation measures by all consumers (domestic, business, farm, developer, etc.) encouraged through both information provision and price incentives. The perception that 'water is abundant and free' must be overcome so that it is viewed as the valuable resource it is. NIEL supports the proposal that the water bus is one such method of communication this message.

- ***Investigate the options for adopting Sustainable Drainage Systems (SuDS) to help reduce pressure on the sewerage systems during periods of heavy rain.***

NIEL believes that Sustainable Urban Drainage Systems (SUDS) are a simple and effective way of removing pollution from drains and roads, and can also provide valuable urban green spaces and reduce the risks of flooding. SUDSs include porous surfaces, constructed wetlands or ponds, and grass filter strips - and do not need high levels of energy to work effectively (www.blueprintforwater.org.uk).

- ***Establish an appropriately indexed carbon cost to be included in the assessment of all significant capital projects from PC13 onwards.***

NIEL is very supportive of this proposal and regard it as a necessary step towards adaptation to and mitigation of climate change.

- ***Commence work on Water Resource Management Plans (WRMPs) to identify the long-term water resource management and security of supply investment needs.***

NIEL is supportive of the production of WRMPs as we believe them to be central to the promotion water conservation and efficiency measures.

Other Policy Areas - Septic Tanks

Seventeen percent of residential properties in Northern Ireland utilise septic tank systems for the treatment of household sewage; this compares to four percent of households in the UK as a whole. Many of these septic tanks do not function effectively and are not emptied with adequate frequency.

The Council for Nature Conservation and the Countryside (CNCC) estimates that 60% of septic tank discharges reach surface waters. Furthermore, their analysis demonstrated a significant disparity between the number of consented discharges from septic tanks and the number of agreements documented between householders and Water Service for the emptying of septic tanks, suggesting that only a proportion of existing tanks are emptied by an appropriate body.

The NIEA should continue to act as the competent authority for licensing and regulating septic tank discharges, but NI Water should also play a greater part in providing a sewerage service for rural dwellers which does not cause pollution of local waters. Charging and mechanisms for maintaining septic tanks should encourage their proper maintenance. One possible way to do this is for a small charge to be imposed by NI Water on properties serviced by septic tanks which would cover the cost of an annual inspection. If this revealed that the tank should be emptied or require maintenance then the property owner will be legally required to obtain that service and charged accordingly. Another mechanism would involve a larger payment which covered both inspection and all required servicing.

We thank you for the opportunity to make these comments. We hope that you find them helpful and that they will be taken into account in your decision. If you would like to discuss them further please do contact us.