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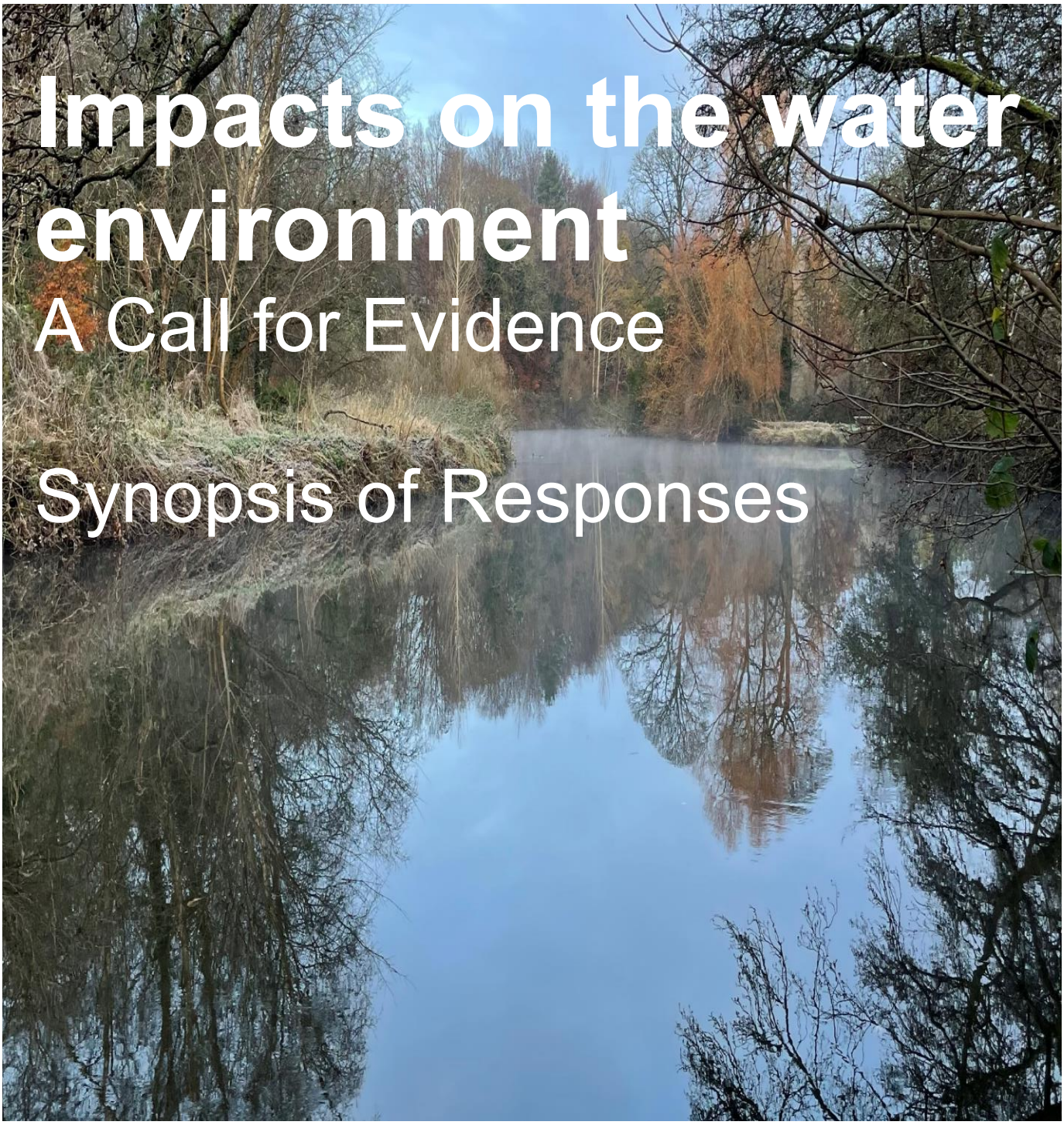

# Impacts on the water environment

## A Call for Evidence

## Synopsis of Responses

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

Gníomhaireacht de chuid na Roinne Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe

An Agency wi'in the Depairtment o Fairmin, Environment an' Kintra Matthers

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## Abbreviations

| Abbreviation or acronym | full name |
|---|---|
| **EIA** | Environmental Impact Assessment |
| **CSO** | Combined Sewer Overflow |
| **NIEA** | Northern Ireland Environment Agency |
| **OEP** | Office for Environmental Protection |
| **POMs** | Programme of Measures |
| **PPP** | Plant Production Products |
| **RBD** | River Basin District |
| **RBMP** | River Basin Management Plan |
| **RDF** | Refuse Derived Fuel |
| **SuDS** | Sustainable Drainage Systems |
| **WFD** | Water Framework Directive |

# 1 Introduction

This document summarises the responses received from stakeholders following a Call for Evidence on impacts on water environment.

On 14 April 2025 NIEA took a proactive step and launched a call for evidence on the water environment as part of the process to inform the development of the fourth cycle RBMP (2027-2033).

Comments were asked for the following questions.

1. What do you think are the key issues affecting Water Quality Status in NI?
2. What issues are you aware of in your area that may impact water quality?
   Please provide the name and/ or code of the water body if possible.
   Please watch our video on how to find your water body name or code.
3. What local activities are you aware of in your area that may impact water quality?
   Please provide the name and/ or code of the water body of where the activity is taking place.
   Please watch our video on how to find your water body name or code.
4. Are you aware of the NIEA incident hotline?

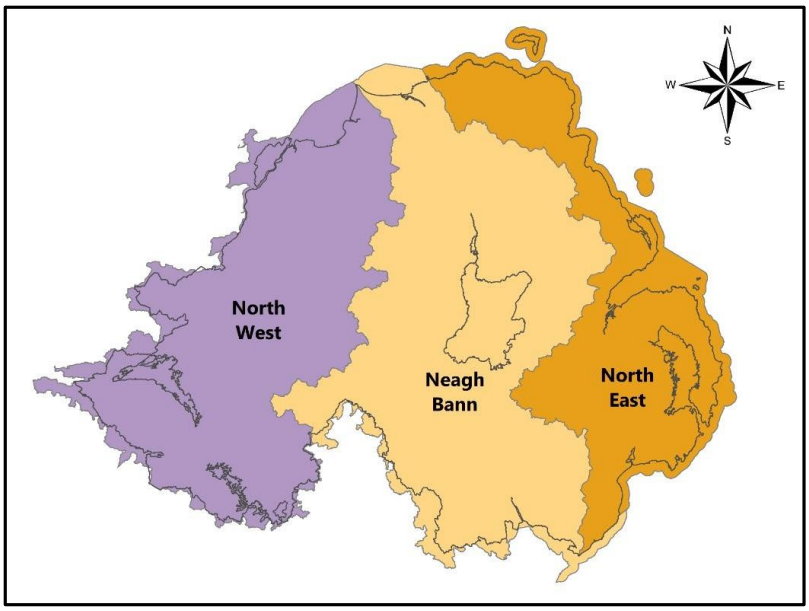
# 2 Background

Northern Ireland's water resources are managed and protected using a catchment-based approach which includes rivers, lakes and groundwater as well as coastal and transitional water bodies.

The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017 require the production and implementation of a River Basin Management Plan (RBMP) in six-yearly cycles.

Northern Ireland has three river basin districts (RBDs): North West, Neagh Bann and North East (see Figure 1). North West and Neagh Bann are international river basin districts shared with Ireland.

**Figure 1 Northern Ireland's River Basin Districts**




The RBMP takes an integrated approach, identifying those water bodies which can be classified as being at 'good or better' status. It also sets the objectives and a programme of measures (POMs) for the next six-year cycle to help improve those water bodies which are classified as less than status.

Water bodies are the basic management units for reporting and assessing compliance with the environmental objectives. There are 571 water bodies in Northern Ireland of these 496 are surface water bodies: including 450 rivers, 21 lakes, and 25 transitional & coastal water bodies (marine); the remaining 75 are groundwater bodies.

## 3 Engagement with stakeholders

The Call for Evidence was launched on 14 April 2025 on DAERA's website and promoted through various social media platforms including X, Facebook and Instagram. It closed on 8 June 2025. The Call for Evidence was also promoted at the DAERA stand at Balmoral Show in May 2025.

The consultation on Significant Water Management Issues opened on the 18 December 2025 and closes on 18 June 2026. It seeks views on whether the Department has correctly identified the key pressures on the water environment.

The responses from this call for evidence were used to inform the development of the public consultation on Significant Water Management Issues that opened on the 18 December 2025 and closes on 18 June 2026. Together, these will support the development of the fourth cycle River Basin Management Plan (RBMP) 2027 – 2033.

## DAERA Clarification and Disclaimer

The summaries provided in the following sections set out the evidence, concerns, and opinions submitted by stakeholders during the 2025 Call for Evidence. These perspectives are intended to provide an authentic reflection of stakeholder responses regarding the Northern Ireland water environment and do not represent the formal views, official policy, or future legislative intentions of the Department of Agriculture, Environment and Rural Affairs (DAERA) or the Northern Ireland Environment Agency (NIEA).

The Departmental response addressing stakeholder concerns is provided after the summary of responses received section of this report.

# 4 Summary of Responses Received

## 4.1 Number of responses received

A total of seventy-three (73) responses were received. Sixty-four (64) responded via the online questionnaire, five (5) e-mail responses and five (5) hard copy responses received. Of those who provided comments, four (4) were from Government bodies, fifteen (15) were from non-governmental organisations, one (1) was from a local council, one (1) from a government owned company and fifty-two (52) were from individuals/ members of the public.

The NIEA Integrated Catchment Planning (ICP) team also received two hundred and twenty two (222) responses in relation to the Call for Evidence with standardised wording that did not address the questions in the Call for Evidence, dismissed the need for another consultation and included a list of water quality issues.

## 4.2 Summary of responses

The majority of respondents stated that pollution from agricultural, urban wastewater, septic tanks and industry are the most significant issues affecting the water environment.

The following paragraphs summarise the key issues raised by respondents and their potential impacts on water quality highlighted by respondents. The responses have been grouped under categories as set out below.

### 4.2.1 Agriculture and Nutrient Pressures

Respondents identified intensive agriculture as a key driver of water quality degradation, specifically highlighting how slurry spreading, chemical fertilisers, and livestock access to watercourses contributes to nutrient enrichment, sedimentation, and eutrophication. One of the key effects can be harmful algal blooms and oxygen depletion in local water bodies.

Beyond direct runoff, respondents raised concerns regarding the poor storage of silage and slurry, the "poaching" of river banks by livestock, and the cutting of hedges to "pencil lines," which significantly reduces natural nutrient filtration along watercourses.

There was a strong perception that current funding models favour intensive dairy, pig and poultry farming at the expense of the environment, fostering a "production at all costs" mentality. Furthermore, respondents pointed to what they considered to be a systemic lack of governance and enforcement, believing that low penalties for cross-compliance and the continued use of excess chemical fertilisers fail to deter polluters, while a lack of farmer education continues to hinder the transition toward more sustainable practices.

Respondents also expressed concern regarding the environmental risks associated with the spreading of digestate from anaerobic digesters, noting that its high concentrations of nitrogen and phosphorus pose a severe threat to water quality if not managed correctly. A recurring theme in the feedback was a perceived regulatory gap, with many respondents pointing to inadequate oversight and control over digestate spread on land. Furthermore, respondents highlighted a view that current enforcement measures are largely ineffective; they argued that even when prosecutions occur, the resulting fines are far too lenient to serve as a genuine deterrent against irresponsible spreading practices.

### 4.2.2 Pollution from Chemicals

Respondents highlighted that traces of plant protection products (PPPs), including herbicides and their metabolites, are frequently detected in surface and groundwater due to the

irresponsible handling, storage, use and disposal of these chemicals, as well as the improper cleaning of equipment. Of particular concern is the prevalence of MCPA herbicides—commonly used for rush and dock control—within drinking water catchments. Because these substances are often present in raw water abstracted for treatment, they necessitate intensive removal processes to ensure safety. Consequently, respondents emphasised the urgent need for more rigorous monitoring and enforcement to manage the impacts of PPPs originating from both agricultural and non-agricultural sources.

### 4.2.3 Pollution from Waste Water Treatment Plants

Feedback regarding wastewater treatment plants focused heavily on the detrimental impact of nutrient-rich discharges and the systemic failure of aging infrastructure. Respondents noted that treatment works are frequently operating at or beyond their design capacity, leaving no headroom for growth and resulting in the increased risk of spillages. Underfunding was highlighted, with the vast scale of required modernisation and a substantial funding gap delaying essential improvements in both urban and rural water quality. This lack of investment is viewed as a barrier to managing urban runoff and meeting modern environmental standards. Additionally, respondents expressed frustration over a perceived lack of accountability and monitoring, with some suggesting that the regulatory framework fails to ensure adequate prosecution for frequent unregulated discharges.

### 4.2.4 Pollution from Combined Storm Overflows (CSOs) and urban runoff

Respondents expressed concern regarding the high number of unsatisfactory combined storm overflows, which respondents stated release untreated effluent into lakes, streams, and coastal areas during periods of high rainfall. Respondents argued that infrastructure is outdated and fundamentally unable to cope with the demands of the current climate, representing a persistent and predictable source of pollution that threatens both public health and the biodiversity of aquatic ecosystems.

The management of stormwater remains a critical issue, with many respondents noting that road drains and misconnected domestic pipes frequently discharge sewage and household chemicals into rivers. Runoff from roads carries a variety of pollutants—including oil, road salt, and brake dust—directly into water bodies. Responses highlighted that the combined pressures of urban growth and climate change are placing unsustainable demands on

existing drainage systems, leading to more frequent contamination events during heavy rainfall.

Respondents expressed concern that hydrocarbons, litter and microplastics are being introduced into the water environment. A point of concern is the lack of Sustainable Drainage Systems (SuDS) in urban areas, but at the same time respondents are concerned that SuDS might be insufficient to manage surface water or filter out pollutant loads effectively. Respondents noted that as urban areas continue to grow, the resulting increase in sediment and chemical runoff from paved surfaces continues to degrade the quality of local watercourses and disrupts aquatic ecosystems.

### 4.2.5 Pollution from private septic tanks/ private sewage treatment systems

Pollution from private septic tanks was identified as a major source of diffuse contamination, particularly in rural areas where thousands of individual systems discharge into small tributaries. Respondents highlighted that malfunctioning or poorly maintained tanks release harmful pathogens, nutrients, and bacteria into the environment, yet there is a distinct lack of data regarding the cumulative impact of these domestic systems. The feedback criticised the absence of governance, noting a lack of inspection, monitoring, and enforcement regarding private soakaways. Furthermore, many participants felt that the planning system was ineffective, as it continues to approve housing developments without adequately considering the environmental strain on rural wastewater systems, which are further burdened by seasonal visitor surges that often exceed the original design capacity of the equipment.

### 4.2.6 Pollution from commercial and industrial premises

Responses identified a range of commercial and industrial activities that contribute to water degradation, highlighting issues with factory waste management and the introduction of pollutants like nitrates from poultry farms. Heavy industry, including quarrying, mining, and port activities, was cited for introducing heavy metals and sediment, while landfill sites and scrap metal yards were noted for leaching harmful substances into both surface and groundwater. It was noted that the regulatory review of consenting discharges has not been fully implemented.

Concern was expressed regarding the ecological disruption caused by dredging and sand extraction in Lough Neagh, as well as the storage of refuse-derived fuel waste at ports.

Furthermore, respondents pointed to the disposal of industrial residues such as incineration ash and textile manufacturing waste.

### 4.2.7 Forestry

Respondents stated that forestry operations are viewed as a risk to water quality when conducted on sensitive soils or steep slopes, where they frequently lead to increased runoff, erosion, and sedimentation. The feedback emphasised that clear-felling in upland areas is particularly damaging, as it introduces acid runoff into headwater streams and causes long-term acidification of the aquatic environment. These impacts are often exacerbated by the construction of drainage systems and access tracks. Respondents raised concerns that without appropriate mitigation measures, the cumulative effect of these operations poses a persistent threat to the health of upland water catchments.

### 4.2.8 Pollution from illegal waste disposal/contaminated lands

Respondents expressed concerns regarding the prevalence of illegal waste disposal and the lack of oversight governing waste storage near water bodies. Feedback highlighted a persistent issue with scrap metal and plastic waste contaminating both soil and water, often exacerbated by poor waste management practices and insufficient regulatory control.

Beyond large-scale illegal tipping, respondents noted that general littering and rubbish along waterways remain a visible problem, sometimes fuelled by a lack of appropriate disposal facilities for tourists. A recurring theme was the perceived "knowledge gap" regarding the full extent of illegal tipping, with many calling for better monitoring and practical strategies to prevent waste from entering the aquatic environment.

### 4.2.9 Abstractions

The feedback regarding water abstraction centred on the unsustainable and often uncontrolled removal of water from (surface) waters to meet an ever-increasing demand. Respondents pointed to significant water wastage caused by an aging and leaky supply system, which undermines conservation efforts. There was a strong consensus among respondents that the infrastructure and legislative framework governing abstraction in Northern Ireland are severely outdated; respondents specifically noted that relying on the Fisheries Act 1966 is no longer appropriate. While updates are underway, stakeholders expressed concern that the current system is not yet legally aligned with the Water

Environment (Water Framework Directive) Regulations (Northern Ireland) 2017, leaving the water supply vulnerable to mismanagement.

### 4.2.10 Hydrological/ Hydromorphological Impacts

Respondents detailed how extensive land drainage and physical modifications to rivers — such as dredging, straightening, and peatland drainage — have been used to support agricultural intensification and urban development at the cost of habitat health. These alterations disrupt natural flow, increase siltation, and create physical blockages that fragment terrestrial and freshwater ecosystems. The feedback highlighted a critical lack of environmental oversight, noting that many drainage works proceed without Habitats Regulations Assessments or Environmental Impact Assessments. Furthermore, physical barriers like weirs and altered riverbeds prevent fish migration and destroy essential spawning beds. While large-scale engineering is a primary concern, respondents also noted that even recreational activities and minor landowner modifications to "sheughs" can lead to river bank erosion and long-term ecological degradation.

### 4.2.11 Non-Native Invasive Species

Respondents highlighted the growing threat posed by non-native invasive species, particularly zebra mussels, which disrupt local ecosystems by outcompeting native species and altering nutrient dynamics in a way that worsens harmful algal blooms. A significant portion of the feedback pointed to a lack of coordinated invasive species action plans and limited engagement from the NIEA to ensure that necessary assessments are conducted for council and planning projects. Furthermore, respondents identified recreational activities—such as boating, paddleboarding, and swimming—as major vectors for the spread of these species. Overall, the consensus among respondents is that current prevention and eradication measures are insufficient to protect the long-term integrity of the region's waterways.

### 4.2.12 Lack of environmental awareness

Respondents identified a need for expanded public education regarding water quality to ensure a deeper understanding of how various activities impact waterbodies and the vital ecosystem services they provide. Feedback emphasised that current levels of environmental awareness are limited, necessitating more proactive communication strategies. Specifically,

respondents called for improved real-time communication of health risks at particular sites to protect the public and foster a more informed community.

### 4.2.13 Peatland degradation

The degradation of upland peatlands emerged as a concern, with respondents pointing to the long-term impacts of historical drainage, overgrazing, peat cutting, and afforestation. These disturbances represent a threat to water quality by triggering the release of suspended sediments, dissolved organic carbon, and nutrients into surrounding watercourses. Respondents noted that such degradation fundamentally undermines the natural capacity of these habitats to store carbon, regulate water flow, and support biodiversity. Furthermore, there is growing anxiety that new planning applications for windfarm developments on peatlands may further exacerbate this environmental decline.

### 4.2.14 Climate Change

Respondents expressed concern over the impacts of climate change, specifically how increasingly extreme weather patterns are altering the water environment. Heavier rainfall events and hotter, drier summers are seen as catalysts for increased pollution runoff and harmful algal blooms, driven by reduced river flows and dropping oxygen levels. This cycle of extreme weather tends to concentrate pollutants during prolonged dry periods and then wash significant volumes of contaminants into water bodies during intense rainfall.

### 4.2.15 Microplastics

The presence of microplastics in both marine and freshwater environments was highlighted as an issue, with respondents noting that sewage-related debris, incorrectly disposed of wet wipes, not only harms aquatic life but also negatively impacts on recreational spaces. The consensus among participants is that prevention is far superior to remediation, as microplastics persist and fragment over time without degrading. Feedback stressed that the current lack of baseline data is a major hurdle, creating a need for immediate monitoring and robust prevention strategies.

### 4.2.16 Other issues

Beyond the main issues raised, respondents identified several other pressures, including the impact of wildfires which increase soil erosion and turbidity, thereby harming fish habitats.

Water efficiency was also raised as a priority, with calls for the farming, hospitality, medical, and industrial sectors to review their usage alongside a perceived need for better management from NI Water. Additionally, concerns were raised regarding shellfish contamination due to high bacterial levels—posing risks to both public health and aquaculture—and the ongoing environmental impacts associated with the extraction of natural resources. One respondent considered Brexit to be a significant concern specifically in relation to future.

A number of responses were received regarding DAERA/ NIEA issues as follows:

- Ineffective management of agricultural and industrial water users.
- The failure to regulate digestate
- The failure to regulate cross-border waste crime.
- Ineffective regulation and enforcement; minimal fines fail to deter polluters.
- Lack of review of industrial consented discharges
- Poor response to pollution reports; incident hotline issues and untrained staff.
- Absence of independent environmental oversight and accountability.
- Outdated Drinking Water Protected Areas and Safeguard Zones; need review and stronger protection.
- Review of sampling water quality requirements to ensure sampling locations and points provide a representative assessment of water quality and health risks.
- No comprehensive water quality improvement plan.
- Lack/ failure to address fish monitoring and barrier removal under WFD.
- Promotion of high phosphorus use via Beef Carbon Reduction Scheme.
- A lack of general engagement by NIEA to ensure Councils and Planners ensure WFD Assessment is conducted for all projects affecting water.
- Bathing Water Regulations outdated; need inclusion of year-round recreational activities and better public risk communication. Need Specific measures for bathing waters in River Basin Management Plan.
- Need for nature-based solutions (wetlands, SuDS, peat restoration).
- Under-resourced departments; poor collaboration with NGOs.

### 4.3 Question 4 – incident hotline

- In relation to question 4 ‘Are you aware of the NIEA incident hotline?’ 60 % of respondents replied yes, 34 % replied no and 6 % did not respond.

## Department Response

DAERA and NIEA welcome the extensive and detailed feedback provided by stakeholders through this Call for Evidence. The high volume of responses underscores the significant public and sectoral interest in the health of our water environment.

The stakeholder responses were used to inform the development of the consultation on Significant Water Management Issues which commenced on 18 December 2025 and closes on 18 June 2026.

The evidence gathered through this call for evidence and responses to the consultation on Significant Water Management Issues will help shape the future policy direction for the development of the draft Fourth Cycle River Basin Management Plan (2028–2033), due to launch for consultation in December 2026.

DAERA and NIEA remain dedicated to working in partnership with all stakeholders to achieve our shared vision of a clean, healthy, and resilient water environment for Northern Ireland.

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