Mobuoy Remediation Project

Mobuoy Remediation Community Stakeholder Engagement Update – 15th October 2026

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk
An Roinn Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe
Depairtment o' Fairmin, Environment an' Kintra Matthers
NIEA www.daera-ni.gov.uk
Northern Ireland Environment Agency
Gníomhaireacht Comhshaoil Thuaisceart Éireann
Norlin Airlan Environment Agency

Welcome and Introductions

- Fire Alarm and Exits
- Mobile Phones 
- No audio or visual recordings permitted
- Introductions
  - Declaration of Interest

Agenda

- Update since last meeting
- Environmental Monitoring Programme
- Questions

Mobuoy Remediation Project – The Legislative Basis

- *Article 4(1)(b) of the Water (Northern Ireland) Order 1999*
  - duty on the Department to promote the cleanliness of water in waterways and underground strata.
- *Article 4(2)(c) of the Water (Northern Ireland) Order 1999*
  - imposes a statutory duty on the Department to have regard to the protection of public health when it exercises its functions in relation to the cleanliness of water.
- *Environmental Liability (Prevention and Remediation) Regulations 2009*
  - powers to undertake the remediation

Mobuoy Remediation Project – future stages

Consistent with public procurement principles of transparency, equal treatment and fair competition, it would not be appropriate at this stage to discuss potential procurement arrangements, commercial models or future opportunities, as this could risk prejudicing any subsequent procurement process.

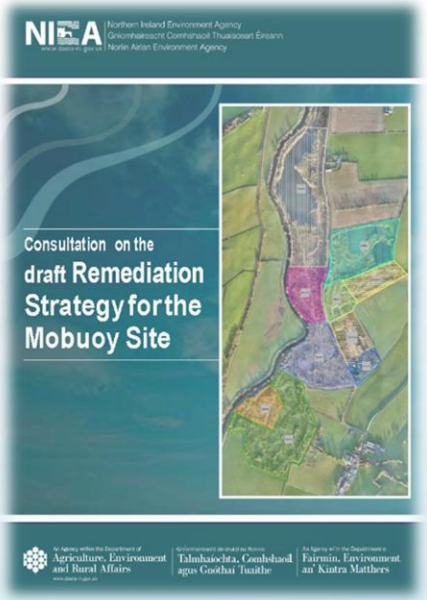
Any future opportunities arising from the remediation Project will be considered, where appropriate, in accordance with the relevant governance, procurement and statutory approval processes at the appropriate time.

Draft Remediation Strategy

Public Consultation – Outcome for draft Remediation Strategy

- NIEA's review and assessment of the responses did not indicate a need for fundamental changes to the remediation techniques presented in the draft Remediation Strategy document.

- Acting on feedback – we carried out and published
  - Updated Flood Risk Assessment,
  - Review of changes to Generic Assessment Criteria (water quality standards) used to complete the Detailed Quantitative Risk Assessment,
  - Review of additional groundwater flow direction information, and,
  - Review of emerging contaminants of concern – PFAS.

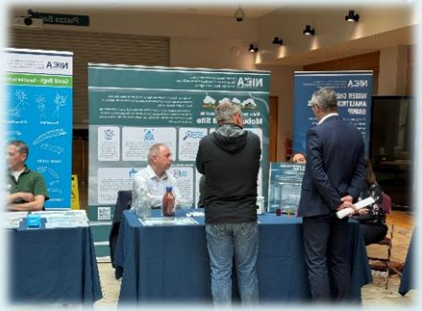


Next Steps

- Update cost estimate for delivery of draft Remediation Strategy
- Progress internal approvals and funding processes
- Continue protection of public health & environment –
  - Deliver Environmental Monitoring Programme
- Continue stakeholder engagement





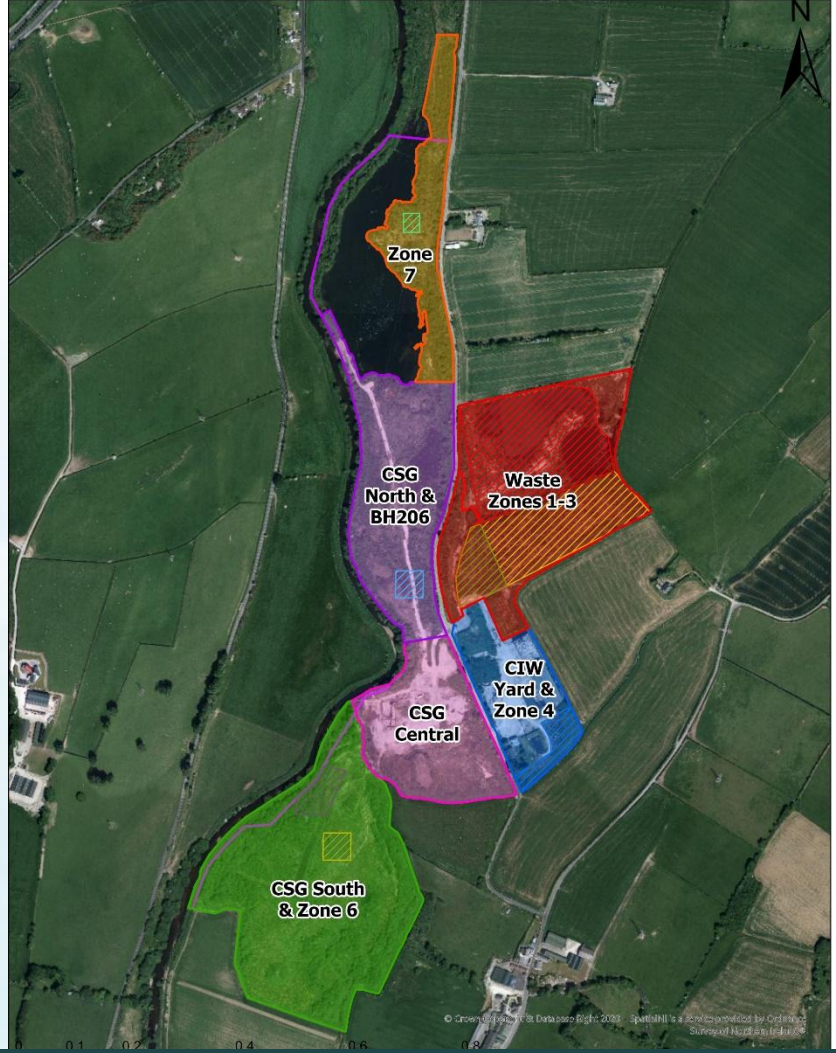


Monitoring Update

Ground Gas and Surface Gas Monitoring

- Risk dependent upon –
  - Concentration of gas released
  - Rate at which gas is generated and released
  - Whether people are exposed to it
- Methane and Carbon dioxide – displace oxygen in confined spaces
- Monitoring Basis – Updated Gas Risk Assessment (2022)

https://www.daera-ni.gov.uk/publications/landfill-gas-risk-assessments



Environmental Monitoring Plan – Ground Gas and Surface Gas Monitoring – How are we monitoring landfill gas?



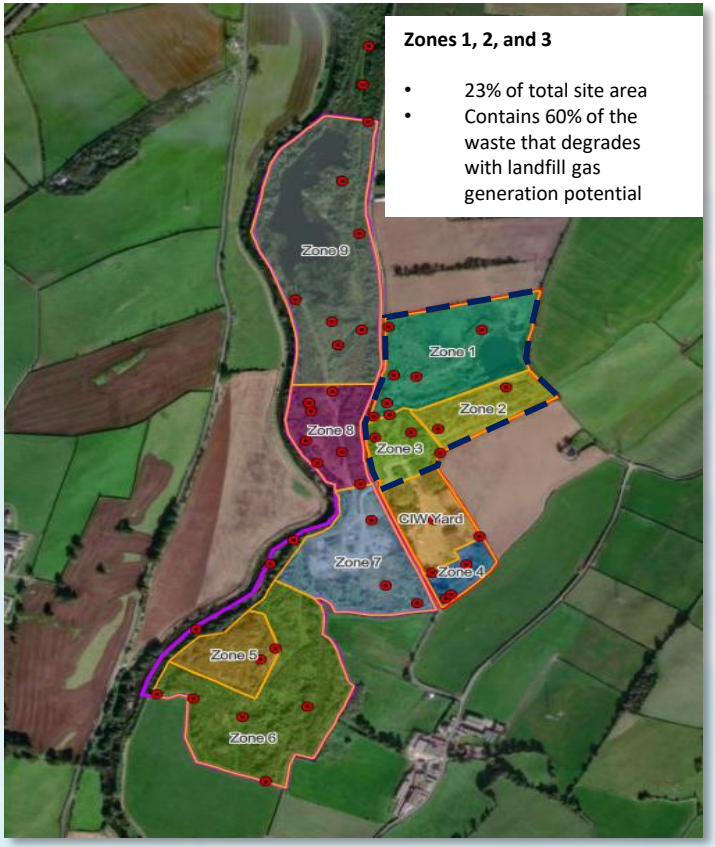
Gasses we monitor –

- Methane, Hydrogen Sulphide, Carbon Dioxide, Carbon Monoxide
- Oxygen

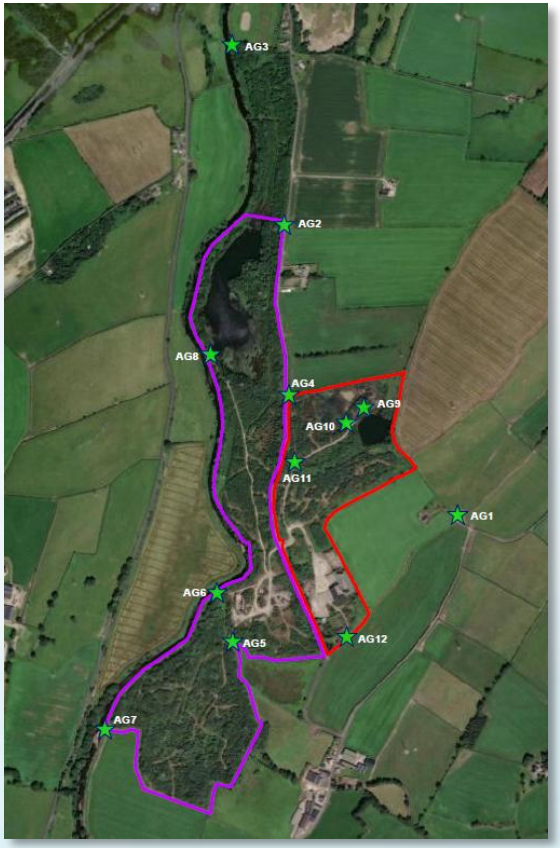
Gas Monitoring

- Ground Gas – Perimeter Borehole Locations - Quarterly
- Ground Gas - In Waste Borehole Locations - Annually
- Surface Gas (Annually) CIW North / Zones 1-3
- Ambient Gas (NIEA Staff Personal Monitors) - Weekly

Ground Gas and Surface Gas Monitoring – Where do we monitor landfill gas?



Ground Gas and Surface Gas (Z1-3) Monitoring Locations



Ambient Gas Monitoring Locations

Ground Gas Monitoring Results – What do the results tell us?

CIW north main area for detection of elevated gas due to type and volume of waste buried.

Gas detection in CSG site limited to areas where degradable waste has been buried

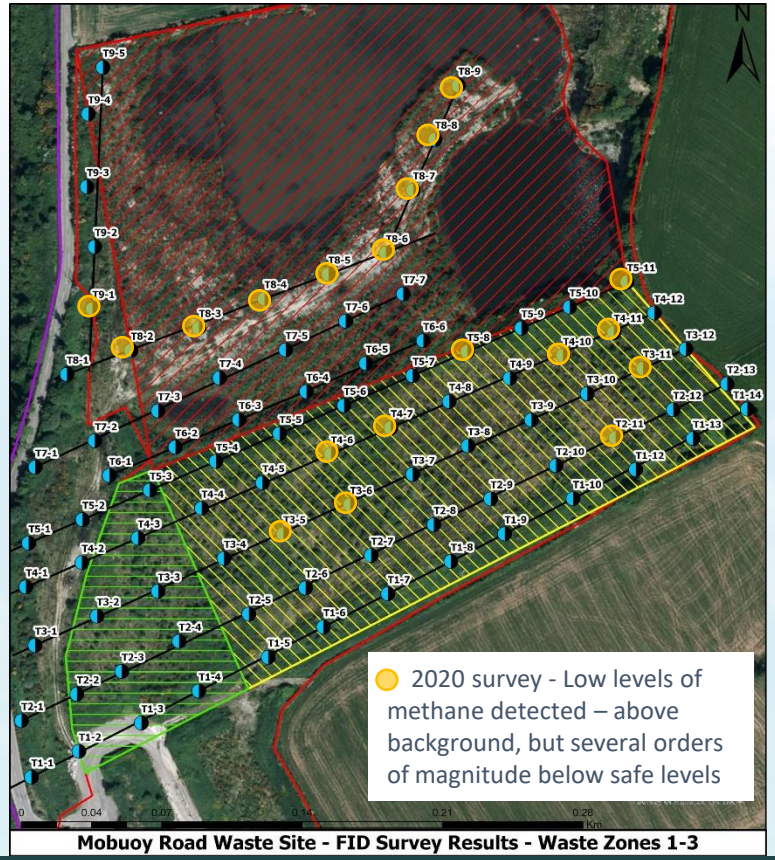
In Waste and Perimeter Locations –

- Gas levels broadly consistent with levels in Gas Risk Assessment – no change in risk



https://www.daera-ni.gov.uk/publications/landfill-gas-monitoring

Surface Gas Monitoring Results – What do the results tell us?



Mobuoy Road Waste Site - FID Survey Results - Waste Zones 1-3

- Surface gas monitoring (post 2020) detecting no significant surface emission of methane – generally limited to where cover material has been breached eg site investigations



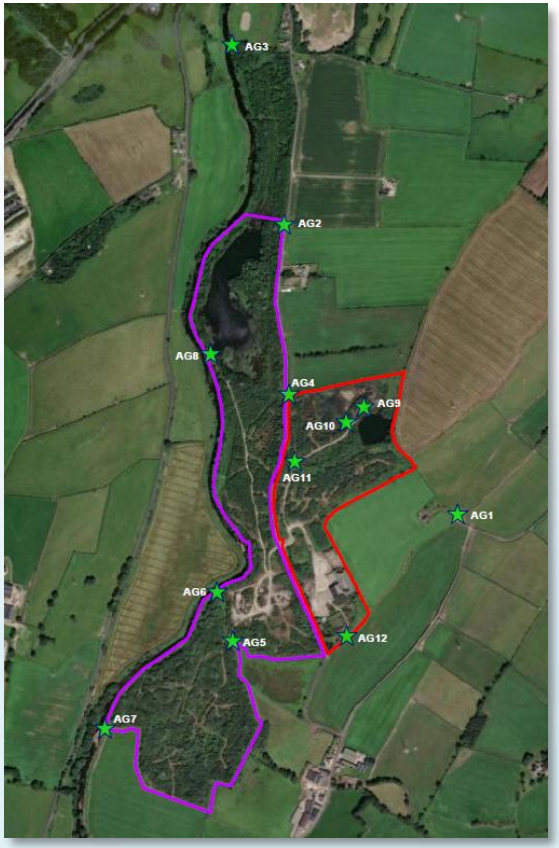
Site Inspections and Ambient Gas Monitoring – What do the results tell us?



Between July 26 and Oct 26

- No health alarms
- No detections of –
  - Hydrogen Sulphide
  - Carbon Monoxide
  - Flammable Gasses (incl. methane)

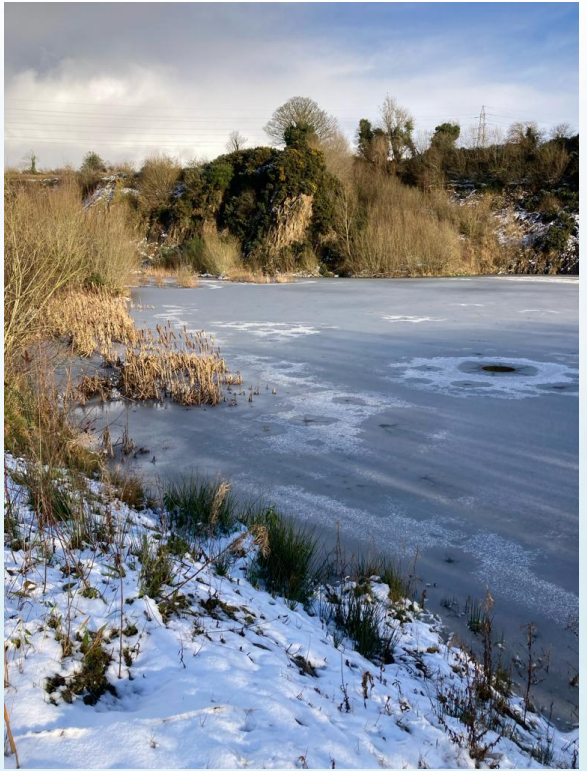
- Oxygen levels - healthy level (c. 21%)



Site Inspections and Ambient Gas Monitoring – What do the results tell us?

- Observations – Aggressively bubbling gas observed historically in ponds in CIW north, now significantly less aggressive
- Odours – Gas odours limited to CIW north, no detections on personal gas monitors during monitoring





Landfill Gas Monitoring – Accessing Monitoring Information

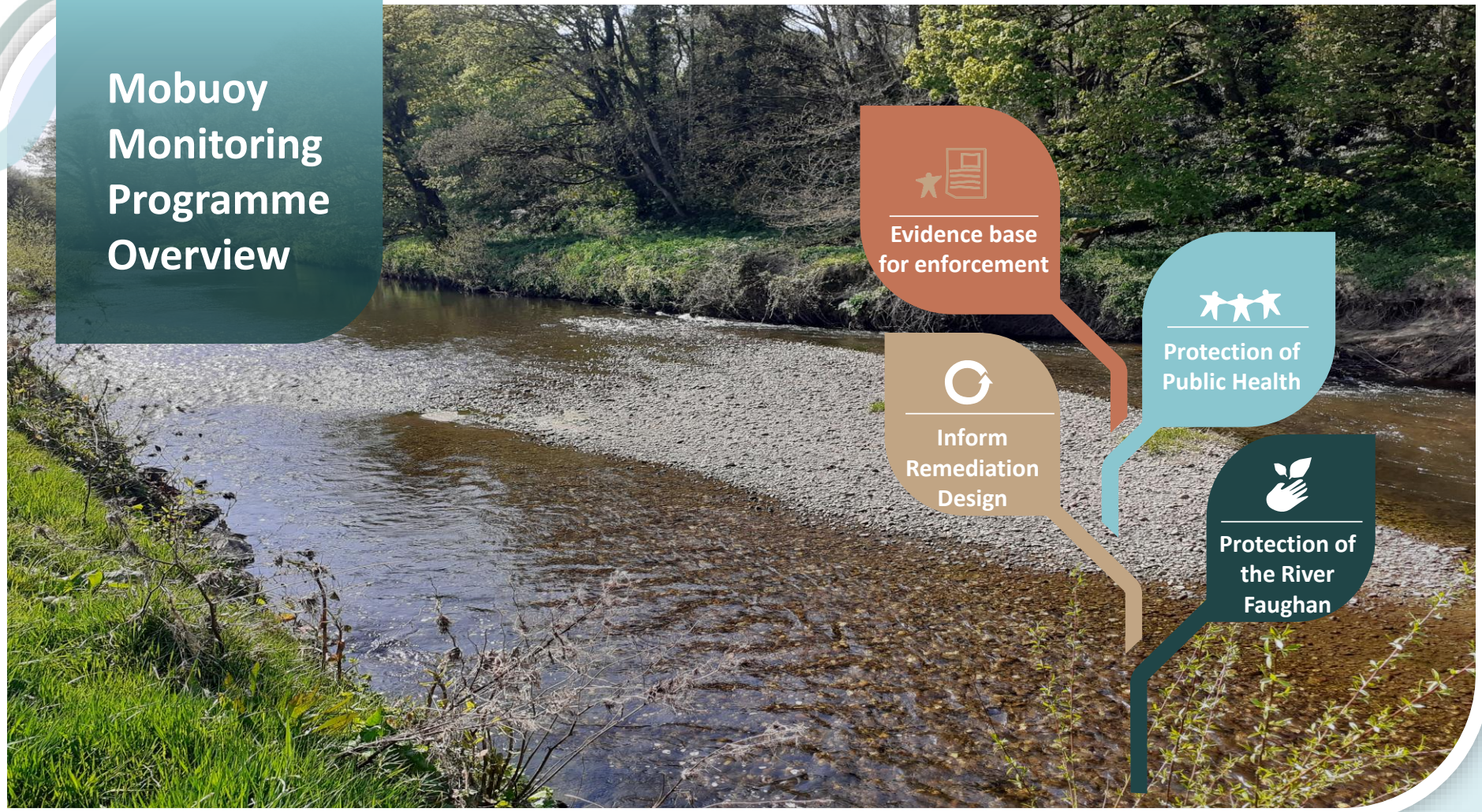


Gas Monitoring Report (2025)

- Landfill gas monitoring results across the site remain broadly consistent with historical results – No change in risk
- Elevated gas concentrations are associated with known source areas, particularly within CIW North (Waste Zones 1–3).
- Review of Conceptual Site Model (CSM) has confirmed that there have been no material changes to the key components of source, pathways, or receptors since the 2022 Gas Risk Assessment.
- Continuous evaluation of how we can improve gas monitoring

https://www.daera-ni.gov.uk/publications/landfill-gas-monitoring

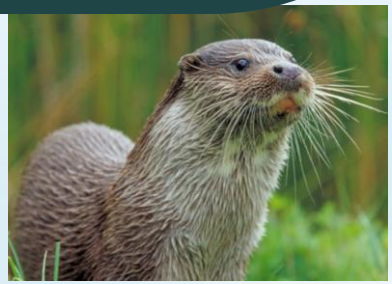
Mobuoy Monitoring Programme Overview



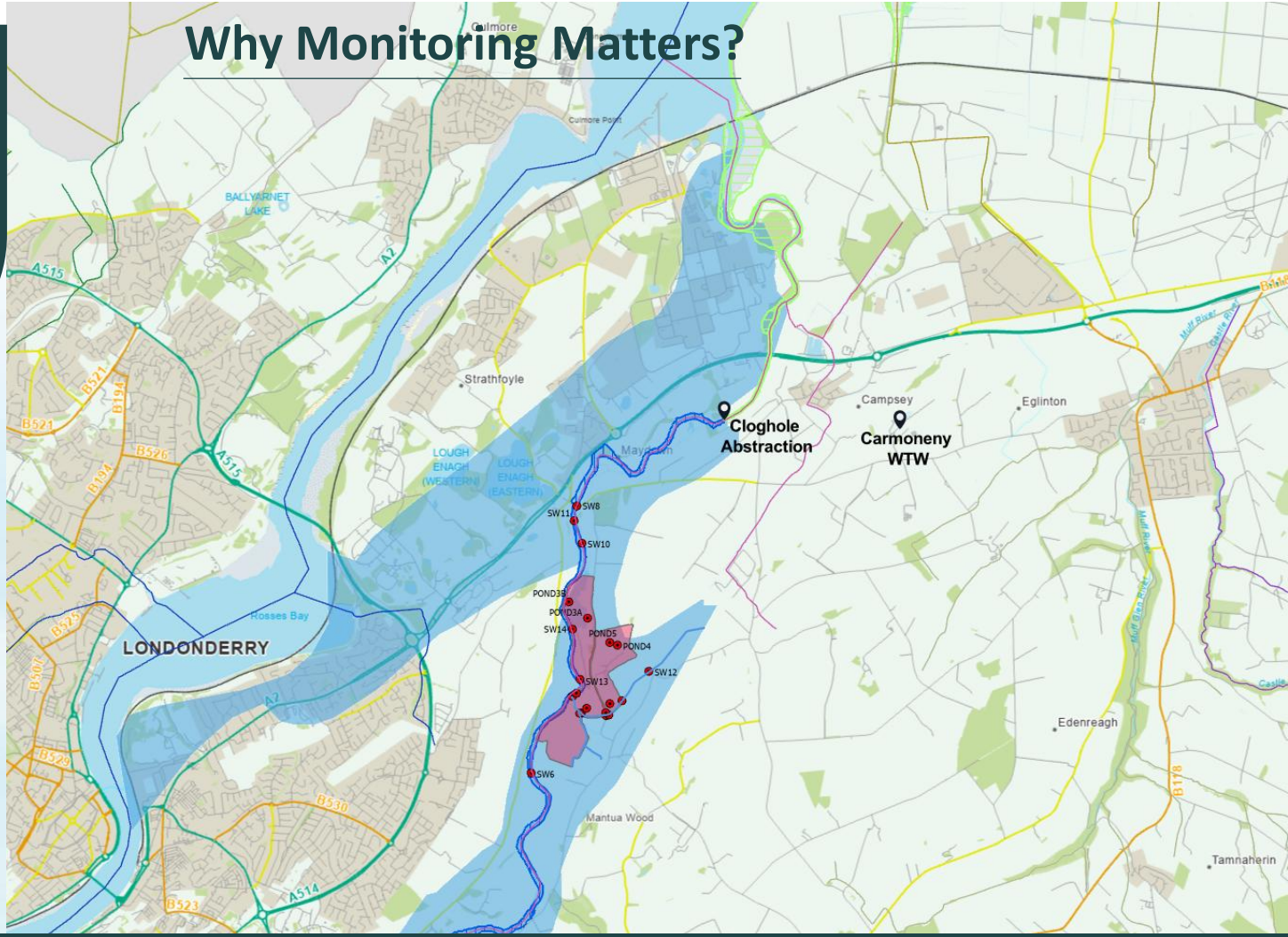
Why Monitoring Matters?

Protecting

- Raw Water in the Faughan River for treated for public supply.
- River Faughan – ASSI / SAC
- Lough Foyle – SPA/ Ramsar
- Faughan Groundwater Body – WFD







Monitoring methods



Surface Water Quality Monitoring



Groundwater Quality Monitoring



Site Inspections / Field Chemical Analysis



Laboratory Analysis

Multi-layered Monitoring Methods

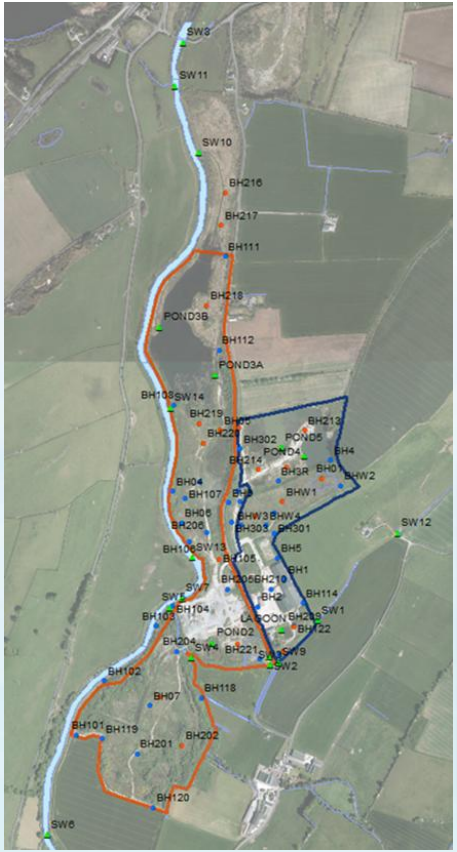
- River Faughan – Daily Organics Screen
- River Faughan – Monthly Samples
- Tributary – Monthly Samples
- Groundwater – Quarterly Monitoring
- Leachate – Quarterly Monitoring
- PFAS Monitoring – 3 times per year
- Macroinvertebrate - Monitoring
- Weekly Field Inspections
- MNA Monitoring

Environmental Monitoring Plan – Surface Water and Groundwater Quality – Updates and Current Information

Environmental Monitoring Plan

- **Groundwater Quality Monitoring**
  - 2026 Q2 – June 2026
  - 2026 Q3 – September 2026
  - PFAS – July 2026
- **Surface Water Quality Monitoring**
  - Monthly – as per schedule
  - Organics Screening (public water supply) – continues daily
- **Site Inspections** – weekly field chemistry and visual inspections
- **WQ Reports available on Mobuoy Website**

https://www.daera-ni.gov.uk/publications/mobuoy-remediation-project-water-quality-environmental-monitoring-programme





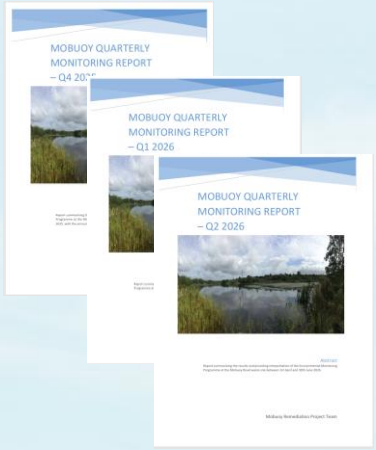


Monitoring Completed in Each Year

Frequency	Data Generated	Monitoring locations	Parameters	Analysis undertaken	Usage
Daily	Organics screening	1	Up to 400	Interpretative report (daily), Trends in peak volume	Immediate Risk Identification
Bi Monthly	Surface water – SW6 and SW8	2	Quantitative - 86 parameters (TPH,PAHs, VOCs, Phenols) / per location/ round Total = **2,236/yr** **Screen -** 26 reports per year	Quantitative Organics/ Organics screen Linear trends (weekly)/ comparison with rainfall/ river stage	Short Term Risk Identification
Weekly	Site inspections and field chemistry	4	5 = 20/week = **c1000/yr**	Comparison with historical range/ Environmental Standards (weekly)	Immediate Risk Identification
Monthly	Surface waters	14 Monthly +5 quarterly	13 inorganics /sample/ round 21 Metal/sample/ round = **325/yr**	Linear trends (monthly)/ comparison to EQS	Short Term Risk Identification
6 weekly	Tarry Waste/	39 (4 x rounds) 52 (4 x rounds)	883 per round = 3,532 1499 per round = 1,453 Total = **4,985 /yr**	Linear trends (6 weekly)/ feeds into spatial analysis (quarterly)	Early risk detection to the River and Drinking Water
Quarterly	Site Groundwaters and leachate	38 (3 x rounds) 47 (1 x round)	Quarterly – 2548 per round Annual – 4184 per round Total = **11,828/yr**	Linear trends (6 weekly)/ feeds into spatial analysis (quarterly) MNA annual review	Early detection of changing risk to the River and Drinking Water
x3/Yr	PFAS	Annual (2SWs & 9 GWs) 2 x 'reduced' rounds (2SWs & 3GWs)	50 per sample = 550 /yr 50 per sample - 250 /yr Total **= 800/yr**	Comparison to applicable DWS & EQS standards	Emerging COCs – in line with NI Water frequency @ Carmoney WTW
X3/ Yr	Biological Monitoring	7 x SWs	N/A	Analysis of macroinvertebrate population to assess water quality.	Medium term indication of River Health

How are the results shared and reported?





- Daily Screening Report – NIW, Project Team
- NI Water – Monthly Report
- Quarterly water quality meetings
- Quarterly Report published on Webpage
- AQW/AQO/EIRs/FOIs
- **Published Raw Data/ Infographic/ Video**

Reporting Period:	**01/04/2026 – 30/06/2026**
Report Date:	02/09/2026
Monitoring Status:	Mobuoy EMP continues as per the agreed schedule.
Monitoring in Period:	Monitoring carried out at site – a. Q2 Groundwater Monitoring round complete – June 2026. b. Monthly Surface Water monitoring completed in April, May & June 2026. c. Bi-weekly Organics monitoring @ SW6 & SW8 continues as per schedule. d. The Technical Team continue to carry out weekly site inspections including field chemistry and visual inspection of surface water samples.
Mobuoy monitoring programme updates:	PFAS monitoring - 3No. monitoring rounds scheduled in 2026.
Surface Water Quality Issues:	No surface water quality issues attributed to the Mobuoy Rd waste site have occurred within the reporting timeframe.
Mobuoy On-Call Officer:	No incidents at site within the reporting timeframe.
Surface Water Quality Monitoring	
Qualitative Organics Screen:	**No water quality issues** identified through the Organics Screening programme in the reporting timeframe. Two 'Medium' peaks for 'Substances routinely monitored on the Mobuoy site' were detected in Q2 2026, while no 'Large' peaks were detected. Occurrences of these parameters are isolated, and no increasing trend observed.
Quantitative Organics monitoring of Surface Water:	**No water quality issues** identified through the Quantitative Organics monitoring in the reporting period. All Organic parameters detected to date belong to the class of chemicals known as "PAHs" (Polycyclic Aromatic Hydrocarbons). In Q2 2026, Benzo(a)pyrene and Fluoranthene were detected in exceedance of their respective Environmental Quality Standard (EQS) at SW6 (upstream of the Mobuoy site). At SW8 (downstream of the Mobuoy site), Benzo(a)pyrene was detected in exceedance of the EQS. PAH concentrations at SW8 (d/s) are comparable with those at SW6 (u/s), indicating a source upstream from the Mobuoy site.
Surface Water Monitoring – Metals and Inorganic Parameters:	**No water quality issues identified.** • Ammoniacal Nitrogen, Iron & Manganese are comparable between SW6 (u/s) & SW8 (d/s) monitoring locations. • Iron concentrations detected at SW6 (u/s) & SW8 (d/s) exceeded the Drinking Water Standard (DWS) but remained below the EQS in April and June 2026. In May, Iron concentrations were below both the DWS and EQS at both locations. • Iron was detected above the EQS at SW12 during the May monitoring round. SW12 is located upstream of the site on a tributary that flows adjacent to the western site boundary before

Daily Organics Screening – *How data is used.*

365 DAYS

At the stie

Every morning, samples are collected at the Cloghole abstraction point on the River Faughan by NI Water staff.

The samples are analysed by analytical chemists in the NIEA laboratories.

In the Lab – analysis and interpretation

A NIEA custom designed screening system (including a scanning instrument called GCMS - Gas Chromatography 'Time of Flight' Mass Spectrometer), checks for the presence of potentially tens of thousands of organic substances in the water sample from the river.

The analysis is carried out by highly specialised analytical chemists from the NIEA Trace Organics Analysis and Screening Team, who interpret the information and assess the levels and significance of any organic substances present. This analysis is compared against the indicators of contamination for the Mobuoy site alongside the background information on river health across NI. The results are reported within 48 hours.

NIEA Report/ Alert

This means NIEA can see if there is any contamination of the River Faughan and alert NI Water and instigate a joint NIEA and NI Water response if required.

Safe Drinking Water

NI Water Contingency

Wider Screening Programme

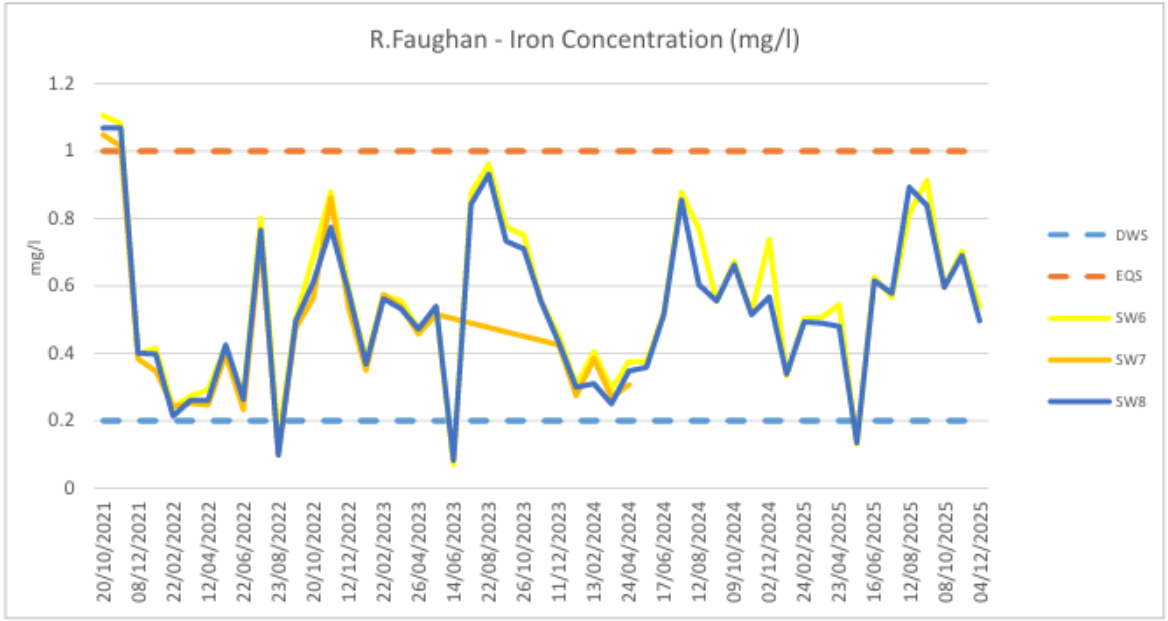
Mobuoy Site Groundwater/ Surface Waters

20 Rivers across NI

Surface Water 2025/2026 Overview

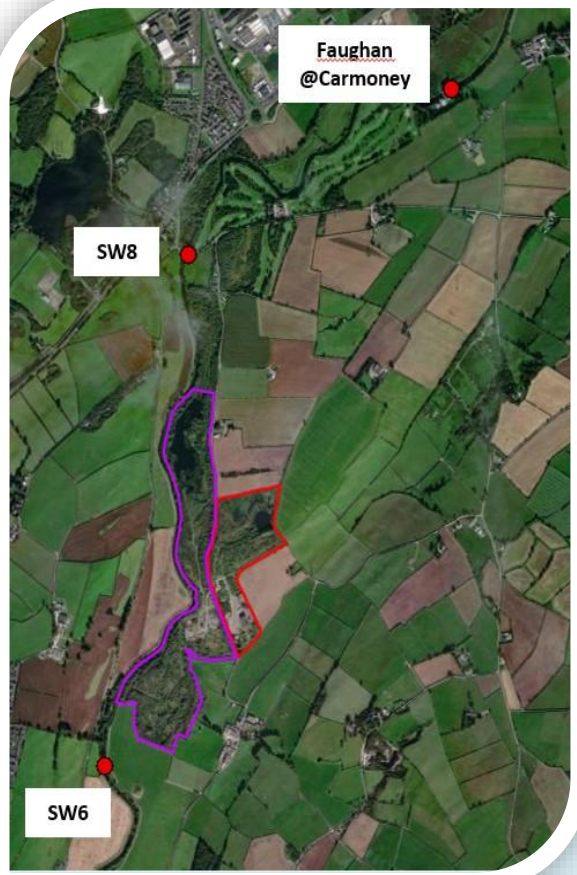
- ✅ No surface water quality issues attributable to the Mobuoy site
- ✅ Water quality comparable upstream and downstream
- ✅ No change in risk to drinking water supply
- ✅ No significant organic contamination events identified

Figure 5 – Iron (dissolved) concentrations in the River Faughan - SW6 & SW8



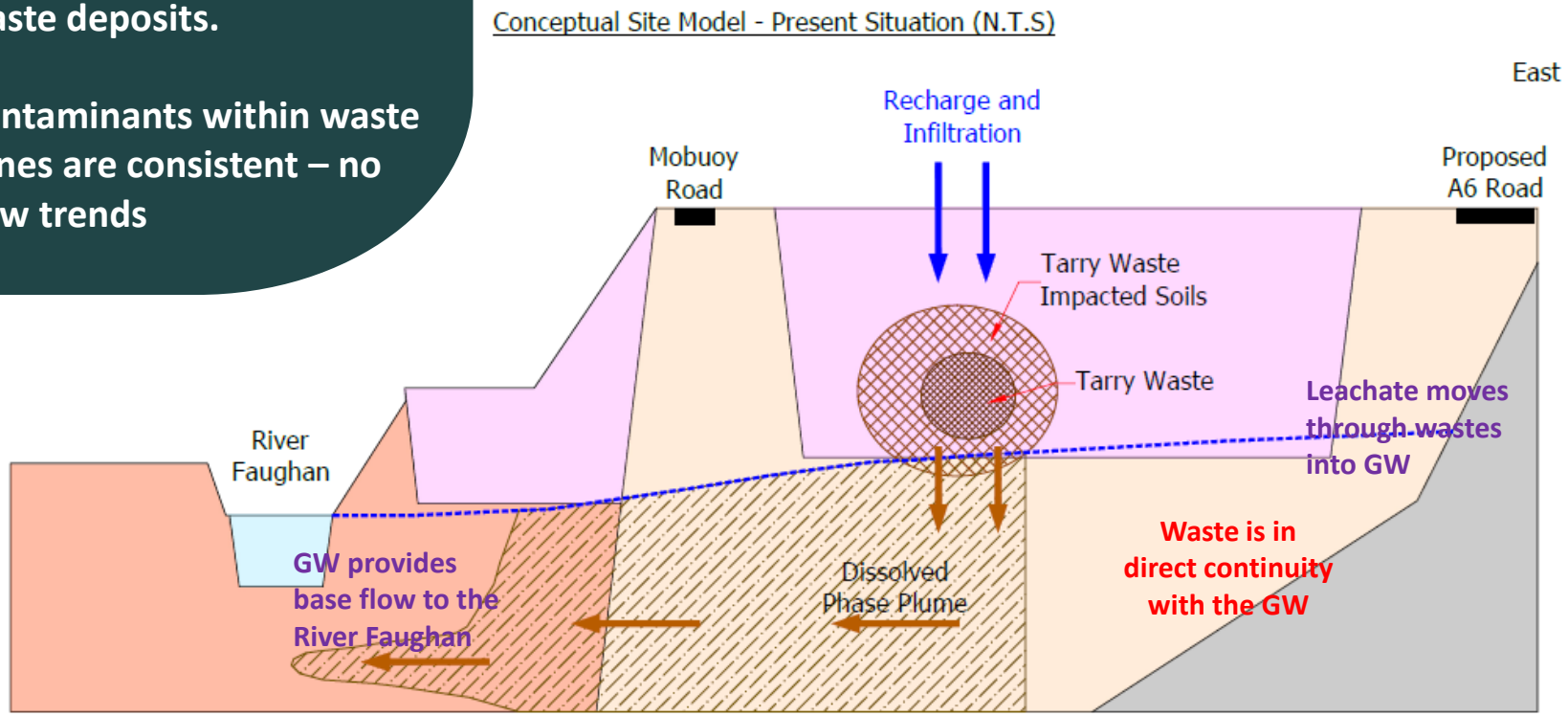
Notes: Screening values; DWS - 0.2mg/l (Water Supply Regs 2017); EQS – 1.0mg/l (WFD Regs 2015)

SW7: no sample collected June – December 2023, or May 2024 – present (no access to sampling point).



Groundwater Findings – What is happening underground?

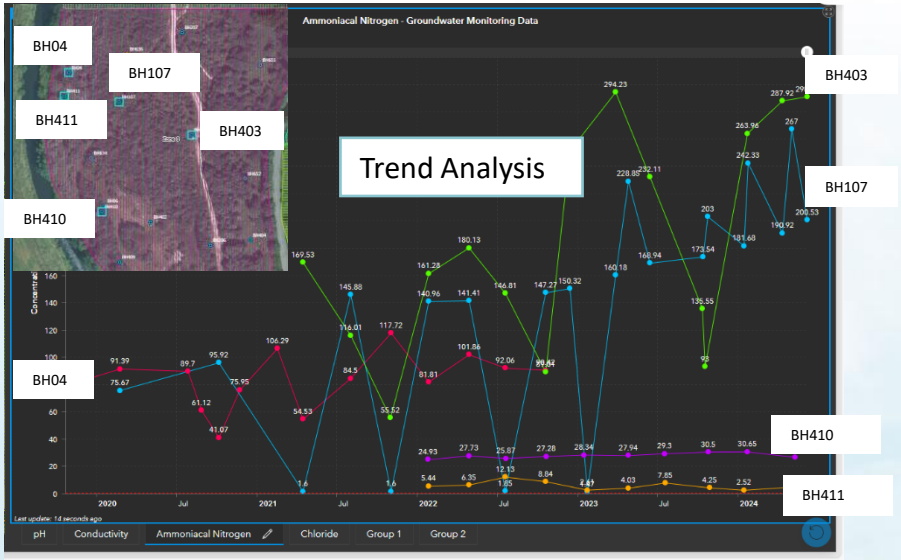
- Groundwater beneath the site impacted by historic waste deposits.
- Contaminants within waste zones are consistent – no new trends

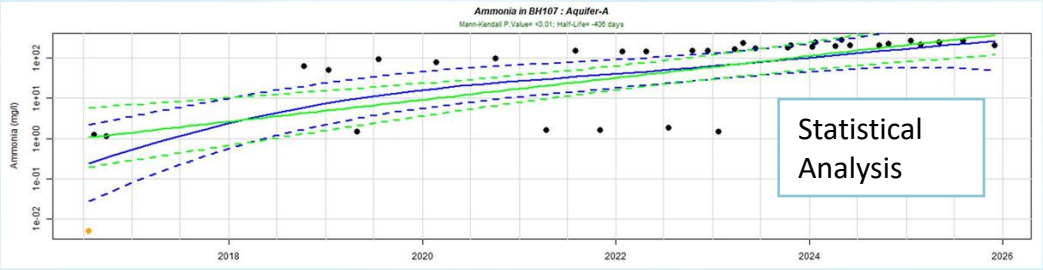


Groundwater – What is happening underground?

Key Finding 2025

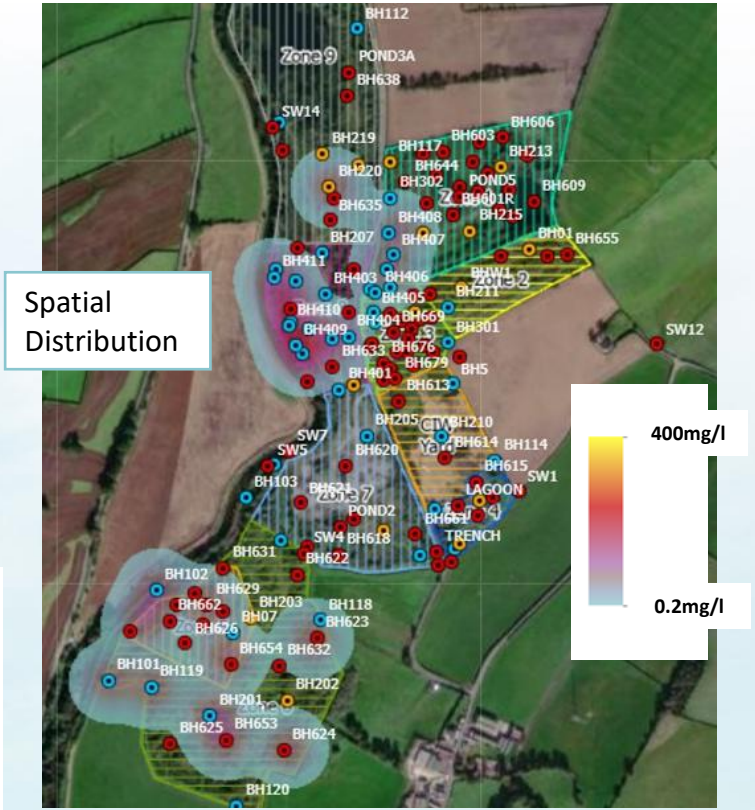
- **Overall no change in risk identified - 2025**





Key Finding 2026 to date

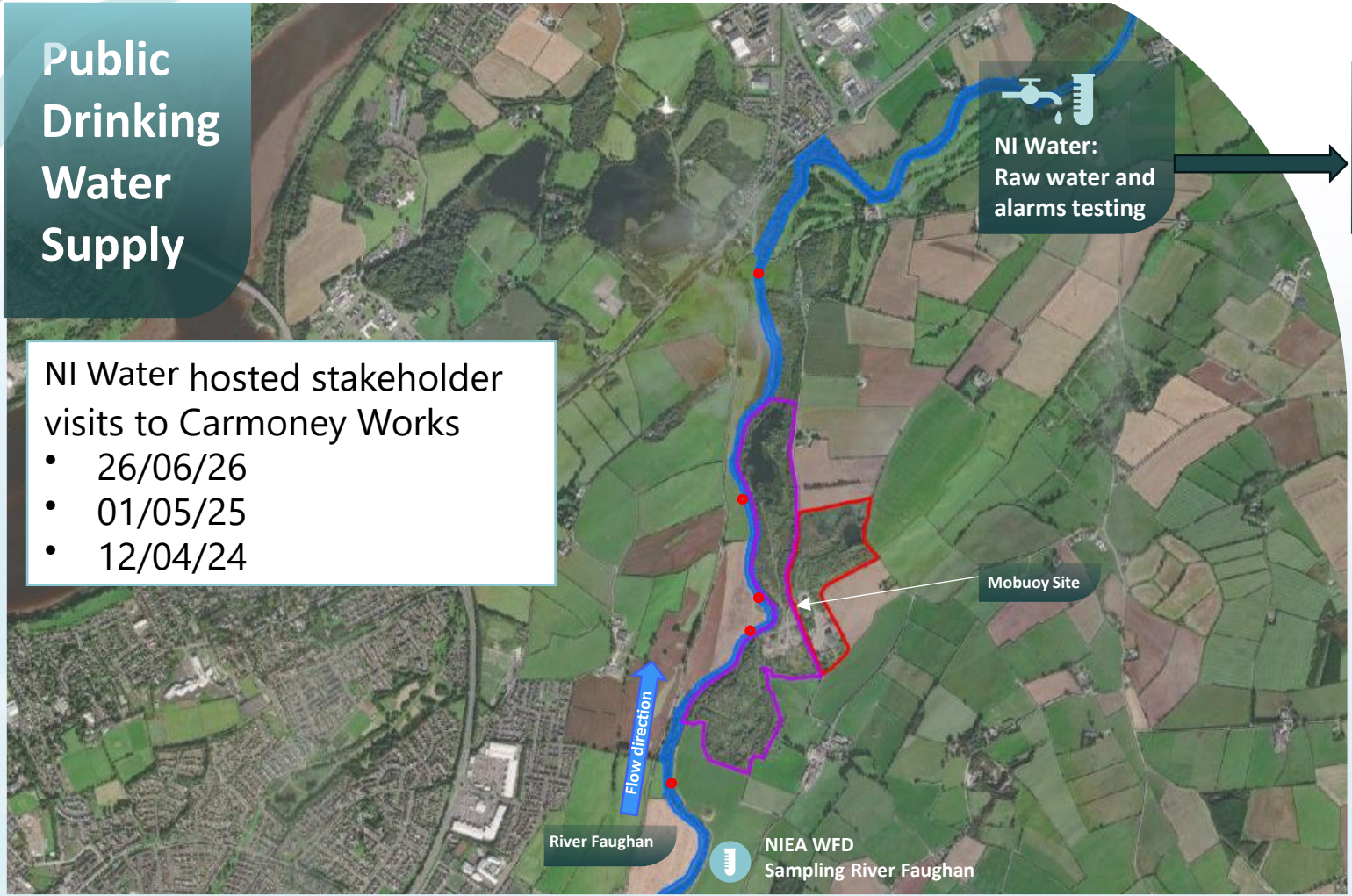
- **Overall no change in risk identified - 2026**



Protection of Drinking Water Supply

- NIEA Environmental Monitoring Programme protects the suitability of the water in the River Faughan for public water supply abstraction. Monitoring groundwater and surface water quality on the site, early detection of a change in risk provides the best opportunity for preventative action to be taken

Public Drinking Water Supply



NI Water hosted stakeholder visits to Carmoney Works

- 26/06/26
- 01/05/25
- 12/04/24

Where can you check your drinking water quality?

1. Visit NI Water Website: https://www.niwater.com/water-quality-results/

or

2. Northern Ireland Water

Phone - 0345 744 0088

2. Enter Postcode

3. Click

To check the water quality in your area including hardness and dishwasher settings, please enter your full postcode in the box below:

BT47 3JQ

Go

BT473JQ	
Water Supply Zone	Carmoney Eglinton
Raw Water Source	This zone is supplied by the main raw water source(s) as follows (in alphabetical order), with the proportional blend of water changing as needed to meet operational requirements. River Faughan
Zone water quality report (2023 dataset)	View report.
Total Hardness (mg/l)	41.4
Magnesium (mg/l)	3.7
Potassium (mg/l)	1.9
Calcium (mg/l)	35.3
Total Hardness (mg CaCO3/l)	103.5
Clark English Degrees	7.2
French Degrees	10.4
German Degrees	5.8
NI Hardness Classification	Slightly Hard
Dishwasher Setting	1 - 2

2023 Public Register

northern ireland water

Delivering what matters

WATER SUPPLY ZONE - ZN0603 - Carmoney Eglinton

Printed On 30-JAN-2024 : NI Water : Period 01-JAN-2023 to 31-DEC-2023 incl.

Parameter	Units	Type	No samples planned for year	No samples taken in year	No samples contravening PCV	% samples contravening PCV	Concentration or value (all samples) Min	Mean	Max
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	< 0.410	< 0.410	< 0.410
2,4-D	ug/l	AS	8	8	0	0.000	< 0.011	< 0.011	< 0.011
2,4-DB	ug/l	AS	8	8	0	0.000	< 0.016	< 0.016	< 0.016
Aluminium	ug Al/l	S	52	52	0	0.000	9.300	24.647	48.000
Ammonium	mg NH4/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.021	< 0.053	0.077
Arsenic	ug/l As	S	8	8	0	0.000	0.120	0.198	0.260
Asulam	ug/l	AS	8	8	0	0.000	< 0.015	< 0.015	< 0.015
Bentazone	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Benzene	ug/l	S	8	8	0	0.000	< 0.150	< 0.150	< 0.150
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Boron	mg/l B	S	8	8	0	0.000	0.007	0.009	0.010
Bromate	ug BrO3/l	S	8	8	0	0.000	0.920	1.365	2.200
Bromoxynil	ug/l	AS	8	8	0	0.000	< 0.008	< 0.008	< 0.008
Cadmium	ug/l Cd	S	8	8	0	0.000	< 0.042	< 0.050	0.110
Chloride	mg Cl/l	S	8	8	0	0.000	15.000	19.000	24.000
Chlorotoluron	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Chlorpyrifos	ug/l	AS	8	8	0	0.000	< 0.007	< 0.007	< 0.007
Chromium	ug/l Cr	S	8	8	0	0.000	< 0.260	< 0.367	0.670
Clopyralid	ug/l	AS	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Clostridium perfringens (sulph red)	CFU/100 ml	AS	8	8	0	0.000	0.000	0.000	0.000
Colony Counts 22	CFU/1 ml	S	52	52	0	0.000	0.000	1.038	14.000
Colony Counts 37 (48hrs)	CFU/1 ml	S	52	52	0	0.000	0.000	0.250	4.000
Colour	mg/l Pt/Co	S	52	52	0	0.000	< 4.563	< 4.563	< 4.563
Conductivity	uS/cm 20 C	S	52	52	0	0.000	180.000	263.654	410.000
Copper	mg Cu/l	S	8	8	0	0.000	< 0.043	< 0.420	< 0.546
Cyanide	ug/l CN	AS	8	8	0	0.000	< 5.500	< 5.500	< 5.500
Dicamba	ug/l	AS	8	8	0	0.000	< 0.028	< 0.028	< 0.028
Dichlorprop	ug/l	AS	8	8	0	0.000	< 0.011	< 0.011	< 0.011
Diflufenican	ug/l	AS	8	8	0	0.000	< 0.007	< 0.007	< 0.007
Dimethenamid	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006

Site Ecology

Ecology

- Badger
- Newts
- Bats
- Otter



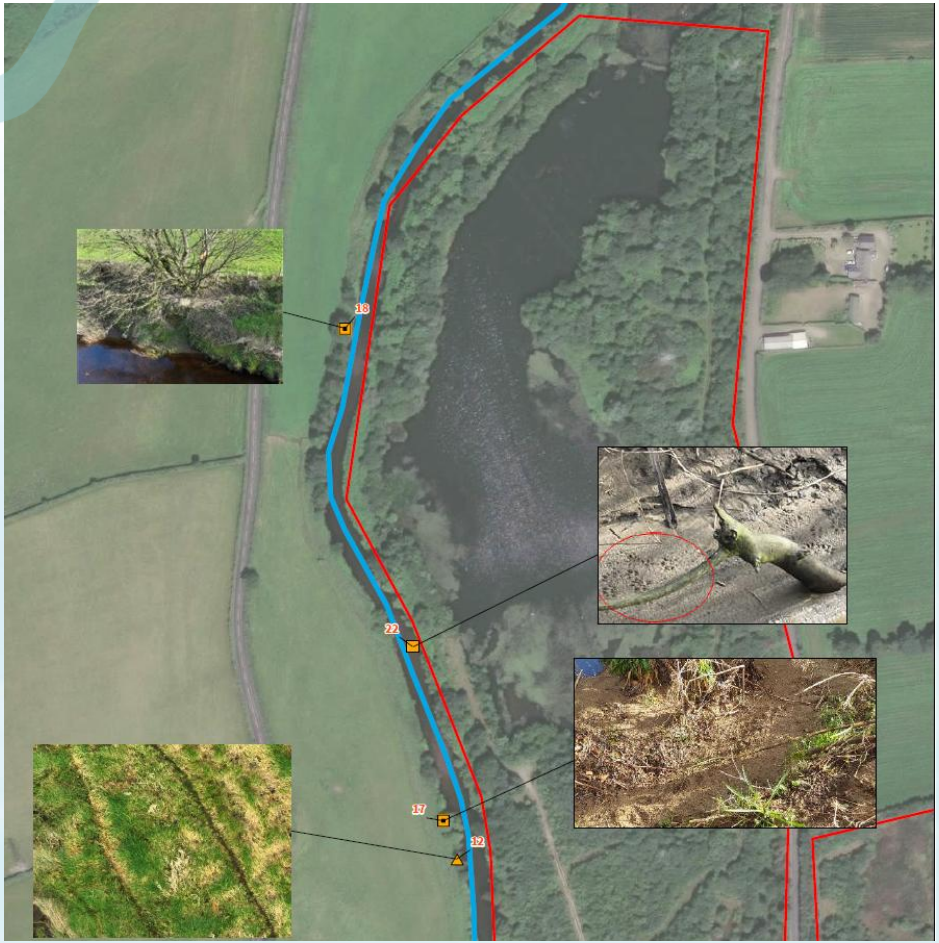






https://www.daera-ni.gov.uk/publications/ecology-reports

Ecology - Otter Survey (February 2026) - Drone







Legend

- Site boundary
- River Faughan

Evidence

- Print & Slide
- Footprints
- Mammal path

Q&A

Thank you