

REFERENCE

2425591

RELEASE DATE

April 2025

SUBJECT

Information about water and wastewater sludge relating to 2023 and 2024.

RESPONSE

- 1. Please could you provide me with the following data in a spreadsheet for 2023 and 2024? If you only have the data for 2023 then please share that. If you don't have data for either year, please explain why and provide data for the most recent year that you have it. If you only have a proportion of the information requested, please provide the elements that you do have.**

- Volume or mass of sludge produced (e.g., tonnes per year).**
- Source of sludge (e.g., specific wastewater treatment works)**
- Treatment location (specific treatment works or third-party facility)**

A spreadsheet at Annex A is provided. By way of explaining the data provided in Annex A, NI Water operates a wastewater sludge treatment philosophy which entails geographic centralisation of sludge thickening assets and sludge dewatering assets before end disposal primarily through incineration. Consequently;

- Minor WwTWs unthickened liquid sludges are tankered to Major WwTWs
- Major WwTWs thickened liquid sludges are tankered to Dewatering Centres
- Dewatering Centres sludge cake is transported via covered trailer to Duncrue Street Sludge Facility (Belfast) for incineration or alternative disposal

Note: WwTW sludge is not measured/calculated at the point of production, but rather at the point of reception/discharge in each of the above transportation steps.

Note also: NI Water's records are generally based on recording "tonnes dry solids," rather than wet tonnes.

2. Characteristics of the sludge (e.g., dry solids content, organic matter, pathogens, metals)

Dry solids content is measured at the point of reception/discharge in each of the above transportation steps and varies for each and every point of discharge, as provided in Annex A.

Other characteristics are not routinely measured by either NI Water nor its third-party PPP contractors and, as such, this information is not held and Regulation 12(4) of the EIR applies. Regulation 12(4) (Information not held) provides that “a public authority may refuse to disclose information to the extent that it does not hold that information when an applicant’s request is received”

All exceptions under the EIR are qualified and so, in deciding whether to disclose the requested information, NI Water must consider the public interest. However, this is not possible where the information is not held.

Annex B contains the results of the last characterisation samples taken by the PPP provider on a single sample of sludge cake from each of the Dewatering Centres that import tankered sludge cake to the Duncrue Street sludge disposal facility.

Under Regulation 13 of the EIR (Personal Information), the personal details of junior members of staff (below Level 3) and third parties have been redacted in black.

Regulation 13 provides that: “To the extent that the information requested includes personal data of which the applicant is not the data subject, a public authority shall not disclose the personal data”. This is an absolute exception and, as such, there is no requirement to consider the public interest in disclosure.

3. Type of treatment applied (e.g., anaerobic digestion)

Sludge thickening at Major WWTW is typically by mechanical thickeners with polymer dosing added.

Sludge dewatering at Dewatering Centres is typically by proprietary screw press dewatering systems on the eight NI Water operated facilities, and by centrifuge on the three third-party PPP operated sites.

Disposal is primarily by means of two fluidised bed incinerators at the PPP operated Duncrue Street Sludge Facility.

The PPP operator also utilises alternative disposal methods when pre-incineration on site storage capacity is limited or unavailable. This includes sludge to licenced NI farmland via lime pre-treatment, and sludge to opencast coalmine restoration projects in Great Britain. Alternative disposal locations are documented in Annex A.

4. Locations where sludge is temporarily stored

Depending on the size of a WwTW, there will be on site storage for liquid sludges prior to transportation off site.

Sludge Cake is stored by the PPP contractor under IPCC permits at two locations: Ballynacor WwTW and the Duncrue Street Sludge Disposal Facility

5. Duration times for storage

This depends on the site. For large sludge processing facilities, the sludge is typically held for 24 to 48 hours. Smaller rural sites with no sludge processing facilities may store it for as long as one to two weeks. Dewatered cake storage at Ballynacor and Duncrue St is retained until such times as incineration capacity becomes available.

6. Disposal methods (e.g., land spreading, incineration, landfill, or energy recovery)

As detailed above, disposal is primarily by means of two fluidised bed incinerators at the PPP operated Duncrue Street Sludge Facility in Belfast.

The PPP operator also utilises alternative disposal methods when pre-incineration storage capacity is limited or unavailable. This includes sludge end disposal to licenced NI farmland via lime pre-treatment, and sludge to opencast coalmine restoration projects in GB. Annex A refers.

7. Specific agricultural land or forestry sites where sludge is applied, with latitudes and longitudes or other specific location data

Annex A refers.

**8. Max heavy metal concentrations in sludge
Max pathogen and contaminant levels**

These characteristics are not routinely measured by either NI Water nor its third-party PPP contractors and, as such, this information is not held and Regulation 12(4) of the EIR again applies.

As detailed above, Annex B contains the results of the last characterisation samples taken by the PPP provider on a single sample of sludge cake from each of the Dewatering Centres which import tankered sludge cake to the Duncrue Street sludge disposal facility.