



Management of Initial Notification of a Drinking Water Issue of Potential Danger to Human Health

This document is designed to provide guidance to staff of the Health Service Executive (HSE) who work with Uisce Éireann (Public Water Supplies) and with the Local Authorities (Private Water Supplies) in relation to the initial notification of a drinking water issue of potential danger to human health.

The guidance applies to all public and private drinking water supplies which are not 'exempted supplies' (as defined in regulation 3(1) of the European Union (Drinking Water Regulations) S.I. 99 of 2023

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Table of Contents

Glossary		Page 2
1.	Introduction	Page 4
2.	Roles & Responsibilities of Key Stakeholders	Page 4
3.	Drinking Water Issues of Potential Danger to Human Health	Page 8
3.1.	Definition of Drinking Water Issue	Page 8
3.2	Drinking Water Issue requiring discussion between National Environmental Health and Public Health	Page 8
4.	Legislation	Page 9
5.	Protection of Consumer	Page 11
5.1.	Restriction of Use	Page 11
5.2.	Health Advice for Consumers	Page 12
5.2.1.	Infant Formula	Page 12
5.3.	Water from Tankers and Bowsers	Page 13
5.4	Risk of Change Over from Public Water Supply to Private Household Wells	Page 13
6.	Communication Processes	Page 14
6.1.	Communications with Public and other Health Professionals	Page 14
6.2.	Incident Management Team (IMT)	Page 14
6.3.	Outbreak Control Team (OCT)	Page 15
6.4.	Communication with Media	Page 16
7.	Criteria for Lifting a Notice	Page 17
7.1.	Closing out an Issue	Page 17
Appendix 1	Algorithm A - Process flow for completion of the Initial Notification Record (INR) when a Drinking Water Issue is identified by Uisce Éireann or Local Authority	Page 18
Appendix 2:	Algorithm B - Process flow for completion of the Initial Notification Record (INR) when a Watch List Substance or Compound is identified by Uisce Éireann (PWS) or Local Authority (SPS)	Page 19
Appendix 3	Algorithm C - Process flow following identification of parametric failure/incident by National Environmental Health Service (NEHS)	Page 20
Appendix 4	Algorithm D – Process flow following identification of cases of human illness by Public Health which may be associated with a drinking water supply	Page 21
Appendix 5	Notes on Algorithms Guidance on when a Drinking Water Issue may not Pose a Danger to Human Health	Page 22 Page 23
Appendix 6	INR Template for Public Water Supplies (Excel)	Page 24
Appendix 7	Uisce Éireann Work Instruction	Page 25
Appendix 8	INR Template for Small Private Supplies (Excel)	Page 26
	References	Page 27

Glossary

AND	Assistant National Director
ADPH	Area Director of Public Health
CPHM	Consultant in Public Health Medicine
C/SPHM	Consultant/Specialist Public Health Medicine
Drinking Water Incident	<p>(As defined by EPA) Any event detected by routine compliance monitoring or routine operational monitoring, or any other event that was not necessarily detected by routine compliance or operational monitoring and has occurred because of something that has happened in the catchment, at the treatment works or in the distribution system, that:</p> <ul style="list-style-type: none">• appears to have caused illness in the community as a result of the water supplied; or• because of its effect, or likely effect, on the sufficiency or quality of the water supplied, gives rise to, or is likely to give rise to, a significant risk to the health of persons to whom water is supplied; or• has caused, or is likely to cause, significant concern to persons to whom the water is supplied; or• has attracted, or is likely to attract, significant local or national publicity
Drinking Water Issue	<p>Includes (a) any non-compliance of a microbiological, chemical or indicator parametric value as defined by the drinking water regulations; (b) where there are cases of human illness, or the possibility of human illness, which are, or may be, related to a drinking water source or (c) an event of possible relevance to drinking water quality, such as burst pipe, a pollution incident, a disinfection failure, a breakdown at a water treatment plant or other drinking water plant failure</p>
DWIRP	Drinking Water Incident Response Plan
EHO	Environmental Health Officer
EPA	Environmental Protection Agency
Exempted Supply	<p>a supply of water which</p> <p>(a) (i) constitutes an individual supply of less than 10 cubic metres a day on average or serves fewer than 50 persons AND</p> <p>(ii) is not supplied as part of a commercial or public activity,</p> <p style="text-align: center;">OR</p> <p>(b) is used exclusively for purposes in respect of which the relevant supervisory authority is satisfied that the quality of the water has no influence, either directly or indirectly, on the health of the consumers concerned</p>
HPSC	Health Protection Surveillance Centre

HSE	Health Service Executive
INR	Initial Notification Record
IRT	Incident Response Team
LA	Local Authority
MOH	Medical Officer of Health
OCT	Outbreak Control Team
NEHS	National Environmental Health Service
PEHO	Principal Environmental Health Officer
SMO	Senior Medical Officer
SPS	Small Private Supply
SPHM	Specialist in Public Health Medicine
UÉ	Uisce Éireann
Water Supplier	Means any person supplying water intended for human consumption and includes the following: (a) Uisce Éireann (b) a private water supplier
Watch list	Means the watch list as established, and updated, by the European Commission in accordance with Article 13(8) of the Directive;

1. Introduction

This document is designed to provide guidance to HSE personnel who work with Uisce Éireann and Local Authorities in relation to drinking water issues of potential danger to human health. This guidance applies to all public water supplies and private water supplies which are not 'exempted supplies' (as defined in regulation 3 of the European Union (Drinking Water) Regulations S.I. 99 of 2023).

It sets out a framework for communication both within the HSE and between the HSE and Uisce Éireann and Local Authorities where formal consultation has been sought. It also reflects the agreed process between UÉ, HSE and EPA for dealing with exceedances and incidences in drinking water; "Initial Notification Record (INR)" See Appendices.

The priority in managing drinking water issues of potential danger to human health is to protect human health in a timely manner using best available evidence, expertise and resources.

This current revision has been undertaken to reflect the changes to Drinking Water Regulations that have been transposed into Irish law via the European Union Drinking Water Directive. The new legislation is cited as European Union (Drinking Water) Regulations 2023 S.I. 99 of 2023 (1).

2. Roles and Responsibilities of Key Stakeholders

2.1 Uisce Éireann (UÉ)

Uisce Éireann is responsible for the provision all public drinking water supplies in Ireland and the monitoring of such supplies (1).

Uisce Éireann, as the water supplier for public supplies, has overall responsibility for consultation with the HSE, and will lead the management of media and consumer communications for drinking water incidents in public supplies.

2.2 Local Authorities (LAs)

The Local Authorities continue to perform a key role in the operational management and monitoring of small private water supplies. They have a supervisory role over private group water schemes and other private supplies, as per the 2023 Drinking Water Regulations (1).

Small private supplies and the Local Authority have the responsibility for consultation with the HSE and management of media and consumer communications for drinking water incidents for these supplies.

2.3 Health Service Executive (HSE)

The National Environmental Health Service and the Departments of Public Health are the two main services within the HSE with whom Uisce Éireann / Local Authority interact in relation to drinking water.

In addition, HSE laboratories have a role in providing analysis of clinical samples and, in some laboratories, analysis of water samples, and in providing microbiological expertise for the management of some drinking water issues (see Section 2.3.3).

2.3.1 National Environmental Health Service (NEHS)

The National Environmental Health Service is headed by the Assistant National Director (AND) for Environmental Health. The AND reports to the National Director – National Services. The NEHS at local level consists of a Principal Environmental Health Officer

(PEHO), Senior Environmental Health Officers (SEHOs), Environmental Health Officers (EHOs), administrative and support staff.

Some National Environmental Health Service functional /local areas include two Local Authority areas, e.g. Carlow-Kilkenny, Laois-Offaly, Sligo-Leitrim among others. Conversely a number of Local Authority areas encompass more than one National Environmental Health Service local office e.g. Cork, Dublin and Tipperary.

In addition to our role as consultees in providing advice to the UÉ/LA under the Drinking Water Regulations, in conjunction with Departments of Public Health as necessary, the National Environmental Health Service provides the following services relevant to drinking water:

- assesses controls in place by food business operators to ensure the potability of water used in connection with the food business and verification sampling as appropriate by NEHS and takes appropriate enforcement action under food safety legislation where such water quality presents a food safety risk;
- collaborates with Departments of Public Health in the investigation of cases of suspected waterborne illnesses, such as VTEC, by sampling drinking water supplies, especially private wells;
- offers advice and guidance to the public on drinking water contamination, remedial measures etc.;
- in some areas, carries out drinking water compliance monitoring of private water supplies on an agency basis, for Local Authorities;
- refers complaints or concerns, raised by the public in respect of drinking water, to Uisce Éireann or Local Authority as appropriate
- investigates complaints of incidents with potential to cause danger to human health which may be related to environmental contamination;
- investigates drinking water issues that pose a potential danger to human health
- supports the public in accessing laboratory testing services for water samples, provides guidance on the interpretation of laboratory results and provides advice, usually in respect of private wells or private group water schemes.

2.3.2 Departments of Public Health

There are six Departments of Public Health corresponding to the HSE's six Regional Health Areas (RHAs). Each RHA's Department of Public Health may provide advice to more than one Local Authority and more than one National Environmental Health Service local area.

Departments of Public Health include multidisciplinary teams which can include CPHMs, SPHMs, Senior Medical Officers (SMOs), surveillance scientists, nursing staff, researchers and administrative staff.

CPHMs and SPHMs are designated as Medical Officers of Health (MOHs) in relation to the region covered by their department, under Health Acts 1947 to 1953, the Health (Duties of Officers) Order 1949, the Infectious Diseases Regulations 1981 and the Health Act 2004. (2,3,4,5).

The Director of National Health Protection (DNPH) is the MOH in relation to the whole country and leads the National Health Protection Office, HSE Public Health: Health Protection. The Infectious Diseases Regulations 1981 assigns a duty to the MOH to investigate and control infectious diseases (see Section 4.2). Under this legislation and the Health (Duties of Officers) Order, the MOH is also required to collate information about actual and potential dangers to human health and to advise on such matters. This includes the provision of advice to the Uisce Éireann and Local Authorities regarding environmental health issues.

As part of these roles, Departments of Public Health provide the following services relevant to drinking water:

- surveillance of communicable diseases, including the identification of illness in an individual or groups which may be related to drinking water;
- investigation and public health management of cases and outbreaks of communicable disease, and chairing the outbreak control team;
- investigation of complaints of illness or incidents with potential to cause danger to human health which may be related to environmental contamination;
- Investigates drinking water issues that pose a potential danger to human health
- risk communication (with vulnerable groups, public, media, councillors, professional groups);
- under the Framework for Major Emergency Management public health medical specialists provide advice, information and re-assurance, where appropriate, to exposed individuals and communities; play a key role in the short and long term monitoring and management of those exposed; play a role in communicating with the media and, where appropriate, join the HSE support team at the Local Co-ordination Centre (6).

2.3.3 HSE Laboratories

There are three categories of HSE laboratories relevant to drinking water: (a) clinical laboratories, (b) the Official Food Microbiology Laboratories (OFMLs) and Public Analyst's Laboratories and (c) reference laboratories.

As part of these roles, the laboratory services contribute the following services relevant to drinking water:

- laboratory data to support surveillance of communicable diseases which may be related to drinking water;
- laboratory support for investigation and public health management of cases and outbreaks of communicable disease related to drinking water, including participation in outbreak control team;
- laboratory support for investigation of drinking water incidents or complaints of illness which may be related to water contamination;
- advisory services to support the appropriate selection of samples and testing, and interpretation of results.

2.3.4 HSE National Drinking Water Group

Within the HSE, the National Drinking Water Group is the interdisciplinary forum to support best practice and promote competence among HSE personnel who have a role in the protection of public health in relation to drinking water. This group does not have executive powers or functions. It has representatives from Environmental Health, Public Health, Health Protection Surveillance Centre (HPSC), Microbiology and Public Analyst Laboratory services. It reports to both the Director of National Health Protection and the Assistant National Director for Environmental Health.

2.4 HSE-UÉ Drinking Water Compliance Meetings AND SPS/LA-HSE Drinking Water Compliance Meetings

It is recommended that drinking water compliance meetings are set up to facilitate interdisciplinary and interagency work. Regions shall be determined locally as best fits all stakeholders. Topics for discussion may include:

- Review of drinking water incidents, non-compliances of parametric values from Table A, B and C as per the 2023 DW Regulations and outbreaks.
- Review of EPA Compliance Plans, as appropriate

- Close relevant issues or incidents, if appropriate.
- Maintain updated contact list.
- Review any issues emerging from the INR process.
- Review emerging topics of importance as appropriate.

2.5 Environmental Protection Agency

The 2023 Drinking Water Regulations provide the EPA with supervisory powers for public water supplies (1). The EPA can direct Uisce Éireann to improve the management or quality of a public water supply. Under the Regulations, Uisce Éireann must notify the EPA of drinking water non-compliances or risk to public health from a public water supply. The EPA supervises the performance of Uisce Éireann and of Local Authorities' monitoring function under the regulations and may issue a direction, as it considers necessary, to ensure that Uisce Éireann and the Local Authorities are complying with their obligations under the regulations (1).

The EPA has published a handbook on the implementation of the regulations to provide guidance to water suppliers. It also publishes water treatment manuals, advice notes to provide practical guidance to water suppliers, and an annual report on drinking water quality in Ireland. (<http://www.epa.ie/water/dw/>)

3. Drinking Water Issues of Potential Danger to Human Health

3.1 Definition of Drinking Water Issue

The term 'drinking water issue', as used in this document, covers:

- any non-compliance of a microbiological, chemical or indicator parametric value as defined by the drinking water regulations or
- detection of substances or compounds included in the watch list
- where there are cases of human illness, or the possibility of human illness, which are, or may be, related to a drinking water source or
- an event of possible relevance to drinking water quality, such as a burst pipe, a pollution incident, a disinfection failure, a breakdown at a water treatment plant or other drinking water plant failure

The European Union (Drinking Water) Regulations S.I. 99 of 2023 Schedule part 1 sets out the microbiological (Table A), chemical (Table B) and indicator (Table C) parametric values with which a drinking water sample should comply (1).

Not all drinking water issues have a potential to be a danger to human health. Uisce Éireann or Local Authority conduct a risk assessment in order to identify the subset of drinking water issues which may indicate a potential danger to human health.

Appendix 4 provides guidance as to when a drinking water issue may not pose such a danger.

3.2 Drinking Water Issue requiring discussion between National Environmental Health and Public Health

Within the HSE, some drinking water issues may be managed solely by the NEHS.

Where UÉ or LA initiates consultation with the HSE, the NEHS should initially carry out a risk assessment in order to identify if the issue requires the involvement of Public Health.

Table 1 provides guidance to the National Environmental Health Service and Departments of Public Health on issues where both should be involved in the consultation process.

Table 1: Situations where NEHS and PH should communicate before HSE response to a consultation by Uisce Éireann or Local Authority in relation to a drinking water issue

- Any non-compliance of microbiological parameters (Table A);
- Any identification of cryptosporidium oocysts in drinking water;
- Detection of substances or compounds included in the watch list
- An initial non-compliance of a chemical parameter (Table B);
- Persistent or recurrent non-compliance of a chemical parameter (Table B) without remedial action having been agreed or, if agreed, without it having been acted upon;
- Any incident where a number of human cases of gastrointestinal illness are identified which could be related to a drinking water source;
- Any instance of multiple unsatisfactory non-compliant results of indicator parameters (Table C);
- Two consecutive unacceptable turbidity results in treated water;
- When the HSE becomes aware of an unsatisfactory treatment plant audit
- Any notification to the Departments of Public Health, or complaint/s from the public, of a number of cases of human illness which could be related to a source of drinking water;
- Any incident involving, or possibly involving, drinking water which requires activation of the Major Emergency Plan.
- A significant incident or issue in a treatment plant where water quality has been

4. Legislation

4.1 Drinking Water

4.1.1 Duties of suppliers

The European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023) requires that water suppliers ensure that the water provided is wholesome and clean and meets the requirements of the Regulations, except where a departure has been granted.

It also prescribes the quality standards to be applied, and related supervision and enforcement procedures, in relation to supplies of drinking water. This includes requirements as to:

- minimum sampling frequency
- methods of analysis
- the provision of information to consumers and related matters.
- Watch list Parameters

4.1.2 Consultation with, and agreement of, the HSE

Under the EU (Drinking Water) Regulations S.I. 99 of 2023 Regulation 15, “Where a water supplier or a local authority considers that a supply of water intended for human consumption constitutes a potential danger to human health, the water supplier or the local authority, as the case may be, shall consult with the HSE, and with the agreement of the HSE, ensure that—

- (a) the supply of such water is prohibited, or the use of such water is restricted, or such other action is taken as is necessary to protect human health,
- (b) consumers are informed promptly thereof and given the necessary advice,
- (c) in the case of a public water supply, the EPA is informed promptly, and
- (d) the relevant local authority is informed promptly.”

During the consultation process, UÉ (PWS) or LA (SPS) has a duty of care to explain / articulate the engineering and scientific technicalities surrounding a drinking water issue in a clear and easy to understand manner, to facilitate a meaningful assessment of any public health risk. It is essential that the outcome of the consultation process is agreed, with due recognition of both the water supplier/ LA and HSE respective areas of expertise.

Where substances or compounds included in the watch list are detected, the water supplier shall consult with the HSE and the supervisory authority. Relevant measures are considered and taken as per Regulation 13 of the EU (Drinking Water) Regulations S.I. 99 of 2023.

Please refer to E.U. (Drinking Water) Regulations 2023, S.I. 99 of 2023 for further information on when the HSE may be consulted (1).

4.2 Health Protection

The Medical Officer of Health (MOH) has the responsibility and authority to investigate and control infectious diseases and outbreaks, under the Health Acts 1947 and 1953; Infectious Disease Regulations 1981 and subsequent amendments to these regulations (2,3,4,5).

In particular, Article 11 of Infectious Disease Regulations 1981 (S.I. 390 of 1981) states: “on becoming aware, whether from a notification or intimation under these Regulations or otherwise, of a case or a suspected case of an infectious disease or of a probable source of infection with such a disease, a Medical Officer of Health, or a Health Officer on the advice of a Medical Officer of Health, shall make such enquiries and take such steps as are necessary or desirable for investigating the nature and source of such infection, for preventing the spread of such infection and for removing conditions favourable to such infection.” (5)

Article 19 of the above Regulations states: *“a person who refuses to comply with a requirement or direction given or a request for information made in pursuance of any of the provisions of these Regulations shall be guilty of a contravention of these Regulations.”*(5)

A MOH should, therefore, investigate a probable source of infection in a drinking water source and take such steps as to prevent the spread of infection and to remove conditions favourable to such infection.

In addition, if a MOH is investigating an outbreak of human illness which is, or may be, linked to a drinking water source, there is an obligation to investigate so as to prevent the spread of infection.

Under the Health (Duties of Officers) Order 1949, a MOH is obliged to inform him/herself in relation to the health of the population in a Local Authority area and factors influencing and to advise the Local Authority in relation to the health of the people. As some of the functions of county councils have been transferred to other authorities, advice is given to the appropriate authorities. (4).

4.3 Food Safety

The National Environmental Health Service has statutory responsibility under food law to ensure that water supplied in a food business complies with legislative requirement. A potable supply of water must be provided in all food businesses as required by European Communities (Hygiene of Foodstuffs) Regulations 2006 (S.I. 369 of 2006) and subsequent amendments to these regulations. S.I. 369 of 2006 gives effect to Regulation (EC) No. 852/2004 on hygiene of foodstuffs.

For water used in a food production undertaking, the ‘point of compliance’ is defined, under regulation 7 of European Union (Drinking Water) Regulations S.I. 99 of 2023, as being ‘at the point within a premises at which it emerges from the tap or taps that are normally used for the provision of water for human consumption’ (1).

The NEHS can take appropriate enforcement action under the Food Safety Authority of Ireland Act 1998 and other food safety legislation where such water quality presents a food safety risk.

4.3.1 NEHS Identifies a Parametric failure/Incident

NEHS identification of an issue may arise from, for example, receipt of complaints from consumers or from NEHS monitoring of food business water supplies.

Article 8 of European Union Regulation 2017/ 625(7) contains a confidentiality clause prohibiting (with limited exception) disclosure of information acquired by the National Environmental Health Service, when undertaking official control activities, to third parties.

5. Protection of Consumer

In the event of a drinking water incident occurring a risk assessment will be undertaken to determine the potential risk to human health. There are a number of possible actions which may be taken to protect the consumer. These actions must be agreed by UÉ or the LA in consultation with the HSE and may include

- a review of any emergency measure in place;
- providing advisory information to consumers;
- continuing supply but advising customers not to use water for drinking and cooking, or to boil water for such purposes;
- switching to temporary alternative supplies or providing suitable alternative supplies for vulnerable groups, e.g. infants;
- shutting off supply and providing water by tanker;
- flushing of supplies
- in the event of a chemical contamination the system may be drained and scoured to ensure complete removal of the chemical contaminant;
- providing information to public representatives, residents associations, press and local radio, leaflet distribution, website and social media updates, and via the Uisce Éireann customer contact centre.

The HSE can be consulted on drinking water incidents with a potential risk to human health that have been rectified by the water supplier by the time we receive communication details. However there may still be a risk to human health due to lag time of illness and the following information should be considered when protecting the consumer

- i) Inform consumers that an incident had occurred but that the water was now safe to consume
- ii) Due to the potential lag time before illness presents there is a possibility that anyone who consumed affected water in that time may still become unwell in the following days/weeks
- iii) If someone does become unwell they should present to their GP and make the GP aware they had been exposed to contaminated water in a specified period.

5.1 Restriction of Use

A range of control measures may be employed to minimise the potential danger to human health. Where restriction of use is necessary, the consumers may be advised to:

- boil tap water before consumption;
- do not use for drinking, cooking but can use for washing or
- do not use for drinking, cooking or washing.

A boil water notice may be considered where there is a danger to human health from microbiological contamination. This should be done in order to ensure the safety of the drinking water supply and to prevent water borne outbreaks.

However, issuing a boil water notice is a serious measure that should be undertaken only when there is an ongoing risk to human health which outweighs any risk from the boil water notice itself, for instance the use of bottled water may be the best alternative in some settings such as schools.

In some instances (e.g. Cryptosporidium), epidemiological evidence of an outbreak may form the basis for advice, in the absence of laboratory evidence of water contamination.

In the event that UÉ/LA issues a boil water/water restriction notice without prior discussion with the HSE, the HSE should be informed at the earliest opportunity.

In the more usual scenario, i.e. where a decision to issue a boil water/water restriction notice follows a consultation with the HSE, the text of the notice, and methods of communication should be agreed.

Where there is a restriction of use or interruption to water supply, special consideration should be given by the UÉ, LA or Water supplier to notify key settings and vulnerable groups.

Key settings include:

- Hospitals
- Hospices
- Nursing and residential homes
- Schools, pre-schools, colleges
- Day-care centres
- Health centres, GP and Dental surgeries
- Food production premises and pharmaceutical industries.

Vulnerable groups for consideration for additional advice:

- Infants
- Elderly
- Home haemodialysis patients
- Severely immunocompromised patients (e.g. leaflet on 'Drinking Water Supplies, Cryptosporidiosis and Severely Immunocompromised Patients' <http://www.hpsc.ie/A-Z/Gastroenteric/Cryptosporidiosis/Publications/File,14628,en.pdf>.)
- Individuals with specific medical conditions e.g. haemochromatosis

5.2 Health Advice for Consumers

The following details guidance which should be provided to consumers in the event of a restriction to drinking water.

5.2.1 Infant Formula

Where drinking water restrictions are in place, the reconstitution of infant formula for bottle-fed infants requires particular advice. For a boil water notice, infant formula can be prepared using boiled tap water or boiled bottled water or ready to use formula can be used. For a do not consume notice infant formula **should not** be prepared using tap water, boiled bottled water or ready to use formula can be used.

Boiled tap water: Powdered infant formula should be prepared with water from the cold tap at the kitchen sink. It should be brought to the boil once (rolling boil for 1 minute) and cooled. Water that has been re-boiled several times should not be used.

Water that has passed through an ion exchange water softener i.e. one using salt, should not be used to prepare infant feeds. A small separate drinking water tap is usually provided at the kitchen sink when these are installed.

Bottled water can be used to make up infant formula. All bottled water, with the exception of natural mineral water, is regulated¹ to the same standard as drinking water.

¹ All bottled water is regulated by European Communities (Natural mineral waters, spring waters and other waters in bottles or containers) Regulations, 2007 (S.I. No. 225 of 2007). Additionally, spring waters and 'other waters' must also comply with European Union (Drinking Water) Regulations, 2023 (S.I. No. 99 of 2023).

It is best not to use bottled water labelled as 'Natural Mineral Water' as it can have high levels of sodium (salt) and other minerals, although it rarely does. 'Natural Mineral Water' can be used if no other water is available, for as short a time as possible, as it is important to keep babies hydrated.

If bottled water is used to make up infant formula it should be boiled once (rolling boil for 1 minute), and cooled in the normal way.

Ready-to-use formula that does not need added water can also be used.

5.3 Water from Tankers and Bowsers

When emergency water supplies are provided from tankers and bowsers and consumers provide their own containers, it is important for consumers to ensure that their water containers are clean before filled. As a precautionary measure, this water should be boiled before use for drinking, food preparation and brushing teeth.

5.4 Risk of change over from Public Supplies to Private Household Wells

The consumer should check that water that they use from a private well is safe.

Private well water supplies can pose a risk to health unless the well is properly built, protected, maintained and, if necessary, treated. Domestic wells and other exempted supplies are not monitored under the Drinking Water Regulations. Therefore, the owner is responsible for monitoring, as well as for maintaining and treating the water.

Well water should be tested at least once a year for bacteria (8) and at least once every three years for chemicals.

However, well water contamination can come and go and may not show up on occasional tests. Even wells which usually produce very high quality water can become contaminated after heavy rainfall, if there are animals nearby and at different times of the year. The risk of contamination should be constantly considered.

Where a well is contaminated or suspected of being contaminated with bacteria, an attempt should be made to remove the source of the contamination. If this cannot be done, the customer should consider getting the water treated.

See also: <https://www.epa.ie/water/dw/hhinfo/>

In the interim, water from such a well should be boiled before using it for preparing infant feeds, drinking, making ice, preparing salads and similar foods, or brushing teeth.

6. Communication Processes

6.1. Communications with Public and other Health Professionals

For public supplies and depending on the severity of an issue, Uisce Éireann, or the Local Authority, agrees with the HSE the content and method(s) of information dissemination including restriction of drinking water use and the removal of such restriction.

For private supplies, the Local Authority agrees with the HSE the content and method(s) of information dissemination including restriction of drinking water use and the removal of such restriction.

Communication to the public may include:

- prompt, clear and concise briefing of public representatives;
- through the Uisce Éireann customer contact centre;
- house to house distribution of water notice;
- press releases;
- public notices e.g. church and other religious centres, schools;
- engaging with residents associations;
- fact sheets/FAQs,
- public health information leaflet on waterborne illnesses, including specific advice for vulnerable groups where appropriate;
- radio and television interviews;
- website and social media;
- helpline
- messaging groups

Uisce Éireann or the Local Authority has a responsibility to provide advice to all consumers. According to local arrangements, specific advice may be given to vulnerable groups and other health professionals (Directors of Public Health Nursing, GPs, consultants) or through relevant key settings, such as elderly care facilities, pre-schools. The HSE may also provide direct advice where necessary.

Public Health communications with the public and with other health professionals may be purely advisory, but it may also be part of active surveillance of disease as part of the investigation of an outbreak of infectious disease.

Uisce Éireann, Local Authorities and the HSE should work together to provide consistent and complementary information and advice for the public.

6.2. Incident Management Team (IMT)

If a drinking water issue is of sufficient seriousness and complexity, an IMT will be convened, and chaired, by the Local Authority or by Uisce Éireann (as relevant). It is likely that any issue which requires an interagency discussion could be considered by an IMT.

The purpose of the IMT is to ensure co-ordinated investigation, management and control of an incident.

If the initial risk assessment indicates immediate action is required to protect human health, this action should be taken prior to convening the IMT.

The IMT terms of reference include the following:

- review the evidence of the incident and the results of epidemiological and chemical/microbiological investigations;

- decide on control measures and determine the necessary commitment of personnel and resources;
- make on-going arrangements for informing the public, including vulnerable groups and key settings;
- decide when the incident is finished;
- prepare an incident report containing recommendations for future action.

In the event of an outbreak of infectious disease where a drinking water source is suspected to be a cause of the illness, the HSE may request that Uisce Éireann or Local Authority convene an IMT. Where a HSE Outbreak Control Team (OCT) is also convened, the OCT will liaise with the IMT, and vice versa, as appropriate.

The IMT may vary in size depending on the severity and complexity of the issue. Additional expertise may be required and others may be co-opted as appropriate. Typically membership would comprise some or all of the following:

Uisce Éireann	HSE
Local Authority	Medical Officer of Health (CPHM/SPHM)
Director of Services	Senior Medical Officer
Senior Engineer	Principal Environmental Health Officer
Senior Executive Engineer	Senior Environmental Health Officer
Water Services Chemist	Surveillance Scientist
Area Engineer	Consultant Microbiologist
Uisce Éireann Representative	Others as appropriate
Others as appropriate e.g. Public Relations	

Minutes should be taken at all IMT meetings and draft minutes agreed at subsequent meetings or as agreed. Uisce Éireann or Local Authorities are responsible for keeping records of the meetings.

6.3. Outbreak Control Team (OCT)

Outbreaks, or possible outbreaks, of infectious disease may come to the attention of Departments of Public Health by means of:

- complaints from members of the public (either directly or indirectly from the National Environmental Health Service);
- statutory notifications of infectious disease from medical practitioners or clinical directors of medical laboratories;
- surveillance of infectious diseases.

The role of the OCT is to:

- Determine if an outbreak exists
- Investigate the outbreak
- Implement control measures
- Communicate with the public, other professionals, the media etc., as necessary
- Produce an outbreak report, including lessons learned.

When an outbreak, or possible outbreak, is identified, the MOH will convene and chair an OCT. Core membership will always include Public Health Medicine and National Environmental Health Service, and will generally include Clinical Microbiology.

When it is suspected that the outbreak, or possible outbreak, could be linked to drinking water, Uisce Éireann or Local Authority is consulted where relevant.

Minutes should be taken at all OCT meetings and draft minutes agreed at subsequent meetings or as agreed.

The OCT will produce an outbreak report. This report is signed off by the OCT. As this report may contain potentially identifiable personal health information, parts of the report may remain confidential and not accessible under Freedom of Information legislation.

Depending on the circumstances, Uisce Éireann or Local Authority may also convene an IMT. On occasion, the OCT itself may request that an IMT be called. It is agreed that this request will be facilitated by the Local Authority / Uisce Éireann. If an IMT is convened, the OCT will liaise with the IMT and will likely have a number of common members with the IMT.

6.4. Communication with Media

Uisce Éireann and the Local Authority are responsible for managing all media interactions in relation to drinking water incidents for public supplies and private supplies, respectively.

7. Criteria for Lifting a Notice

Prior to issuing a boil water, restriction of use or advisory notice, it is good practice to establish criteria for removing the notice. However, this is not always possible and sometimes the urgency for issuing such notices precedes the definition of lifting criteria.

The criteria should take into consideration the balance of risks associated with continuing any restrictions, against the potential health risk associated with the waterborne hazard. Criteria may include cases of human illness, concentration of the contaminant, remedial action, sustainable supply and timescale involved and may also be informed by the EPA and the requirements of any related Direction.

The principal criteria for lifting a notice should include:

- water monitoring results satisfactory/indicate compliance;
- treatment is effective and sustainable and the commissioning statement² is agreed by the EPA, where appropriate;
- epidemiological evidence that the outbreak is over/return to background levels of human illness;

7.1. Closing out an issue

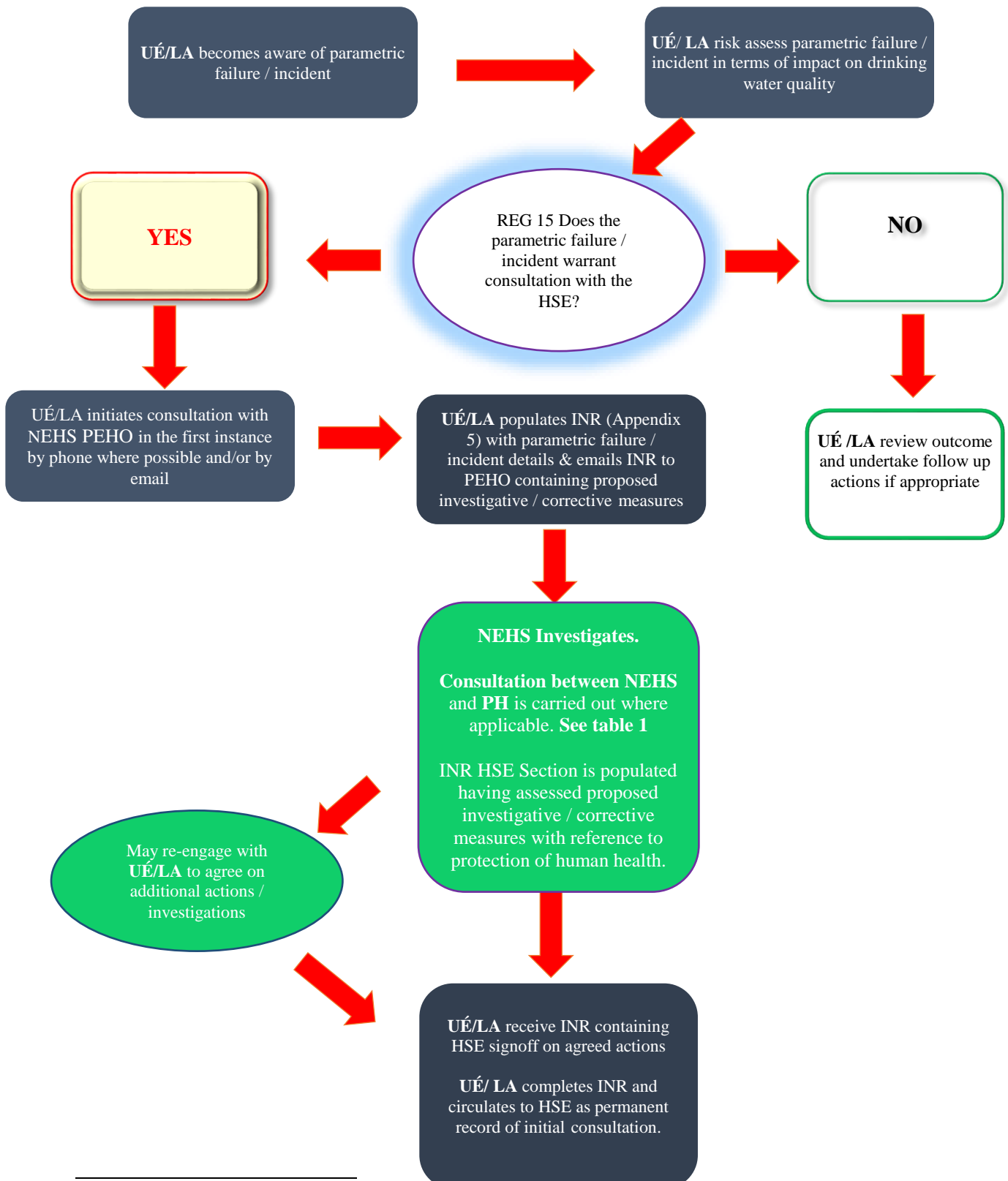
Once an issue has been notified to the HSE by Uisce Éireann /Local Authority or vice versa, it would be good practice if the issue was officially closed by the relevant agency and this closure communicated to key personnel involved in the issue.

² A commissioning statement is written confirmation that the treatment plant is operating effectively and meets appropriate external quality standards.

Algorithms¹

Appendix 1

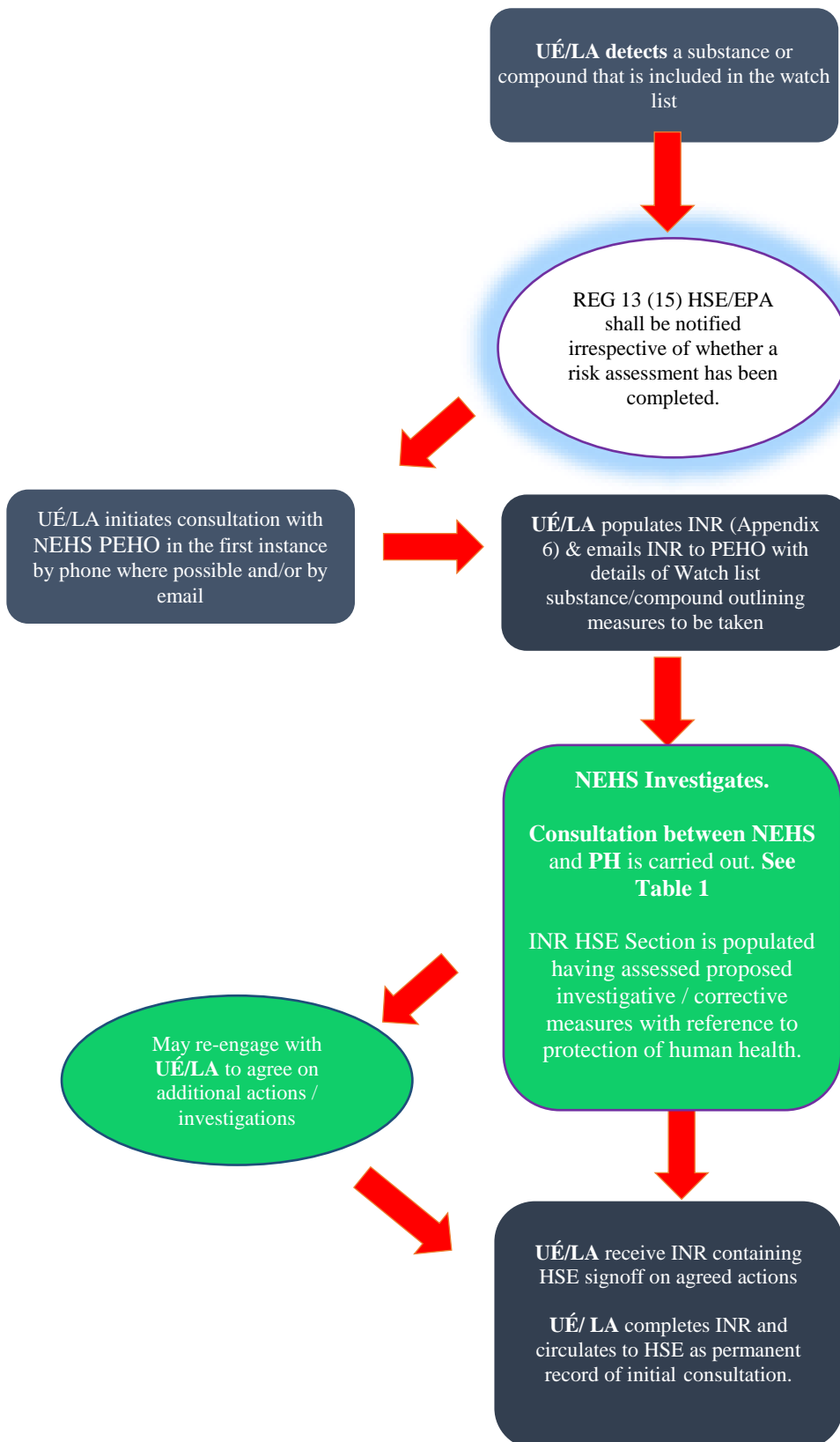
Algorithm A: Process flow for completion of the Initial Notification Record (INR) when a Drinking Water Issue is identified by Uisce Éireann (PWS) or Local Authority (SPS)



¹ Please refer to notes on Algorithms A, B and C below for further information

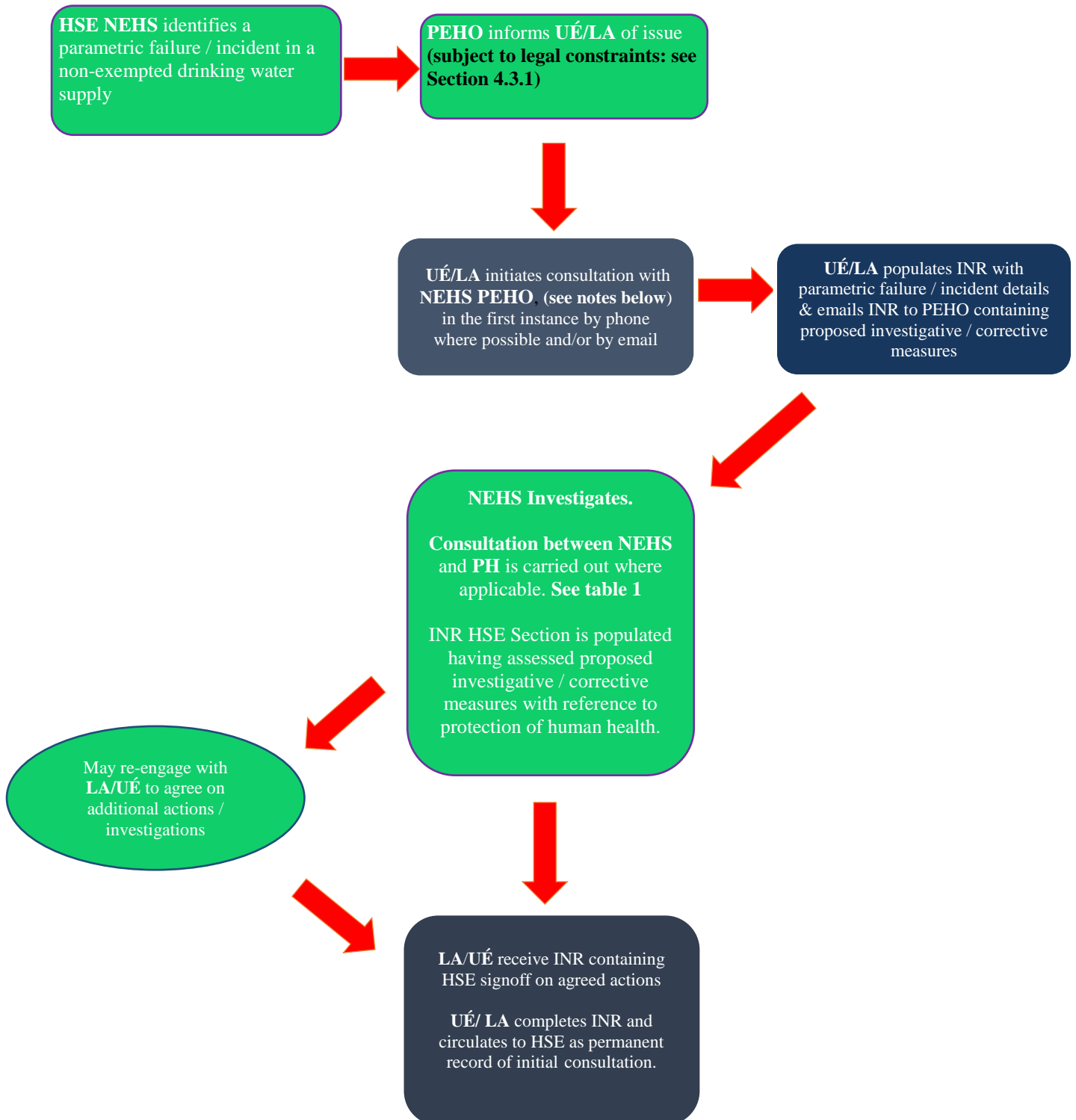
Appendix 2

Algorithm B: Process flow for completion of the Initial Notification Record (INR) when a Watch List Substance or Compound is identified by Uisce Éireann (PWS) or Local Authority (SPS)



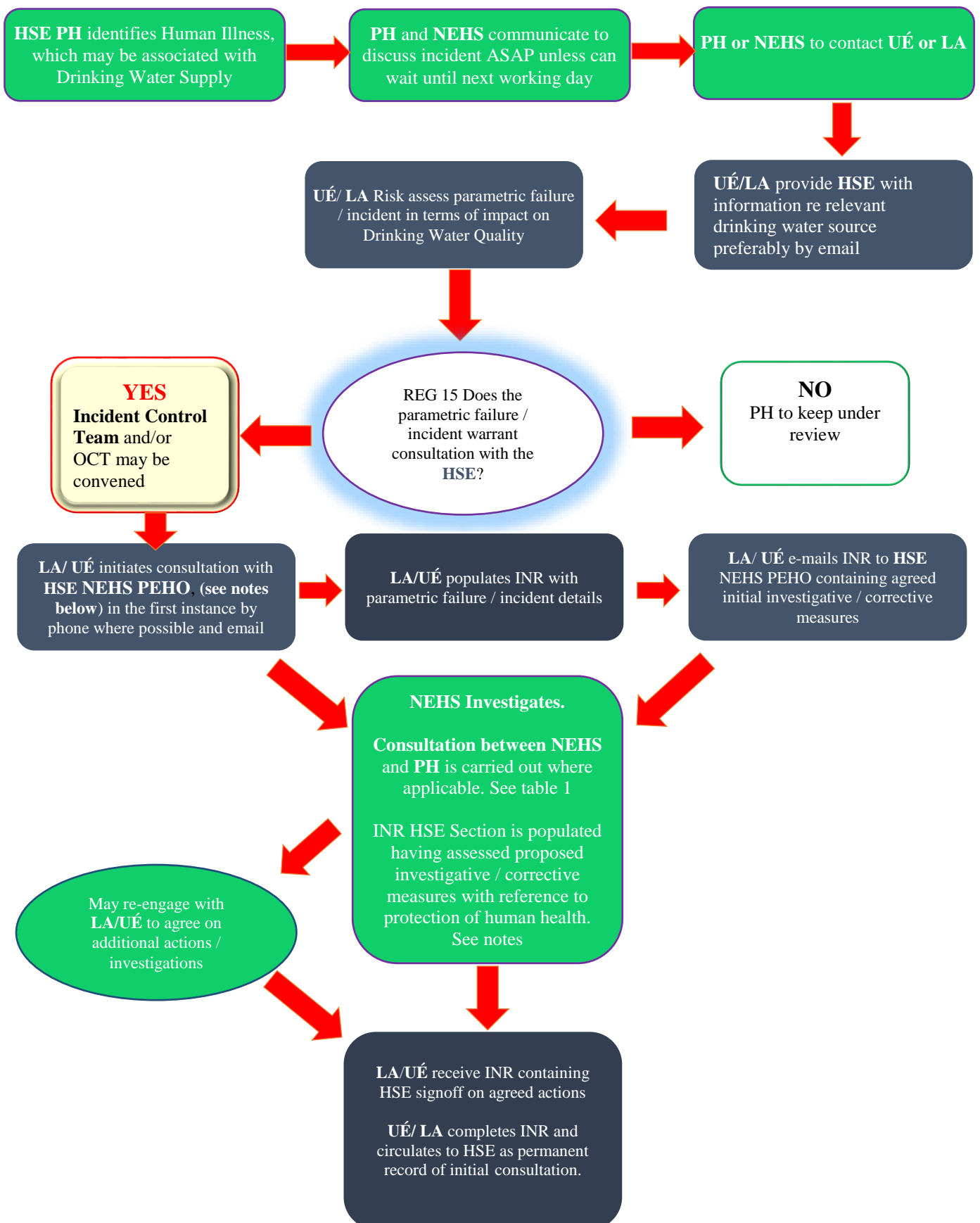
Appendix 3

Algorithm C: Process flow following identification of parametric failure/incident by National Environmental Health Service (NEHS)



Appendix 4

Algorithm D: HSE Public Health process flow following identification of cases of Human Illness which may be associated with a Drinking Water Supply



Notes on Algorithms

1. For the purpose of this document, the LA is the Supervisory Authority for Private Water Supplies
2. For the purpose of this document, Uisce Éireann is the Water Supplier for Public Water Supplies
3. Not all drinking water issues have the potential to be a danger to human health. UÉ/LA will conduct a risk assessment to determine the impact on drinking water quality (Appendix 4)
4. Guidelines for consultation on watch list parameters will be jointly developed by the EPA, the HSE and the water suppliers as part of the INR procedure.
5. The usual first point of contact for UÉ/LA within the HSE is the local Principal Environmental Health Officer (PEHO).
6. INR procedure has been agreed with UÉ and HSE. Please refer to “Read Me” tab on INR template for additional information on completing INR template (Appendix 5). See appendix 6 which includes work instructions *on Use of the Initial Notification Record (INR) template (Notification of Parametric Failure / Incident - Initial Consultation Record – Uisce Éireann and HSE)*.
7. Draft INR process is also developed for private supplies, currently many local arrangements are still in place (Appendix 7)
8. The INR and associated work instruction only apply to the initial consultation phase. The INR is a permanent record of **the initial consultation**. Therefore, it **must not be updated** in the light of further communications.
9. If either the National Environmental Health Service or the Departments of Public Health becomes aware of a drinking water issue of potential danger to human health which requires communication with the other HSE service, this should be communicated as soon as possible, unless it is assessed that communication can wait until the next working day.
10. If a C/SPHM has been consulted for advice by the NEHS and if joint HSE advice is required, the detail to be entered on the HSE section of the INR should be first agreed with the C/SPHM. The final version of the INR should be copied to the C/SPHM.
11. Where a PEHO does not need to consult with a C/SPHM about a drinking water issue, there is no requirement to copy the C/SPHM in emails relevant to the issue, having due regard to Table 1. Nonetheless, colleagues may agree at a regional level that PEHOs copy C/SPHM for information purposes.
12. If a drinking water issue is sufficiently serious or complex, an IMT may be convened & chaired and documented by UÉ/LA to allow co-ordinated management of the incident.

Appendix 5: Guidance on when a Drinking Water Issue may not Pose a Danger to Human Health

(a) Coliforms:



In relation to coliform results, when all of the following apply:

- result is a single instance of < 10 coliforms/100ml in a range of at least two samples taken on the same day in a single supply;
- result has arisen from routine sampling programme and not as a result of an identified local issue. It should also be borne in mind that sampling from mixer taps or outside taps could result in a 'false positive'. If the original sample was taken from a mixer tap, the follow-up sample should be taken from a tap plumbed from the rising main only.
- adequate free residual chlorine levels (>0.1 mg/L) have been verified at the sampling point at the time of sampling and over the intervening period;
- no other factors of concern are associated with the supply at time of sampling and since that time (i.e. other positive microbiological results, interruption of supply, problems with treatment process, increased turbidity, consumer complaint, etc.);
- a repeat sample obtained as soon as reasonably practical, and preferably within one working day, shows a clear result;
- the sample relates to domestic type settings only and without any associated food business activity or from high risk premises such as hospitals, nursing homes or other residential care facilities, pre-schools or child minding facilities, schools;
- confirmation from the consumer in the failing location that no one has symptoms of gastrointestinal illness (such as vomiting and/or diarrhoea);
- confirmation that the consumer has been informed of the result, has been advised that the problem is likely to be specific to their premises and has been advised to use an alternative source of water for consumption, or of the need to boil the water, until a clear result is obtained.

(b) Turbidity

Any increase in turbidity should be risk assessed by Uisce Éireann, Local Authority or Water supplier and, in the event of sampling taking place at an inappropriate time (e.g. following backwashing, scouring of mains), a follow up sample should be taken as soon as possible and preferably within one working day. If such result is considered adequate for that supply, there is no need for immediate discussion with the HSE.

Appendix 6: INR Template Public Supplies

A	B	C	D	E	F	G	H	I
1	Protocol Ref: UÉ-PRT-EPA-001		Protocol Name: EPA Reporting: Drinking Water Reporting					Templat
2	 Notification of Parametric Failure Initial Consultation Record - HSE and Uisce Éireann				Uisce Éireann Parametric Failure Number:			
3	Water Supply Area:		Population Served by Supply:		Water Source Name:			
4	Water Supply Zone (WSZ):		Population potentially affected by exceedance:		Water Source Type:			
5	WSZ Code:		Date of notification:		Name of Laboratory:			
6	Notified by (UÉ / DBO contact name):		UÉ / DBO Contact telephone number:		UÉ / DBO Contact email:			
7	Sample date	Monitoring Sample Type	Unique Sample Code ID	Sample Location & Description	Parameter (select from dropdown menu)	Sample Result	Unit of Measurement	
8								
9								
10								
11								
12	Have non compliances for this parameter(s) been detected in this supply in the previous 12 months, or previously if relevant?		Provide details (if applicable) of previous parametric failures detected in this supply for the parameter in question:					
13	Is there an open EPA file / audit recommendation for the supply for which this incident is relevant?		What other parameters were tested in the sample and were they compliant?					
	Were other samples taken on the same supply on the same day?		Was the treatment process operating normally when the sample was taken? (if not, please describe identified issues)					

Read Me Parametric Failure Incident Dropdown +

Appendix 7: Work Instruction – Use of the Initial Notification Record (INR)

Work Instruction - Use of the Initial Notification Record (INR) template (Notification of Parametric Failure / Incident - Initial Consultation Record – Uisce Éireann and HSE)

Protocol Reference: UE-PRT-EPA-001 (Drinking Water Reporting)

Overview and Scope

The purpose of this template is twofold:

- a) to record **parametric failures** (i.e. a laboratory result that has failed to comply with the respective parametric value) or an **incident**¹, and
- b) to document the **initial consultative process**², including agreed actions, between Uisce Éireann (UÉ) and the HSE if required, in response to these parametric failures and/or incidents.

The record is designed to provide:

- a permanent record of a parametric failure / incident
- an outline of the initial actions proposed by UÉ to mitigate, resolve or further investigate the problem
- an assessment of the potential danger to human health and if consultation with the HSE is required, details which would inform the initial consultation – such as sample results, water supply / treatment, past and recent history of supply and other relevant information
- details of further investigations and/ or actions subsequently agreed with the HSE as part of this initial consultation
- a record at a point in time

The template is divided into sections that require population by Uisce Éireann and the HSE (where the HSE is consulted). The fields to be populated are shaded in the colour relevant to the stakeholder, e.g. the fields for UÉ to populate are highlighted in light blue.

Note: The Initial Notification Record is **not designed** to be used where the HSE consults with UÉ, e.g. when investigating cases of human illness which may be associated with a drinking water source³.

¹ An occurrence in the catchment, abstraction, treatment plant, or distribution network that poses an immediate or long term risk to public health, has the potential to introduce a risk to public health or impacts on the wholesomeness and palatability of drinking water

² While it is difficult to be definitive, an initial consultation is not likely to extend beyond 24 hours. Please see note 13 in relation to the recording of any subsequent consultations arising from an initial parametric failure / incident.

³ See *“Management of an Initial Notification of a Drinking Water issue of Potential Danger to Human Health”*, HSE, 2020

Instruction on use of the INR

1. The relevant UÉ personnel receives notification of a parametric failure (e.g. from the laboratory), or front line UÉ personnel becomes aware of an incident (refer to incident definition in footnote #1)
2. The relevant UÉ personnel populates appropriate details of the parametric failure / incident in the INR template (cells highlighted in light green). Refer to the **Read Me** section of the INR for further guidance.
3. On completion of the appropriate information the relevant UÉ personnel emails the partially populated INR template to the relevant UÉ regional DW compliance team (ensuring the correct naming convention for the file is applied)
4. The Regional DW Compliance team acknowledges receipt of the notification and assigns a unique UÉ reference number to the parametric failure / incident.
5. The Regional DW Compliance Team in liaison with operations then populates rows 24:25 / rows 20:21 of the template to document the proposed investigative and corrective actions in response to the incident / parametric failure.
6. The potential impact of the parametric failure / incident on water quality is then risk assessed. The outcome of this risk assessment determines whether or not the parametric failure / incident should be brought forward for consultation with the HSE. **Note:** the initial population of the notification template should not unduly delay the prompt initiation of the consultative process for potentially serious events (e.g. where there is an E. coli detection coupled with a suspected disinfection failure).
7. Where a substance or compound on the watch list is detected, consultation between HSE, EPA and the water supplier shall be carried out as per agreed procedures.
8. Following the risk assessment, where it is deemed necessary to consult with the HSE, the Regional DW Compliance Team will then initiate and lead the consultative process. **This should be undertaken by a telephone call in the first instance.** The usual first point of contact in the HSE for an initial consultation relating to a parametric failure / incident is the Principal Environmental Health Officer (or nominated Environmental Health Officer) for the HSE jurisdictional area in question^{5 6}.
9. Following the initial consultation over the phone, UÉ (Regional DW Compliance Team) will subsequently email the INR to the HSE as soon as practicable. Not all the relevant information on the parametric failure / incident, the supply and/or the water treatment plant may be immediately available but a reasonable attempt should be made to collect as much of this information as possible within the INR. However, the INR may include additional information collected since the notification of the parametric failure / incident, supply, and/or water treatment plant.
10. The HSE completes the relevant section of the INR (shaded in light purple) and emails to the UÉ (Regional DW Compliance Team). Any additional actions/investigations suggested by the HSE

⁵ There may be a need for the Environmental Health Service to consult with their Public Health colleagues to determine the HSE's position. This internal consultation is a matter for the HSE to undertake.

⁶ While the usual first point of contact with the HSE for an initial notification is the Principal EHO (or nominated EHO), the continuing point of contact with the HSE for a parametric failure / incident will be dependent on the scenario in question, and may be the relevant Public Health physician.

which did not form part of the initial phone discussion must be discussed and agreed (over the phone) with UÉ prior to being documented in the INR before returning to UÉ.

11. The regional DW Compliance team then completes the final section of the INR template⁷ and circulates it to operations and the HSE (ensuring the correct naming convention for the file is applied), confirming agreement with the documented outcome of the consultative process.

12. **N.B.** – as per procedure UE-PROC-EPA-001-008, it is essential that the consultative process with the HSE does not impede UÉs statutory obligation to notify the EPA (where the parametric failure / incident is deemed notifiable) by the 11:00am deadline. The notification process to the EPA may still proceed in the absence of an agreed outcome of the HSE consultative process – this can be provided to the EPA in follow up communications.

13. Further information may be provided over subsequent days, discussions occur, and further actions agreed in relation to this parametric failure / incident. The INR should not be updated or changed to reflect this new or changed information, discussions or agreed actions, i.e. the INR is not an incident management tool. Any follow up consultation arising from the initial parametric failure / incident should follow the same principles of consultation as per this process – however this does not require a new Initial Notification Record to be populated – any correspondence and agreed decisions arising should be recorded as part of the existing open parametric failure or incident file.

14. The INR should not be used where results of routine sampling, or other details are being sent to the HSE by way of information, i.e. where the HSE are not being consulted in relation to parametric failure / incident. Sharing of such material should be via email and marked “for information” purposes only.

⁷ It is at this point that the field “***Is this parametric failure / incident reportable to the EPA***” is populated by selecting the applicable option from the drop-down menu. The option selected depends on the outcome of HSE consultation (if consultation with the HSE was deemed necessary and the parametric failure / incident is EPA reportable). However, confirmation of the EPA notification option within the INR template should not impede UEs statutory obligation to notify the EPA in accordance with statutory timeframes – **refer to step 12.**

Appendix 8: INR Template Private Regulated Supplies and Private Group Schemes

TBC by LA	Protocol Ref: TBC		Protocol Name: TBC				Template No.	TBC
	[Enter Template Title]				Incident / Parametric Failure Number:		Is this parametric failure / incident reportable to the EPA?	
To be completed by the Local Authority	Local Authority:		Population Served by Supply:		Water Source Name:			
	Water Supply Zone (WSZ):		Population potentially affected by exceedance:		Water Source Type:			
	WSZ Code:		Date of notification:		Name of Laboratory:			
	Notified by (LA contact name):		Local Authority Contact telephone number:		Local Authority Contact email:			
	Sample date	Monitoring Sample Type	Unique Sample Code ID	Sample Location & Description	Parameter (select from dropdown menu)	Sample Result	Unit of Measurement	Parametric Value Per Regulations
	Have non compliances for this parameter(s) been detected in this supply in the previous 12 months, or previously if relevant?		Provide details (if applicable) of previous parametric failures detected in this supply for the parameter in question:					
	Is there an open EPA file for the supply associated with this parameter(s)?		What other parameters were tested in the sample and were they compliant?					
	Were other samples taken on the same supply on the same day?		Was the treatment process operating normally when the sample was taken / incident occurred? (if not - please describe identified issues)					
	What treatment is in place for the water entering the supply?		Were any works carried out within the supply zone and/or local area which may have contributed to the parametric failure / incident? (if so - please describe)					
	How is the supply disinfected?		Please provide any other relevant details below which may provide more context regarding this parametric failure / incident					
	If disinfection consists of UV - was the unit operating within its validated range at the time of the parametric failure / incident?							
	Free Chlorine level in the sample in question (mg/L):							
	Is there an online Chlorine analyser in place that is operational, within calibration, and maintained?							
	Are there duty & standby Chlorine dosing pumps in place that are operational and maintained?							
	How is the chlorine dosing controlled?							
	Are the chlorine dosing pumps alarmed in the event of a failure?							
	Contact Time for water entering the supply: (C, - mg.min/L)							
TBC by LA	Immediate corrective action taken in response to the parametric failure / incident							
	Are further investigations / actions required arising from this parametric failure / incident?		Details of proposed Investigations / Actions:					
	Has the parametric failure / incident been risk assessed with regards to impacts on Water Quality?		Arising from this risk assessment - is it deemed necessary to consult with the HSE?					
TBC by HSE in consultation with LA	The LA is responsible for informing consumers where there is a water quality issue of potential danger to human health. However in the context of the information provided and/or consultation undertaken, does this parametric failure / incident pose a risk to public health of such significance that consumers should be notified immediately?		Summary of reasons:					
	If Yes, what advice / notification is to be issued to consumers?		Summary of reasons and/ or specific advice to be provided:					
TBC by HSE in consultation with LA	Agreed outcome following LA consultation with the HSE in response to this parametric failure / incident:							
	Date consultation initiated:		HSE consultee (Environmental Health)		Phone number:		email:	
	Date consultation concluded:		HSE consultee (Public Health)		Phone number:		email:	
LA	Completed Consultation Record received and logged by:		Date:		Phone number:		email:	

References

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