



(Water, Environmental and Roads Services Training Groups)

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<p><b>Invitation for Tenders for the Development of a Training Manual, Course Material and Training Course for Irish Water on the Fluoridation of Drinking Water</b></p>
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## **Background**

1. Irish Water proposes to develop a Training Manual and associated training course which will be aimed at ensuring that those staff responsible for the delivery of safe and secure drinking water to Irish Water consumers will be adequately trained on the principles, practicalities and risk-based approach to fluoridating drinking water supplies.
2. Fluoridation of water occurs when hydrofluosilicic acid is injected into the drinking water supply. Hydrofluosilicic acid is a highly corrosive liquid with the potential to cause injury either in the way in which it is handled or if the dosage level introduced into the water supply is in excess of certain limits.
3. Irish Water has adopted the WHO Drinking Water Safety Plan approach to ensure that there is no risk of fluorine overdose in treated water supplies.
4. Under the current Drinking Water Regulations (S.I. No. 122/2014), Irish Water has the responsibility to provide potable water to all users on public water supplies in Ireland.
5. Under the current Fluoridation of Water Supplies Regulations 2007 (S.I. No.42/2007), Irish Water performs a number of acts in relation to the fluoridation of public water supplies as an agent for the HSE.
6. Irish Water has developed a Design Specification for Fluoridation. This will guide the designer and operator in establishing, operating and maintaining engineered solutions that deliver robust, reliable and repeatable performance that meets the HSE's fluoridation objectives for Water Treatment Plants. The Design Specification will provide a basis for the preparation of the Training Manual and associated training course.
7. The Design Specification for Fluoridation will form part of a series of standard specifications for use as 'building blocks' when compiling project designs. It should also be noted that the application of this and every other specification within the 'building

block' structure must also give consideration to health & safety, operability, CAPEX and OPEX.

In keeping with the key principles and attributes of asset management, consideration must also be given to reliability and risk-based methodologies for the delivery of fluoridation.

- The Training Manual and associated training course shall relate to the key documents referred to in this document e.g. Design Specification: Fluoridation, Treated Water Fluoride – Standard Operating Procedure, Remote Asset Management Policy – Water Treatment Fluoridation, Code of Practice on Fluoridation of Drinking Water (2016).
8. The Training Manual and associated training course shall also relate where relevant to Series 200 – General M&E Specifications which have also been adopted by Irish Water.

## Proposal

There is a requirement to develop a Training Manual and associated training course which will be aimed at ensuring that those staff responsible for the delivery of treated water quality to Irish Water consumers will be adequately trained on the principles and practicalities of Fluoridation of public water supplies. The manual shall be written in clear and concise English which is simple to understand and shall not be over-reliant on highly technical language. The training course, course material and training manual shall be prepared for delivery to the operators on the ground responsible for the day to day operation of the fluoridation process.

## Deliverables

The following is an outline of the key deliverables:

- A. Prepare a Course Specification in the LASNTG format (template attached in Appendix 2 for reference, this is not required to be submitted with the tender)
- B. Prepare a concise **training manual**<sup>1</sup> for the training course on the management and operation of fluoridation systems for Irish Water's public water supplies. The manual shall be a practical guide which is aimed at the operators of the fluoridation systems and shall also be suitable for more senior operations staff.
- C. The manual shall provide guidance covering the basic principles of fluoridation. The manual shall provide a background on the Drinking Water Safety Plans and Sub-Element relating to Fluoridation. The manual shall also provide background and advice on the various options available for fluoridation purposes within. Prepare **training material** on the principles of ensuring the delivery of fluoridation systems, including reliability and risk-based methodologies. It should be possible to deliver this training material as a one day course.
- D. Hold a **one day pilot training** course in one of the regional training centres (to be selected by LASNTG) for selected personnel using the training material. Include for

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<sup>1</sup> Note that this manual may subsequently be referred to as Irish Water's Operations Manual for Fluoridation.

subsequently amending/revising the training material following evaluation of, and feedback on, the pilot training course.

- E. Following the pilot course, incorporate all agreed amendments and deliver the one day **training course** at the five Regional Training Centres i.e. 5 courses. Up to 20 learners shall be accommodated at these courses. Some of these courses may also be held on an outreach basis, e.g. in a local authority premises, if it is the case that a particular local authority/organisation has enough learners to completely fill a course.
- F. **Course Materials for Training Delivery Stage:** The Training Manual and Training Material shall be produced and delivered in electronic format (CD-ROM format). The successful tenderer shall provide copies of the Training Manual and Training Material in electronic format for each learner for each of the following: the pilot course and each of the five one day training courses. The successful tenderer shall also provide a hard copy of the Training Material to each learner for each of the following: the pilot course and each of the five one day training courses.

### **A. Course Specification**

The successful tenderer shall be required to produce a Course Specification using the LASNTG template for approval by the LASNTG Steering Group. This template is attached in Appendix 2.

### **B. Training Manual**

A training manual is required for participants attending the training to provide an understanding of all of the principles and practical aspects of the delivery of fluoridation in Irish Water public water supplies.

- To ensure that all individuals who work with the delivery of fluoridation are fully aware of the significant public health responsibilities that accompanies the operation of fluoridation treatment systems,
- To ensure that all individuals who work with the delivery of fluoridation are fully competent in all aspects of the delivery of fluoridated water,
- To ensure that all individuals who work with the delivery of fluoridation are fully aware of the mitigations required under the Drinking Water Safety Plan for fluoridation risks,

The training manual should cover the principles and practical aspects of fluoridation and shall include, but shall not be limited to, the following<sup>2</sup>:

	<b>Section</b>	<b>Details / Comments</b>
1	Background	<ul style="list-style-type: none"> <li>• History of fluoridation in Ireland</li> <li>• Code of Practice on Fluoridation of Drinking</li> </ul>

<sup>2</sup> The reference list on which best practice shall be based includes but is not limited to the list of documents in Appendix 1.

		<p>Water</p> <ul style="list-style-type: none"> <li>• Introduction to Drinking Water Safety Plan</li> <li>• Concept of Risk specifically with Fluoridation</li> <li>• Introduction to Design Specification, Remote Asset Management Policy (RAMP), Standard Operating Procedure (SOP) and Planned Maintenance</li> </ul>
2	Dosing Systems	<ul style="list-style-type: none"> <li>• Flow proportional</li> <li>• Explain proposed IW General layouts</li> <li>• Explain proposed IW Control Panel, PLC and HMI functionality including understanding trends and alarms, auto changeover and plant shutdown/restart</li> <li>• Dosing equipment, bulk storage, instrumentation, pipework and fittings</li> </ul>
3	The Supply Network	<ul style="list-style-type: none"> <li>• Monitoring and Sampling</li> <li>• SCADA &amp; Record keeping</li> </ul>
4	Health & Safety Emergency Overflows	<ul style="list-style-type: none"> <li>• Chemical Handling Safety and Bunding</li> <li>• Emergency Showers and Eyewash</li> <li>• Chemical Delivery</li> <li>• Venting</li> <li>• Spillages</li> </ul>
5	Training	<ul style="list-style-type: none"> <li>• The need to link this training module with other aspects of water treatment.</li> </ul>

### **C. Training Material**

The training material, which shall further develop the contents of the training manual and which shall be used for course delivery, shall consist of a series of illustrated PowerPoint slides which cover, but are not limited to the following items:

- Compliance with the Fluoridation of Water Supplies Regulations 2007 (S.I. No.42/2007)
- Reinforcement of the importance of the role that operations staff have in maintaining public health and in the risks to public health when a public water supply is over-fluoridated

- Reinforcement of the importance of being able to ensure that water supplies are fluoridated correctly and that this can be verified
- Ensuring that the concept of risk is fully understood in terms of Drinking Water Safety Plans and
- Understanding the role that properly managed fluoridation systems play in reducing and eliminating this risk
- Understanding the connection that exists between the performance of the other elements of the treatment process and the fluoridation process
- Provision of cases studies and practical examples which explain some of the concepts being taught on this course
- Understanding the interaction with the other key approaches under the Drinking Water Safety Plan (DWSP) approach i.e. risk review, reference to the design specification, remote access management (RAMs) policy, Standard Operating Procedures (SOPs) / Site Specific SOPs and Planned Maintenance
- Summary of the main principles

The successful tenderer shall be required to develop a multi-choice assessment for the end of each section of the course. This assessment shall not be a deterring factor and shall be used to bed in the learning.

The training approach shall be interactive and shall incorporate practical calculation, and learning. Training shall include explanation of the equipment required for this aspect of water treatment including the set up of a dosing rate on a pump, adjustment of this rate and basic trouble shooting with regard to dosing pumps and other related equipment. It is envisaged that once the new HMI fluoridation panel is complete that explanation of its use will be included in the course. Adequate time should be set aside for participants to comment and ask questions.

#### **D. Delivering the Pilot Course**

Hold a **one day pilot training** course for up to 20 selected attendees using the training material. Include for subsequently amending/revising the training material following evaluation of the pilot training course.

#### **E. Delivery of five Training Courses**

The tenderer shall also include the cost of delivering the full one day training course at each of the five Regional Training centres (i.e. 5 days training) (or outreach if appropriate).

#### **F. Course Material**

The tenderer shall include the cost of the electronic and hard copy Training Manual and Training Material as detailed in Deliverables above.

#### **Quality Assurance**

LASNTG monitors the quality of training, coordinates the activities and takes a lead role in programme development at the five Regional Training Centres for the Local Authorities and

Irish Water, in the areas of Roads, Water and Environment services training. It aims to optimise the training experience for participants, provide state of the art training facilities and resources and ensure the on-going relevance and quality of programmes, in line with the needs of its partners and international best practice.

It is committed to the development of a culture of quality provision and quality assurance. Towards achieving its quality objectives, LASNTG has developed, and is committed to implementing, a quality system, which is in line with the standards and guidelines laid down by the Qualifications (Education and Training) Act 1999, and requirements when it achieved QQI provider status in June 2011. This quality system is the backdrop against which all training, both certified and uncertified, is now delivered on behalf of partner organisations and clients.

While LASNTG has overall responsibility for Quality Assurance matters, all stakeholders, trainers, learners, training centres and partner organisations, have a role to play. Through the practice and review of a set of quality policies and procedures LASNTG is committed to the systematic, evidence based implementation and enhancement of its quality system, thereby assuring the quality of its training. To this end, trainers and training organisations, delivering on behalf of LASNTG, have a key role to play in ensuring that the quality of programmes are maintained and enhanced, and so will be required to comply with all quality policies and procedures of the LASNTG quality system. Obligations and responsibilities, in this regard, will be outlined in pre course commencement briefings for each assignment.

### **Ownership and Copyright**

The successful tenderer agrees that all material developed and provided to LASNTG for the fulfilment of the training courses shall be original material in respect of which no other person has right of copyright. The successful tenderer agrees that the copyright therein shall belong exclusively to LASNTG, and if the material is not original that it is material for which permission to reproduce has been granted by the copyright holder.

## Award Criteria

The contract shall be awarded on the basis of the following criteria and weightings as contained in the written submission

**Technical merit** (70% weighting, see split below) including:

### 1. Understanding of Brief (20%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	20 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	16 %
Details provided adequately address the assessment point and deemed to be satisfactory	12 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	8 %
No relevant detail provided	0 %

### 2. Methodology in delivering the project to meet the client's needs (15%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	15 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	12 %
Details provided adequately address the assessment point and deemed to be satisfactory	9 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	6 %
No relevant detail provided	0 %

### 3. Qualifications and relevant experience of proposed Project Team (10%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	10 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	8 %
Details provided adequately address the assessment point and deemed to be satisfactory	6 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	4 %
No relevant detail provided	0 %

4. Technical capacity and competency in the training areas to be delivered (10%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	10 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	8 %
Details provided adequately address the assessment point and deemed to be satisfactory	6 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	4 %
No relevant detail provided	0 %

5. Availability / resources (10%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	10 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	8 %
Details provided adequately address the assessment point and deemed to be satisfactory	6 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	4 %
No relevant detail provided	0 %

6. Quality control (5%)

Marks will be awarded on the following basis:

Details provided fully address the assessment point and deemed to be of the highest standard	5 %
Details provided comprehensively address the assessment point and deemed to be very satisfactory	4 %
Details provided adequately address the assessment point and deemed to be satisfactory	3 %
Details provided does not adequately address the assessment point and deemed to be not satisfactory.	2 %
No relevant detail provided	0 %

**Fee Proposal** (30% weighting)

Indicative tender which will be used as the basis for final project scoping and fee negotiation following selection. The tender shall include for all expenses which will be incurred by the consultant in delivery of this brief in its entirety.



The tender submitted shall include for preparation of the training manual, preparation of the course material, the roll out of a pilot programme, implementation of adjustments arising from the pilot, presentation of the final proposal to the LASNTG and delivery of five training courses nationwide. The rate for each course shall be the same regardless of delivery location and shall include all expenses such as travel and subsistence.

The tender shall also provide for three meetings with a Steering Committee appointed by LASNTG during the course of the preparation and roll out of the training programme. These meetings will be held at LASNTG offices, Monastery Road, Roscrea, Co. Tipperary.

The decision to award the contract will be based on the written submission and the Steering Committee reserve the right to shortlist tenderers and to interview some or all of the tenderers to clarify aspects of tender/understanding of brief. Where an interview does take place the Tenderer will be expected to make a 45 minute presentation which summaries their proposed Training Course for Fluoridation followed by a question and answer session.

The fee proposal will clearly show the breakdown of all the elements listed above.

The LASNTG are not bound to accept the lowest or any tender.

## **Summary**

Consultants are requested to tender for the following items (the total tender will be taken as the sum of these individual items):

- Preparation of a Training Manual.
- Preparation of Training Material.
- Running of a one day Pilot
- Amending/revising training material following evaluation of pilot course.
- Attendance at three meetings with a Steering Committee appointed by the LASNTG.
- Providing the finalised one day course at each of the five training centres (or on an outreach basis if appropriate); Stranorlar (Co. Donegal), Roscrea (Co. Tipperary), Castlebar (Co. Mayo), Ballincollig (Co. Cork) and Ballycoolin (Co. Dublin).

## **Conditions of Award of Contracts**

It is a condition for the award of training delivery contracts that the tenderer selected must produce a valid Tax Clearance Certificate or a C2 certificate. Valid certificates shall be required prior to the award of the contract and shall continue to be held for the duration of the contract.

The firm to whom the contract is awarded must have appropriate professional indemnity insurance with a reputable insurance company, not less than €2.5 million, with an excess not exceeding 1% of the audited annual turnover of the company. It is a condition of the

appointment that the trainer selected will be able to produce evidence of such cover prior to the award of the contract.

Under the Finance Act, 1987, a withholding tax must be deducted from payments for professional services at the current rate. This tax will be deducted from payments made to the trainer and will be remitted to the Revenue Commissioners.

Payments under the contract will be subject to any requirement under the Prompt Payments Act, 1997.

Any conflict of interest involving a Trainer or Trainers Firm must be fully disclosed to the LASNTG.

### **Information to be submitted**

Applicants are requested to provide a written submission covering the information set out in the brief and **shall also** include the following:

1. Company or organisation description outlining relevant experience and resources for delivery of similar relevant training programmes.
2. Detailed programme for delivery and completion of training course.
3. Trainer Profile outlining qualifications, experience and other relevant information for proposed trainer(s) (CV's to be included for each trainer).
4. Fee Proposal

### **Timeline for the Successful Tenderer**

The successful tenderer will be required to adhere to the following time periods:

- a. Prepare and deliver a draft of the Training Manual within a period of 6 weeks from date of appointment
- b. Prepare and deliver the final Training Manual and Training Material for the Pilot Training Course within a period of 10 weeks from date of appointment
- c. Run the Pilot Training Course within 12 weeks from date of appointment and
- d. Run the final Training Course at the five training centres within 16 weeks from the date of appointment.

### **Confidentiality**

The contracting authority undertakes to use its best endeavours to hold confidential, any information provided, subject to the contracting authority's obligations under law, including the Freedom of Information Act, 1997. If the applicant considers that any of the information submitted in the proposal should not be disclosed because of its sensitivity, then this should be stated with the reasons for considering it sensitive. The contracting authority will then

consult with the applicant in considering any request received under the Freedom of Information Act, 1997 before replying to such a request.

### **Termination of Appointment**

The Contracting Authority shall be entitled to terminate the appointment at any time without notice subject only to full payment being made for services performed up to the date of termination.

### **Submission of Proposals**

All correspondence and communication in relation to the proposals shall be made through The Local Authority Services National Training Group, Monastery Road, Roscrea Co. Tipperary. Tel. No. Office (0505) 24688, Mobile: (087)4137232. E-mail address: roisin.smith@tipperarycoco.ie.

Three hard copies and one electronic copy (CD-ROM format) of the applicant's proposal and supporting documentation should be submitted in a sealed envelope marked "***Tenders for Fluoridation of Drinking Water***" to The Local Authority Services National Training Group, Monastery Road, Roscrea, Co. Tipperary ***before 12.00 (noon) Thursday 14<sup>th</sup> December, 2017.***

Proposals which are received after the date and time indicated will not be considered.

### **Appendix 1**

List of guidance, documents and reports referred to in this document and related to the requirements of this tender.

- IW-TEC-900-06-01 Design Specification: Fluoridation,
- IW-RAM-SPEC-5020-009 Fluoridation RAM Policy
- Code of Practice on Fluoridation of Drinking Water
- IW-TEC-900-XXX Design Specification: Chemical Storage & Handling
- Series 200 – General M&E Specifications
- DWSP Risk AssessmentImplementation\_v1.6
- WHO Water Safety Plan Manual
- WHO A Practical Guide to Auditing Water Safety Plans
- EPA Drinking Water Advice Note No. 8: Developing Drinking Water Safety Plans V1.0

## **Appendix 2**

- LASNTG SPECIFICATION TEMPLATE
- LASNTG QUALITY ASSURANCE POLICY