

13th February 2003

Circular L1/03 (WSP)

To each local authority

RE. DRINKING WATER NATIONAL MONITORING PROGRAMME

A Chara,

This circular provides information on the establishment of a comprehensive and harmonised Drinking Water National Monitoring Programme and outlines the role to be played by local authorities. It should be noted that the level of support and assistance provided by authorities for this important project will be critical to its success.

Description of Study

The Department appointed a consortium comprising of Mott Mac Donald and E.G. Pettit and Company, consulting engineers in November 2002 to assist in the planning and implementation of the Drinking Water National Monitoring Programme. The main objectives of the Drinking Water National Monitoring Programme are to ensure compliance with national and European drinking water regulatory requirements and to establish uniformity in the sampling, testing and entry of data for drinking water supplies and reporting procedures. Over the contract period of 24 months the consultants will review drinking water monitoring techniques from source to tap along with laboratory capacity. The work programme provides for the basic mapping of public and private water supply schemes and their principal elements, developing a monitoring strategy, the preparation of training manuals and the training of operatives. It will also examine existing laboratory practices and make recommendations on quality control, capacity and accreditation.

A copy of the Drinking Water National Monitoring Programme project brief is attached for your information.

Co-Operation with Consultants

The Study is central to the strategic development of drinking water services and to achieving current and future national standards and the requirements of EU directives. The deliverables will inform water quality both locally and nationally and contribute to determining future investment priorities. We would again ask that the consultants be given your fullest co-operation.

Data Collection and Questionnaire

The collection of data in relation to drinking water monitoring and in respect of water supply scheme mapping is central to the project. In this regard the consultants intend that Questionnaires will be the primary means of collecting all relevant required information. It is intended that a questionnaire will issue to authorities in March 2003 and be followed up by an interview with each relevant Sanitary Authority.

Contact Person

You are requested to identify a suitable officer as contact for the consultant. Please advise the undersigned or Emmet Fahy of the nominated person by phone at 01 8882165 or by email at emmet_fahy@environ.irlgov.ie by 24th February 2003 at the latest.

Mise le meas,

Liam Gleeson
Water Services Policy Unit

To:- Each County and City Manager, County Secretary, Director of Services (Water Services) and Town Clerk of each County Borough Corporation, Town Clerk of each Borough Corporation and Urban District Council.

Copy:- GCCC, AMAI, Ombudsman's Office., Regional Health Boards, RWNMC, WSNTG.

Drinking Water National Monitoring Programme

Draft Brief for Appointment of Consultants

Objective

A Drinking Water National Monitoring Programme (DWNMP) is being established to co-ordinate the monitoring of drinking water in Ireland in accordance with the requirements of Council Directive 98/83/EC, and the European Communities (Drinking Water) Regulations 2000 (S.I. No. 439 of 2000) which must be complied with by 1 January, 2004.

Monitoring of sources of drinking water is required under Council Directive 75/440/EEC on the quality of water intended for the abstraction of drinking water, the requirements for which are set out in Council Directive 79/869/EEC concerning methods of measurement and frequency of sampling and analysis of surface water intended for the abstraction of drinking water. It is intended that the monitoring requirements under these two Directives, and associated Regulations, will also be included in the DWNMP. Such monitoring should have regard to and be consistent with the requirements of the Water Framework Directive 2000/60/EC which will subsume Directives 75/440/EEC and 79/869/EEC (e.g. see Article 7 of Directive 2000/60/EC which imposes requirements in relation to the monitoring and protection of waters used for the abstraction of drinking water).

The quality of drinking water is monitored mainly by or on behalf of the local authorities. The results are submitted to the Environmental Protection Agency (EPA) which processes and analyses the data to determine national levels of compliance with the existing Council Directive 80/778/EEC. The EPA publishes annual reports on The Quality of Drinking Water in Ireland.

Co-ordination of the monitoring needs to be improved. Although the amount of monitoring is increasing annually, the EPA does not receive data on all water supplies coming within the terms of the Directives. Differing sampling and testing methods are used and the results are not submitted in a similar format. It is not possible to determine the comparability, reliability or accuracy of the monitoring data. The circumstances in which sampling is carried out are not known and this can give rise to anomalies

There is a need, therefore, to extend the monitoring programme to all water supplies intended for human consumption (other than water supplies serving less than 10 m³/day, or less than 50 persons unless the water is supplied as part of a commercial or public activity), as required by Directive 98/83/EC and to establish a harmonised system of sampling, testing and reporting. The programme will include the monitoring requirements under Council Directives 98/83/EC, 75/440/EEC and 79/869/EEC as described above.

It is intended to appoint Consultants to assist in the planning and implementation of the DWNMP. The Consultants appointed to this project must ensure that the DWNMP will comply fully with the requirements of the above named Directives.

Rural Water Monitoring Programme

A separate monitoring programme, under the Rural Water Programme of the DoELG is being established under the auspices of the Rural Water National Monitoring Committee (RWNMC). The programme will cover the more than 700 privately operated Group Water Schemes which have their own sources of water supply and which serve 50 persons or more. It will also include a similar number of privately operated schemes which take their supplies from public schemes.

The Consultants appointed under this brief will be required to liaise with the RWNMC and their Consultant as set down under 6.12 below.

Scope of the Project

The scope of the project is determined by the necessity to meet the objectives set out in Section 1 above.

The EPA is producing a Guidance Document which will include parameters to be monitored, frequency and sites of monitoring, sampling protocols, standard methods of analysis, reporting formats, etc. The Consultants will be expected to review this document and recommend such amendments or additions as are appropriate and to produce additional Guidance Notes in accordance with 6.7 below.

It is also intended to produce more detailed Training Manuals and to develop and present training courses, seminars and workshops, as necessary, to ensure full and proper implementation of the DWNMP. The Consultants will assist in this as set down in 6.8 and 6.9 below.

The entry of monitoring data and reporting to the EPA will be fully computerised on a harmonised basis. The Local Government Computer Services Board (LGCSB) has already released its LabInfo software as the basis for the national computerised system. The Consultants will use LabInfo to consolidate the drinking water monitoring data from local authority LabInfo databases and to further incorporate other monitoring data from authorities using other computerised systems, if any. They will include drinking water monitoring data since 1 January 2002 in the resulting national LabInfo database.

The Consultants will use the Internet GIS Drinking Water Monitoring application supplied by the LGCSB to map schemes, supply areas, abstraction points, production points, monitoring points, nitrate vulnerable zones and ground water protection zones. This must be used in a manner that develops and maintains consistent national identification codes. The software supplied will help in this regard. Local authority monitoring data will also need to conform to national standards. It will then be possible to generate GIS map based reports based on data collated within the Internet GIS application and LabInfo. For the duration of the project, both LabInfo data and Internet GIS data will reside on a secure and robust Internet server to be provided by the LGCSB. These data can be edited by the Consultants and viewed by the DoELG, the EPA and Local Authorities. In this way, data can be validated on an ongoing basis.

The LGCSB will provide the Consultants with initial familiarisation and follow-up support. The Consultants should have sufficient database skills to organise and clean up data that will be supplied by authorities in various computer formats, including early LabInfo sites not conforming to national coding standards.

It will also be necessary for the Consultants to familiarise themselves with the Complete Information System (C.I.S.) for Water Services which is at present being rolled out to the local authorities and to ensure that any information systems developed for the purpose of this project are compatible with the C.I.S.

The consultants will have to identify, locate and survey all relevant public and private drinking water supply systems, and to quantify the sampling and analysis requirements to satisfy the terms of the above named Directives. In the interests of protection of public health, the consultants must include in their analysis of monitoring requirements emergent pathogens such as Cryptosporidium.

The consultants will assess existing laboratory capacity and will make recommendations as to whether it will be necessary to let out some of the sampling and analysis to privately operated laboratories and, if so, how much.

The National Water Study, March 2000, and associated reports produced by WS Atkins, Ireland, on behalf of the DoELG contain information on public water supplies serving more than 5,000 persons. These reports will be made available to the Consultants appointed under this brief.

The material and human resources, required for both the establishment and the operation of the NDWMP, will need to be identified and costed by the consultants.

Reporting Arrangements

A Steering Group, representative of the major interested agencies, has been set up to oversee the implementation of the DWNMP. The Consultants will be required to act under the direction of the Steering Group.

It will be necessary for the Consultants to consult with relevant agencies, such as the:

- Department of Health and Children,
- Regional Health Boards,
- National Disease Surveillance Centre,
- Food Safety Authority of Ireland,
- Radiological Protection Institute of Ireland, etc.,

and to keep them informed of relevant developments.

Period of the Contract

The contract will be awarded for a period of two years from the date of appointment as specified in the OJEC Notice. It may be extended, at the contracting authority's discretion, with reduced scope as outlined in Section 7 below.

Role of the Consultants

It will be the Consultants' responsibility to co-ordinate, under the Steering Group, all of the activities necessary to establish the DWNMP as described above. This will include, but may not be limited to the following tasks:

- 6.1 Work under the direction of the Steering Group and attend quarterly, and other meetings of the Group as necessary.
- 6.2 Prepare and agree with the Steering Group, and submit within two months of appointment, an Inception Report which will include a detailed programme for execution of the component activities of the DWNMP. The programme shall include a list of staff assigned to the project. (10 copies of this report will be required).
- 6.3 Prepare specialist reports for the Steering Group as the need arises.
- 6.4 Prepare and submit Quarterly Progress Reports and Annual Reports on the implementation of the DWNMP (10 copies of each) and a Final Report describing the DWNMP, together with recommendations for its successful continuance.
(100 copies of this report will be required as hard copies and a further 100 as electronic copies).
- 6.5 Be responsible for consultation and liaison with all relevant Local and Statutory Authorities regarding this contract.
- 6.6 The EPA is producing a Guidance Document which will provide a broad set of guidelines and explanations necessary for the general operation of the DWNMP. The Consultants shall review this document and recommend amendments or additions as appropriate.
- 6.7 Complement the above Guidelines by drafting additional Guidance Notes to include:
 - development of template sampling strategies for networks supplying differing population ranges and flows which will include the taking of representative

- samples within networks, establishment of regular monitoring programmes and sampling in response to incidents of contamination,
 - development of protocols for demonstrating that the performance characteristics set down in Section 2 of Part 3 of the EC (Drinking Water) Regulations, 2000 (S.I. No. 439 of 2000) are complied with,
 - the carrying out of Risk Assessments where departures from the standards under Article 5 of the above Regulations are contemplated, particularly in respect of clause (7) of Article 5, and in the event of contamination by emergent pathogens such as *Cryptosporidium*.
 - recommendation of Methods of Analysis for all of the parameters listed in Part 1 of the Schedule to the above Regulations, other than those listed under "Radioactivity". (The Consultants shall have regard to any methods of analysis drafted by the Committee envisaged in Article 12 of Directive 98/83/EC).
- 6.8 Co-ordinate, with the EPA, the Water Services National Training Group (WSNTG), the DoELG and representatives of the Regional Health Boards the production of Training Manuals which will provide the local authorities with detailed sets of instructions, procedures and protocols for each of the activities involved in operating the DWNMP such as sampling, analysis, data entry and processing, reporting, risk assessment, rapid response to incidents, etc. The Training Manuals must be in full conformity with the requirements of Directive 98/83/EC and the 2000 Regulations (S.I. No. 439 of 2000) and with Directives 75/440/EEC and 79/869/EEC.
- 6.9 Assist the WSNTG, the EPA, the LGCSB and DoELG in the organisation and delivery of training programmes, seminars and workshops for the operation of the DWNMP. The WSNTG already presents a Forais Áiseanna Saothair (FÁS) certified course for laboratory staff. The Consultants shall co-ordinate with WSNTG in the production of the training programmes, seminars and workshops, taking into account the existing WSNTG laboratory course.
- 6.10 Collect, organise and enter all relevant data into a national drinking water *LabInfo* database as outlined in Section 3 above. The Consultants shall consult local authorities when gathering data, some of which will already be in *LabInfo* format.
- 6.11 Work with the DoELG, EPA, LGCSB and WSNTG to promote rapid implementation of the DWNMP by the local authorities.
- 6.12 Take into account the monitoring programme for Group Water Schemes being undertaken by the RWNMC and co-ordinate with this programme by:
 - becoming familiar with the Group Scheme water monitoring programme,
 - liaising with the Consultant appointed by the RWNMC,
 - making recommendations as to how the two programmes can be harmonised, and
 - making recommendations for full integration of the Group Scheme monitoring programme with the DWNMP from 1 January 2004.
- 6.13 Carry out and report, by local authority, on a survey of both public and private

water supply schemes other than those serving less than 10m³/day, or 50 persons unless the water is supplied as part of a commercial or public activity. The survey

must include location, extent and number of sampling sites for each scheme. (A considerable amount of information will be available to the Consultants from the survey of privately operated Group Water Schemes being undertaken separately, and from the National Water Study referred to at Section 3 above).

- 6.14 Collect, organise and enter all relevant mapping data, and supporting attribute data, into the *Internet GIS for Drinking Water Monitoring* database with scheme and monitoring station coding that supports links to the national *LabInfo* database as outlined in Section 3 above.
- 6.15 Quantify by local authority the extent of sampling and analysis required to satisfy the terms of Directives 98/83/EC, 75/440/EEC and 79/869/EEC. To ensure protection of public health, this must include emergent pathogens such as *Cryptosporidium*.
- 6.16 Assess relevant laboratory capacity in the public sector in comparison with the requirements of the monitoring programme.
- 6.17 Make recommendations, as necessary, for upgrading of public sector laboratory capacity, by laboratory, and provide cost estimates for same.
- 6.18 Assess in detail and by task the work involved in setting up and implementing the comprehensive DWNMP for each of the main agencies involved.
- 6.19 Examine all areas of additional expenditure necessary to establish fully the DWNMP, including capital cost of public sector laboratory upgrading, computer hardware and software, sampling vehicles and portable equipment, etc., and provide cost estimates for same.
- 6.20 Examine all areas of additional expenditure required to operate fully the DWNMP and provide cost estimates of same. This must include estimates of additional human resources needs by local authority and by other agencies directly involved.
- 6.21 From the assessment of the capacity of public sector laboratories, upgraded if necessary, against the requirements of the monitoring programme, determine whether some of the sampling and analysis will need to be let out to private laboratories.

6.22 If this proves necessary:

- make recommendations as to how much of the monitoring programme may need to be so let out,
- prepare an OJEC Notice and Information Sheet for that portion of the programme to be so let out,
- assess proposals from private laboratories and submit report on shortlisting,
- prepare Framework Agreements for portion of the programme to be let out to private laboratories,
- assess tenders for same and submit Report on Tenders,

Supervision of Private Laboratories

If it proves desirable, and the Contracting Authority so wishes, this contract may be extended, at reduced scope, to include the task of supervising the operation of the private sector laboratories, including submission of monitoring reports on their operations, their capacity to carry out their monitoring responsibilities and recommendations for corrective action if necessary.

Reference Material

The Consultants shall take account of relevant reference material including the following:

- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
- European Communities (Drinking Water) Regulations, 2000 - S.I. No. 439 of 2000.
- Council Directive 75/440/EEC of 16 June, 1975 on the quality of surface water intended for the abstraction of drinking water.
- Council Directive 79/869/EEC of 29 October, 1979 concerning the methods of measurement and frequency of sampling and analysis of surface water intended for the abstraction of drinking water in Member States.
- European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations, S.I. 294 of 1989.
- European Communities (Drinking Water) Regulations, 2000 - A Handbook on Implementation for Sanitary Authorities, Environmental Protection Agency (2002 Draft).
- European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations, 1989 - A Handbook on Implementation for Sanitary Authorities, Environmental Research Unit, Department of the Environment, September 1990.
- The Quality of Drinking Water in Ireland - A Report for the Year 2000 with a Review of the Period 1998-2000. Environmental Protection Agency, 2001.
- National Water Study, National Report, March 2000 and associated County Reports by WS Atkins, Ireland.
- Directive 2000/60/EC of the European Parliament and of the Council of 30 October establishing a framework for community action in the field of water policy.

9. Award Criteria

The award criteria which will be used to select the most economically advantageous proposal from the shortlisted candidates are:

- 9.1 project organisation, staffing plan and project management proposals,
- 9.2 work programme, methodology and meeting client's needs,
- 9.3 qualifications and relevant experience of proposed project team,
- 9.4 quality control,
- 9.5 indicative financial proposal.

10. Information to be Submitted

The candidate's proposal shall be in the form of a detailed Technical Proposal which shall include:

- 10.1 A Management Summary (not exceeding 2 pages).
- 10.2 A Company Profile including financial information and personnel and equipment resources.
- 10.3 Details of relevant company experience with names of referees.
- 10.4 An outline Work Programme and methodology for delivery of the services,
- 10.5 Proposals for management of the project,
- 10.6 Details of proposed Project Team and their experience and qualifications, particularly in the areas of:
 - Laboratory Quality Control
 - Public Health Engineering
- 10.7 Assurance of an understanding of and experience in the operation of IT and GIS systems.
- 10.8 Details and experience of any sub-consultants the candidate proposes to employ on the project.
- 10.9 Quality control procedures.
- 10.10 An indicative Financial Proposal on which negotiations will be based and which shall include an overall estimate of total cost.

12. Financial Proposal

The Financial Proposal shall, in so far as possible having regard to the nature of the services to be provided, be in the form of a lump sum inclusive of VAT together with an estimate of expenses likely to be incurred. A breakdown showing how the lump sum was arrived at should be included, together with the basis for charging for services not covered by the lump sum. The Financial Proposal shall also give a breakdown of the project team's input in person days with applicable rates, related to specific outputs. Incidental expenses and VAT shall be included. Only expenses that are necessarily incurred and fully justified will be recouped. For the purposes of travel and subsistence expenses under this contract the Consultants will be assumed to be resident in Ireland.

13. Conflict of Interest

Any conflict of interest or potential conflict of interest must be fully disclosed to the contracting authority in making the submission. Any registerable interest involving the Consultants and the Elected Members of the local authorities, the Minister for the Environment and Local Government, Members of the Oireachtas or employees of the Department of the Environment and Local Government or their relatives must be fully disclosed in making the firm's submission or, in the event of this information only coming to the firm's notice after the submission of a proposal and prior to the award of the contract, should be communicated to the contracting authority immediately upon such information becoming known. The terms 'registerable interest' and 'relative' shall be interpreted as per section 2 of the Ethics in Public Office Act, 1994.

14. Terms of Appointment

The appointment shall be for the duration specified in the OJEC notice.

Where a group or consortium submits a proposal, a lead consultant must be nominated who shall be fully responsible for providing the services required by this brief.

This brief together with the Technical Proposal by the Consultants and the letter of appointment shall constitute a binding contract between the contracting authority and the consultant who is appointed.

On appointment the Consultants shall prepare and agree a detailed Work Programme with the Contracting Authority. The programme shall detail all staff to be engaged on the project and shall indicate all tasks to be undertaken against time. All managerial and specialist staff, and all changes thereto, shall be subject to the Contracting Authority's approval.

The appointment shall be for the services described in this brief only and the Contracting Authority reserves the right to engage other consultants for additional services in connection with the Project if they so wish.

All sums due to the Consultants on foot of this appointment shall be paid within forty days of the submission of an invoice.

15. Ownership of Documents and Copyright

All documents and computer software prepared by the Consultants on foot of this appointment and submitted to the Contracting Authority will be considered the property of the Contracting Authority and may be used by the Contracting Authority at any time, including for other projects, without the prior approval of the Consultants.

16. 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.

17. Dispute Resolution

In the event of any dispute arising with regard to this services contract which the parties fail to settle, the dispute shall firstly be referred to Conciliation for resolution. Should a settlement not be reached at Conciliation, the dispute shall be referred to Arbitration. Arbitration shall in this instance mean the Arbitration Procedure, 1987, as published by the Institution of Engineers of Ireland or any amendment or modification thereof being in force at the time of the appointment of the Arbitrator. Should the parties fail to agree on an Arbitrator, the President for the time being of the Institute of Arbitrators shall be requested to nominate an Arbitrator.

18. Tax Clearance Certificate

It is a condition for the award of this contract that the firm selected and all proposed sub-consultants must be able to produce a valid Tax Clearance Certificate or C2 certificate. The firm to whom the contract is awarded and all sub-consultants shall continue to hold valid certificates for the duration of the contract.

19. Withholding Tax

Under the Finance Act, 1987 withholding tax must be deducted from payments for professional services. This tax (currently 20%) will be deducted from payments made to the firm awarded the contract and will be remitted to the Revenue Commissioners.

20. Professional Indemnity Insurance

The firm to whom the contract is awarded must have professional indemnity insurance cover to the value of €2.54 million with a reputable insurance company. It is a condition for the award of this contract that the firm selected must produce evidence of such cover prior to the award and maintain such cover in place for the period of the contract.

21. Confidentiality

The Contracting Authority undertakes to use its best endeavours to hold confidential any information provided in the proposal submitted, subject to the Contracting Authority's obligations under law, including the Freedom of Information Act, 1997. If a candidate considers that any of the information submitted in the proposal should not be disclosed because of its sensitivity, this should be stated with the reasons for considering it sensitive. The Contracting Authority will then consult with the candidate in considering any request received under the Freedom of Information Act, 1997 before replying to such a request.

22. Submission of Proposals

Seven copies of the candidate's proposal and supporting documentation in a sealed envelope marked **"Proposal for Appointment of Consultant for the Establishment and Implementation of a Drinking Water National Monitoring Programme"** should be submitted under the attached Cover Sheet to:

**Mr. Liam Gleeson,
Water Services Policy Unit,
Department of the Environment and Local Government,
Block 1, Floor 2,
Irish Life Centre,
Lower Abbey Street,
Dublin 1,
Ireland.**

before 4.00pm on 23 August 2002.

Proposals which are received after this time will not be considered and will be returned.

Cover Sheet

Project Title: Drinking Water National Monitoring Programme

Contracting Authority: Department of the Environment and Local Government

Address: Water Services Policy Unit,
Department of the Environment and Local Government,
Block 1, Floor 2,
Irish Life Center,
Lower Abbey Street,
Dublin 1,
Ireland.

Contracting Authority's Contact Person: Mr. Liam Gleeson
Telephone: +353 1 8882775 Fax: +353 1 8882687
E-mail: liam_gleeson@environ.irlgov.ie

2. To be completed by the Candidate

Candidate's Name.....

In the case of a grouping or consortium, give names of member firms

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Address for Correspondence.....

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.....

Candidate's Contact Person.....

Telephone.....Fax.....E-mail.....