

Rural Water Programme

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General Information

Rural Water Monitoring Project Background

Rural Ireland is served mainly by grant-aided group water schemes, which have been successful in bringing water supplies to areas not served by the public mains. The water they provide is generally untreated and many supplies are unfit for human consumption.

The Rural Water Monitoring was set up by the DOELG in response to the poor quality of rural water supplies. Its objectives are to examine the quality of water supplied by all group water schemes in County Roscommon, to identify the factors adversely affecting water quality and to investigate measures for improvement. The project is 100% funded by the DOELG and was approved by the Minister in February 1999.

Roscommon County Council was chosen for the project because the county has a manageable number of schemes all within reach, and diverse enough in terms of source and size to be representative of group water schemes in the county as a whole.

The project is overseen by a Steering Committee comprising of representatives from Roscommon County Council, the National Federation of Group Water Schemes and Dublin Corporation. Dublin Corporation was included because it had the laboratory facilities and technical expertise to get the project up and running.

Sampling points were chosen so that they provide the most representative samples of the schemes. In general, the source, a mid-way sampling point and a point at/near the end of the distribution main were used. If a scheme serves less than 15 houses, only two sampling points were selected.

The interim report "Roscommon County Council Rural Water Monitoring Project", published in 2000 gives a mid-way assessment of the water quality in group water schemes. The report covered the period from March 1999 to March 2000 inclusive. The assessment revealed that many schemes were supplying drinking water of a much lower standard than that specified in European Communities (Quality of Water Intended for Human Consumption) Regulations, 1988.

For presumptive total coliforms it was found that only 2 out of a total of 65 sources consistently had zero presumptive total coliforms thus indicating that all except 2 sources require disinfection.

For presumptive faecal coliforms, it was found that 58% of samples taken from private schemes and 4% of samples from semi-private schemes tested positive.

Excessive levels of colour were observed for 22 out of a total of 61 sources over the study period. Out of a total of 64 sources, 24 exceeded the limit for turbidity, at least once during the study period. High turbidity in water can also cause problems in water treatment, by making disinfection difficult.

Iron, manganese and to a lesser extent aluminium were also present in excessive levels in some waters- 18.2% of source samples exceeded the national limit for iron, 21.1% of source samples exceeded the national limit for manganese and 7.7% exceeded the national limit for aluminium.

Results for pH in all, except 3 samples, were within the required range for pH in potable waters and was not a cause for concern.

During the study period 4 samples from 3 different sources exceeded the national limit for nitrite-a possible indication that water is organically polluted. It was found that 6 private sources, all ground waters, exceeded the national limit value for ammonia-indicating a nearby source of organic pollution. Results for nitrate, phosphorus, and heavy metals were not a cause for concern. 41% of private scheme samples and 3% of semi-private samples had no chlorine residual.

Actions taken to improve water quality:

As a result of the high level of bacterial contamination of so many group water schemes, the Steering Committee took the decision early on, that the situation merited urgent action. Measures to improve water quality, decided on at the outset of the study were brought forward.

1. Two pilot treatment plants to be installed - Pollocat Springs and Cavetown Lake
2. Training to be provided for groups operating schemes
3. A range of "point of use" i.e. one-house treatment systems to be pilot tested
4. Roscommon County Council to arrange, on behalf of 21 schemes, for installation of chlorination units

Current status of the proposed actions:

A training seminar has been provided for the operators of schemes. Plans are going ahead for the installation of the two pilot treatment plants and chlorination units. Some chlorination plants have already been installed but none are operational. No improvement in water quality can be expected until this happens.

The pilot testing on the one-house treatment systems spanned 12 months beginning in March 2000. The final analysis of results has not been done yet but indications so far are that results have been quite inconsistent. Suppliers of the treatment systems agreed at the outset of pilot testing to maintain the units for one year, but many failed to do so. It will be difficult to assess the efficiency of the systems that have not been properly maintained.

Because it has the facilities and technical expertise, Roscommon County Council's Laboratory has tendered for the sampling of group water schemes in other counties. It is currently contracted by the consultant for the DOELG to sample group water schemes on Counties Offaly, Longford, Leitrim and Sligo on a monthly basis.

Further Information: Rural water Laboratory, Old Infirmary, Library Building, Roscommon County Council, Roscommon.

Rural Water Programme

Responsibility for Group water schemes was devolved from the Department of Environment and Local Government to the local authority in 1997.

This programme includes three elements:

1. Small Water and Sewerage Schemes ie. schemes costing less than 250,000 pounds. The total grants for each category of expenditure allocated to the Council was 1,236,750 pounds. The following table sets out the schemes completed in 1999:

Schemes Completed in 1999	
Name of Scheme	Description of work carried out
South Roscommon	Relaying of deficient watermain in the Bogganfin/Ballymore area. Upgrading of pumping station at source.
North Roscommon Regional Water Supply Scheme	Relaying of deficient watermain in the environs of Ballinagare
North East Regional Water Supply Scheme/Shankill	Relaying and upgrading of deficient watermain on the approach to Elphin
Arigna/Rover Water Supply Scheme	Upgrade intake works
Cloonfad Sewerage Scheme	Completion of collection system to include Ballyhaunis road. Completion of treatment plant
Frenchpark Sewerage Scheme	Extension of sewer to Boyle road. Upgrading of treatment plant
Elphin Sewerage Scheme	Upgrading of treatment plant
Ballinlough Augmentation	Augment yield from source to improve supply during dry weather.

2. Programme for the take-over of Group Water Schemes.

The following schemes were taken in charge by the council in 1999:

Cloonfower East, Cloonfree, Cloonree/Ballindrimley, Doon/Boyle, Emlaghbehy, Castlerea, Gortnagoyne, Gortnamaryl, Grove, Kiltewan, Kilcash, Kiltymaine, Newtown and Togher.

3. Capital grants for new or the extension or upgrading of existing Group Schemes and payment of subsidy towards the operational costs of the provision of domestic water by Group Water Schemes.

The following schemes received capital grants in 1999:

Group Water Schemes:

Ballagh/Ballybeg, Creggane, Druminardley, Ballymacurley, Rathpeak/Earlspark, Carrane-Ballintubber, Rathcarren and Clooneyquinn.

Group Sewerage Schemes:

Stonepark South.

Copy of application forms and explanatory memorandums can be found in the [application forms section](#) of this site