

BENEFITS OF THE MONITORING MANAGEMENT MODULE OF THE WATER MANAGEMENT SYSTEM (WMS)

Significant business benefits have been derived from the development of the Monitoring Management Module of the WMS. These are as follows:

1. Computerised functionality to co-ordinate and manage national and catchment based resource quality monitoring programmes has been established, replacing a manual process. The functionality will be available at sites where WMS is deployed.
2. All registered water quality monitoring programme requirements are:
 - Consolidated, thereby eliminating duplication of monitoring and analysis and creating savings in resource and travel time,
 - Scheduled to ensure that effective monitoring and analysis is carried for every programme.
3. Online access to information regarding registered water quality monitoring programmes is possible. The information provided includes:
 - Identification of the number, type and nature of water quality monitoring programmes carried out by, or for, the Department.
 - Monitoring programme schedules identifying;
 - Who the owner of the programme is and who is responsible for taking the samples,
 - Where the monitoring sites are,
 - What water quality variables are monitored at each site,
 - When the monitoring has to take place,
 - How long the monitoring programme is required to run, and
 - To which laboratory the samples have to be sent for analysis.
 - The analysis schedule for each sample/laboratory.
4. Samples and results are automatically registered. All analyses are subjected to standard quality control procedures and then stored on an integrated database from which they can be accessed together with associated resource quality data.
5. Auditing of the effectiveness of monitoring and analyses can be undertaken and corrective actions taken once problems are identified.
6. Monitoring management information can be linked to the water network, and represented spatially with associated catchment characteristics and resource quality objectives.
7. Analytical results can be extracted for assessment and interpretation. Standard reports and statistical tools are available to assist in the interpretation.
8. The flow of water quality data is being directed into one established, integrated repository. All water quality information previously stored on the Hydrological Information System Quality Database (HIS QualDB) has been transferred to the WMS. Water pollution control data previously stored in PC POLMON has been and will be transferred to the WMS as deployment to the regional offices is accomplished.

Future benefits will continue to accrue to Regional Offices and Catchment Management Agencies as the functionality of the Monitoring Management Module of the WMS is developed. These are as follows:

1. The tools to efficiently and effectively manage and plan resource quality monitoring programmes will be available to all users. Co-ordination, evaluation and auditing tools will provide the means to rationalise current activities and evaluate the progress made in establishing and maintaining monitoring systems as required by [Chapter 14](#) of the [National Water Act](#) (1998).
2. The functionality developed to date can be utilised to establish a wide range of resource quality monitoring programmes and not only be confined to water quality monitoring, as is the case at the present.
3. Analytical results will be imported and exported electronically, establishing standard formats for the transfer of data to and from the system.
4. Web enabled access to the data will be established thereby permitting Internet interrogation of available information.
5. Full auditing and quality control of all operational monitoring processes will become available.
6. Stock and equipment control for all monitoring activities will be established.
7. Financial administration for monitoring activities will be developed providing: -
 - Mechanisms to create savings in resources and travel time,
 - Mechanisms to evaluate, control and efficiently pay data providers,
 - Assess financial implications of resource quality monitoring and feasible alternatives, and
 - The framework for effective budgetary allocations.