

## **Reservoirs Act 1975 - Progress on the implementation of the Environment Agency as Enforcement Authority**

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**SYNOPSIS.** The Water Act 2003 has established a new role for the Environment Agency (the Agency); that of the Enforcement Authority for the Reservoirs Act 1975 in England and Wales. Currently some 140 Local Authorities fulfill this role.

The Agency is preparing to commence this new role from 1<sup>st</sup> October 2004 and this paper describes the process being followed and progress to transfer this new duty. It also sets the scene for the subsequent increase in the role of the Enforcement Authority driven by the Water Act 2003, namely the requirement for Undertakers to produce Flood Plans for reservoirs.

### **INTRODUCTION**

The Reservoirs Act 1975 was implemented between 1986 and 1987, (Charles, 2002) and only applies to 'large raised reservoirs' with a capacity greater than 25,000 cubic metres of water that do not fall within the scope of the Mines and Quarries (Tips) Act 1969.

The Act covers some 2600 reservoirs in the United Kingdom, 2000 of which lie in England and Wales. However, the jurisdiction of the Agency is confined to England and Wales. The Water Act 2003 has not affected the 600 reservoirs that will continue to be regulated by the 32 Enforcement Authorities in Scotland.

In England and Wales some 140 Local Authorities (Unitary Authorities, County Councils and Metropolitan Boroughs) are currently responsible as Enforcement Authority for 2000 reservoirs. For local authorities this role has attracted a varying response, often co-ordinated by differing departments. This has led to an inconsistent application of the Act and has ultimately driven the need for consistency led by one body. This requirement was recognised in a review of the Reservoirs Act 1975 and

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reported to the British Dam Society (BDS) by Simms and Parr (1998) at the 10<sup>th</sup> BDS Conference held in Bangor in September 1998.

### THE WATER ACT 2003

The Water Act 2003 transfers the responsibility for Enforcement to the Agency. It also establishes the requirement for Undertakers to prepare Flood Plans when directed by the Secretary of State. In addition the provisions of the Reservoirs Act 1975 are to apply to the Crown. Further details can be viewed on the Defra website [www.defra.gov.uk](http://www.defra.gov.uk).

### THE ENVIRONMENT AGENCY

The Environment Agency is a 'Non Departmental Public Body' that reports to the Department for Environment Food and Rural Affairs (Defra). Its vision is for 'A better Environment in England and Wales for present and future generations'. Its role is to be an efficient operator, modern regulator, influential advisor, effective communicator and champion of the environment. These are underpinned by its Values which include an outcome driven approach, being firm and fair and open to change.

The Agency's functions are extensive and its main operating role is Flood Risk Management. Part of its massive Flood Risk Management infrastructure includes 119 flood storage reservoirs that come under the remit of the Reservoirs Act 1975. It also has considerable regulatory powers, responsibility and experience. For example it is responsible for over 1600 authorisations in process industries, more than 100,000 consents to discharge and over 7500 waste management licences. Further details on the Agency can be found on its website:- [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk).

### PRINCIPLES OF MODERN REGULATION

Society demands high environmental and safety standards. The business world rightly expects greater regulatory efficiency, whilst minimising bureaucracy so that compliance costs are kept to a minimum. These potentially conflicting demands can be met by a modern regulatory regime.

Five principles have been set out by the Better Regulation Task Force (2003) to achieve this aim and they are:-

- **transparent** - rules and processes which are clear to businesses and local communities
- **accountable** - by reporting regularly on actions and performance
- **consistent** - by applying the same approach and standards within and between sectors and over time

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- **proportionate (or risk based)** - by allocating resources according to risks involved and scale of outcomes which can be achieved
- **targeted (or outcome focused)** - the outcome must be central to the planning and assessment of performance

The Agency has included a sixth principle:-

- **practicable** - to provide clarity to business on how they comply

Through the application of the principles of Modern Regulation the Agency aims to be perceived as an effective regulator and to achieve a high degree of public confidence in its activities. The Agency believes in firm but fair regulation and has developed an Enforcement and Prosecution Policy to reflect this. Included in this policy are the factors to be considered in deciding whether or not to prosecute. The Reservoirs Act 1975 empowers the Enforcement Authority to take both Civil and Criminal proceedings. In preparing for this new role the Agency will apply its Enforcement and Prosecution Policy which enshrines the principles of Modern Regulation and apply them to the enforcement of the Reservoirs Act 1975.

### ROLES UNDER THE RESERVOIRS ACT 1975

The Reservoirs Act 1975 is principally designed to be self regulating with the onus on the Undertaker to keep records, manage the dam and its infrastructure to a specified operating regime, and procure all necessary services and works. This is in line with the role of a regulated party defined by the Principles of Modern Regulation. The Reservoirs Act 1975 clearly establishes the role of the Undertaker and defines its responsibilities. The term 'Undertaker' has been specifically adopted in preference to 'Owner' as the role of Undertaker, i.e. person or persons that use and control the reservoir, may not always be the owner.

The Reservoirs Act 1975 also recognises distinct roles of engineer (Panel Engineers), each of which are required to be re-appointed to their respective panels every five years. Only a qualified civil engineer who is a member of the appropriate panel can carry out the statutory requirements of the Act relating to engineering aspects of construction, on-going supervision and inspection.

### ROLE OF THE ENFORCEMENT AUTHORITY

The Enforcement Authority has a legal duty to ensure that the Undertakers' self regulatory regime is fully compliant (i.e. effectively a compliance audit

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role) and can take necessary actions to secure compliance. The main duties of the Enforcement Authority include:-

- Maintaining a register of reservoirs, and making this information available to the public.
- Ensuring that the Undertaker has appointed a Supervising Engineer.
- Ensuring that the Undertaker commissions regular inspections of the dam by an Inspecting Engineer.
- Enforcing the Act by influencing, warning, cautioning and ultimately prosecuting non-compliant Undertakers.
- Commissioning essential works required in the 'Interests of Safety' in the event of non-compliance and recouping full costs incurred from the Undertaker.
- Acting in an emergency if the Undertaker cannot be found.
- Producing a Biennial Report to Defra and to the Welsh Assembly Government (WAG) of enforcement actions taken.

### PROJECT MANAGEMENT OF NEW DUTY

The Agency has fully embraced the principles of project management to introduce all new duties to its business. This ensures that business aims are fully delivered to the specified time, cost and quality. For the introduction of this new enforcement role a Project Board has been established chaired by the Head of Flood Risk Management. The Project Board comprises key Agency personnel, a representative from: Defra, the British Dam Society (who is also an A.R. Panel Engineer), the Reservoirs Committee of the Institution of Civil Engineers; a current Enforcement Authority, and the Technical Manager – Reservoir Safety.

A project team, led by a Project Manager, reports regularly to the Project Board. The team, all of whom are part time consultees to the project, represent key elements of the Agency's business which include the following:-

CIS (Corporate Information Systems)	Finance
Legal	Customer Services
Enforcement Processes	Personnel
Records Management	Media Relations
Debt Recovery	Emergency Management
Procurement	Planning Guidance

A comprehensive approach to project implementation has been adopted because of the impact that this change project will have across the Agency business.

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### PROJECT PLAN

The Project Plan has four elements supported by a comprehensive communications strategy:

1. Process definition
2. Delivery of suitable information technology
3. Acquisition of existing records
4. Recruitment of permanent staff

Process definition includes definition of the new duty, development of a Vision, statements of policy, business processes and work instructions supported by guidance and training.

A business case is currently under review for suitable information technology software termed the Reservoir Enforcement and Surveillance System. The acquisition of existing records is dealt with in more detail below, as is the proposed permanent structure.

### VISION FOR RESERVOIR SAFETY

The Project Board has endorsed the following Vision for the overall guiding principles for the execution of the new duty:

*“We will assure Reservoir Safety by robustly applying the principles of Modern Regulation in our enforcement of the Reservoirs Act 1975”*

The Project Board have received proposals defining the strategic objectives for Reservoir Safety and how these objectives will be translated into performance measures.

The next stage of this process will witness the new team owning these strategic objectives. These objectives will define their business plans and training plans, which will be underpinned by the core values of the Agency.

Crucially, performance monitoring will be instigated against objectives set. The new performance measures derived for the team will also feed into and ultimately be evaluated against the Agency’s Water Management Directorate’s Balanced Business Scorecard. The Scorecard is designed to provide a high level summary of performance for use principally at Director level and provide early warning of under performance.

### ELECTRONIC DOCUMENT MANAGEMENT

The business world is making increased use of electronic document management. This was for example reflected in a paper by Stewart (2002) where he expanded on a system developed for Severn Trent Water to hold

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all documentation electronically. Increased transfer to Electronic Document Management (EDM) is also reflected in the Agency's EDM strategy, which in part is driven by the targets set by the Modernising Government White Paper in 1999. EDM is also regarded as the most effective way to manage reservoir records in the future. It is planned that the prime method of receipt of notifications, certificates, etc., will be electronically. This contrasts with the current method of the majority of reservoir record retention - paper files. When all the current paper records are amalgamated they will require some 30 filing cabinets to retain them, hence the need for EDM.

### TRANSFER OF DATA & INFORMATION

In order to establish the quantum of work and resources required to transfer data and information several Enforcement Authorities were visited at the commencement of the project. The visits were hosted by the lead officer for the authority and register and files reviewed.

Following review, a 3 phase approach to the process of transfer of data and information was adopted:

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|-----------|--|
| Phase I   | A trial of the process based upon 10% of the total volume (which was completed by December 2003)                   |
| Phase II  | The capture of the remaining 90% of records (refined by learning from Phase I) and due for completion by July 2004 |
| Phase III | The 'Mop Up' of documents created/filed by existing Enforcement Authorities after Phases I & II.                   |

This approach was designed to ensure that:-

1. From the 'go live date' of 1 October 2004 all necessary information would be electronically available to the Agency.
2. Potential issues would be considered and resolved, and important knowledge would be acquired at the earliest possible date.
3. All enforcement processes would be in place, trialed and operable before the duty commenced.

A questionnaire was despatched to existing Enforcement Authorities to determine:-

- confirmation of contact and reservoir details
- how records were held
- what processes, and computerised systems, if any, were in use
- advice and guidance that should be passed to the Agency

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The questionnaire also made it clear that the Agency would not commence its role until 1st October 2004, but wished to ensure it was fully sighted on emerging enforcement issues.

Currently there is no single, comprehensive register of reservoirs for England and Wales. The process of transferring the individual registers from the existing Enforcement Authorities and subsequent checking is enabling this to be compiled.

### RESERVOIR ENFORCEMENT AND SURVEILLANCE SYSTEM (RESS)

A consistent, national and effective business tool is required to enable the Agency to effectively undertake the enforcement role.

The system adopted needs to achieve the following four key business needs:-

- A reservoir register to hold structured information about reservoirs (i.e. inspections, actions, etc.)
- Electronic Document Storage and Management
- Standard letter generation
- Workflow support for Regulation business processes

Five options have been appraised that range from a manual process wholly reliant on paper records and increased staff numbers to the adoption of an existing Agency Permit Administration System (P.A.S.) which incorporates automated workflow. A standalone Electronic Document Management (EDM) has also been considered. The options have been assessed against a range of criteria that include:-

- Agency Environmental Vision and Technical Strategies
- Modernising Regulation
- Business Risk
- Wholelife costs (i.e. development, maintenance and operating activities)

The foundation for all the options considered is the processes that are defined by the legislation. It is from these processes that an automated system will be designed or a manually based team trained and managed.

### BUSINESS PROCESSES

*A Guide to the Reservoirs Act 1975* (ICE, 2000) defines six core procedures for compliance and enforcement. By fundamentally reviewing the Reservoirs Act 1975 some 18 distinct procedures have been established to resolve potential non-compliant acts or offences.

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From these procedures (or business processes) the activities and performance objectives of each Agency department can be defined and interaction with outside parties, e.g. Inspecting Engineers, consistently managed.

The Agency Management System (AMS) provides a standard structure for all business processes. Once business processes are developed and approved, they are published and available on the Agency's Intranet. The types of AMS business processes that already exist range from guidance on the resource allocation for waste licence pre-application to the process to be adopted in managing and maintaining the Agency's own reservoirs. The application of AMS to all business processes defined by the Reservoirs Act 1975 will ensure a consistent and transparent approach.

## COMMUNICATIONS AND STAKEHOLDER MANAGEMENT

The management of the interface with key reservoir industry organisations is regarded as crucial to the successes of this project and to the future effectiveness of the role. It is essential that the Agency project the profile that meets both the aspirations of the reservoir industry and Government. At an early stage of the project, Stakeholder Mapping was employed as a tool to define and manage the communication strategy for both internal and external stakeholders. To date, constructive working relationships have been established with:-

- Government – including Defra, WAG and the Scottish Executive
- The Health and Safety Executive
- Panel Engineers
- Key Undertakers
- Institution of Civil Engineers (ICE) and the British Dam Society

Comprehensive engagement with key Agency departments is in the process of being developed. An intranet site has been established and an internet site is planned before October 2004.

This paper later reflects on the increased profile to the reservoir industry and wider interest groups that the Agency will have with Reservoirs. The Agency is currently developing a National Customer Contact Centre (NCCC) based in Rotherham which will be fully briefed to handle routine enquiries from the public, for example educational enquiries.

As an active Enforcement Authority, the Agency will be pro-actively engaging with the profession and wider reservoir community in seeking both compliance with the Reservoirs Act 1975 and fostering improvements in approach.

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As with any change management process the need for effective communication throughout the process is paramount. In establishing the pro-active relationship with the reservoir industry, the Agency is keen to ensure that changes are well forecast and a 'no surprises' culture engendered. The proposed automated workflow system will establish a continued dialogue with respective parties at relevant stages, for example: checking that a periodical inspection has been arranged, checking that measures in the interests of safety have been completed or checking the appointment of the Supervising Engineer. For some Undertakers this will represent a significantly different approach as they establish an ongoing relationship with the new Enforcement Authority.

### NEW TEAM STRUCTURE

In undertaking this new duty, the Agency will build on its existing strengths which include significant enforcement expertise and local awareness through Flood Risk Management. A core team will be formed in Exeter to provide the routine surveillance and the enforcement capability. This will provide a 'One stop shop' approach to the compliance monitoring and enforcement role. The Technical Manager – Reservoir Safety will provide leadership and management to the team that will comprise two key elements:

1. Surveillance
2. Enforcement

The surveillance team will manage the reservoirs register, initiate all routine correspondence, and populate the RESS and handle detailed enquiries. The enforcement team will co-ordinate all enforcement across England and Wales and manage the portfolio of enforcement cases. They will take over from the influencing element of enforcement led by the surveillance team and be responsible for the warning, cautioning and prosecuting stages. The services of Panel Engineers will be procured to advise and work with the Agency in order to achieve the appropriate regulatory outcome in accordance with the Reservoirs Act 1975. The Enforcement process will be assisted by a representative from the Agency's Area Flood Risk Management Regulation Team. This local representative will provide the essential 'eyes and ears' on the ground. One of their first roles will be to check that the Register of Reservoirs is complete for their Area.

### TRAINING AND DEVELOPMENT

A key element of the project will be the provision of training for all staff with a role to play in the enforcement of the Reservoirs Act 1975. The Agency is progressing towards Investors in People (IiP) accreditation and thorough training and development for its staff is seen as crucial.

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To properly enforce such a comprehensive Act all potential scenarios are being worked through as part of design of training. As an illustration, Powers of Entry, and Police and Criminal Evidence Act (PACE) training will be provided to ensure that local staff are fully able to apply Section 17 of the Reservoirs Act 1975 which states a person duly authorised in writing by an Enforcement Authority may at any reasonable time enter upon the land on which a reservoir is situated. This is also particularly important in view of the potential recourse to compensation that could arise from a 3rd party by virtue of Section 18 of the Reservoirs Act 1975. Section 18 deals with compensation to third parties where the Enforcement Authority exercises any powers conferred on it by Section 17. Compensation is payable by the Enforcement Authority where damage is caused. Such compensation is deemed to be a reasonable expense incurred by the Enforcement Authority and is recoverable from the Undertaker.

### FLOOD PLANS

The Water Act 2003 establishes the requirement for Undertakers to provide Flood Plans when directed to by the Secretary of State. Reference is made to this requirement in the Defra letter to Water Company Chief Executives reported in Dams & Reservoirs June 2003. It is proposed that these plans will have to be produced from April 2005 and industry provided with a five year rolling programme for their production. In order for Defra to establish how these plans are to be prepared, their constituent parts, the consultees and their respective roles, a research and development (R&D) project had been let to Kellogg Brown & Root (KBR). By the end of 2003 a proposed format had been established based on the Control of Major Accident Hazard Regulations 1999, together with proposed prioritisation criteria for preparation of plans. Defra propose to embark on a major consultation process with all affected parties (i.e. Undertakers, Panel Engineers, Emergency Planners, etc.) in 2004. This programme fits with the development of the Civil Contingencies Bill.

### INCIDENT REPORTING SYSTEM

A further R & D project let by Defra to KBR has been to develop an incident reporting (and investigation) system for UK dams. The outcome from this contract was presented to the BDS on 27th October 2003 when an industry wide consultation process was initiated. The aim of the system is to improve the safety of UK dams by promoting awareness of safety issues, learning from experience of others and identifying research needs. A targeted questionnaire to key representatives of the UK dam industry had produced support for the Enforcement Authority to co-ordinate this role. Currently it is planned that the Agency commence this new role from June 2005.

## THE FUTURE

The scene is set for an interesting and increasingly important new role for the Agency as it takes on its responsibilities as the Enforcement Authority. This will bring with it considerable opportunities for improved regulatory efficiency and partnership activities establishing closer links with the reservoir community. For example the Agency will be working closely with Defra and WAG, together with the wider reservoir community, to determine new policies on the application of the Reservoirs Act and influence future policy changes. Through the transfer of enforcement for reservoir safety to just one body, the Agency will achieve a consistent, systematic approach to achieving compliance with the Reservoirs Act 1975 and thus accomplish the Vision established for Reservoir Safety.

## ACKNOWLEDGEMENTS

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## APPENDIX

### Information Sources

[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
[www.defra.gov.uk](http://www.defra.gov.uk)  
[www2.defra.gov.uk/db/panel/default.asp](http://www2.defra.gov.uk/db/panel/default.asp)  
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