

Service

Dam Safety Management and Assurance Programmes



Background

The management of a dam safety programme should ensure that the programme addresses the needs and concerns of both the owner and community. The programme may include:

- Preparing policies and identifying responsibilities
- Maintaining dam design and construction information
- Preparing instrumentation requirements and monitoring programmes
- Documenting surveillance and monitoring procedures
- Defining safety review requirements

- Consequence assessment, classification and risk evaluation
- Implementing dam operations and maintenance procedures
- Education and training for inspectors and staff
- Quality assurance
- Emergency procedures and response

The Service

Damwatch can provide advice on all aspects of dam safety programmes, at all levels and over all types of dams large and small. The services are scheduled below.

Review, Audit and Advice

Damwatch can prepare, and provide review, audit and advice over the complete range of dam safety assurance programme activities.

Dam Safety Programme Development

- Scope and define the dam safety programme
- Legislative and regulatory requirements
- Relevant dam safety guidelines (NZSOLD, ANCOLD)
- Dam safety policies
- Dam safety programme preparation
- Dam data book content and collation

Instrumentation

- Identify instrument needs and networks
- Instrument design
- Installation and / or advice on installation
- Instrument maintenance programmes

Surveillance and Monitoring

- Surveillance scope and framework
- Surveillance procedures
- Monitoring needs
- Monitoring options and systems
- Systems set up
- Data storage
- Surveillance inspections
- Data interpretation and analysis
- Surveillance and monitoring reporting
- Surveillance audits

Safety Review

- Safety review objectives and requirements
- Comprehensive safety reviews (New Zealand)
- Comprehensive surveillance reviews (Australia)
- Independent report review / audit

Consequence Assessment, Classification

- Incremental consequence assessments
- Rainy day / sunny day failure modes
- Potential Impact Category (PIC) classifications

Operations and Maintenance Procedures

- Procedures for safe operation
- Operations and maintenance instructions

Education and Training

- Training programmes and guidelines
- Current practice and technology
- Obligations and responsibilities
- Emergency response

Quality Assurance

- Quality assurance processes
- Levels of responsibility
- Audit and certification

Emergency Procedures and Response

- Development of emergency response plans and procedures
- Emergency response exercises