

DS 5.1 Flood mitigation manual for a dam

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Version History

Version	Date	Comment
1	28/10/2010	Original Approval

Purpose

To provide a framework for assessing a flood mitigation manual for a dam required by the chief executive under Chapter 4, Part 2 of the *Water Supply (Safety and Reliability) Act 2008* (the Act). This section of the Act provides the chief executive with the power to approve, by gazette notice, a flood mitigation manual for a dam.

Rationale

Under s. 370 of the Act owners of dams prescribed by regulation under s. 370 must prepare a flood mitigation manual for their dams for approval by the chief executive.

The Explanatory Note to the Water Supply (Safety and Reliability) Bill (at page 122) states:

"A dam nominated in the regulation will be a dam which was constructed for the purpose of flood mitigation. A flood mitigation manual ensures that such dams make controlled releases of water for flood mitigation purposes in accordance with pre-agreed conditions."

At the time of writing, no regulation under s. 370 had been made. There are however existing manuals for three dams approved under the former Water Act 2000 that are taken to be manuals approved under s. 371 by force of the transitional provisions set out in s.613. The three dams are Wivenhoe, Somerset and North Pine. The most recent approval dates for each of these dams are:

- North Pine Dam, gazetted on 28 September 2007;
- Wivenhoe and Somerset Dams (approval for one manual for both dams), gazetted on 22 January 2010.

The chief executive may also require the dam owner to amend the flood mitigation manual by a notice (s. 372 of the Act). The dam owner must provide the chief executive with a copy of the flood mitigation manual for approval. The chief executive may also get advice from an advisory council before approving the manual. At the time of writing no advisory councils were in existence.

Before an approval for the flood mitigation manual for a dam expires, the owner of the dam must review and if needed update the manual (s. 373). The dam owner must then provide the chief executive with a copy of the updated flood mitigation manual for approval under s. 371 of the Act. This work procedure currently only has application to this review and further approval process for the three dams listed above.

An owner of a dam who observes the operational procedures in a flood mitigation manual, approved by the chief executive, does not incur civil liability for an act done, or omission made, honestly and without negligence in observing the procedures in the manual (s. 374).

Procedure

This work practice is set out below.

A flow chart for this work practice can be found in Attachment A <attachments/ds5-1-fmm-flowchart-a.pdf> .

Note: any reference in this work practice to a flood mitigation manual may also be a reference to an amended flood mitigation manual received under ss. 372 or 373 of the Act.

Step 1 - Receiving a flood mitigation manual

Upon receiving the flood mitigation manual (or amended flood mitigation manual) the project officer:

- Stamps the covering letter (or a copy of the front page and contents page of the manual if there was no covering letter) with the Document received by DERM stamp
- Scans the document (or copy created above) and records details in Keeper on the flood mitigation manual file for the dam and fills in the relevant sections of the Document received stamp in accordance with local office processes and departmental standards
- Updates WICD–RDR
- Prepares an acknowledgement letter to the dam owner that the flood mitigation manual has been received and is being assessed. Refer to Attachment B <attachments/ds5-1-fmm-ack-let-b.pdf> for a template for an acknowledgement letter (A template for this letter is available in G:\WIR\Dam_Safety\Templates).
- Gives all documents and the file (if required) to the decision maker.

The decision maker:

- Checks and signs the letter confirming receipt of the manual. If changes are necessary to the draft letter confirming receipt of the manual, the decision maker should make the changes and return the letter to the Project Officer for updating prior to signing.
- Allocates an action officer to process the manual (the decision maker may also be the action officer)
- Gives the signed letter, the manual and the file to the project officer.

The project officer:

- Copies and sends the signed letter.
- Scans the signed letter and registers the letter in Keeper in accordance with local office processes and relevant departmental standards.
- Places the copy of the signed letter on the file relating to the flood mitigation dam.
- Updates WICD–RDR with appropriate information.
- Gives the manual and file to the action officer.

Proceed to Step 2

Step 2 - Action officer conducts an assessment of the flood mitigation manual

The action officer:

- Conducts a detailed assessment of the flood mitigation manual. Action officers are expected to conduct the detailed assessment having regard to the matters outlined in any relevant guidelines and the Flood Mitigation Manual (FMM) Assessment and Decision Form and the notes in that form (see Attachment C <attachments/ds5-1-fmm-a-d-form-c.pdf> . A template for this form is available in G:\WIR\Dam_Safety\Templates).

- Completes the FMM Assessment and Decision Form as the assessment occurs.

The purpose of the checklist in the FMM Assessment and Decision Form is to assist the action officer to determine whether the flood mitigation manual complies with the Act and any relevant guidelines and to enable the action officer to make a recommendation on whether the flood mitigation manual should be approved. However, action officers should note that the checklist in the FMM Assessment and Decision Form is not intended to be relied upon by action officers as an exact statement of the Act and any guidelines and it is essential that action officers regularly refer to the full text of those documents to determine the precise details of these requirements.

Discussions with dam owners and other stakeholders may be undertaken to refine the content of the manual and to ensure that the flood mitigation manual is adequate for its required purpose. See step 3.

In completing the FMM Assessment and Decision Form the action officer:

- Records on the FMM Assessment Checklist whether the manual complies with the Act and any guidelines
- Includes appropriate comments in the FMM Assessment Checklist about individual items (in the comments column for the appropriate item/s). Note: if the action officer believes additional information or clarification of information is required proceed to step 3 prior to completing this step.
- Completes the 'Action officer's recommendation to decision maker' part of the FMM Assessment and Decision Form, including all items that are relevant to the recommendation/s made.
- Gives the FMM Assessment and Decision Form, the manual and the file to the decision maker.

Action officers should be aware that the information and documents referred to in the FMM Assessment and Decision Form and kept and retained in Keeper and on departmental file/s may later need to be made available to the decision maker, or other people, for independent consideration or inspection.

Proceed to Step 4.

Step 3 - Request further information

In some situations the action officer may need to communicate with the owner of the dam, or other people, to clarify certain issues for the assessment of the flood mitigation manual. **Accurate and written records of any communications, including verbal communications, must be kept and retained in Keeper and on the relevant Departmental file.** These records should indicate who was contacted or consulted about particular issues, when this occurred and the advice that was given. It may also be appropriate for the action officer to make some reference to these communications in the FMM assessment and decision form itself (for example, in the comments column for the appropriate item/s in the flood mitigation checklist).

Action officers should be aware that the information and documents referred to in the FMM assessment and decision form and kept on departmental file/s may later need to be made available to the decision maker, or other people, for independent consideration or inspection.

A suggested format for a letter requiring further information can be found at Attachment D <attachments/ds5-1-fmm-req-info-d.pdf> . A template for this letter is available in G:\WIR\Dam_Safety\Templates.

The letter requiring further information must:

- Be prepared on the basis of the information contained in the FMM assessment and decision form (see step 2); and
- Be sent to the owner of the dam.

If the department does not receive any information from the dam owner in response to the request for further

information, the action officer must discuss appropriate action to take with the decision maker.

Return to step 2 when requested information is received.

Step 4 - Decision maker makes decision about flood mitigation manual

The decision maker:

- Considers the flood mitigation manual and the recommendation made by the action officer.
- Decides what action should be taken in relation to the manual. Decision makers are expected to assess the appropriate action to take having regard to the matters outlined in the FMM Assessment and Decision Form and the notes to that form (Attachment C <attachments/ds5-1-fmm-a-d-form-c.pdf>).
- Completes the 'Decision maker's decision' part of the FMM Assessment and Decision Form.
- Gives the completed FMM Assessment and Decision Form, the manual and the file to the action officer.

Depending on the situation, available options for the decision maker may be to:

- Not approve the manual because it does not meet the expected requirements for approval. *Go to Step 5.*
- Approve the manual – *Go to Step 7.*
- Require more information from the dam owner – *Go to Step 3.*
- Require a more detailed assessment of the FMM by the action officer – *Go to Step 2.*

If the decision maker decides more information is required from the dam owner, they should indicate this on the Assessment Checklist and return all documentation to the action officer who will *return to step 2*.

Step 5 - Action officer prepares letter rejecting flood mitigation manual

Note: This step should only be taken if the action officer/decision maker has been unable to get appropriate changes made by the dam owner to the manual to make it suitable for approval. It is very unlikely that this would occur as it is in the best interests of the dam owner to have an approved flood mitigation manual as the dam owner is then indemnified against civil liability for an act done, or omission made, honestly and without negligence when observing the procedures in the manual.

Action officer receives the decision to not approve the manual from the decision maker and prepares a draft letter (including yellow file copy) advising of non-approval of the flood mitigation manual. See Attachment E <attachments/ds5-1-fmm-reject-let-e.pdf> for a template. A template for this letter is available in G:\WIR\Dam_Safety\Templates

Action officer gives the draft letter to the decision maker who either signs the letter or requests changes to be made.

Once the decision maker has signed the letter the action officer sends the letter to the dam owner.

If an amended flood mitigation manual is received from the dam owner *return to step 1*.

If a dam owner chooses not to prepare an amended manual they will no longer be indemnified against civil liability under the Act once the approval period has expired for the current approved manual, however, it is not an offence to not have a flood mitigation manual and no further action should be taken if they choose to not submit another manual. *Go to step 8.*

Step 6 - Action officer prepares gazette notice

Action officer receives the decision to approve the manual from the decision maker and prepares a notice of draft gazette notice and memo for the Executive Council Team (Cabinet and Parliamentary Services, DERM).

The gazette notice should state the following:

- The notice number and year
- The name of the dam to which the flood mitigation manual applies
- The number of years for which the manual is approved. Where the manual is an amendment required by the chief executive the approval may be for the balance of the original five years or for a period of not more than 5 years as per the normal approval of a manual.

Note: see Attachment F <attachments/ds5-1-fmm-gaz-notice-f.pdf> for a draft template of the gazette notice. See Attachment G <attachments/ds5-1-fmm-gaz-memo-g.pdf> for the covering memo to the executive council team. A template for these documents is available in G:\WIR\Dam_Safety\Templates

Once the notice and memo has been prepared it must be signed off by the Director, Dam Safety (Water Supply) (or a higher position) and sent to the Senior Project Officer, Executive Council, Cabinet and Parliamentary Services with a covering briefing note. The electronic version of the gazette notice must also be sent by email. The executive council team will arrange for publication of the notice in the gazette and will advise the action officer by email of the publishing of the notice (a copy of the published notice is usually included in the email). *Go to step 7 when gazettal has taken place.*

Step 7 - Letter sent to dam owner advising of approval of manual

The action officer prepares draft letter (including yellow file copy) to dam owner advising of approval of the manual and enclosing a copy of the gazette notice. See Attachment H <attachments/ds5-1-fmm-app-let-h.pdf> for a template. A template for this letter is available in G:\WIR\Dam_Safety\Templates.

Action officer gives the draft letter and copy of the gazette notice to the decision maker for signing.

Once the letter has been signed by the decision maker the project officer sends the letter and gazette notice to the dam owner.

Go to step 8.

Step 8 - Action officer takes appropriate action with respect to RDR, the file and departmental records

The action officer:

- conducts a final check to ensure all relevant data has been entered into WICD-RDR.
- checks the completed FMM Assessment and Decision Form has been signed by the action officer and decision maker, and that this form and all other documents created or received during the course of this work practice have been placed on the appropriate departmental file/s.
- returns the departmental file to the project officer who will check that all relevant documents have been registered in Keeper. If not, the project officer will register the documents in Keeper in accordance with local office processes and relevant departmental standards.

The assessment of a flood mitigation manual is complete.

Responsibilities

The dam owner must give the chief executive a copy of the flood mitigation manual for the dam for the chief executive's approval.

Section 371 of the *Water Supply (Safety and Reliability) Act 2008* gives the chief executive the power to approve the flood mitigation manual for a dam.

At the time of writing, the *Water Supply (Chief Executive) Delegation (No. 1) 2010* was in force. Under that instrument of delegation, the powers of the chief executive relating to flood mitigation manuals for dams under the Act were delegated to the following positions:

- Director, Dam Safety (Water Supply), Office of the Water Supply Regulator;
- Director, Water Industry Asset Management and Standards, Office of the Water Supply Regulator;
- General Manager, Office of the Water Supply Regulator.

Decision makers must ensure that they have, at the time of making their decision, a current delegation allowing them to make their decision. This is important as instruments of delegation can be revoked and replaced from time to time.

Definitions

"**the Act**" – means the *Water Supply (Safety and Reliability) Act 2008*

"**chief executive**" – means the Director-General, Department of Environment and Resource Management

"**dam**" –

1. *Dam* means–
 - Works that include a barrier, whether permanent or temporary, that does or could impound water; and
 - The storage area created by the works.
2. The term includes an embankment or other structure that controls the flow of water and is incidental to works mentioned in paragraph (1) above.
3. The term does not include the following:
 - A rainwater tank;
 - A water tank constructed of steel or concrete or a combination of steel and concrete;
 - A water tank constructed of fibreglass, plastic or similar material.

"**decision maker**" – the person making the decision on whether to approve or request a change to a flood mitigation manual for a dam, under this work practice.

"**flood mitigation manual**" – means a manual prepared under s. 370, or amended under ss. 372-373, and approved under s. 371 or s. 372 of the Act.

"**manual**" – means a flood mitigation manual

"**reasonable belief**" – a reasonable belief does not have to be one that is completely without doubt, but it must also not rely on mere speculation, suspicion, guesses or assumptions that have been made without any foundation.

A reasonable belief is, generally, a belief based on information:

- reasonably believed to be reliable and accurate; and
- available to the decision maker.

"**referable dam**" – is a dam, or a proposed dam after its construction, for which –

- A failure impact assessment is required to be carried out under the Act; and
- The assessment states the dam has, or the proposed dam after its construction will have, a category 1 or 2 failure impact rating; and
- The chief executive has, under s. 349, accepted the assessment.

The term does not include –

- A hazardous waste dam;
- A weir, unless the weir has a variable flow control structure on the crest of the weir.

"**registered professional engineer**" – means a registered professional engineer, a registered professional engineering company or a registered professional engineering unit as defined under the *Professional Engineers Act 2002*.

References

The following documents should be referenced in conjunction with this work practice:-

- *Water Supply (Safety and Reliability) Act 2008*
- *Water Supply (Chief Executive) Delegation (No. 1) 2010*
- Queensland dam safety management guidelines
- Acceptable flood capacity for dams guidelines
- Failure impact assessment guidelines

Officers involved in this work practice should also be familiar with, and comply with, requirements of the following departmental standards:

- Departmental policy RKP/2006/2907 – Recordkeeping overarching policy
- Departmental policy RKP/2006/2899 – Recordkeeping email policy
- Departmental standard IMP/2005/2253 – Procedures for using electronic mail
- Departmental standard ADM/2005/941 – Paper-based document management
- Departmental standard ADM/2002/965 – Decision making and requests for statements of reasons under the *Judicial Review Act 1991*
- Departmental standard ADM/2003/1402 – Information privacy.

Legislation

Water Supply (Safety and Reliability) Act 2008

Attachments

Attachment A - Flowchart <attachments/ds5-1-fmm-flowchart-a.pdf>

Attachment B - Acknowledgement letter <attachments/ds5-1-fmm-ack-let-b.pdf>

Attachment C - Assessment and decision form <attachments/ds5-1-fmm-a-d-form-c.pdf>

Attachment D - Request for information letter <attachments/ds5-1-fmm-req-info-d.pdf>

Attachment E - Reject flood mitigation manual letter <attachments/ds5-1-fmm-reject-let-e.pdf>

Attachment F - Gazette notice <attachments/ds5-1-fmm-gaz-notice-f.pdf>

Attachment G - Covering memo for gazette notice <attachments/ds5-1-fmm-gaz-memo-g.pdf>

Attachment H - Approval of flood mitigation manual letter <attachments/ds5-1-fmm-app-let-h.pdf>