



STAFF REPORT

TO: Environment & Planning Committee

FROM: Neil Jackson, Policy Planner

REFERENCE: T202

SUBJECT: **POLICY ON DANGEROUS DAMS 2006 / 2011 - EP06/10/14 –**
Report Prepared for Meeting of 25 October 2006

1. BACKGROUND

Council adopted a draft policy on dangerous dams at the 2 August 2006 meeting of the Environment & Planning Subcommittee.

The draft policy was publicly notified under the Special Consultative Procedure of the Local Government Act 2002. Submission closed on 6 September 2006, and six submissions were received. Four of those submitters have requested to be heard.

2. ATTACHMENTS

Attached to this report are:

- A revised version of the draft policy, taking in to account matters raised by submitters;
- A report on the submissions;
- Copies of the submissions.

3. NOTE

The Special Consultative Procedure requires that Council must:

“ensure that, except as otherwise provided by Part 7 of the Local Government Official Information and Meetings Act 1987, every meeting at which submissions are heard or at which the local authority, community board, or committee deliberates on the proposal is open to the public.”

(LGAct 2002, section 83 (1) (j).)

4. RECOMMENDATION

THAT Council adopt the revised version of the policy on dangerous dams, subject to any amendments Council chooses to make after hearing from submitters.

Neil Jackson
Policy Planner

TASMAN DISTRICT COUNCIL

DANGEROUS DAMS POLICY 2006-2011

DANGEROUS DAMS – DRAFT POLICY – AMENDED AFTER STAFF REVIEW OF SUBMISSIONS – OCTOBER 2006

This draft is subject to review by Council after hearing submissions.

Statutory obligation

Section 161 of the Building Act 2004 requires Council to adopt a policy on dangerous dams, by 30 September 2006.

The policy relates to risks to persons, property, or the environment, from the failure of a dam. It comes within the health and safety of people, and sustainable development, components of the purpose of the Building Act.

The policy must state:

- Council's approach to dealing with dangerous dams;
- Council's priorities in dealing with dangerous dams; and
- How the policy applies to heritage dams.

The policy is adopted under the special consultative procedure of the Local Government Act 2002 (section 83).

The policy is required to be reviewed every five years after adoption. In addition, regulations, or amendments to the Act, may require the policy to be amended from time to time.

Statutory context

The requirement for Council to adopt a policy on dangerous dams is the last requirement of Subpart 7 of the Building Act, dealing with Safety of dams. It follows requirements for dam owners to classify the potential impact of dam failure; to provide dam safety assurance programmes; and to provide annual dam compliance certificates.

Section 134 requires an owner of a dam to "classify the dam according to the potential impact of a failure of the dam on persons, property, and the environment." Dams are to be classed as having low, medium, or high potential impact, according to criteria and standards which, at October 2006, have yet to be prescribed by government. Classification is to be audited by a "recognised engineer" and submitted to Council for approval. Council can refuse approval only if it is satisfied that the person who certified the classification is not a recognised engineer.

Section 140 requires the owner of a dam classed as having medium or high potential impact to provide Council with a dam safety assurance programme, audited by a recognised engineer. Criteria and standards for a dam safety assurance programme also, at October 2006, have yet to be prescribed. Council can refuse approval only if it is satisfied that the person who certified the programme is not a recognised engineer.

Section 150 requires an owner of a dam for which a dam safety assurance programme has been approved, to provide Council with an annual certificate stating that all procedures in the programme have been complied with during the previous 12 months. This must also be certified by a recognised engineer.

The section 161 requirement for Council to have a policy on dangerous dams is in addition to the sections 134, 140 and 150 requirements on landowners.

Note that for new dams, Council has an obligation to avoid a dam being dangerous by ensuring that the construction of any new dam complies with the Building Act / Building Code.

Definitions

Meaning of dam (section 7)

Dam –

- (a) *means an artificial barrier, and its appurtenant structures, that –*
 - (i) *is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and*
 - (ii) *is used for the storage, control, or diversion of water or other fluid;**and*
 - (iii) *retains 3 or more metres depth, and holds 20 000 or more cubic metres volume, of water or other fluid; and*
- (b) *includes –*
 - (i) *a flood control dam; and*
 - (ii) *a natural feature that has been significantly modified to function as a dam; and*
 - (iii) *a canal; but*
- (c) *does not include a stopbank designed to control floodwaters.*

Meaning of dangerous dam (section 153)

A dam is dangerous for the purposes of this Act if the dam –

- (a) *is a high potential impact dam or a medium potential impact dam; and*
- (b) *is likely to collapse –*
 - (i) *in the ordinary course of events; or*
 - (ii) *in a moderate earthquake (as defined in the regulations); or*
 - (iii) *in a moderate flood (as defined in the regulations); or*
- (c) *is a leaky dam.*

There is ambiguity in this definition. Council understands the definition to mean that classification of a dam as having high or medium potential impact is a pre-condition for either:

- (a) a dam that is likely to collapse; or
 - (b) a dam that is leaky;
- to be classed as dangerous for the purpose of this policy.

Meaning of owner (section 7)

Owner, in relation to land and any buildings on the land, -

- (a) *means the person who –*
- (i) *is entitled to the rack rent from the land; or*
 - (ii) *would be so entitled of the land were let to a tenant at a rack rent; and*
- (b) *includes –*
- (i) *the owner of the fee simple of the land; and*
 - (ii) *any person who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land or to take a lease of the land and who is bound by the agreement because the agreement is still in force.*

For the purposes of this policy, the Council regards the owner of land on which a dam is sited to be the owner of the dam, unless that person provides a current and enduring legal instrument that identifies some other person as the owner of the dam.

There may be dams built without the approval of the landowner at the time, possibly under provisions of older mining legislation. Should Council be satisfied that any such dam is dangerous under section 153 and 154, it will consult with the landowner about responsibility for carrying out any work required to reduce or remove the danger.

Powers of Council

If the Council is satisfied that a dam is dangerous, it has wide powers including:

- preventing access to the dam;
- putting up a warning notice; or
- giving written notice requiring work to be done to reduce or remove the danger.’

Council may seek a Court order to carry out work itself, or carry out work in response to an immediate danger, recovering costs from the dam owner in both cases.

Approach to dealing with dangerous dams

Council will monitor the classification of dams, the dam safety assurance programmes, and the annual certificates of compliance, required under sections 134 – 152 of the Building Act 2004.

Where Council is satisfied that information from any of those steps, when tested against the criteria of section 153, shows a dam to be dangerous, Council will use its powers under sections 154 - 160 to reduce or remove the danger.

Where Council has any other reason to consider a dam might be dangerous in the context of section 153, it will undertake or initiate an investigation by an appropriately qualified person to report on the state of the dam. It will then consider that report against the criteria of section 153, and if satisfied that the dam is dangerous, Council will use its powers under sections 154 – 160 to reduce or remove the danger.

Where Council is satisfied that a dam presents a level of danger that is not adequately addressed by the safety assurance programme for that dam, the Council may, depending on the degree of urgency:

- a) advise the owner why action is considered necessary under section 154, in addition to the owner's dam safety assurance programme, and what level of safety or reduction in danger is needed;
- b) invite the owner to discuss ways of achieving the level of safety sought by Council;
- c) endeavour to reach agreement with the owner of the level of safety to be achieved and effective means of achieving that;
- d) if agreement is reached, record that agreement in a formal notice under section 154;
- e) if agreement cannot be reached, or if the degree of urgency precludes negotiation:
 - issue a notice under section 154;
 - seek a Court order requiring work to be done; or
 - carry out the work itself.

In any notice issued under section 154, the Council will specify:

- the work that is to be carried out;
- the time by which the work must be completed;
- whether a building consent is required for any of the work; and
- how completion of the work will be recorded.

Priorities

Council's priorities are:

- to identify dangerous dams;
- immediately take steps to promote public safety (for example, erect warning signs or issue public notice);
- identify solutions according to priorities ranging from:

Highest priority: dams with high potential impact and high vulnerability ("in the ordinary course of events", or with high probability of a trigger event occurring); to

Lowest priority: dams with medium potential impact and low vulnerability (low probability of a trigger event occurring).

In implementing these priorities, Council's preference is for a consultative and collaborative approach with dam owners. However, both parties need to recognise where the Act limits any discretion that might be negotiated through consultation, and where a situation of urgency may require immediate action with minimal consultation.

Records and Information

The Council will keep a record of dangerous dams on property files, with a copy of any notice requiring work to be done and a record of completion when the work has been completed to the required standard.

Section 154 of the Act requires that any notice requiring work to be done is fixed to the dam.

Information about a dangerous dam will be included in any LIM report for the property.

Section 151 requires Council to establish and maintain a register of dams in the District. Council will record in this register any determination that a dam is dangerous, any action taken or work required under section 154, the completion of any required work.

Any fence, sign or notice put up by Council under section 154 will be removed when Council is satisfied that the danger has been removed or reduced in accordance with required work.

Heritage dams

For the purposes of this policy, a heritage dam includes any dam listed as a heritage item in any current Tasman Resource Management Plan, and any dam registered by the New Zealand Historic Places Trust (NZHPT).

Where Council is satisfied that a heritage dam is dangerous, it will seek advice from NZHPT, and may seek advice from other suitably qualified people, about how the heritage value of the dam can best be retained in conjunction with any work needed to reduce or remove the danger presented by that dam; unless a level of urgency prevents seeking that advice.

(Council considers urgency is a low probability for a dam that has remained intact for long enough to have gained heritage value.)

If a section 154 notice is served on the owner of a heritage dam, a copy will be provided to NZHPT.

DANGEROUS DAMS POLICY – REPORT ON SUBMISSIONS

A. INFORMAL SUBMISSIONS

Parapara Valley Environment Group wants to be advised of the outcome of the Policy. Their interest is in an historic dam at Richmond Flat on the Parapara River. The dam was constructed circa 1895, for gold mining.

Philip Leith is concerned that submissions are being called for on a draft policy at a time when full details of how the policy might affect dam owners are not yet known.

This is because regulations for classifying dams as having low, medium or high potential impact are yet to be issued by central government. A government discussion document has been available since May 06, with submission closing on 31 August. A management decision was made not to spend time on this.

B. FORMAL SUBMISSIONS

1. DEPARTMENT OF CONSERVATION

- 1.1 The Department considers that where remedial work to dams is required, there is an opportunity to provide for fish passage if this isn't already available.

The Department did not wish to be heard on this submission.

Comment

The policy on dangerous dams is required under the Building Act 2004, to address the potential impact of failure of a dam, on persons, property, and the environment. Owners of high or medium potential impact dams are required to produce and implement dam safety assurance programmes to minimise the risk of dam failure. The dangerous dams policy may result in Council requiring work to be done to reduce or remove danger associated with dam failure.

I do not see anything in the Act that provides for the dangerous dams policy to require improvement to the ecological performance of dams. Providing for fish passage could not be required under any of the formal steps available to Council in implementing the policy. At most, it could be a matter for informal discussion between Council and a dam owner.

It is possible that no dams in the district will be found to be dangerous to the extent of requiring remedial work, in which case the Department's proposal would not be activated.

While "thinking outside the square" is needed to solve some issues, in this case the link is not well targetted.

If Council wanted to pursue this issue, it could set up a separate protocol so that when any dam was being investigated for the purpose of the dangerous dam policy, it was also investigated in relation to fish passage. However, any work to improve fish passage could only be by voluntary agreement.

2. T H Riley, Milnthorpe

- 2.1 Mr Riley is concerned about risks from dams formed by natural events. He wants the policy to acknowledge Council liability for the health and safety of people on Council-approved developments downstream of such dams.

Mr Riley wishes to be heard on this submission.

Comment

“Dam” is defined for the purpose of the Act, and the policy can only apply to dams that fit that definition. The definition is:

“dam –

- (a) means an artificial barrier, and its appurtenant structures, that –
- (i) is constructed to hold back water or other fluid under constant pressure so as to form a reservoir; and
 - (ii) is used for the storage, control, or diversion of water or other fluid; and
 - (iii) retains 3 or more metres depth, and holds 20 000 or more cubic metres volume, of water or other fluid; and
- (b) includes –
- (i) a flood control dam; and
 - (ii) a natural feature that has been significantly modified to function as a dam; and
 - (iii) a canal; but
- (c) does not include a stopbank designed to control flood waters.”

The reference to “artificial barrier” in the first clause of the definition excludes the natural dams that Mr Riley is concerned about. (b) (ii) refers to natural features, but they only come within the definition dam if they have been significantly modified to function as a dam.

The definition gives a technical knock-out to this policy addressing Mr Riley’s concerns about risks from natural dams. However, that doesn’t make the issue go away. Policies in Chapter 13 of the TRMP should be applied to development in such areas, or be modified if there is an issue that the policies do not adequately address.

3. NEIL TYSON

- 3.1 This submission asks that the policy be extended to apply to smaller dams that do not meet the depth or volume criteria in the Building Act definition above.

Comment

I sought to address this in the draft policy. The second paragraph under “Powers of Council” is about small dams that might be dangerous, and identifies how action might be taken through provisions other than the dangerous dams provisions of the Building Act. I thought I had adequately distinguished these small dams and related options for action, from the larger dams that the statutory powers of the policy apply to.

This section of the draft policy has been criticised in the submission by the New Zealand Society On Large Dams (NZSOLD), as being outside the scope of the dangerous dams policy provisions of the Act.

It is accepted that the dangerous dams policy required by section 161 of the Building Act should not be confused by matters outside the statutory scope of that policy.

Options for addressing risks associated with other dams are:

- (a) no specific policy: respond as and when needed;
- (b) a separate protocol, identifying separate implementation methods;
- (c) as for (b), but included in a single volume with the statutory policy as Part 1 and a 'protocol for risks from small dams' as Part 2.

4. MALCOLM AND HELEN SALMOND, UPPER MOUTERE

4.1 A key part of this submission is the paragraph:

“Would the proposed draft policy require those dams that are currently classified by TDC engineers as (a) having low potential impact and (b) having been assessed as well constructed and maintained dams and (c) to be operating within the current consent period and associated conditions, to again have the dam classified? Commonsense would indicate very strongly that owners of such dams should not be required to do so, and this should surely be a point of close and careful consideration when reviewing the draft policy.”

Comment

There is a need to distinguish between statutory requirements on councils or individuals where discretion can be exercised, and where there is no discretion.

The requirement for Council to adopt a policy on dangerous dams is in section 161 of the Building Act.

Dangerous dams are defined in section 153. The first criterion is that a dam is a high potential impact dam or a medium potential impact dam. The dangerous dams policy does not apply to a low potential impact dam.

The requirement to classify the potential impact of a dam is given in section 134:

- “(1) An owner of a dam must classify the dam according to the potential impact of a failure on persons, property, and the environment.
 - (2) In classifying a dam, the owner must –
 - (a) apply the prescribed criteria and standards for dam safety; and
 - (b) give the dam 1 of the following classifications:
 - (i) low potential impact; or
 - (ii) medium potential impact; or
 - (iii) high potential impact; and
 - (c) submit the classification of the dam to a recognised engineer for audit.
- ...”

For an existing dam, Section 135 requires the owner to provide Council with the classification and engineer's certificate no later than 3 months after regulations prescribing the criteria and standards for dam safety come into force.

Until those regulations are available, we cannot answer the submitters' question about whether their dam will have to be classified again, although it seems probable unless the regulations include some recognition of recent dam safety assessment.

These section 134 and 135 requirements are imposed by the Act on owners of dams. They are not imposed by Council, and Council cannot exercise discretion about them.

The submitters' concern about costs to landowners is noted. Council is equally concerned about costs to Council (ratepayers generally) imposed by requirements of central government.

The submitters wish to be heard.

5. TRUSTPOWER

5.1 TrustPower wishes to be heard on its submission, but would be prepared to withdraw if no other party wished to be heard.

5.2 TrustPower, like NZSOLD, has noted that Council's draft policy does not conform to a "template" policy that was developed by a collective of regional councils. Both submitters suggest there are benefits in having consistent policies between different councils.

Comment

I was aware of the template policy when writing the Tasman draft. I considered there was surplus material in the template, which I omitted. However, there are benefits in having consistency in terminology, interpretation, and processes. Reinstating parts of the template policy will be considered as individual items of the submission are discussed.

5.3 Definition

There is ambiguity in the Act's definition of 'dangerous dam'.

Comment

Council cannot alter the definition, but the policy can include an explanatory statement along the lines of:

"Council understands this definition to mean that classification of a dam as having high or medium potential impact is a pre-requisite for either:

(a) a dam that is likely to collapse; or

(b) a dam that is leaky;

to be classed as dangerous for the purpose of this policy."

5.4 Approach to dealing with dangerous dams

(a) The submission highlights that the term "dangerous" should be used prudently.

Comment

The term should only be applied after a dam has been assessed against the criteria in the definition of dangerous dam, and has been determined to be dangerous as a result. The section needs to be re-drafted to reflect this.

(b) The policy does not clearly state that the question of whether a dam is classed as dangerous is a matter that must be determined by Council.

Comment

Council's powers to take action under section 154 are only available "If a regional authority is satisfied that a dam is dangerous ...". The section needs to be amended to include that deliberate determination.

The section 153 definition says "A dam is dangerous for the purposes of this Act if the dam ...".

The Council determination should take the form of confirming that a dam is dangerous because it meets (or fails) the criteria specified in the definition.

(c) The submission notes that other councils have categorised dams according to the probability of a risk event occurring. For example, a dam that is likely to collapse "in the ordinary course of events" (153 (b) (i)), is a greater risk than one that is likely to collapse in a moderate earthquake.

Comment

This categorisation may assist in determining priorities where work is needed to reduce or remove danger. However, that priority should relate to risk to the health and safety of people, not just to the probability of dam failure. "Condition" of a dam, probability of failure being triggered, and impact in the event of failure, are all relevant to determining priorities for preventive or remedial work.

For example:

Highest Priority: High potential impact, high vulnerability, high probability of trigger event;

Lowest Priority: Medium potential impact, low vulnerability, low probability of trigger event.

5.5 Priorities (fifth section of TDC draft policy)

(a) TrustPower considers the policy should highlight Council preference for a consultative, collaborative approach with dam owners.

Comment

The application of the dangerous dams policy needs to be put in context with other provisions of the Building Act relating to dams.

The policy applies to dangerous dams (section 161).

Dangerous dams are firstly dams with high or medium potential impact, which meet (or fail) further criteria (section 153).

The classification of potential impact of a dam is to be done by the owner of the dam and be provided to Council (sections 134 and 135).

Council can approve the classification, or require it to be re-audited (sections 136 and 138).

These sections 134-138 steps are a form of consultation, although a very formal one.

Where a dam is classified as having high or medium potential impact, the owner is required to provide a dam safety assurance programme (section 140).

A dam safety assurance programme must be provided to Council within 1 year of Council approving a high potential impact classification; or within 2 years of council approving a medium potential impact classification (section 142).

Council can approve a dam safety assurance programme, or require it to be re-audited (sections 143 and 145).

These 140-145 steps are also a form of consultation, again formal, with little discretion available to either the dam owner or to Council.

It is not clear from the legislation what the dangerous dams policy will achieve that is not achieved by the requirement for dam safety assurance programmes.

It is possible that for a dam classified as having high potential impact, some work may be necessary to reduce or remove danger immediately, before a dam safety programme is required. It is less likely that this level of urgency would apply to a dam classified as having medium potential impact, although high vulnerability to, and high probability of, failure could be reason to require immediate work.

Under these scenarios, the level of consultation may depend on the degree of urgency for remedial work to be done. Note also that section 157 gives power to Council's chief executive to authorise action if there is immediate danger to the safety of persons, property, or the environment. (Section 158 requires Council to make a subsequent application to the District Court for confirmation of that action.)

The point of these comments is not to play down the benefits of consultation, but to put the request for consultation in the context of various requirements of the Act.

(b) TrustPower asks for Council to "Consider providing a comment stating that Council will assist where appropriate an owner to progress the necessary consents to allow repair solutions to be implemented."

Comment

It is not clear what TrustPower means by "assist". Council will assist in identifying what building or resource consents are necessary to carry out work to reduce or remove danger. If TrustPower is seeking reductions in fees, expedited processing, or assignment to the least onerous consent category, Council cannot offer special treatment that is not equally available to other consent applicants.

What it can do is acknowledge that if Council sets timeframes for work to be done, those timeframes should be adjusted to reflect Council's consent processing times.

5.6 Identification of dam owners

TrustPower asks for the addition of a section explaining how dam owners will be identified, and that responsibility under the policy transfers to any new owners.

Comment

The collective template policy includes several paragraphs on identifying owners of dams. This seems unnecessary. "Owner" is defined in section 7 of the Act. The word is used in Subpart 7, dealing with dams, with no modification to the section 7 meaning.

If it is considered necessary to explain owner, the following is considered to be more relevant than the template version:

"Section 7 of the Building Act defines owner as:

"Owner, in relation to land and any buildings on the land, -

- (a) means the person who –*
 - (i) is entitled to the rack rent from the land; or*
 - (ii) would be so entitled if the land were let to a tenant at a rack rent; and*
- (b) includes –*
 - (i) the owner of the fee simple of the land; and*
 - (ii) any person who has agreed in writing, whether conditionally or unconditionally, to purchase the land or any leasehold estate or interest in the land or to take a lease of the land and who is bound by the agreement because the agreement is still in force."*

Subpart 7 – Safety of dams, uses "owner" with no modification from the section 7 definition.

For the purposes of this policy, the Council regards the owner of land on which a dam is sited to be the owner of the dam, unless that person provides a legal instrument that identifies some other person as the owner of the dam.

There may be dams built without the approval of the landowner at the time, possibly under provisions of older mining legislation. Should Council be satisfied that any such dam is dangerous under sections 153 and 154, it will consult with the landowner about responsibility for carrying out any work required to reduce or remove the danger."

5.7 Remedial action

TrustPower refers to other councils' policies using the term "remedial action". TrustPower prefers the terminology of the Act, which, in section 154, is "work ... to reduce or remove the danger".

Comment

The Tasman policy already uses the section 154 wording.

5.8 Records and Information

TrustPower ask for a provision for removing the 'dangerous' label from a dam when appropriate action has been taken.

Comment

The draft policy says dangerous dams will be recorded on property files, with a copy of any notice requiring work to be done and a record of completion when the work has been completed to the required standard.

Any other action taken by Council under sections 154 and 155, such as putting up fences, warning signs, or fixing a notice to a dam, will need to be removed when required work has been done. A statement to this effect can be added to this section of the policy.

There is a requirement in section 151 for Council to establish and maintain a register of dams in the District. The place of this section in the Act precedes the provisions relating to dangerous dams, but this register could also record the determination of dangerous dams, any work required, completion of required work, and removal of the 'dangerous' categorisation.

The register can also contain records of section 134 dam classifications, section 140 dam safety assurance programmes, and section 150 annual dam compliance certificates.

5.9 Economic impacts of the policy

TrustPower points out that a dam may have public uses or values that are secondary to the dam owner's purposes. TrustPower considers the policy should clarify limits to the owner's responsibility for work to reduce or remove danger.

Comment

In preparing the draft policy on dangerous dams, I assumed that 'dangerous' referred to the health and safety of people. Checking the purpose of the Act (section 3) shows there are three statements relating to the safety, health and well-being of people who use buildings. There is no statement explicitly about people downstream of a building (dam) who make no direct 'use' of a dam, but whose safety may be dependent on the continued structural integrity of a dam. Do those people 'use' the dam in that sense?

The fourth factor in the purpose of the Act is: "buildings are designed, constructed, and able to be used in ways that promote sustainable development".

This appears to be the purpose statement context for dams being a danger to people other than direct users of the dam. It is also the only purpose statement that is relevant to the scope of the classification of dams required by section 134: "according to the potential impact of a failure of the dam on persons, property, and the environment."

Similarly, for the power given to Council's chief executive in section 157, where section (1) states:

"This section applies if, because of the state of a dam, immediate danger to the safety of persons, property, or the environment is likely."

This power to require action to remove danger to property or the environment is wider than is explicitly apparent from the purpose statement of the Act.

The concern raised by TrustPower is acknowledged. Council should not require a dam owner to do more work than the Council is legally entitled to request. However, section 157 indicates that power is wider than just the health and safety of people.

The extent of work that a Council can require may not be resolved until the prescribed criteria and standards for dam safety that section 134 relies on are published.

6. NZSOLD

6.1 NZSOLD wishes to be heard.

6.2 The submission recommends that the TDC policy adopt a format and content that is consistent with the template policy developed by a collective of regional councils.

Comment

That is accepted to the extent that that content is consistent with the Act and is relevant to implementing the policy.

6.3 Policy development process

NZSOLD consider the policy should include statements about the process for reviewing and updating the policy, including in the event of change to relevant parts of the Building Act and the gazetting of any regulations.

Comment

The Council draft refers to the requirement to follow the LGAct special consultative procedure in adopting the policy. There is a statutory requirement to review the policy every five years. Amendments to the Act, or the gazetting of regulations, that require amendments to the policy may include alternative directions about how those amendments to the policy are to be made. The LGAct procedure would be the default process for any such review or amendment, unless some other statutory direction is given.

These process matters can be added for information, but do not influence the effect or operation of the policy.

6.4 Background

NZSOLD considers the policy should include a statement that clarifies the purpose of the policy in relation to the dam safety provisions of the Building Act, and includes proposed text for that.

Comment

The final section of the TDC draft sought to provide that context. NZSOLD considers that section does not add any value to the policy, and that it does not accurately summarise the provisions of the Act. Nor does the text proposed by NZSOLD.

There is agreement that there should be a statement about the statutory context of the policy. The accuracy of that summary needs to be checked.

6.5 Identification of dangerous dams

NZSOLD recommends a process for identifying dams that may be dangerous, as in the template policy. This includes options covering: a desk-top review of council files of dams; identifying potentially dangerous dams from dam classifications provided by owners (sections 134, 135 requirement); complaints or relevant information; investigation of possible dangerous dams by council officers and/or technical specialists.

Comment

This question of identification of possible dangerous dams is where the context of the preceding sections of the Act, 134 – 152, is relevant. These sections require dam owners to classify dams as having low, medium or high potential impact. For those of medium or high potential impact, owners must then produce a dam safety assurance programme. Government has yet to prescribe the criteria for classifying dams.

The template also includes a “response to complaints” option for identifying dangerous dams. It is not clear that this is necessary, nor how it would work, in addition to the 134 – 152 process. Complaints or allegations of dangerous dams would need to be tested objectively. The yet-to-be-prescribed criteria for the section 134 classification should provide a test for vetting complaints.

6.6 Assessment Criteria

NZSOLD asks for a statement to clarify the criteria that Council will use to determine that a dam is dangerous.

Comment

It is not yet clear what criteria councils might need in addition to the Act’s definition of dangerous dam. At present, that definition depends on yet-to-be-prescribed criteria and standards for classifying the potential impact of dams (section 134), and yet-to-be-defined “moderate earthquake” and “moderate flood” (section 153). In addition, section 140 requires owners of high or medium impact dams to prepare dam safety assurance programmes.

The legislation is not clear about what the dangerous dams policy is intended to achieve beyond what a dam safety assurance programme is required to address. The section 134 classification is intended to identify the potential impact of dams. The dam safety assurance programme is presumably intended to state what needs to be done to reduce or remove the danger of dams classified as being high or medium impact potential. The programme is to be submitted to council for approval, and approval can be refused only on the grounds that the engineer who certified that the programme meets the prescribed standards for dam safety is not a “recognised” engineer (sections 142, 149). A programme that is refused is to be re-audited by a recognised engineer and re-submitted for approval.

The Act does not indicate under what circumstances a council would need to, or be authorised to, invoke its powers under section 154 in relation to a dangerous dam, to require work in addition to what is included in a dam safety assurance programme. Councils are required to approve dam safety assurance programme, except if it is satisfied that the person who has certified the programme is not a “recognised

engineer". A council cannot approve, or refuse to approve, on the merits of the content of a dam safety assurance programme.

The section 154 power is presumably available if a dam owner does not fulfil the requirements of a dam safety assurance programme or the section 150 requirement for an annual dam compliance certificate.

The power would presumably also be available if, after obtaining expert advice from an appropriately qualified person, council was satisfied that:

- (i) the certified dam safety assurance programme for a particular dam was inadequate; or
- (ii) the dam safety assurance programme identified risks that need to be addressed immediately.

The template policy does not clarify this assessment criteria issue.

6.7 Guiding principles for dealing with dam owners

NZSOLD asks for principles setting out a consultative approach for dealing with owners of dangerous dams. It refers to the template policy proposals for:

- Discussion of options with dam owners;
- Preference for a mutually acceptable proposal to reduce or remove danger;
- In the absence of achieving a mutually acceptable proposal, the statutory option of serving formal notice under section 154;
- Encouraging an owner to pursue voluntary compliance with any notice that has been served;
- Pursuing legal outcomes if required.

Comment

This request is presented by the submitter without reference to the prior section 134 and 140 obligations on dam owners. That is, dam owners are already subject to requirements to classify the potential impact of their dams, and in the case of high or medium potential impact dams, to prepare dam safety assurance programmes. These are requirements of the Act. They are not matters that councils can consult about or exercise discretion. In fact councils have no role in these stages other than to approve classifications or programmes submitted by owners after certification by a recognised engineer.

The third bullet point above makes the last two bullets redundant. If notice is served under section 154, there is a statutory requirement on the owner to implement the work required by the notice. "Encouraging an owner to pursue voluntary compliance with a notice" is a nonsense. Issuing a notice is a formal legal requirement. Non-compliance with a notice is an offence, liable to a fine of up to \$200,000. Similarly, serving a notice under section 154 is "pursuing legal outcomes if required" – the last bullet above.

That is not to say there should not be consultation with dam owners. What needs to be recognised is that such consultation is prompted by statutory requirements. Consultation should identify options that are available, either to dam owners or to

council; but equally consultation needs to advise owners when they, or Council, have no options.

The submitter's suggestions about consultation do not clarify this distinction between options and obligations.

6.8 Taking action on dangerous dams

NZSOLD seeks a section clarifying processes that Council will follow in exercising its powers relating to dangerous dams, and recommends provisions from the template policy.

Comment

As for the section above, this section of the template makes no reference to the section 134 and 140 assessments and documentation. The draft TDC policy outlines the powers available to Council under section 154, but does not indicate a process for implementing them.

What process is followed will depend on the urgency of the identified danger. Does the Council undertake work to remove the danger? Does it put up warning signs or fences, or advise downstream property owners of any risk? Does it give notice requiring the owner to do work to reduce or remove the danger?

Depending on the degree of urgency, the Council may:

- (a) advise the owner why action is considered necessary under section 154, in addition to the owner's dam safety assurance programme, and what level of safety or reduction in danger is needed*;
- (b) invite the owner to discuss alternative ways of achieving the level of safety sought by Council;
- (c) endeavour to reach agreement with the owner on the level of safety to be achieved and effective means of achieving that;
- (d) if agreement cannot be reached, or the degree of urgency precludes negotiation, the Council may proceed to issue a notice under section 154, or carry out work itself.
- (e) a notice will specify:
 - work that is to be carried out;
 - the time by which the work must be done;
 - whether building consent is required for the work; and
 - how completion of the work is to be recorded.

(* The Act is silent about what level of safety or reduction in danger ought to be sought by the Council.)

6.9 Identification of dam owners

(As for the response to the TrustPower submission.)

6.10 Terminology

NZSOLD is concerned that the draft policy is not consistent in the terms it uses about possibly dangerous dams. The submission advises: “The Building Act refers to ‘Potential Impact Classification’, this term or the abbreviation PIC, should be used consistently”.

Comment

I am unable to find the term ‘potential impact classification’ in sections 134-162 of the Building Act, nor in section 7 Interpretation. “Potential impact’ is used, along with the ‘low, medium or high potential impact’ variants.

It is accepted that the policy should use terminology that is used in the Act.

6.11 Definition of dangerous dam

(As for the response to the TrustPower submission.)

6.12 Powers of Council

NZSOLD is concerned with the second part of this section of the draft policy, which attempted to address risks from dams that are below the size thresholds that the policy can apply to. See the response to the submission from Neil Tyson (#3 above).

6.13 Approach to dealing with dangerous dams

- a) NZSOLD considers that the first paragraph about new dams could be placed in a ‘background’ section.

This is accepted.

- b) NZSOLD asks for a clearer statement about:

- how dams which require further assessment will be identified;
- how that assessment will be done; and
- how council will determine that a dam is dangerous.

Comment

Section 134 requires a dam owner to classify the potential impact of a failure of a dam, on “persons, property, and the environment”. Subject to what the yet-to-be-prescribed criteria and standards for classification might say, the requirement is to rank the effect, if failure occurs. It is not rating the probability of a dam failing.

The section 140 requirement for a dam safety assurance programme does not explicitly require an assessment of risk in terms of probability or possibility of dam failure, but implicitly an assurance of safety must be related to some identified level of risk. A dam safety assurance programme cannot be a guarantee of structural integrity in all and any circumstances.

The section 153 definition of dangerous dam requires dams classed under section 134 as being high or medium potential impact dams, to be assessed against probability factors.

A high potential impact dam that is likely to collapse in the ordinary course of events; that is, at any time, without being triggered by an event such as earthquake or flood, is more dangerous than a dam that is likely to collapse only if triggered by an earthquake or flood event of yet-to-be-defined 'moderate' severity.

The danger represented by a high or medium potential impact dam that is a leaky dam is less explicit – it needs some assessment of the significance of the leak. Is the leak stable or increasing? Is it eroding material from the dam, or filtering through insoluble material? Does it need remedial work, or is monitoring sufficient for the immediate future?

I think what is required is that when a dam safety assurance programme is submitted for approval, in addition to Council's limited approve/refuse options under section 143, Council also needs to assess the programme against the dangerous dams criteria of section 153. This assessment would compare the risk factors on which the dam safety assurance programme has been based, with the section 153 risk criteria. That assessment should allow Council to determine whether the dam safety assurance programme deals sufficiently with the levels of risk identified in section 153, or whether Council needs to declare the dam to be dangerous in order to be able to require additional work under section 154.

Whether this assessment can be done in-house, or will require additional technical expertise, there is a cost involved for which the Act provides no recovery.

- c) The submission also asks for the policy to include a deliberate determination by the Council that a dam is no longer classed as dangerous when required actions have been completed.

Comment

There is no statutory provision requiring or authorising this step. It could be assumed that any 'dangerous dam' determination expires or lapses when any required work has been completed to the required standard. However, it is accepted that Council should acknowledge satisfactory completion of any required work. A copy of this acknowledgement would be retained on the relevant property file.

- d) Degree of risk. This follows the discussion of risk in (b) above. NZSOLD propose ranking risk and priority for action as:

- Category 1: medium and high potential impact dams which are likely to collapse in the ordinary course of events;
- Category 2: medium and high potential impact dams which are likely to collapse in a moderate flood;
- Category 3: medium and high potential impact dams which are likely to collapse in a moderate earthquake.

Comment

Category 1 is accepted. For categories 2 and 3, there is currently nothing in the Act that suggests that dams are more at risk from flood than from earthquake. That distinction may be apparent when moderate flood and moderate earthquake are defined, if they are given different probabilities of occurrence. Alternatively, the risk may be “equalised”, so that for a given dam, the degree of damage that would occur under an x-year return period flood is the equivalent to what would occur from a z-year return period earthquake.

No category is given for medium or high potential impact dams that are leaky. As indicated in (b) above, this needs to be assessed on a case-by-case basis.

On the present provisions of the Act, there is no basis for distinguishing more than the suggested category 1 (which, after investigation, may include one or more leaky dams).

6.14 Heritage dams

NZSOLD considers the draft does not clarify council’s policy towards heritage dams. It recommends the template policy provision.

Comment

The draft makes no special provision for heritage dams, and potentially creates more confusion than clarification.

The template policy does little better. Its heading refers to “dams and associated buildings”. The section 161 requirement is for a policy on dangerous dams. The definition of dam refers to “an artificial barrier, and its appurtenant structures”. Section 7 definitions include: “appurtenant structures” in relation to a dam, means a structure that is integral to the proper functioning of the dam”. This appears to have a narrower meaning than “associated buildings”, which should not be included in the heading for heritage dams.

The template recognises a need to consider heritage values as well as safety issues. It provides for seeking advice from NZHPT, and from people with heritage expertise.

The draft can be amended to include these.

6.15 Context in the Building Act

NZSOLD considers this section is unnecessary and inaccurate, and asks that it be deleted or be corrected.

Comment

The dangerous dams policy cannot sit in isolation from the provisions of the Act that require the potential impact of dams to be classified, and require dam safety assurance programmes. These are key provisions for the process of determining whether a dam is dangerous.

The information in the section needs to be included in the policy, but may be incorporated in other sections to better integrate the dangerous dams policy with other requirements of the Act that relate to dams.