Annual Report - 2017 - Dam Safety Advisory Committee (Victoria)

Introduction

In October 2011, the Victorian Dam Safety Advisory Committee (Committee) was appointed by the Department of Environment, Land, Water and Planning (Department) for a three-year term to provide independent expert input and advice on the regulation of dam safety in Victoria. This was in response to a recommendation from the 2010 Review of the Victorian Dam Safety Regulatory Framework (2010 Review) which was endorsed by the Minister for Water in 2011. In September 2014, the Committee’s term was extended for a further three-year period.

The Committee’s terms of reference (Attachment 1) and scope of work for the three-year period (Attachment 2) are attached.

The Committee is made up of the following members who have extensive experience in dam safety, asset management, business administration, and Victorian water industry governance:

- David Dole (Chair);
- Phillip Cummins;
- Jim Keary; and
- Clinton Rodda.

It is supported in its activities by the Risk and Resilience Team within the Water and Catchments Group of the Department.

This annual report covers the period from 1 January 2017 to 30 September 2017 during which time the Committee met on three occasions.

The primary purpose of the Committee is to be a source of independent advice to the Department staff responsible for the exercise of statutory functions of dam safety regulation and the development and implementation of sound dam safety management practices by public and private dam owners. The Department emphasises the fundamental principle of the Victorian approach that dam owners are primarily responsible for dam safety.

The following provides a summary of specific matters of relevance addressed through the year, illustrating the activities and outcomes of the Committee in pursuing its role.

Continuing Program of meeting with Water Corporations

During the year, the Committee continued its initiative of meeting with dam safety and management staff of Water Corporations. The purpose of these meetings has been for Water Corporations to present and discuss their dam safety programs. The Committee pursues relevant topics with Water Corporations and confirms their commitment to sound dam safety practices. Whilst these are not formal audits, the Committee has adopted the approach of
encouraging open and frank discussions. Water Corporations have welcomed the opportunity to discuss, in this context, the challenges they face in developing and implementing soundly based risk management programs.

During the year, the Committee met with officers from Gippsland Water and Goulburn Valley Water.

The meeting with Gippsland Water highlighted the impacts of the 2015 Benchmarking Study and its recommendations on the organisation, with several positive and significant improvements implemented since.

Discussion of Goulburn Valley Water’s dam safety program re-emphasised the challenges some Water Corporations face with succession planning and relevant training and the importance of greater collaboration between Water Corporations for skills, knowledge and expertise. In particular, larger Water Corporations could assist those with limited in-house dam safety expertise with guidance in dam safety matters, where required.

The Committee commends the Victorian Water Industry Dams Working Group which is continuing to work towards addressing issues faced by Water Corporations. This includes actively promoting larger Water Corporations providing consulting services to smaller organisations on dam safety related areas.

**Regulation of non-Water Corporation Dams**

*Local Government Authority Dams*

The 2010 Review identified a gap in the regulatory arrangements for dams controlled by Local Government Authorities and recommended the Department close this gap. The Department has undertaken considerable work in recent years to raise the level of understanding of risks and responsibilities of Local Government Authority dams through information and training sessions on dam safety and emergency management.

In 2016, the Department commenced its Local Government Authority Dam Safety project which aimed to:

- improve the Department’s knowledge and understanding of Local Government Authority dams and flood retarding basins; and
- assist Local Government Authorities by providing them with relevant tools and procedures to enable effective management of their respective portfolio of dams and flood retarding basins.

The first phase of the project included Local Government Authorities providing updated basic information on dams and flood retarding basins such as location, dam height, volume stored, condition and consequence categories to the Department. The aim of updating this information has been to confirm where the State’s Local Government Authority dams and flood retarding basins are located, what risks they might pose to communities and
infrastructure, what to consider during emergency management planning and response, and whether the owners of these structures have the essential management tools and procedures in place to effectively manage these assets.

The second phase of the project commenced in early 2017. It included further update of this database, as well as the review of relevant (over 1m in height) Local Government Authority dams and flood retarding basins across Victoria. The project has been completed in the Hume, Grampians, Loddon Mallee and the Port Phillip regions. The Barwon South West and Gippsland regions will be completed by the end 2017. Local Government Authorities, whose structures had been inspected for this project have been provided with management tools such as Dam Safety Inspection and Assessment Reports, Dam Safety Surveillance and Maintenance Plans and Dam Safety Emergency Plans to assist them with ongoing maintenance, surveillance and emergency planning and response.

Department Dams

The Department is continuing to work with its regional partners and has commenced a pilot dam safety project on dams it manages in the Loddon Mallee region. The approach adopted is consistent with the Local Government Authority dam safety project. This project aims to improve the Department’s knowledge and understanding of its own dams, update its database and assist the Loddon Mallee region manage the risks associated with any high-risk dams in its region.

The Department intends to extend this pilot project to the rest of its regions.

Sector Performance - Dam Safety Annual Report and Information Portal

The Committee overviews sector performance via review of the state-wide Dam Safety Annual Report to assess whether the regulatory framework is providing the desired outcomes for the state and community. This is done via assessing outcomes (e.g. reduced portfolio risks, number of dams meeting Limit of Tolerability) and adoption of better practice (e.g. risk assessments, regular update of operation and maintenance manuals). The Committee is pleased to see the continued improvement from Water Corporations in both outcomes and better practice. We also wish to complement the regulator in the interventions to better understand and improve the performance in Parks Victoria and the Local Government sectors.

The Committee provided feedback on the highlights of the Department’s 2016/17 state-wide Dam Safety Annual Report which is based on a comprehensive and interactive database of some 578 public dams and 240 flood retarding basins. In comparison to the 2015/16 annual report, this is an increase of 7 dams and 5 retarding basins. Each Water Corporation and Parks Victoria provide information on their dams directly into the Department’s Water Industry Dam Safety Information Portal. This includes relevant risk based assessments and failure consequences. All the flood retarding basins reported to the Department are owned by one Water Corporation.
In 2016/17, Water Corporations and Parks Victoria:

- continued to progress risk assessments of lower consequence dams to work towards expanding state-wide dam safety risk picture;
- greatly increased and refined flood retarding basin risk assessments and implemented risk reduction remedial works across the portfolio;
- implemented, continued or finalised programs to review consequence categories across dams and retarding basin portfolios; and
- continued to review, update and exercise their Dam Safety Emergency plans.

The Department’s annual report, which will be circulated to Water Corporations with specific reference to each organisation’s dam safety program, concluded that Water Corporations and Parks Victoria have a high level of responsible risk management.

Based on the comparative analysis undertaken in preparing the annual report, the Department has undertaken site visits to discuss gaps and priority actions with Water Corporations. The Committee supports this and suggests that these priorities continue to guide a continuing program of its direct and detailed discussions with Water Corporations.

The Committee is of the view that the Dam Safety Annual Report is of significant value in demonstrating the overall status of dam safety as well as providing comparative information for each Water Corporation and Parks Victoria. The Department’s annual reporting process provides assurance that Water Corporations are aware of their responsibilities and the status of their dams.

The Committee commends the Department’s position on making key dam safety information publicly available and would encourage it to continue doing so.

The Committee also notes that the Department has commenced upgrading its Water Industry Dam Safety Portal to enhance its features to include ‘self-management’ of dam safety performance data by Water Corporations, among other improvements.

**Industry Good Practice - ANCOLD**

The Committee supports the Department’s role in informing the development and review of ANCOLD guidelines.

The Committee supports the Department and the Victorian water industry taking part in the preparation and presentation of papers at the ANCOLD conferences. A paper co-authored by the Department and consultants was presented at the 2017 ANCOLD conference. The paper focussed on the safety of small dams and flood retarding basins operated by Local Government Authorities in Victoria, discussing the processes adopted, outcomes and benefits of this project. The Department was also invited to present on dam safety regulation at a dam safety forum in Sri Lanka in 2017. The session was aimed at informing the current debate in Sri Lanka about the need for dam safety regulation in that country. One of the outcomes of
the forum was the appointment of a small working group to consider what model of regulation would suit Sri Lanka.

The Department continues to interact with regulators of other states formally and informally. These interactions have provided insights into regulatory practices of other jurisdictions and the opportunity to share information and advances in dam safety regulation.

The Committee encourages such interactions with ANCOLD and between the various dam safety regulators to meet on dam safety principles and to review and advance regulatory practices.

Professional Development Program for Board Directors and Executives

The Committee continues to support professional development and guidance around dam safety for Water Corporation boards and executives. A relevant and effective program has been developed and is available in conjunction with ANCOLD. The Committee has supported this program being included in the professional development for Water Corporation boards and senior executives.

The Department, in consultation with VicWater, undertook this professional development program on dam safety and emergency management for Water Corporation boards and senior executives in March 2017. Sessions were held in Traralgon, Bendigo and Melbourne. Approximately 20 people attended each of the regional sessions and 46 people attended the Melbourne session. Around 80 Board members and senior executives attended. Given the success of this program, the Committee suggests that the Department continue this program at suitable intervals.

Skills and Knowledge

The Committee continues its practical support for and input to industry training courses and workshops on dam safety management.

The Department has developed a recognised and respected reputation nationally and internationally for its range of publications on dam safety principles and practices. These are freely available through its website. In addition, the Department continues to sponsor a number of well attended workshops for practitioners on specific risk management topics.

During this reporting period, the Department sponsored a two-day seminar organised by VicWater and the Victorian Water Industry Dams Working Group in Bendigo earlier in the year. The seminar focused on dam operations and maintenance, capital upgrade works, heritage related projects, public recreation, occupational health and safety matters, forecast rainfall for Victoria and effects on dam owners over the coming years, among other topics. A total of 43 people attended this seminar, which included a site visit to Lake Eppalock.
In addition, the Department continues to provide support for ANCOLD professional
development programs, for example the two-day Dam Risk Assessment short course, held in
May 2017. A wide spectrum of Victorian dam industry professionals attended this course.

The Committee acknowledges that there is a limited pool of experienced dams personnel and
that training for junior staff is important. Collaboration between Water Corporations by
swapping jobs to upskill staff and through secondments can be a way forward. The
Department and the Victorian Dams Industry Working Group continue to recognise the need
for larger Water Corporations to share resources with smaller Water Corporations,
encouraging greater collaboration between Water Corporations on available dam safety skills.

The Chisholm’s TAFE Certificate III in Water Industry Operations course can help fill this
training deficiency, although dam operators will continue to require other competency based
training outside this course. The Committee encourages the Department to continue to
support the promotion of training courses in this area.

The Committee continues to emphasise the need to ensure availability of skilled resources
across bodies responsible for dam safety. This is an issue it keeps under review to ensure that
the essential skill base is retained and effectively used by dam owners.

Relevant Public Inquiries and Significant Government Initiatives – Lessons for Victoria

The Department has kept the Committee informed of relevant developments and possible
implications of public inquiries and processes with potential impacts on the management of
dams.

This has included the following during this reporting period:

- developments in dam safety regulation in New South Wales (NSW) following the
  Parliamentary Review of the NSW Dam Safety Committee and the Dam Safety Act 2015
  (NSW); and
- updates in Victoria’s emergency management sector.

The Committee and the Department will continue to monitor the outcomes and
implementation of the Dam Safety Act 2015 (NSW) to identify lessons and feedback for
Victoria on dam safety regulation practices.

Effectiveness of the Dam Safety Advisory Committee: 2017

In conjunction with the Department, the Committee has reviewed its activities during the
2017 reporting period against its Terms of Reference, its scope of work and the
recommendations of the 2010 Review. It concluded that it has complied with these
documents.
The primary test of effectiveness of the Committee is the extent to which it meets its obligation to be a source of independent and informed advice to the Department, and through the Department to the industry at large.

The Committee believes this has occurred and is reflected by a continuing improvement in overall risk reduction due to the policies, programs and practices of dam owners within a clear regulatory framework. It has provided informed and independent advice to the Department and to the dams industry. This advice has been critical in improving dam safety management in Victoria. The Committee recognises there is a high level of confidence expressed by communities albeit in the context of a very high level of expectation. Over the past few years, the Committee has been involved with the significant development and publication of strategic and practical guidelines for dam safety management which places Victoria in the forefront both nationally and internationally in dam safety practices.

In its regulatory role, the Department has achieved widespread respect. It has continued to enhance its effective working relationships with the Victorian Water Industry Dams Working Group and has made significant progress in extending this leadership role to embrace other dam owners, such as Local Government Authorities.

The Committee continues to add value to the Department given its limited resources in dam safety regulation. Overall the Committee believes the Department is achieving effective and competent dam safety regulation within the specific Victorian principles of the primacy of owner responsibility.

Next term of the Dam Safety Advisory Committee: October 2017 – September 2020

I would like to thank the Dam Safety Advisory Committee members and the Department for their support over the past six years.

[Signature]

for
David Dole
Chair, Dam Safety Advisory Committee

September 2017
Dam Safety Advisory Committee

Terms of Reference

1. Introduction
The purpose of the Dam Safety Advisory Committee (the Committee) is to provide independent expert input and advice to the Department of Environment and Primary Industries (the Department) on the regulation of dam safety in Victoria, including the development of policies, procedures and guidelines. The Committee is subject to the general direction of the Executive Director, Rural Water Programs (RWP) in the Water and Catchments Group of the Department.

2. Overview
The underlying principle of dam safety regulation in Victoria is that ultimate responsibility rests with the dam owner through exercise and demonstration of due diligence. The Water Act 1989 establishes owner liability for dam safety but also provides significant powers to the responsible Minister to intervene and give directions concerning both public and private dam safety.

The Department assists the Minister for Water in the regulation of dam safety, undertaking the main regulatory role for public dam safety. Regulatory tasks for private dam safety are largely delegated by the Minister to five licensing authorities, with the Department providing policy support.

The Department established the Committee in 2011 in response to recommendations arising from the Review of the Victorian Dam Safety Regulatory Framework 2010 (the Review), in particular the following:

RECOMMENDATION 2
Establish an ongoing independent expert group for DSE to seek advice on:

- technical matters, including Australian National Committee on Large Dams (ANCOLD) Guidelines and risk management, technological advances and emerging trends such as climate change effects;
- opportunities and the need for investigation and research, including good practice and regulation;
- development and monitoring of performance measures;
- guidance on dam safety management practices, including emergency management;
- guidance on consistency of auditing and reporting processes to ensure effective compliance for all areas of dam safety; and
- improving accessibility to suitability qualified engineers for the design, construction and surveillance of private dams (e.g. investigate feasibility of developing a database of such engineers).

3. Activities and Outcomes
a) The Committee will not exercise any dam safety statutory functions or responsibilities, or assume any decision-making capacity about either the regulation of dam safety, or about the management and operation of any dam.

b) The Committee’s role is confined to providing advice to the Department. The decision to act on the Committee’s advice will remain the prerogative of the Department.
c) The Committee will provide ongoing advice, guidance and assistance for the continual improvement of the Department’s strategies, policies and regulatory approach to dam safety.

d) The Department may seek advice from the Committee on matters relating to the management and operation of individual dams, including during emergency situations.

e) Other activities to be undertaken by the Committee may include site visits and stakeholder consultation in conjunction with Department.

f) The Committee may suggest that the Department seek specialist Departmental or external advice where it determines that additional technical, policy or legal clarity is required in reviewing various proposals and issues.

g) The Committee will be required to produce an annual report.

h) The appointment of external contractors does not form part of the Committee’s Terms of Reference.

4. Committee Membership
The Committee will consist of up to six invited members, including the Chair, appointed by the Department on the basis of their individual specialist and technical skills, experience and knowledge of dam safety management, business and economics, regulation, risk management and/or the governance of the water industry. Committee membership will include a water corporation member nominated by VicWater.

All Committee members will serve as individual experts in their specific areas of expertise, not as representatives of their employer or other organisations. However, the advice provided by the Committee will be on a collective basis to the Department.

5. Resignation from Office
A member may resign from office in writing addressed to the Executive Director, RWP.

6. Termination from Office
The Department may, without cause or notice, terminate the tenure of a member at any time.

7. Duration
The Committee will be an ongoing advisory body. Appointments will be made for a term of up to three years. Members must be prepared to commit their time and effort for a minimum period of twelve months.

8. Vacancies
The office of a member becomes vacant if a:

a) a member completes the three-year period of appointment;
b) a member resigns;
c) a member’s tenure is terminated; or
d) a member becomes incapable of performing his/her duties.

The Department may decide to reappoint a member following the completion of the three-year appointment period.

Upon a vacancy occurring in the office of a member the vacancy may be filled in accordance with these Terms of Reference.
9. Remuneration
External Committee members will be remunerated for attendance at meetings, site visits, review and input to reports and documents and for the provision of any other advice requested by the Department within the scope of these Terms of Reference.

The Department will reimburse Committee members for travelling and personal expenses to be paid at the rates that apply to employees of the Department. In regard to this, receipted personal expenses will be reimbursed.

10. Role and responsibility of the Chair
The duties of the Chair will include:

a) ensure timely completion of required tasks by the Committee;
b) stimulate the Committee by generating ideas and encouraging discussion;
c) facilitate majority position or consensus of the Committee members on key issues;
d) liaise with the Department secretariat to seek specialist Departmental or external advice where the Committee determines that additional investigations or policy or legal clarity is required;
e) liaise with the Department out of session, as required; and
f) prepare a progress report at the end of each financial year for submission to the Executive Director, RWP, by no later than 1 December each year. The report should include:
   • summary of the operations of the Committee;
   • summary of the results of its major deliberations and advice; and
   • review of the Committee’s effectiveness.

The Chair may appoint a Deputy to fulfil the Chair’s role when he or she is not reasonably able to do so.

11. Operations
The Department will provide secretariat and other operational support to the Committee through the project team. These arrangements are as follows.

a) Activities: The Department will prepare a forward program of activities in collaboration with the Chair, for the Committee’s deliberations, recognising that this list will be regularly updated.

b) Schedule: The Committee is expected to meet up to three times a year. Additional meetings may be held where the Committee Chair or the Department deems necessary. From time to time field trips may be organised involving all day attendance. All meetings will be scheduled in advance and members will be given adequate notice. A schedule of meetings and events will be maintained by the Department secretariat for the information of members. Members are expected to attend a minimum of 75% of meetings.

c) Meeting procedures: Agendas for the Committee meetings shall be prepared by the Department in consultation with the Chair. The agenda and any supporting agenda papers will be distributed at least five working days prior to each meeting.

The Chair will manage each meeting and determine the pace and length of deliberations on agenda items. The Chair will seek to ensure that every member has adequate opportunity to participate in the discussions on each item. A majority of the members of the Committee will constitute a quorum.

d) Minutes: The Department secretariat is responsible for ensuring that minutes are kept for all meetings and distributed to Committee members before they are formally adopted at the next meeting.
12. Intellectual Property
All information and findings generated through discussions at the Dam Safety Advisory Committee meetings will remain the intellectual property of the Department. The Department may approve the external use of this information by members of the Advisory Committee.

13. Conflict of Interest
A person is deemed to have a direct interest in a matter when he or she has rights/titles/duties, liabilities connected with the matter, whether present or future, ascertained or potential.

A member with a direct interest in a matter must refrain from providing direct advice to the Department on that matter, but may contribute his or her knowledge and skills to the Committee discussion, with the consent of the Committee and the Chair of the Committee.

In keeping with the Committee’s principle of full disclosure, members are advised to take a precautionary approach to any real or potential conflict of interest in the performance of their duties and to inform the Project Manager of any circumstances which may be deemed to be of concern.

14. Confidentiality
Committee members will be required to sign a confidentiality agreement.

The deliberations of the Committee must be treated confidentially in order to provide a forum for frank and fearless advice and debate. Members must not discuss any deliberations of the Committee or circulate any meeting agendas, minutes, papers or other materials publicly without the prior consent of the Department.

15. Reporting Arrangements and Organisational Chart
(Attachment A)
A forward program of projects, activities and advice will be prepared by the Department in collaboration with the Chair of the Dam Safety Advisory Committee.
Overview of scope of work program for the Dam Safety Advisory Committee (01/10/14 to 30/09/17)

<table>
<thead>
<tr>
<th>Area of Work</th>
<th>Scope of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>2014/15</strong></td>
</tr>
<tr>
<td></td>
<td>Provide technical input and advice to the Department on:</td>
</tr>
<tr>
<td></td>
<td>- the management of dams by dam owners, including state-wide trends as highlighted by the Department</td>
</tr>
<tr>
<td></td>
<td>- licensed dams</td>
</tr>
<tr>
<td></td>
<td>- processes to build water corporation boards awareness on dam safety</td>
</tr>
<tr>
<td></td>
<td>- regulatory frameworks and practices, including the work health and safety legislation and its implications for dam owners</td>
</tr>
<tr>
<td></td>
<td>- industry related dam safety matters as raised by dam owners (e.g. skills gaps and training) or related to peak bodies, such as ANCOLD, WSAA and VicWater</td>
</tr>
<tr>
<td></td>
<td>- New developments in dam safety</td>
</tr>
<tr>
<td></td>
<td><strong>2015/2016</strong></td>
</tr>
<tr>
<td></td>
<td>Provide technical input and advice to the Department on:</td>
</tr>
<tr>
<td></td>
<td>- the management of dams by dam owners, including state-wide trends as highlighted by the Department</td>
</tr>
<tr>
<td></td>
<td>- licensed dams</td>
</tr>
<tr>
<td></td>
<td>- processes to build water corporation boards awareness on dam safety</td>
</tr>
<tr>
<td></td>
<td>- regulatory frameworks and practices</td>
</tr>
<tr>
<td></td>
<td>- industry related dam safety matters as raised by dam owners (e.g. skills gaps and training) or related to peak bodies, such as ANCOLD, WSAA and VicWater</td>
</tr>
<tr>
<td></td>
<td>- New developments in dam safety</td>
</tr>
<tr>
<td></td>
<td><strong>2016/2017</strong></td>
</tr>
<tr>
<td></td>
<td>Provide technical input and advice to the Department on:</td>
</tr>
<tr>
<td></td>
<td>- the management of dams by dam owners, including state-wide trends as highlighted by the Department</td>
</tr>
<tr>
<td></td>
<td>- licensed dams</td>
</tr>
<tr>
<td></td>
<td>- processes to build water corporation boards awareness on dam safety</td>
</tr>
<tr>
<td></td>
<td>- regulatory frameworks and practices</td>
</tr>
<tr>
<td></td>
<td>- industry related dam safety matters as raised by dam owners (e.g. skills gaps and training) or related to peak bodies, such as ANCOLD, WSAA and VicWater</td>
</tr>
<tr>
<td></td>
<td>- New development in dam safety</td>
</tr>
</tbody>
</table>

Review and provide advice on significant dam safety management policies and reports, as required by the Department

<table>
<thead>
<tr>
<th>Area of Work</th>
<th>Scope of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>2014/15</strong></td>
</tr>
<tr>
<td></td>
<td>Generate discussion and provide feedback to presentations from water corporations and other dam owners.</td>
</tr>
<tr>
<td></td>
<td>- Two water corporations have been scheduled for this period</td>
</tr>
<tr>
<td></td>
<td><strong>2015/2016</strong></td>
</tr>
<tr>
<td></td>
<td>Generate discussion and provide feedback to presentations from water corporations and other dam owners.</td>
</tr>
<tr>
<td></td>
<td>- Three dam owners will be scheduled for this period</td>
</tr>
<tr>
<td></td>
<td><strong>2016/2017</strong></td>
</tr>
<tr>
<td></td>
<td>Generate discussion and provide feedback to presentations from water corporations and other dam owners.</td>
</tr>
<tr>
<td></td>
<td>- Three dam owners will be scheduled for this period</td>
</tr>
<tr>
<td>Area of Work</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>2014/15</strong></td>
</tr>
<tr>
<td>Community Engagement</td>
<td>Provide advice on the implementation of community engagement, as required by the Department</td>
</tr>
<tr>
<td>Decommissioning Dams</td>
<td></td>
</tr>
<tr>
<td>Emergency Management</td>
<td>- Observer at the Department's emergency management exercise</td>
</tr>
<tr>
<td></td>
<td>- Receive updates on emergency management reforms and amendments to the <em>Emergency Management Act 2013</em>, for discussion</td>
</tr>
<tr>
<td></td>
<td>- Receive updates on relevant incidents in relation to lessons learnt, for discussion</td>
</tr>
</tbody>
</table>