

Chapter 48

Water Security Agency – Dam Safety

1.0 MAIN POINTS

At August 2016, the Water Security Agency (Agency) had not yet fully addressed the remaining two of four recommendations that we first made in our 2005 audit of its processes to ensure its four largest dams were safe (i.e., the Gardiner, Qu'Appelle River, Rafferty, and Alameda dams).

The Agency had developed emergency preparedness plans for each of its four major dams. By August 2016, the Agency had drafted, but not yet approved, a policy to test the plans. It indicated it planned to approve the policy by March 31, 2017.

The Agency made some progress in updating its procedure manuals for its four major dams. These procedure manuals set out procedures to operate, maintain, and monitor the dams safety. Up-to-date manuals support safe operation of the dams.

2.0 INTRODUCTION

The Agency is responsible for the safety of 49 dams that help to preserve a sustainable water supply for the province. Four of these dams are considered major in that failure of any of these dams would risk serious downstream flooding. This flooding could damage homes, businesses, crops, infrastructure, and wildlife habitat.

Our *2005 Report – Volume 1*, Chapter 3, included four recommendations we made as a result of our audit of the Agency's processes to ensure the safety of the four major dams. In 2007, 2010, 2012, and 2014, we reported on whether the Agency had implemented these recommendations. By December 2013,¹ it had implemented two of the four recommendations.

To conduct this review engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance*. To evaluate the Agency's progress towards meeting our recommendations, we used the relevant criteria from the original audit. The Agency's management agreed with the criteria in the original audit. During this engagement, we discussed the actions taken by the Agency to implement our recommendations, and reviewed related documentation (e.g., emergency preparedness plans).

3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at August 31, 2016, and the Agency's actions up to that date.

¹ December 2013 was the time of our last follow-up.



3.1 Emergency Preparedness Plans Completed But Not Tested

We recommended that the Water Security Agency (formerly Saskatchewan Watershed Authority) have up-to-date, tested emergency preparedness plans for each of its major dams (i.e., Rafferty, Alameda, Qu'Appelle River, and Gardiner). (2005 Report – Volume 1; Public Accounts Committee agreement June 21, 2005)

Status – Partially Implemented

Emergency preparedness plans (plans) set out key responses to emergency situations. They provide information on flooding, warnings and notifications, and actions to take in the event of a potential dam failure or dam failure emergency. Use of plans can safeguard lives, reduce property damage, and help local governments and other groups (stakeholders) develop their own emergency preparedness plans.

By August 2016, the Agency had plans for each of its four major dams.² The Agency approved the plan for the Qu'Appelle River dam in March 2014. The Agency distributed these plans to key stakeholders (e.g., Ministry of Highways and Infrastructure, local governments).

At August 2016, the Agency had drafted but not yet approved a policy to test the plans. It indicated it planned to approve the policy by March 31, 2017.

Under its draft policy, it plans to:

- › Annually verify stakeholder contact information included in the plans (i.e., one of the test procedures in the plan)
- › Complete advanced plan tests every four years for these four dams (e.g., stakeholder meetings, mock exercise simulating an actual emergency situation)
- › Require staff to document a summary of plan tests and consider lessons learned from advanced plan tests

We found the Agency had verified, from December 2015 to February 2016, key contact information for each of its four plans. Verification work included discussing the plans with 116 key contacts. The Agency approved a Summary Report from this work in March 2016. The Summary Report included five lessons learned (e.g., suggested timing of contact verification work).

² As reported in our 2014 Report—Volume 1, Chapter 3, the Agency had completed emergency preparedness plans for three of four of its major dams by December 31, 2013.

At August 2016, the Agency had not completed any advanced plan tests. The Agency indicated that it expects to complete advanced plan testing exercises for Rafferty and Alameda dams during 2016-17 after it approves the draft policy.

3.2 Required Manuals Remain Unfinished

We recommended that the Water Security Agency (formerly the Saskatchewan Watershed Authority) set processes that ensure its manuals always include complete procedures to operate, maintain, and monitor dam safety. (2005 Report – Volume 1; Public Accounts Committee agreement June 21, 2005)

Status – Partially Implemented

Complete and current procedure manuals support the safe operation of dams. They provide staff with clear and readily accessible direction, and are a resource in the event of staff turnover.

The Agency has determined it requires 32 procedure manuals for its four major dams; these manuals include processes and procedures for dam operation, maintenance, and surveillance.³

At August 2016, the Agency continued to update the 32 manuals. By August 2016, it had updated 21 manuals (December 2013: 21 manuals), was actively updating 8 manuals (December 2013: 4 manuals), and had not started updating 3 manuals (December 2013: 7 manuals).⁴ The Agency's schedule indicated it plans to complete the update of all manuals by 2017-18.

Once all manuals are completed, the Agency plans to implement a policy to guide how to keep the manuals up-to-date.

³ Dam surveillance refers to the systems that exist to monitor/assess dam performance and how and when performance monitoring is to be undertaken.

⁴ The Agency includes the status of the update of these manuals as a performance measure. Its *2015-16 Water Security Agency Annual Report*, p. 13, reports on the status of this performance measure.

