

Planning for School Seismic Safety

Released: [December 2008](#)

1st Follow-up: [April 2010](#)

2nd Follow-up: [October 2010](#)

3rd Follow-up: [October 2011](#)

Discussed by the Public Accounts Committee: [June 2010 Transcript](#)

Self-assessment conducted by the Ministry of Education

The Ministry of Education is pleased to provide an update on progress in implementing the recommendations of the Office of the Auditor General's "Planning for School Seismic Safety".

To date, 134 seismic upgrade projects are complete, under construction or proceeding to construction. Since 2001, government has spent more than \$580 million on seismic upgrading of schools in 37 school districts in B.C.

In implementing the school seismic mitigation program, the Ministry of Education continues to work closely with the Association of Professional Engineers and Geoscientists (APEGBC). On behalf of the Ministry, APEGBC completed an updated risk assessment of schools. This work has improved the identification and prioritization of school seismic mitigation needs.

The Ministry continues to work closely with boards of education to improve its capital process and ensure that seismic projects are assessed, prioritized and effectively delivered and communicated.

Recommendations

| RECOMMENDATIONS ADDRESSED IN PREVIOUS FOLLOW-UP REPORT(S): | SELF-ASSESSED STATUS |
|---|---|
| Recommendation 5: The ministry and boards of education work together to ensure future seismic projects are integrated into a long-term capital planning framework. | Fully or substantially implemented |

Outstanding recommendations

| RECOMMENDATION AND SUMMARY OF PROGRESS | SELF-ASSESSED STATUS |
|--|------------------------------|
| Recommendation 1: The ministry identify how much of the program it can deliver within the available budget, and use this information to confirm future priorities and funding for the structural program. | Partially implemented |

Actions taken, results and/or actions planned

The Ministry, through the work of APEGBC and UBC, has completed an updated risk assessment of schools. This important new work has resulted in a significant reduction in the known seismic risk at existing schools. And importantly, this work will have positive results for the schools requiring priority seismic upgrading in the future.

The Ministry plans to provide government with an update for the Seismic Mitigation Program this fall, including updated risk analysis, estimated completion costs, as well as future priorities, funding and project delivery strategies. The updated risk assessment and cost estimates prepared by APEGBC will form the basis of this update.

The Ministry plans to also provide a public communication on the updated risk assessments, as well as make the assessment information available to school districts for updating existing capital plans and project priorities.

SELF-ASSESSED PROGRESS IN IMPLEMENTING RECOMMENDATIONS

Recommendations (Cont.)

Recommendation 2: The ministry confirm whether the current levels of funding to school districts for non-structural remediation are sufficient to address non-structural needs. **Partially implemented**

Actions taken, results and/or actions planned

The Ministry continues to work with an expert consultant (VFA Canada) to complete a building condition assessment of all 1600 public schools in the province. VFA has completed assessment of approximately 80% of all public schools.

The non-structural assessments of schools is being undertaken as part of the overall building condition assessment. UBC assisted VFA in developing assessment methodologies based on Canadian Standard CSA-S832 to evaluate non-structural building components. VFA's assessment activities should be complete in 2012.

As structural upgrades are implemented for approved projects; non-structural work is included in the project scope and cost estimates.

The assessment will identify non-structural project priorities for public schools in seismic risk zones. The Ministry plans to present a program of implementation of non-structural projects and strategies, including the level of funding required, to government this fall as part of the status update for the Seismic Mitigation Program.

Recommendation 3: The ministry consolidate its current risk management activities into a comprehensive risk management framework, including the monitoring of significant external risks. **Partially implemented**

Actions taken, results and/or actions planned

The Ministry has completed a comprehensive risk assessment of all public schools resulting in a significant risk reduction. The Ministry has also enhanced its capital asset management framework and ongoing cost monitoring, including expanded cost estimates to include managing potential risk such as construction escalation, temporary accommodation costs, removal of hazardous materials, and project phasing and procurement.

The Ministry continues to work with APEGBC, as well as the Canadian Society of Civil Engineering and the UBC Soder Business School, in developing its overall risk management framework. The risk management framework is to be completed this summer, along with an external/independent review of the high risk assessment study and the associated retrofit construction cost estimates.

The Ministry will also be working with the Vancouver School Board and the City of Vancouver this fall to develop a strategy for managing external risks related to heritage preservation and containment strategies on other municipal requirements.

Recommendation 4: The ministry: **Partially implemented**

- make it a matter of urgency to implement a program delivery model and commit sufficient resources to it; and
- fully evaluate all options before deciding on how the program will be delivered.

Actions taken, results and/or actions planned

The Ministry has been working closely with Vancouver School Board to complete a comprehensive review of its facilities integrating updated seismic assessments of Vancouver schools, as well as assessing opportunities for an enhanced delivery model. VSB is finalizing the review now. It is expected this information will help determine the priority for VSB schools, define scope for the projects and form a basis of agreement for alternate procurement and improved project delivery as government approves new projects.

The Ministry will be working with Partnerships BC and the VSB to procure future school projects through a design-build procurement. It is anticipated that this new procurement method will reduce risk and cost on future projects, as well as enhance project delivery and schedule.

Alternative project delivery options will also be presented to government this fall as part of the status update for the Seismic Mitigation Program, as well as work being done with school districts with respect to shared services.

SELF-ASSESSED PROGRESS IN IMPLEMENTING RECOMMENDATIONS

Recommendations (Cont.)

Recommendation 6: The ministry require boards of education to collect information about the progress and status of non-structural mitigation programs, and use this information to assess whether the status and rate of progress of non-structural mitigation is acceptable and whether funding is adequate.

Partially implemented

Actions taken, results and/or actions planned

VFA Canada has been engaged to complete a building condition assessment of all public schools in the province. Data recorded will include the status of non-structural upgrades for all schools in seismic-risk zones. Data gathering is at approximately 80% and will be complete in early 2012.

When the assessments are complete early next year, the data will be used by the Ministry and school districts to determine non-structural project priorities, track and report progress on the progress on non-structural upgrading and determine funding requirements. The level of funding required, the program for implementation of remaining non-structural projects, and monitoring strategies for progress and completion will be presented to government this fall as part of the status update of the Seismic Mitigation Program.

In addition, non-structural deficiencies in high risk blocks will be addressed as structural upgrades are implemented; cost is included in structural cost estimates.

Recommendation 7: The ministry work in partnership with boards of education to develop and implement an information plan that will inform the public about seismic hazard, risk and the constraints around the program, and give the public opportunities to provide input on future program objectives and priorities.

Partially implemented

Actions taken, results and/or actions planned

The Ministry, with the assistance of APEGBC and UBC, continue to inform school districts on the updated risk assessments and the implications for public schools. Web-based program status updates are available to the public and updated materials regarding seismic risk at schools is pending.

APEGBC and UBC continue to assist the Ministry in the development of web-based materials for public access. Improved public access to seismic risk materials for schools is being considered in the development of the ministries Open Government strategy.