

## 13.

### HALIFAX-DARTMOUTH BRIDGE COMMISSION

#### BACKGROUND

**13.1** The Halifax-Dartmouth Bridge Commission (HDBC) was established in 1950 by the Halifax-Dartmouth Bridge Commission Act. The Commission is responsible for the construction, maintenance and operation of the Angus L. Macdonald Bridge and the A. Murray MacKay Bridge, and the necessary approaches.

**13.2** The Commission is governed by a Board of Commissioners consisting of nine members. The chairman, the secretary and three members are appointed by the Executive Council. The remaining members are appointed from throughout the Halifax Regional Municipality (HRM). The Commission employs 23 permanent, full-time administration and maintenance staff, four part-time customer service staff, 50 members of the Corps of Commissionaires on a contract basis, and 50 seasonal painting and gardening staff. The head office of the Commission is located in Dartmouth by the Angus L. Macdonald Bridge toll plaza.

**13.3** The Commission's net income from operations was \$4.9 million for the year ended December 31, 2000. Long-term debt at that date totaled \$123.0 million. This was offset by sinking funds and other restricted assets amounting to \$9.6 million.

**13.4** This was our second review of certain aspects of the Commission's operations. We had assessed the adequacy of debt management and other practices in 1988 and reported the results of that review in the *1989 Report of the Auditor General*. This year's review was performed in January 2001 under the mandates provided by Sections 8 and 17 of the Auditor General Act.

#### RESULTS IN BRIEF

**13.5** The following are the principal observations from our review.

- We have suggested that documentation standards be improved in certain financial management areas such as budgeting and monitoring, and that Board and committee minutes related to discussions in these areas be expanded.
- Although the Commission has a documented procurement policy, we were unable to determine compliance in all areas tested. We have recommended standardized forms be used and a record retention policy be established for the procurement process. We also recommended that the Commission document the reasons for obtaining certain services through sole-source arrangements, as required under the Provincial Procurement Guidelines.
- The Commission is fulfilling reporting requirements as specified in its legislation and the Trust Indenture related to its long-term debt. We noted that efforts are being made by the Commission to clarify its reporting and accountability relationship with the Department of Finance in light of government-wide expenditure controls implemented during 2000-01.

- Financial information, including information on investments held in sinking funds and other reserves, is adequate for monitoring and decision-making purposes. We noted that the financial position of the Commission has improved in the past 10 years. As can be seen in Exhibit 13.1, the portion of total expenditures related to debt servicing costs has declined from 67.3% in 1990 to 44.0% in 2000, an improvement of 65.3%.
- We tested compliance with aspects of the Commission's capital asset policy and noted no significant deviations. We recommended capital projects included in the annual budget be prioritized.
- The Commission has acknowledged the need for a long-range strategic plan. Variables to be included in a comprehensive plan need to be identified and analyzed as necessary.
- The Commission has policies and procedures to ensure the safety of its employees and contracted staff, many of which likely impact and help secure the safety of the traveling public. We recommended a safety manual be prepared to document those policies and procedures directed toward public safety.

## AUDIT SCOPE

**13.6** The objectives of this assignment were to determine:

- the adequacy of the Commission's accountability and financial management framework to the Minister of Finance, the House of Assembly, and other stakeholders;
- whether there are adequate processes to monitor the reserve fund investments, including regular reporting by the trustee to the Commission;
- the appropriateness of the policies and procedures with respect to the Commission's capital assets, including ongoing maintenance, and analysis and approval of capital projects;
- the adequacy of the long-term planning process at the Commission;
- the appropriateness of the risk management policies at the Commission, including the analysis used to determine insurance coverage; and
- whether procurement policies, procedures and controls are adequate to provide for due regard for economy and efficiency.

**13.7** General criteria were used to facilitate our review of operations at the Commission. These criteria were discussed with management at HDBC, and were provided to the Board of Commissioners.

**13.8** Our approach included interviews with HDBC management and staff, and with the Chairman of the Board of Commissioners. We also reviewed documentation and performed detailed transaction tests as needed to achieve the objectives of this assignment.

## PRINCIPAL FINDINGS

### *Documentation*

**13.9** During our review of operations at the Commission, we noted instances where documentation standards or practices could be improved. These are as follows.

- We reviewed Board and committee minutes to obtain information about the Commission's activities during the year under review, and also to determine respective decision-making powers. Although we were informed certain discussions took place at the committee level, we were unable to find sufficient details of some of these discussions in the minutes (see paragraphs 13.37 and additional findings noted below in paragraph 13.9). We recommended that minutes be expanded to document discussions in key operational areas such as budgeting and procurement.
- The budget process is based on current financial information, with management and staff in each of the Commission's core functional areas preparing budget submissions. We suggested that standard forms be used in the budget process and that analysis used to support significant budget line items be documented. This would help ensure the continuity of the budget process.

We noted during our review of the 2001 budget process that minutes of the respective committees did not reflect budget deliberations to any great extent. We were pleased to note that discussions with respect to the 2002 budget were well documented in the minutes. We recommended that the results of the mid-year budget review be reflected in the minutes as well.

We were informed that there is a discussion of alternatives in selecting certain capital and maintenance projects for the budget. This informal process would relate more to items determined by Maintenance Department staff as opposed to items derived from the inspection report prepared annually by the Commission's consulting engineers (see further discussion of this at 13.36). We recommended that this process be formalized including documentation of the alternatives analyzed.

- Quarterly financial statements are provided to senior management and the Board and include year-to-year quarterly comparisons. We were informed that budget variances are discussed at the management and committee levels, and with the Board, but we did not see evidence of discussions of variances, and we suggested these be documented. A review of the quarterly financial information package now being provided to the Board, senior management, and the Department of Finance, indicates that variance explanations are now noted.
- We performed tests to determine compliance with the Commission's Purchasing and Tendering Authority. The results of these tests and our recommendations with respect to the Commission's procurement practices and related documentation are noted in paragraphs 13.42 through 13.44.

We discussed the findings from our tests with senior management. We suggested that the Commission develop standard forms to document the results of obtaining quotes or soliciting tenders, and that a filing and/or retention policy be established with respect to these forms.

- The Provincial Procurement Policies indicate that there must be a compelling reason for sole-source purchases to be made and that there should be documentation to support the decision to sole source. This documentation could then be subject to audit by the Department of Finance as well as by the Office of the Auditor General.

We reviewed expenditures totaling about \$1.4 million made during 2000 which were as a result of sole-source arrangements. Rationale for these arrangements included the level of expertise provided by the service provider, and knowledge of HDDB operations and infrastructure due to long-standing involvement with the Commission. Although we are unable to comment on the appropriateness of the rationale in each circumstance, we noted that there was no documentation to support this rationale as required under the Provincial Procurement Guidelines. We recommended that the Commission adhere to these Guidelines for sole-source purchases and document and retain support with respect to these decisions. Management has noted that they will be in contact with staff at the Procurement Branch of the Department of Transportation and Public Works to clarify what documentation is required.

**13.10** We recognize that there is a small team managing the Commission's operations, and that Board members are routinely involved in budget, maintenance and procurement activities. Our suggestions with respect to improved documentation in certain areas are intended to ensure the due diligence process undertaken by management and the Board is appropriately reflected in minutes and other documents.

#### ***Governance, Accountability and Performance Measurement***

**13.11** *Board and committee structure* - We noted the following with respect to the Board and its committees.

- There are Terms of Reference for the Board and its committees, but they are outdated and require revision. Senior management indicated this process will be completed during 2001. We suggested that the Terms of Reference detail levels of authority for the Board and its committees.
- A request to update and amend the Commission's Act, including a recommendation to stagger Board appointments, has been made by the Board Chair during the current year.

**13.12** *Accountability* - During the year, the Commission received a directive from Priorities and Planning Secretariat (now Treasury and Policy Board) with respect to accountability measures for the 2000-01 budget. We reviewed draft correspondence between the Board chair and the Deputy and Minister of Finance regarding these measures. It is evident from the draft correspondence that the intent is to establish an ongoing reporting and accountability relationship between the Department and the Commission which implements the spirit and intent of these measures, and which will extend beyond the 2000-01 budget year. We acknowledge the efforts being made by the Commission to clarify these matters with the Minister and the Department.

**13.13** The trust indenture for the Toll Revenue Bonds Series I requires quarterly reporting, both financial and non-financial (where required), to provincial securities commissions. We noted that the Commission uses a checklist to ensure that the reporting requirements noted in the trust indenture are met each quarter. Information provided to the securities commissions is approved by the Board prior to its distribution.

**13.14** The Commission provides its annual report, including its audited financial statements, to the Minister of Finance. The annual report is tabled in the House of Assembly. A chart describing the accountability relationship to the House of Assembly can be found in Exhibit 13.2.

**13.15** *Performance measurement* - The annual business plan prepared by the Commission details its goals for the upcoming year and indicates steps it will undertake to achieve those goals. This information is consistent with the format provided by Treasury and Policy Board for the preparation of business plans.

### ***Long-term Planning***

**13.16** The Commission does not have a documented long-range strategic plan. Recent decisions with respect to capital projects and related financing did not result from a formal strategic planning initiative but rather responded to identified customer needs. The Executive Committee of the Board has acknowledged the need to develop a long-range strategic plan. Terms of reference and the time frame the plan should consider have yet to be established.

**13.17** A long-range planning process by the Commission should consider variables such as demographics, infrastructure planning by the HRM, traffic and capacity studies, and should include financial information such as cash flow projections and anticipated capital and maintenance project costs.

**13.18** We understand that, according to its Act, the Commission cannot undertake traffic studies unless requested to do so by the Province and the HRM. We are also aware that the Commission does not publicly disclose cash flow projections in accordance with requirements mandated by provincial securities commissions. However, this does not preclude internal forecasting, to be used as part of the planning process or otherwise. We recommended the Commission pursue these and other factors with relevant stakeholders in order to prepare a comprehensive plan.

**13.19** We have been informed that the Commission will undertake a capacity study in 2002. Management and the Executive Committee have further indicated that they have undertaken or will undertake other planning initiatives in the near future.

### ***Risk Management***

**13.20** *Occupational Health and Safety Committee* - The Board of Directors has approved an Occupational Health and Safety (OH&S) policy. Procedures to address this policy have been developed and are included in an OH&S manual. Certain sections of the manual have been identified as required reading for all HDBC employees and contracted staff.

**13.21** *Commission employees* - Commission employees are required to participate in a two-day safety training session when their employment begins. There is no follow-up to this session in subsequent years although we understand certain staff attend outside training sessions to update and maintain knowledge in specific areas. We recommended that the schedule for these training sessions be formalized.

**13.22** *Contracted staff* - The Corps of Commissionaires has provided contracted services to the HDBC since the Angus L. Macdonald Bridge opened. The Corps has developed its own safety policies and procedures over time, and we understand these are presently being reviewed to be collated into a comprehensive safety manual for Corps staff working at the Commission. Safety policies and procedures for seasonal workers such as painters and landscapers are outlined in the OH&S manual noted above.

**13.23** *Bridge customers* - The continued safety of HDHC customers is noted as a goal in the Commission's 2001 Business Plan, and there are initiatives noted to achieve this goal. Management has also indicated that there are practices and equipment in place to ensure the safety of HDHC customers. Specific examples include:

- staff trained in highway signage;
- ice detection systems, including built-in alarms, on both bridges' decks; and
- back-up generators for electrical systems.

**13.24** In addition, there is an annual inspection of each of the bridges by the Commission's consulting engineers.

**13.25** We were informed that safety equipment would include instructions from the manufacturer regarding procedures to follow. We were also told that many of the policies and procedures outlined in the OH&S manual and those developed by the Corps of Commissionaires provide for the safety of HDHC customers. While we acknowledge the probable impact of these policies and procedures on the traveling public, we recommended policies and procedures directed toward public safety be formalized into a comprehensive safety manual.

**13.26** *Incident reporting and follow up* - There is a standard incident report to be completed in the event of accident or other incident. We noted that the reports are not pre-numbered and we recommended that this control feature be established.

**13.27** *Insurance* - We discussed the types and levels of insurance coverage at the Commission with senior management, although we did not assess the adequacy of this coverage. The analysis used to determine the insurance coverage is both formal and informal. Advice is also obtained from an insurance consultant. The level of property coverage is supported by an estimate of the replacement cost of each bridge which is provided by the Commission's consulting engineers.

### ***Financial Management***

**13.28** *Policies and procedures* - The Commission has recently developed policies and procedures for capital assets and investments. These have been approved by the Board and are included in an administrative manual. Senior management noted that other policies and procedures related to financial management included in this manual will be reviewed, and updated if required, in due course.

**13.29** *Financial reporting* - Quarterly financial statements are prepared and distributed to management, senior management and Board members. We were informed that the frequency and information content of these statements is considered adequate for decision-making purposes. Board members, management and senior management are able to request additional financial information as needed. We have been informed that, in keeping with the accountability provisions to the Department of Finance referred to in paragraph 13.12 above, the Commission's quarterly financial statements are now also provided to that Department.

**13.30** *Cash flow analysis* - A cash flow statement reflecting the Commission's operations is prepared as part of the annual budget process. Management has informed us that they plan to prepare cash flow statements on a quarterly basis now that the Commission's finances are structured to provide surplus cash during the year. This cash flow information will support decisions made in the annual and long-term planning processes with respect to debt and operational requirements.

**13.31** *Reserve funds* - Under the terms of the trust indenture which provided for the issue of the Toll Revenue Bonds Series I, the Commission must maintain four reserve funds. Management monitors the portfolio to ensure compliance with the terms of the Trust Indenture. An analysis of the portfolio is prepared on a quarterly basis and included with the quarterly reports submitted to the Board. We were informed that compliance with the debt covenants is tested during the Commission's annual financial statement audit.

**13.32** *MACPASS* - This electronic toll collection system was introduced by the Commission in 1998. Its introduction coincided with the need to update all other toll collection equipment at the bridges. The MACPASS concept was approved by the Board and we have been informed that the Nova Scotia Utilities and Review Board (NSURB) approved implementation of the system.

**13.33** We were informed that there was an informal cost-benefit analysis presented to the Board with respect to implementing MACPASS. Further, management indicated that the cost efficiencies of the system were presented to the NSURB. The system was introduced as a method of dealing with traffic congestion and not as a means to generate additional revenue. The Commission's 2000 Annual Report indicated that there are approximately 28,000 MACPASS users on the system.

### ***Capital and Maintenance Projects***

**13.34** *Policies and procedures* - There is a documented and approved capital asset policy in use at the Commission. We tested compliance with this policy as follows:

- capital projects included in the 2000 budget were tested to ensure they met the definition of a capital item as defined in the policy; and
- items included in the 2001 maintenance budget were tested to ensure they were properly classified as maintenance projects.

**13.35** With the exception of one minor deviation, we noted that all items tested were in compliance with the policy.

**13.36** *Budget process* - Capital and maintenance items included in the annual budget originate from the annual inspection report prepared by the Commission's consulting engineers, and from a maintenance schedule kept by senior management in the maintenance department. There is also a consultative process between the Maintenance Department and the consulting engineers to determine the timing of items to be included in the budget. For example, an item recommended from the inspection report to be included in a future year's budget may be dealt with in the current year due to various factors such as timing with other planned projects.

**13.37** We tested to determine if items noted on the maintenance schedule were included in the 2001 budget. We noted that all items considered to be capital expenditures were included in the budget, but several items classified as maintenance expenditures were omitted. There was also a discrepancy between the cost determined on the maintenance schedule and the amount included in the budget for eight items. There is no documentation to support the iterative process followed to arrive at the items and amounts included in the budget although we noted discussion of several items during Maintenance Committee meetings.

**13.38** Capital and maintenance projects are not prioritized as part of the budget process and we recommended that this be done. We noted that an unplanned maintenance expenditure arose during

fiscal 2000 and a decision was made to defer certain budget items to accommodate this expenditure. There was no documentation to support the rationale for deferring these budget items. Prioritization of capital and maintenance items for budget purposes would provide support when changes to the approved budget are necessary.

**13.39** *Post-completion analysis* - A post-completion analysis is often completed by entities after the completion of significant projects. It documents the results of each project in comparison to plans and also notes the resolution of problems which arose during the project. An inspection which includes the identification of deficiencies is presently completed at the end of significant projects undertaken by the Commission. However, we recommended that this inspection be part of a comprehensive post-completion analysis which could be referred to in the planning process for future projects.

### ***Procurement***

**13.40** *Policies and procedures* - As a crown corporation, the Commission is required to follow guidelines outlined in the Policy on Government Procurement. These guidelines specify that crown corporations are to have internal purchasing guidelines that provide for fair and open purchasing practices. In addition, there is a requirement that goods, services and construction contracts above certain thresholds be publicly advertised.

**13.41** We reviewed the Commission's documented Purchasing and Tendering Authority which was approved by the Board. The policies and procedures detailed in this document are consistent with those specified in the Provincial Procurement Policy. However, we were unable to determine whether there is compliance with the policies and procedures detailed in this Authority. This is discussed further in the following paragraphs.

**13.42** *Transaction testing* - We selected a sample of 31 transactions during the 2000 fiscal year to determine whether there was compliance with the Commission's Purchasing and Tendering Authority. The sample included items from the three threshold limits specified in the Authority. The Authority notes that quotes are to be obtained for items at the lowest threshold, tenders are to be solicited for items in the middle range, and items which exceed the maximum threshold are to be publicly advertised.

**13.43** We were unable to determine compliance with all aspects of the Authority related to quotes and solicited tenders. The procedures for purchasing goods, obtaining services and awarding construction contracts below the maximum threshold are the same. While all transactions we reviewed at these levels were properly approved, there was no documentation to support whether the required number of quotes or tenders were received for each item purchased or expenditure incurred.

**13.44** Of the six transactions that required public advertising under the Commission's Purchasing and Tendering Authority, five were in compliance. There was a minor deviation in the remaining item.

**13.45** *Macdonald Bridge Expansion Project* - The Commission undertook an expansion project on the Macdonald Bridge which was substantially completed during 1999. The project included adding a third lane to the bridge (in connection with replacing portions of the bridge deck) as well as new ramps, sidewalks and other components.

**13.46** For this audit, we focused on reviewing the contracts awarded for adherence to procurement policies. We also reviewed Board minutes to determine if the project was properly approved. We note that under its Act, the Commission does not require Executive Council approval for capital projects. However, Executive Council approval must be obtained for financing (specified in Section 18 of the Act) and we determined that this was obtained for the Toll Revenue Bonds Series I in 1997.

**13.47** A proposal for the expansion project was presented to the Board in 1994 with an estimated cost of \$36.0 million and the Board agreed to proceed. We understand that this amount was based on a preliminary cost estimate provided by the Commission's consulting engineers. The Commission received approval for an expenditure of \$51.2 million from government in April 1997. This increase reflects the expanded scope of the project from 1994 and is based on more detailed cost projections. An additional \$4.0 million related to the construction of the Barrington Street ramp was approved by the Board in September 1998 after the project for the construction of the ramp was assumed by the Commission from HRM. The actual cost of the total expansion project was \$55.3 million.

**13.48** Three phases of the project were tested for compliance with procurement policies - renovations to the Dartmouth plaza, the bridge span portion, and construction of the Barrington Street ramp. Contracts were awarded for each of these phases through public advertising. We found no deviations from the Commission's procurement policies.

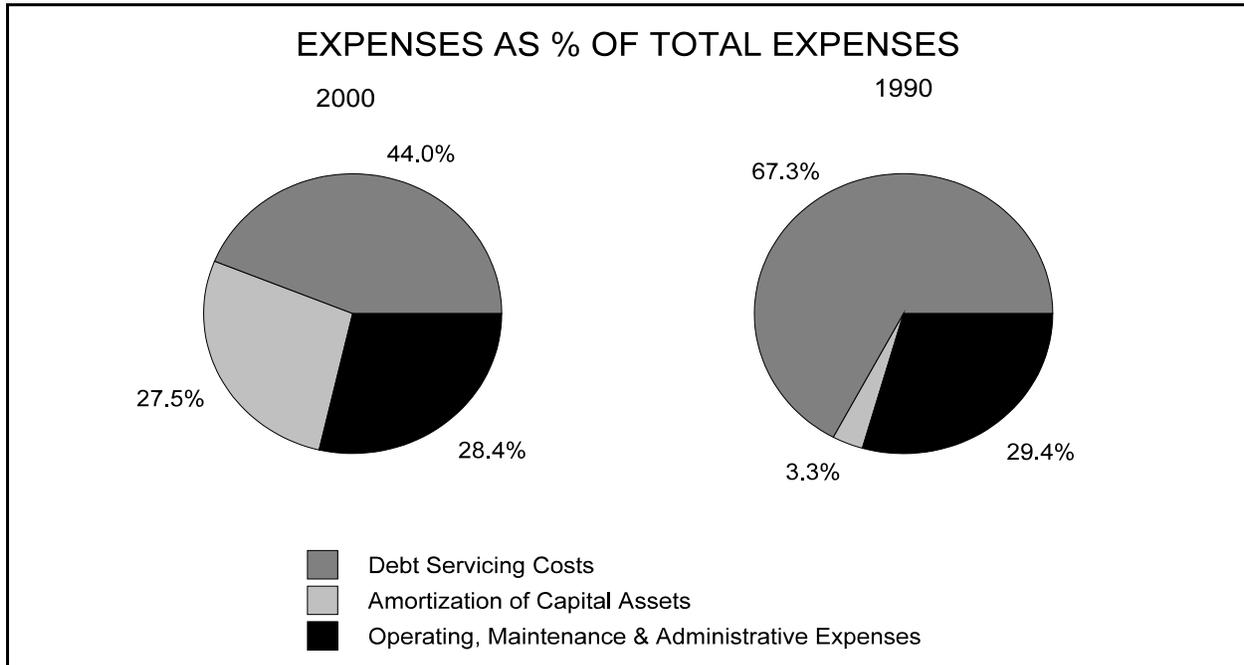
#### **CONCLUDING REMARKS**

**13.49** The Halifax-Dartmouth Bridge Commission's financial position has improved since our last review of its operations. The long-term debt of the Commission is no longer denominated in or subject to the exchange rate risks of foreign currencies. This has improved the ability of the Commission's Board and management to budget and plan its annual activities.

**13.50** The Board and committee members appear dedicated to the success of the Commission and are closely involved in its operations. This conclusion is supported by the fact that there have been a total of approximately 100 Board and committee meetings since January 2000. Our suggestions with respect to improved documentation in certain areas will facilitate the transition for new Board members as current appointments expire.

---

*Exhibit 13.1*



*Exhibit 13.2*

