



May 25, 2016

Honourable Kevin Murphy
Speaker
House of Assembly
Province of Nova Scotia

Dear Sir:

I have the honour to submit herewith my Report to the House of Assembly under Section 18(2) of the Auditor General Act, to be laid before the House in accordance with Section 18(4) of the Auditor General Act.

Respectfully,

MICHAEL A. PICKUP, CPA, CA

Auditor General of Nova Scotia

5161 George Street
Royal Centre, Suite 400
Halifax, NS B3J 1M7
Telephone: (902) 424-5907
Fax: (902) 424-4350
Website: <http://www.oag-ns.ca>
: @OAG_NS



Office of the Auditor General

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A relevant, valued and independent audit office serving the public interest as the House of Assembly's primary source of assurance on government performance.

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To make a significant contribution to enhanced accountability and performance in the provincial public sector.

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Conduct and report audits that provide information to the House of Assembly to assist it in holding government accountable.

Focus our audit efforts on areas of higher risk that impact on the lives of Nova Scotians.

Contribute to a better performing public service with practical recommendations for significant improvements.

Encourage continual improvement in financial reporting by government.

Promote excellence and a professional and supportive workplace at the Office of the Auditor General.



Who We Are and What We Do

The Auditor General is an independent nonpartisan officer of the Legislature, appointed by the House of Assembly for a ten-year term. He or she is responsible to the House for providing independent and objective assessments of the operations of government, the use of public funds, and the integrity of financial reports. The Auditor General helps the House to hold the government to account for its use and stewardship of public funds.

The Auditor General Act establishes the Auditor General's mandate, responsibilities and powers. The Act provides his or her Office with a modern performance audit mandate to examine entities, processes and programs for economy, efficiency and effectiveness and for appropriate use of public funds. It also clarifies which entities are subject to audit by the Office.

The Act stipulates that the Auditor General shall provide an opinion on government's annual consolidated financial statements; provide an opinion on the revenue estimates in the government's annual budget address; and report to the House at least annually on the results of the Office's work under the Act.

The Act provides the Office a mandate to audit all parts of the provincial public sector, including government departments and all agencies, boards, commissions or other bodies responsible to the crown, such as school boards and the provincial health authority, as well as funding recipients external to the provincial public sector. It provides the Auditor General with the authority to require the provision of any documents needed in the performance of his or her duties.

In its work, the Office of the Auditor General is guided by, and complies with, the professional standards established by CPA Canada. We also seek guidance from other professional bodies and audit-related best practices in other jurisdictions.



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Chapter 1: Homes for Special Care: Identification and Management of Health and Safety Risks



Why we did this audit:

- Residents in homes for special care are vulnerable people
- Management of health and safety risks in the homes is key
- In 2014-15, Health and Wellness spent \$530 million on 7,754 residents in 136 homes
- In 2014-15, Community Services spent \$244 million on 2,263 residents in 332 homes

Overall conclusions:

Community Services:

- Effectively managing its homes for special care
- Efficient, consistent and timely inspection processes
- No evaluation of long-term funding needs although significant work towards assessing programs has been done

Health and Wellness:

- Needs to be more effective managing its homes for special care
- Does not have an efficient, consistent and timely inspection process
- No evaluation of long-term funding needs but work is underway to assess long-term funding needs

What we found in our audit:

Department of Community Services

- Uses information system to collect, analyze and report on licensing and inspections
- Has a well-defined inspection process
- No signed agreements with service providers or assessment of service quality
- Inspections and enforcement consistent among inspectors
- Electronic recording and automatic scheduling promotes efficiency
- Required inspections were done
- Followed up on deficiencies within 30 days
- No evaluation of long-term funding needs
- Phased project underway to examine sustainability of programs; examination of funding scheduled for 2017

Department of Health and Wellness

- Needs information system to track inspections and report on performance
- No written guidelines or documentation of inspection quality review process
- Service agreements do not include assessment of quality of service provided
- No written enforcement guidance for inspectors
- Enforcement not consistent across homes
- Required inspections were done
- Follow-up on inspection deficiencies may take five months or longer
- No evaluation of long-term funding needs
- Began developing future demand model in fall 2015, more work to be done



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* *Both Community Services and Health and Wellness agreed to implement all recommendations.*

1 Homes for Special Care: Identification and Management of Health and Safety Risks

Background

- 1.1 The Homes for Special Care Act governs the operation of homes for special care throughout the province, including nursing homes, homes for the disabled, and residential care facilities. Homes for special care must have a license to operate and must comply with the requirements of the Act and related regulations. All homes must be inspected at least once a year. Nursing homes require inspection at least twice a year.
- 1.2 The Department of Health and Wellness' Monitoring and Evaluation division is responsible for licensing nursing homes and certain residential care facilities. Most residents in these homes require some level of nursing care. There are nine investigation and compliance officers responsible for completing inspections. At March 31, 2015, Health and Wellness was responsible for 136 homes for special care with capacity for 7,754 residents.
- 1.3 The Department of Community Services' Licensing Services division is responsible for licensing adult residential centres, regional rehabilitation centres, certain residential care facilities, group homes, developmental residences, and small option homes. Residents in these homes have intellectual, mental health, or physical challenges but do not require nursing care. There are eight licensing officers responsible for inspecting the homes. At March 31, 2015, Community Services was responsible for 332 homes for special care with capacity for 2,263 residents.
- 1.4 In 2014-15, Health and Wellness provided \$530 million to its licensed homes for special care. For the same year, Community Services funded \$244 million to its service providers on behalf of residents. The following table shows funding by department over the past six years.

| Year | Community Services – Disability Support Programs | | Health and Wellness – Long Term Care Programs | |
|---------|--|---------------|---|---------------|
| | Funding (\$000s) | Licensed Beds | Funding (\$000s) | Licensed Beds |
| 2010-11 | \$195,876 | 2,308 | \$440,490 | 7,611 |
| 2011-12 | \$206,512 | 2,302 | \$464,936 | 7,718 |
| 2012-13 | \$217,127 | 2,312 | \$489,353 | 7,720 |
| 2013-14 | \$218,627 | 2,314 | \$507,320 | 7,767 |
| 2014-15 | \$243,919 | 2,263 | \$529,830 | 7,754 |
| 2015-16 | \$253,260 | 2,301 | \$536,655 | 7,754 |



Audit Objectives and Scope

- 1.5 In winter 2016, we completed a performance audit of the Department of Health and Wellness' investigation and compliance program and the Department of Community Services' licensing services program. The audit was conducted in accordance with sections 18 and 21 of the Auditor General Act and auditing standards of the Chartered Professional Accountants of Canada.
- 1.6 The purpose of the audit was to determine if the departments have adequately identified health and safety risks to residents of homes for special care and if they are monitoring to help ensure the risks are managed.
- 1.7 The objectives of the audit were to determine if the Departments of Health and Wellness and Community Services:
 - have adequate management information and processes to ensure they are effectively managing their responsibilities for health and safety in homes for special care;
 - are adequately monitoring and enforcing compliance with legislation and program standards related to their responsibilities for the health and safety of residents in the homes; and
 - have analyzed funding to the homes to assess long-term sustainability risks.
- 1.8 Generally accepted criteria consistent with the objectives of the audit did not exist. Audit criteria were developed specifically for this engagement. Criteria were accepted as appropriate by senior management of both departments.
- 1.9 Our audit approach included interviews with management and staff at both departments, as well as a sample of stakeholders; examination of legislation, policies, systems and processes, program requirements, standards, facility files, and reports; as well as testing compliance with legislation, policies, systems, and processes. Our audit period included monitoring and inspection activities between April 1, 2014 and March 31, 2015.



Significant Audit Observations

Management Information Systems

Conclusions and summary of observations

The Department of Community Services has an adequate system and processes to effectively manage its responsibilities for health and safety in its homes. Community Services uses a computerized licensing, inspection and reporting system and quality assurance processes to monitor and evaluate operational effectiveness. The Department of Health and Wellness does not have adequate information systems and its processes need improvement to effectively manage its responsibilities for licensing and inspecting homes for special care. Health and Wellness does not have a suitable software application for its licensing and inspection processes; its use of spreadsheets is inefficient and ineffective. The Department's quality review process lacks written guidance and there is no evidence that quality review is occurring. Health and Wellness does not produce reports on work activities to support that inspections are timely and meet requirements. Lack of regular data analysis means management may not readily identify deficiencies and trends which could impact the health and safety of residents.

- 1.10 *Use of AMANDA* – The business licensing software standard for the province is an application called AMANDA. Community Services began using this application in 2012, when the provincial standard was established. The Department uses AMANDA to record licensing inspections and follow-up monitoring, produce reports, and record other relevant communications.



Health and Wellness does not have an information system

- 1.11 The Department of Health and Wellness does not use AMANDA or an alternative database application. Staff use spreadsheets to track the stages of the licensing and inspection process to ensure proper completion. Using spreadsheets to collect licensing and inspection information is not efficient for reporting purposes as not all needed information is gathered. For example, Health and Wellness wanted to determine trends in compliance violations at its homes for special care. Staff reviewed a sample of 50 service provider files for deficiencies identified during inspections over a one-year period. Health and Wellness could have done this more efficiently, in far less time, using 100% of the inspection data, if it had a comprehensive system to record information. In contrast, Community Services uses information recorded in AMANDA to produce an annual report on trends in violations at all its homes.
- 1.12 *Inspection process inefficiencies* – Health and Wellness' lack of a computerized system also leads to inefficiencies in the inspection process. Staff complete



paper inspection forms at the homes and return to the Department to prepare reports and send them to the home administrators. Staff at Community Services document their inspection results electronically at the time of the inspection. They print a report for the administrator before they leave.

► **Community Services reports timely information; Health and Wellness reports limited information**

- 1.13 *Reporting* – Community Services uses its information system to produce quarterly and annual reports on licensing statistics. The Department has developed key indicators and targets to assess its performance. Examples of indicators include: the percentage of inspections completed on schedule, percentage of files reviewed, and percentage of deficiencies corrected by the first monitoring inspection. Management obtained these reports in a timely manner during 2014-15. Additional reports, such as the history of a specific service provider, or complaints received, are also available as needed.
- 1.14 Health and Wellness has limited reports on inspection activities. Reports include only the number of completed inspections. Health and Wellness does not regularly report detailed information to assess operational effectiveness. Although staff use spreadsheets to track information, such as the dates licensing requirements were completed, management does not analyze this information to determine the efficiency and effectiveness of inspections. Management does not use the spreadsheets to assess overall performance of the Department's inspection activities, such as whether inspections are completed on time or if deficiencies still exist at the next inspection.

Recommendation 1.1

The Department of Health and Wellness should have a management information system to efficiently and effectively manage its responsibilities for licensing and inspections of homes for special care.

***Department of Health and Wellness Response:** The Department of Health and Wellness agrees with this recommendation and the need to acquire a management information system for licensing inspections. The Department is currently inquiring into possible solutions to address information management needs.*

► **Community Services has defined a quality review process; Health and Wellness has not established a structured process**

- 1.15 *Quality review process* – Community Services has a target for management to annually complete file audits of 20% of all homes. In 2014-15, a management report showed 99 of 332 homes (29.8%) had file audits completed, meeting the established target. Management uses a checklist which details



file items that must be reviewed. The completed checklist is signed off and retained in the file.

- 1.16 Health and Wellness management told us they use a peer review process and a high-level manager review of a sample of inspection reports. The Department has no written guidelines that outline how the reviews should be carried out. We found no evidence to indicate peer or management reviews were completed. We could not determine whether or how many peer or manager reviews were done, or to what extent inspection reports were reviewed.

Recommendation 1.2

The Department of Health and Wellness should establish a licensing and inspection quality review process that includes written guidance on frequency, information to be reviewed, and documentation of completion.

***Department of Health and Wellness Response:** The Department of Health and Wellness agrees with this recommendation. While DHW had implemented a peer review process several years ago, this process was not documented. Since the Office of the Auditor General has completed the audit, the Department has developed written guidelines to support this process, including a quality review process completed by management. As such, this recommendation is complete.*

Service Provider Agreements

Conclusions and summary of observations

The Department of Community Services does not have signed agreements with its service providers. Community Services sends notifications to its service providers when funding rates change. Homes funded through the Department of Health and Wellness have signed service agreements, either with Health and Wellness or the Nova Scotia Health Authority. Performance evaluation processes for the services provided have not been developed and the agreements do not clearly outline responsibilities among the parties for reporting on performance. Signed agreements with clear responsibilities and performance evaluation measures are important tools to help ensure service providers are maintaining the expected level of service for which they are paid.



Community Services does not have signed agreements with service providers

- 1.17 *Signed agreements* – Although the Homes for Special Care Act and regulations include a number of provisions homes must follow, such as the need for adequate and competent staff to provide the required services, they do not specify the expected level of service that must be provided. Service



agreements are a way to outline service expectations and specify what reporting is required and how services will be verified.

- 1.18 The Department of Community Services does not have signed agreements with its service providers. The Department notifies service providers when funding rates for resident beds change. While Community Services has funding guidelines which reference compliance with the Act and regulations, they are not incorporated into signed agreements to support their enforcement. Management told us they recognize service agreements are best practice and plan to include them as part of phase three (beginning in 2017) of Community Services' program redesign project. This project is discussed later in this chapter.

Recommendation 1.3

The Department of Community Services should sign agreements with all service providers which clearly establish performance expectations and reporting requirements.

***Department of Community Services Response:** The Department of Community Services agrees with Recommendation 1.3 and intends to implement this recommendation in conjunction with the Disability Support Program (DSP) Transformation project and the Corporate Agreement Management (CAM) Transformation project. The 2nd phase of the CAM project is underway now. Agreement templates will be completed and in place for many service providers and discretionary grants by April 1, 2017. Work on the DSP service provider agreements is taking place as a priority in 2016-17 and the agreements will be put in place during 2017-18 once outcomes are fully defined.*

- 1.19 Our 2007 audit of nursing homes at the Department of Health and Wellness recommended the Department sign service agreements with homes to clearly establish expectations and responsibilities. Health and Wellness now has two types of agreements with its service providers. Agreements between the former health authorities (now the Nova Scotia Health Authority) and service providers were signed starting in 2012, for beds licensed prior to 2007. For all beds licensed during or after 2007, agreements were signed between the service providers and Health and Wellness.
- 1.20 For the 15 Health and Wellness homes in our sample, all service providers that required a signed service agreement had one. Although agreements were signed, we identified issues with the administration of the agreements, discussed in the following paragraphs.



Health and Wellness does not evaluate how service providers are performing

- 1.21 *Performance evaluation and reporting* – Our 2007 audit also recommended that Health and Wellness include performance expectations and reporting



requirements in the service agreements. Although Health and Wellness established agreements with the homes, performance evaluation and reporting provisions were not included.

- 1.22 The agreements between the Nova Scotia Health Authority and service providers state that best practices should be identified and appropriate benchmarks for service delivery should be developed. The agreements also did not require reporting to the Department on the assessment of service quality. This weakens the value of the agreements. It is more difficult to hold the service providers accountable for providing a certain level of service if service expectations are not clearly defined, agreed to by all parties, and reported on. As this demonstrates, important provisions should be included in initial agreements as they are less likely to be developed at a later date. Health Authority management told us the additional resources needed to establish and carry out service evaluations were not provided by Health and Wellness.
- 1.23 Health and Wellness told us it expects the Nova Scotia Health Authority to also monitor service quality for the providers that signed agreements directly with the Department. This responsibility is not outlined in the agreements. Performance evaluation responsibilities and reporting relationships between the service providers, the Health Authority, and the Department are not clearly defined for all parties. This may result in inadequate monitoring of service quality and residents not receiving the level of care for which funding was provided.

Recommendation 1.4

The Department of Health and Wellness should establish clear responsibilities and accountability for service provider performance and related reporting requirements and ensure these activities are carried out.

***Department of Health and Wellness Response:** The Department of Health and Wellness agrees with this recommendation. Work is currently underway to implement performance based contracts with home care providers. Additionally, the Department is currently developing a 2017 Continuing Care Strategy. It is anticipated that actions related to long-term care service expectations, accountabilities and reporting requirements will be a key action stemming from the 2017 strategy.*

Monitoring and Enforcement

Conclusions and summary of observations

Health and Wellness monitoring and enforcement activities are not consistent and not always timely. Homes licensed by Health and Wellness prior to 2007 are not



specifically required to have written infection prevention and control policies and guidelines, with a focus on hand washing. Infrequent hand washing is known to be a major contributing factor in the spread of infectious diseases in institutions. Health and Wellness does not have written guidance for inspections and enforcement. The Department is developing inspection checklists and policies and procedures for staff. Our testing of Health and Wellness files found follow up and enforcement when deficiencies are noted is inconsistent and not timely. For example, 23 deficiencies reported for seven facilities were still not corrected by the next inspection between five to nine months later. The Department of Community Services' inspection process is efficient, consistent and timely. Community Services has clear and written inspection, enforcement and follow-up guidelines. The complaints process at Community Services is well-documented and we found it is followed. Health and Wellness does not have documented guidelines for licensing complaints.

► **Homes licensed prior to 2007 do not have to follow Health and Wellness' current requirements**

- 1.24 *Program requirements* – All homes for which the Department of Health and Wellness is responsible are governed by the Homes for Special Care Act and regulations. Homes licensed during or after 2007 are also required to follow more detailed long-term care program requirements developed by Health and Wellness. In 2014, Health and Wellness began work on updating and developing new program requirements applicable to all its homes. Department management told us they expect to implement the new requirements in April 2016.
- 1.25 We compared Health and Wellness' health and safety program requirements to the regulations to determine if there were significant differences in the rules which govern homes licensed prior to 2007 compared to those licensed from 2007 on. We found only one significant difference. Homes that follow the program requirements must have written policies, procedures and guidelines on their infection prevention and control program, with particular focus on hand washing. Homes licensed prior to 2007 do not have this requirement. This difference is significant as improper or infrequent hand washing is known to be a major contributing factor to the spread of infectious diseases in institutions.
- 1.26 All homes for which the Department of Community Services is responsible are governed by the Homes for Special Care Act and regulations and Community Services' standards of care. We found there were no significant health and safety differences between the Act, regulations and standards.

► **Health and Wellness has not provided written guidance to inspectors**

- 1.27 *Policies and procedures* – The Department of Health and Wellness does not have written policies and procedures to guide inspectors. Health and Wellness



developed an inspection checklist based on the program requirements for homes licensed during or after 2007. This checklist provides guidance on what to look for during the annual licensing inspection. However, it does not provide detailed guidance on assessing deficiency risks, appropriate enforcement when deficiencies are found, what follow up should be done, or which health and safety deficiencies would lead to a short-term license. Without adequate guidance, inspectors may address deficiencies differently, leading to inconsistencies and possible delays in addressing health and safety risks.

- 1.28 Health and Wellness does not use a checklist for the annual licensing inspections of homes licensed prior to 2007. To document the inspection, staff use a 32-page form that outlines key areas to review, such as hallways and common areas, resident areas, and charts. This form provides little guidance on how the inspection should be completed, such as what to check when reviewing medicine storage or meal menus. Staff use a similar form when completing the required mid-year inspections. Without detailed guidance, the risk of incomplete, inefficient or inconsistent inspections increases. Our examination of a sample of inspection files, detailed later in this chapter, provides examples for which this has occurred. Health and Wellness management told us they are developing a new inspection checklist and detailed policies and procedures to provide guidance to inspectors.

Recommendation 1.5

The Department of Health and Wellness should complete and implement its new checklist and policies and procedures on inspection and enforcement processes.

***Department of Health and Wellness Response:** The Department of Health and Wellness agrees with this recommendation. Prior to the audit completed by the Office of the Auditor General, the department was in the process of finalizing the revised Long Term Care Program Requirements, which would be the foundation of a single licensing tool. This work has been completed and implemented. The department also had draft policies and procedures related to the licensing inspection process, which have also been completed. As such, this recommendation has been completed.*



Community Services has clear guidance for inspections

- 1.29 The Department of Community Services has a procedures manual to provide guidance on the inspection process. Community Services also has an enforcement policy which outlines levels of enforcement and when it is appropriate to use these. The Department uses a computerized checklist to detail all of the items to review during an inspection.



Health and Wellness performed required number of inspections

- 1.30 *Inspections by Health and Wellness* – The Homes for Special Care Act requires that nursing homes be inspected a minimum of twice a year. Health and Wellness carries out licensing inspections annually at all its homes, prior to the expiration date of a license. The Department also performs a second monitoring inspection at all homes, generally five to seven months after the annual inspection. Inspectors arrive unannounced and do not schedule inspections. They use paper forms to record information and note deficiencies and required corrections in a report. This report is provided to the home administrator. The home is required to provide an action plan noting how it will address each deficiency reported.
- 1.31 We selected a sample of 30 Health and Wellness files of inspections performed between April 2014 and March 2015. We wanted to know if the required number of inspections were completed and whether health and safety requirements at the homes were met. Since there is no detailed list of more significant health and safety requirements, we asked inspectors what they believe is significant.
- 1.32 We found that all the required inspections were completed for each home; although eight of the monitoring inspections were completed between eight and nine months after the annual inspection, rather than the five to seven month target. Inspections were performed by a different inspector each year. This is a good practice as it decreases the risk of deficiencies not being identified. Files were complete and all inspection reports were signed by the inspectors. We found all reports contained clear direction on what the homes needed to do to address the deficiencies.
- 1.33 However, we identified weaknesses and inconsistencies in the inspection process. These are detailed in the following paragraphs.

Health and Wellness does not ensure consistent enforcement

- 1.34 Homes are generally licensed for one year. A three-month license may be issued when certain significant deficiencies are identified. Although 5 of the 30 inspections we tested had significant deficiencies for which a three-month license would likely be issued, one facility, which had not tested its emergency plan, received a one-year license. A short-term license would likely have ensured the home's emergency plan was tested and effective within a reasonable time.

Health and Wellness does not follow up deficiencies in a timely manner

- 1.35 While Health and Wellness requires that homes provide action plans to correct deficiencies, it generally does not require homes to note the date by



which deficiencies will be corrected. Inspectors may require the homes to provide completion dates, but there is no written guidance to help inspectors determine which deficiencies should be assigned a deadline.

- 1.36 There were 127 deficiencies identified in the inspection reports we tested at Health and Wellness. We looked at the subsequent monitoring inspection to determine if these problems had been corrected. We found 18% of these deficiencies (23 of 127) still existed between five and nine months later. Three deficiencies were key health and safety requirements as identified to us by Health and Wellness inspectors, with one of those being proper medication storage.
- 1.37 All 23 deficiencies were included in the homes' action plans. However, Health and Wellness inspectors are not required to follow up that deficiencies have been corrected until the next monitoring inspection, several months later. By contrast, Community Services inspectors are required to follow up within 30 days to determine if deficiencies have been addressed.
- 1.38 In the 26 files we tested which had one-year licenses, Health and Wellness inspectors did not follow up prior to the monitoring inspection; as noted earlier, approximately one quarter (8 of 30) of these monitoring inspections were not completed in the target five to seven months. It is reasonable that all deficiencies may not require immediate follow up, based on their significance. However, timely follow up on more serious deficiencies is important. This does not necessarily mean another inspection at the home is needed. It could mean contacting the home shortly after the inspection and making sure the deficiency was corrected by confirming with management, getting copies of invoices, photographs, or other information. Waiting five or more months after significant deficiencies are identified is not timely and may increase risks to the residents for a longer period than necessary.

Recommendation 1.6

The Department of Health and Wellness should follow up in a timely manner to make sure more serious deficiencies at homes for special care have been corrected. This could be done by obtaining information to show that deficiencies were fixed and may not require another visit to the home shortly after the inspection.

Department of Health and Wellness Response: *The Department of Health and Wellness agrees with this recommendation. DHW agrees that timely follow up to serious deficiencies is important to the health and safety of residents in homes for special care. DHW has mechanisms in place to follow-up on serious deficiencies and will build on these to articulate a risk-based framework for inspections and compliance.*



Community Services conducts inspections in an efficient, consistent and timely manner

- 1.39 *Inspection process* – The Homes for Special Care Act requires homes, other than nursing homes, be inspected at least once a year. The Department of Community Services’ policy is to conduct annual licensing inspections at each home followed by a second monitoring inspection, generally four to six months after the annual inspection. Inspectors schedule the annual inspections with the homes; monitoring inspections are unannounced.
- 1.40 To record inspection information, Community Services inspectors use electronic checklists linked to Community Services’ information system. When an inspector selects “no” for an item on the checklist, the system automatically records it as a deficiency in an inspection report. At the end of an inspection, the inspector prints the inspection report. The report is signed and dated by the inspector and the home administrator. Once the annual inspection is completed, the information system automatically schedules a monitoring visit, four to six months later, in the inspector’s calendar.
- 1.41 We selected a sample of 50 Community Services files for inspections that occurred between April 2014 and March 2015. We examined the files to determine if the required number of inspections were carried out and health and safety requirements at the homes were met. We found all annual inspections were completed on time and all monitoring inspections were completed within four to six months afterwards. All inspection reports were in the inspection files and were signed by both the inspector and home administrator. The electronic checklist was properly completed for all inspections. Inspectors identified 75 deficiencies and all reports contained clear direction on what the homes needed to do to correct them.

► **Community Services has established clear follow-up and enforcement processes**

- 1.42 *Follow-up* – At Community Services, if an inspection report contains deficiencies, the information system will automatically schedule a follow-up visit 30 days after the inspection. The inspector is required to visit the home again or review written documents submitted to confirm that deficiencies were corrected. If deficiencies are not addressed, then the inspector gives the home another 30 days to correct. The inspector also sends a warning letter indicating that the home may be put on a probationary license. If, after the first 30 days, the inspector determines the work needed to correct a deficiency will take longer than 30 days, the inspector works with the home to develop an action plan with compliance dates for each deficiency. After the second 30-day period or the date indicated in the action plan, the inspector and Community Services management visit the home. If deficiencies are still not corrected, the Department’s process is to issue a one-month probationary license. Community Services staff are to visit the home again by the end



of the one-month license period. If the deficiencies are still not corrected, Community Services is to begin the process to suspend or revoke the license.

- 1.43 We tracked the 75 deficiencies identified in the sample of inspections we tested to determine if deficiencies were corrected within the required time. We found deficiencies were suitably addressed, as noted below.
- Forty-nine deficiencies were corrected within the first 30-day period.
 - Nine deficiencies were granted extensions as the facilities were waiting for fire marshal inspections. The inspections were completed within the extension period.
 - Ten deficiencies were corrected within the second 30-day period.
 - Seven deficiencies required action plans and were corrected by the date indicated in the action plans.
 - There were no probationary licenses issued and no licenses were suspended or revoked.
- 1.44 *Complaints process* – Both Health and Wellness and Community Services address resident safety concerns at the homes for special care through the protection of persons in care program. This was outside the scope of our audit. We looked at this program at both Departments in 2011. At that time, protection of persons in care investigations were well-documented and timely.
- 1.45 During this audit, we looked at whether each Department had its own processes for licensing complaints which would not go through the protection of persons in care program (those which are not specific resident safety concerns).
- 1.46 Health and Wellness does not have written guidance for staff following up on licensing complaints, such as cleanliness or other concerns not directly related to the residents. When we completed our audit, Health and Wellness was developing a licensing complaint policy but it was not final.
- 1.47 During our audit period of April 2014 to March 2015, Department management told us there were seven licensing complaints. We did not note any complaints during our file testing that were not included in the list provided by staff. We tested the seven complaints and determined that each complaint was addressed in an appropriate and timely manner.
- 1.48 Community Services has documented guidance related to licensing complaints. These complaint guidelines were implemented in April 2015.
- 1.49 During our audit period of April 2014 to March 2015, Community Services received a total of 10 complaints. We did not note any complaints during



file testing that were not included in the list provided by Community Services. We tested five of the complaints and determined that each complaint was addressed in an appropriate and timely manner, similar to the process outlined in the April 2015 guidelines.

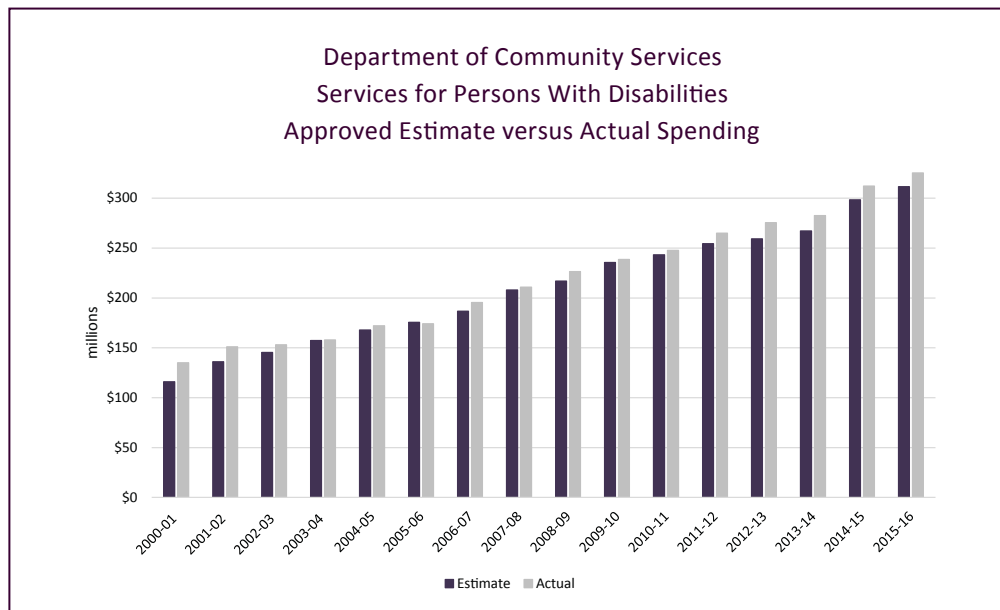
Long-term Funding of Homes for Special Care

Conclusions and summary of observations

Neither the Department of Health and Wellness nor the Department of Community Services are monitoring and evaluating the long-term sustainability of funding for homes for special care. Both departments have identified the need to determine how they will meet financial demands going forward. The Department of Health and Wellness began developing a model in fall 2015 to help it determine future demand for homes for special care. The Department of Community Services started a program redesign project in fall 2013 which is scheduled to address this topic, beginning in 2017. Without further work to determine future demand for homes for special care, the departments cannot adequately conclude whether the programs currently offered will be sustainable into the future and plan for necessary changes.

► **Community Services and Health and Wellness are not evaluating long-term funding on a regular basis**

- 1.50 *Monitoring future sustainability* – While both Health and Wellness and Community Services have identified the need to plan for future sustainability of services provided through homes for special care, neither department has a process for monitoring and evaluating long-term sustainability. For example, neither department has completed a population analysis to assess future program demand. Health and Wellness' June 2015 evaluation of its 2006 continuing care strategy produced several recommendations concerning long term care sustainability, including developing client profiles and future demand forecasts. In fall 2015, Health and Wellness began developing a future demand forecast model. While there is no end date for the project, Health and Wellness is collecting the information to develop its 2017 continuing care strategy.
- 1.51 The Department of Community Services completed an analysis that showed the average annual increases in spending for the disability support program, which includes homes for special care, were more than double the spending increases in its other program areas. Disability support program spending has been over budget all but 1 of the past 16 years, as shown in the chart below. Program costs are rising and the budget process does not address long-term funding sustainability. Community Services needs to understand the potential future demand in order to ensure the programs offered will be sustainable.



Source: Department of Community Services (unaudited)

- 1.52 In fall 2013, Community Services started a program redesign project, which includes homes for special care. One goal of this project is to analyze current clients and their needs to create programs which meet the needs in a sustainable way, including creating a 20-year cost projection for the redesigned programs. Once the project is complete, Community Services will need to regularly monitor and evaluate long-term sustainability.
- 1.53 Community Services has done a significant amount of planning and analysis as part of phase one of the project. It has established detailed outlines for the completion of required work to achieve program redesign and funding cost models. The Department's goal is to increase efficiency, effectiveness and sustainability of its programs. Project plans include clear deliverables, timelines, and roles and responsibilities. Community Services completed the first phase of the three-phase redesign project in June 2015, within the established timeline. Community Services is working on phase two, which includes improvements to wait list management and interim funding measures. Community Services plans to start the third phase of the project, including development of funding models, in 2017; no end date has been established.

Recommendation 1.7

The Department of Health and Wellness and the Department of Community Services should complete their planned projects related to future demand for services and establish an ongoing process for monitoring and evaluating long-term sustainability of funding for homes for special care.



Department of Community Services Response: *The Department of Community Services agrees with Recommendation 1.7 and is implementing this recommendation as part of the Disability Support Program Transformation project. The implementation is expected to be completed by September 2018.*

Department of Health and Wellness Response: *The Department of Health and Wellness agrees with this recommendation. As previously identified, the Department is currently developing a 2017 Continuing Care Strategy. Key planning activities include the development of a continuing care service demand forecasting model, the development of a long-term care capital asset plan, and better alignment of roles and responsibilities of the Department, the Nova Scotia Health Authority and long-term care service providers. Taken together, these pieces of work will form the foundation of planned sustainability work related to long-term care.*

Chapter 2: Management of Nova Scotia's Hospital System Capacity



Why we did this audit:

- Department of Health and Wellness spends around \$4 billion of Nova Scotia's total \$10 billion annual budget
- Infrastructure challenges in Nova Scotia hospitals have existed for many years
- Movement of patients in and through hospitals impacts health care costs
- Nova Scotians expect quality health care

Overall conclusions:

- The Department and the Health Authority must deliver health care more efficiently and effectively to Nova Scotians
- Health care staff often have to work around infrastructure challenges to meet patient needs

What we found in our audit:

- Historical ways of providing health care to Nova Scotians are not sustainable; changes are required.
- The health system needs to focus on providing the right care, in the right place, at the right time, to those in need.
- Type and location of health services for Nova Scotians should be determined and communicated to citizens.
- Some new programs are successful in finding new ways to care for Nova Scotians.
- Nova Scotia Health Authority has 41 hospitals, some within 30 minutes of each other; efficiency of care needs to be assessed.
- At least \$85 million is needed just to meet urgent infrastructure needs.
- Some hospitals in need of major repairs are located close to other hospitals.
- A solution to the urgent challenges with the VG site must be found soon.
- Hospital patients may experience delays moving from the emergency department to an inpatient hospital bed or at the time of discharge from hospital.



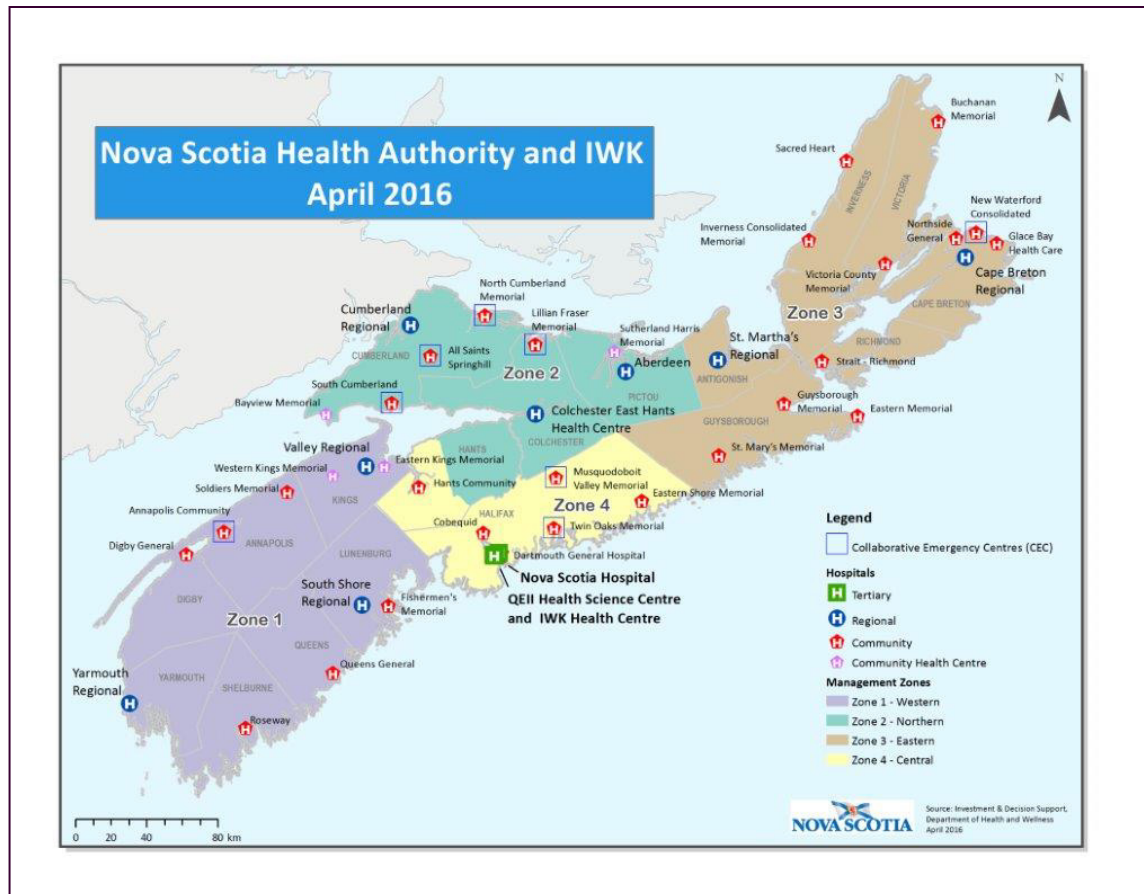
| Recommendations at a Glance | Auditee Response Page Reference |
|---|------------------------------------|
| Recommendation 2.1 The Department of Health and Wellness and the Nova Scotia Health Authority should tell Nova Scotians what they should expect from their health care system. This includes determining and communicating which services will be delivered in hospital and in other locations, and what level of service to expect in communities across the province. | 33 |
| Recommendation 2.2 The Department of Health and Wellness and the Nova Scotia Health Authority should review hospitals located close to each other to assess whether this is the most efficient and effective approach to providing health care for Nova Scotians. | 37 |
| Recommendation 2.3 The Department of Health and Wellness and the Nova Scotia Health Authority should quickly determine how services at the VG site can be effectively provided through new or existing sites by preparing a detailed plan for how and where services will be offered and communicating this to Nova Scotians. | 38 |
| Recommendation 2.4 The Department of Health and Wellness and the Nova Scotia Health Authority should work with their partner agencies or departments to determine the most effective and efficient means to provide care to mental health patients and adult protection clients. | 43 |

* *Both Health and Wellness and the Health Authority agreed to implement all recommendations.*

2 Management of Nova Scotia's Hospital System Capacity

Background

- 2.1 The Department of Health and Wellness provides leadership, strategic direction, and sets standards for the health system, as well as funding the delivery of health services.
- 2.2 The Nova Scotia Health Authority was established on April 1, 2015 through a merger of the previous nine district health authorities. The new Health Authority is responsible for governing, managing, and providing health services, as well as engaging citizens in the health care system.
- 2.3 There are four management zones in the province, each with local leadership teams reporting to Health Authority executive management. Each zone includes a number of community health boards responsible for communicating with the local community to help deal with local concerns.
- 2.4 The Nova Scotia Health Authority is responsible for 41 hospitals and health care centres, serving Nova Scotia's population of approximately 921,000 people. The map on the following page shows the location of hospitals and Health Authority management zones. There are:
 - nine regional hospitals;
 - QEII Health Sciences Centre – provides specialized services for Atlantic Canada; and
 - 31 other facilities, including collaborative emergency centres.
- 2.5 The IWK Health Centre is a separate entity which does not fall under the Nova Scotia Health Authority.



- 2.6 The Department's 2015-16 budget was \$4 billion; \$1.5 billion (38%) relates to funding the Nova Scotia Health Authority. In 2014-15, Health and Wellness' budget was \$4 billion; \$1.5 billion (38%) was for funding the nine district health authorities.

Audit Objectives and Scope

- 2.7 In spring 2016, we completed a performance audit at the Department of Health and Wellness and the Nova Scotia Health Authority. The IWK Health Centre was not included in our audit. The purpose of the audit was to determine if the Department and the Health Authority have adequate processes to ensure the Province's hospital system capacity is managed in a manner that promotes efficiency and effectiveness. We conducted the audit in accordance with sections 18 and 21 of the Auditor General Act and auditing standards of the Chartered Professional Accountants of Canada.
- 2.8 The objectives of the audit were to assess whether processes at the Department of Health and Wellness and the Nova Scotia Health Authority were adequate to:



- oversee the location, usage and operations of emergency departments across the province;
 - manage and regularly review the location, usage, and operation of emergency departments across the province; and
 - manage patient flow and reduce wait times and/or the number of beds required across the system.
- 2.9 Certain audit criteria were adapted from Accreditation Canada's *Standards for Public Health Services* (Qmentum Program 2010). Additional criteria were developed specifically for this engagement by our Office. The criteria were discussed with, and accepted as appropriate by, senior management at Health and Wellness and the Health Authority.
- 2.10 Our audit approach consisted of visiting 19 hospitals throughout the four management zones. We selected the QEII, each of the nine regional hospitals, and one community hospital supporting each regional hospital. We received a tour of each facility and spoke with personnel about the infrastructure. These personnel were often responsible for infrastructure in additional facilities in the area, so we also obtained information on those other facilities. We conducted interviews regarding movement of patients through the hospital, including detailed discussions on emergency departments. We also conducted interviews with senior management and supporting staff at both the Department and the Health Authority. We examined supporting documentation and data as applicable. Our audit period covered April 1, 2013 to September 30, 2015. We examined documentation outside of that period as necessary.
- 2.11 We visited the following 19 hospitals.

| Central Management Zone | Eastern Management Zone |
|------------------------------|----------------------------|
| Dartmouth General | Cape Breton Regional |
| Musquodoboit Valley Memorial | New Waterford Consolidated |
| QEII Health Sciences Centre | St. Martha's Regional |
| | St. Mary's Memorial |

| Northern Management Zone | Western Management Zone |
|--|-------------------------|
| Aberdeen Regional | Fishermen's Memorial |
| Colchester East Hants Health Centre | Roseway |
| Cumberland Regional Health Care Centre | Soldiers' Memorial |
| Lillian Fraser Memorial | South Shore Regional |
| South Cumberland Community Care Centre | Valley Regional |
| Sutherland Harris Memorial | Yarmouth Regional |



Significant Audit Observations

Hospital System Sustainability

Conclusions and summary of observations

The historical approach to health care delivery, with a heavy focus on hospital-based care is not sustainable given the Province's fiscal situation. Costs and demand for services continue to increase. Some changes have already occurred, including the use of collaborative emergency centres and programs such as Home First, but more work is required to create a system that can continue to provide health care to Nova Scotians into the future. As changes take place, full and clear engagement and communication will be necessary to help ensure all stakeholders understand what is happening and why it is necessary.

► **Change is required in delivery of health services; historical approaches are not sustainable**

- 2.12 *Change is needed* – Our audit found change is needed and identified examples in which previous changes have led to successes. A new approach, with less emphasis on hospitals and more focus on providing the right type of care in the right location, is required.
- 2.13 Nova Scotians want timely access to the health services they require. The Department, along with the Health Authority, are responsible for defining what services can be expected, in which locations, and how quickly people can expect to receive them.
- 2.14 Health services planning is something that has been started a number of times in the past 20 years. It is important that health system leadership ensure planning is completed in a timely manner and results in new approaches and specific outcomes to help guide the system in a new and sustainable direction.
- 2.15 *Clear and timely communication* – It is important the Department and the Health Authority ensure complete and clear communication occurs as stakeholders, including the public, need to understand how and why changes will be implemented, what services will be available, and the timeframes within which they can expect to receive those services. A willingness to implement and accept change in health care, by both health care providers and the public, will allow challenges within the health system to be better addressed now and into the future.
- 2.16 Much of health care delivery in Nova Scotia has traditionally been provided through treatment and care in hospitals. The Province's hospital infrastructure – buildings, equipment, and parking lots – is aging, and



funding is not sufficient for repair and replacement needs. Those working in health care may do so in a difficult environment, which may create challenges to providing high quality patient care.

- 2.17 Some services are still provided in hospitals when they could be provided in other settings, such as outpatient clinics. Many patients face difficulty or delay in receiving the care they require. Others spend extended time in hospital beds when more appropriate care may be better provided elsewhere, often at a lower cost. Together, these issues indicate the current approach is no longer good enough and a new approach is needed.

► **New methods of service delivery are having success in caring for patients**

- 2.18 *Collaborative emergency centres* – Changes are already occurring and collaborative emergency centres are an example. These centres provide a model of care that incorporates access to emergency care and primary care in the same setting. The Department of Health and Wellness hired a consultant to review this model. The resulting report found the new model has been successful in rural communities, providing more predictable access to services, while reducing unexpected emergency department closures. This is consistent with what hospital staff and management told us during our audit.
- 2.19 Predictable access to care is significant to patients, particularly in communities where it may be difficult to recruit doctors and other health care providers. Low numbers of doctors can lead to emergency department closures. In areas where the collaborative emergency centre model has been implemented, the frequency of unexpected closures has been reduced, meaning residents have more predictable access to emergency health care.
- 2.20 This model has also provided better access to primary care as the doctor and other health care providers function as a primary health care team. This is important as multiple facilities we visited indicated recruitment and scheduling is an ongoing challenge. Traditional primary care with all residents having a family doctor may not be feasible moving forward and alternatives such as collaborative centres will become more necessary.
- 2.21 *Home First program* – Patients remaining in hospital once they are medically ready to be discharged can be a significant issue for appropriate patient movement in a hospital. This can happen if there is a lack of necessary home supports in the community. The Home First program considers many ways to get patients home, with appropriate supports, rather than remaining in hospital or being admitted to a long term care facility.
- 2.22 While this program has been implemented province-wide, we noted particular success in this area at Colchester East Hants Health Centre. Management



provided reports showing the percentage of long term care referrals coming from hospitals is going down, meaning more people are able to stay in their homes until they require long term care. While we did not audit these reports, the trend shows that Colchester East Hants Health Centre's efforts have had a positive result.

| Colchester East Hants Health Centre – Long Term Care Referrals | | | |
|--|------------|------------|------------|
| Placement From | 2015-16 | 2014-15 | 2013-14 |
| Community | 103 (84%) | 111 (75%) | 100 (72%) |
| Hospital | 19 (16%) | 37 (25%) | 38 (28%) |
| Total | 122 | 148 | 138 |

2.23 Colchester staff told us the success can be linked to shifting the culture of health care professionals, along with patients and their families, allowing them to recognize and accept all possible home care options, rather than staying in the hospital. They indicated the following helped lead to the improvement:

- management support;
- different groups working together within the facility;
- involving doctors;
- discussing barriers to discharging patients back home during rounds;
- a mobility enhancement program; and
- establishing a team to help patients transition from hospital to home.

2.24 *Care by Design* – Emergency department personnel told us nursing home patients in need of medical care are often transferred via ambulance, regardless of whether the situation is an emergency or not. This is not an effective use of resources.

2.25 The central zone has implemented a program called *Care by Design*. It regularly schedules health care team visits to nursing homes. The team includes physicians, nurses, and paramedics to provide coordinated care. Central zone hospital staff told us that, in some instances, the program allowed for a 30 to 40 percent reduction in patient transfers from nursing homes to emergency departments. This is a good example of making changes that result in a more effective use of health services.



Recommendation 2.1

The Department of Health and Wellness and the Nova Scotia Health Authority should tell Nova Scotians what they should expect from their health care system. This includes determining and communicating which services will be delivered in hospital and in other locations, and what level of service to expect in communities across the province.

Department of Health and Wellness Response: *DHW agrees with this recommendation and intends to implement. This process will include engaging communities and a variety of stakeholders to get input into their health needs to better develop systems and services of quality, sustainable, patient-centered care to best meet the needs of our citizens and communities. This engagement will take a variety of forms (including public consultations, retrieving information through electronic means, posting updates on websites) to better inform planning for health services. NSHA and the IWK will lead the engagement work supported by the DHW.*

Nova Scotia Health Authority Response: *Nova Scotia Health Authority agrees with this recommendation and intends to implement. The amalgamation of nine former district health authorities has created the foundation on which to plan provincially based on population needs while taking into consideration best practices, standards of service delivery and the context of local communities. Engagement of Nova Scotians is a key priority in this work.*

Infrastructure

Conclusions and summary of observations

Annual capital funding through the Department of Health and Wellness and the Nova Scotia Health Authority is not enough to complete urgent repairs on hospitals throughout the province. Staff indicated some hospitals are generally in good shape, although more attention to maintenance is required. Other hospitals need significant repair or replacement; in some situations, there are other hospitals which are below capacity close to these facilities. The Health Authority needs to create a plan that addresses location, usage, and operation of emergency departments, hospitals, and other health services to ensure efficient use of limited resources.



Funding has not met the infrastructure needs of all hospitals in the province

2.26 The examples in this section are based on what management told us during our visits to hospitals. It is not meant to be a complete list of issues in the facilities we visited; there may also be other significant issues in the hospitals we did not visit. It is also important to note that while management acknowledges these deficiencies exist, we are not commenting on whether they must be corrected immediately or whether they are the highest priority



items. Instead, as noted in the recommendations in this chapter, the system should be reviewed and decisions made on infrastructure needs and overall service delivery models considering the best interests of the entire province.

2.27 *Condition of facilities* – The Nova Scotia Health Authority has 41 hospitals and health care centres, some of which consist of multiple buildings, including many older buildings. Staff at six facilities had specific concerns about some of their buildings. Management at 13 facilities told us the buildings were generally in good shape, but preventative maintenance is needed as infrastructure continues to age. Building and maintenance staff are working with the resources available to retrofit older systems and patch problems as needed. However, if preventative projects are not adequately funded, the cost of needed maintenance may continue to grow and there could be more significant issues in the future. Examples of the more significant concerns noted around preventative maintenance include the following.

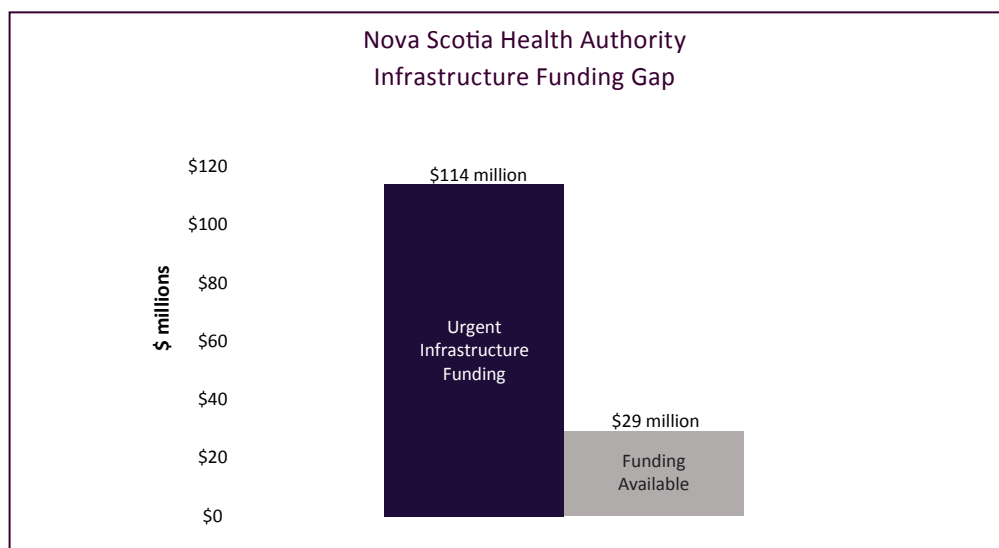
- Elevators at the South Shore Regional Hospital need work which has not been completed because elevators are required on a daily basis and there are not enough backups.
- South Shore Regional and Dartmouth General hospitals have electrical systems which cannot be serviced without shutting off electricity to the hospital.
- Dartmouth General had a leaky roof which caused damage to a newly-renovated space on the floor below. Additional work is still needed to prevent further leaks.

2.28 Completing maintenance and upgrades on hospital buildings poses unique challenges as facilities operate 24/7. Facilities management staff also noted the need to consider infection prevention and control, and patient safety matters, as well as negative impact on patient access which can result from temporarily closing a unit or service in a facility that is operating at capacity. Management told us these issues represent 20 to 30 percent of project costs. This is an example of how offering services in a hospital setting can be more costly than doing so elsewhere in the community.

2.29 Some of the more concerning issues facilities management identified were as follows.

- Brick work on Cape Breton Regional is coming loose due to mortar deterioration requiring steel beams be added to hold the bricks in place.
- New Waterford Consolidated and North Cumberland Memorial do not have sprinkler systems.
- A new automated lab installed at the VG site of the QEII is in a building with a risk of leaks from old pipes.

- 2.30 *Infrastructure funding* – Building and equipment projects are cost shared between the Department and the Health Authority; funding is allocated on a risk basis. Available funding is nowhere near enough to complete needed infrastructure repairs and maintenance. The following graph illustrates how large this gap is.



Source: Nova Scotia Health Authority (unaudited)

- 2.31 Health Authority management told us that 2015-16 urgent infrastructure requirements are approximately \$114 million, excluding day-to-day building maintenance and management needs. Available funding is roughly \$29 million for all infrastructure needs. The shortfall in funding for urgent infrastructure needs alone, without considering day-to-day needs, is \$85 million. When urgent infrastructure maintenance cannot be completed, infrastructure will continue to deteriorate.

► **Some hospitals needing major repairs are located very close to other hospitals**

- 2.32 *Proximity of facilities* – Through our discussions with hospital staff, a number of facilities were identified which are less than a 30-minute drive apart. In some instances, at least one of those facilities is in need of significant work – either replacement or major renovation. The large funding gap discussed above makes it clear that Nova Scotia's health system cannot reasonably sustain all of its current facilities. Those which are close together should be reviewed to determine the most efficient use of limited resources. The Department of Health and Wellness and the Health Authority need to work together with hospital management to determine whether certain services could be provided through alternative means, either in the community or at nearby hospitals.

- 2.33 The following are a few examples we were made aware of during our audit. We did not visit all facilities in the province, and there may be similar



situations that the Department and the Health Authority should address as well.

- 2.34 Staff told us that North Cumberland Memorial Hospital, constructed in the 1960s, has been identified as needing major infrastructure investment for almost a decade. Very few maintenance projects were approved for this facility during that time. The existing building is in very poor condition.
- 2.35 North Cumberland Memorial Hospital has four beds and, based on reports provided to our Office, it is operating with an average of two patients. This facility is located about 40 minutes from Cumberland Regional Health Care Centre and 30 minutes from Lillian Fraser Memorial Hospital, a 10-bed community hospital. According to Health Authority reports, both of these facilities have had occupancy rates at or below 80 percent for most of the last four years. It appears patients from North Cumberland Memorial could be admitted to either of the two nearby facilities if required.
- 2.36 There are three community hospitals – Northside General, New Waterford Consolidated, and Glace Bay – within 30 minutes of the Cape Breton Regional Hospital in Sydney. The data provided to us by hospital management indicates these four facilities experience occupancy rates ranging from 81 to 106 percent. Significant repairs are needed to three of the four facilities.
- 2.37 Staff noted that Northside General Hospital, the oldest of these three community facilities, does not have adequate heating and ventilation systems, and many other significant repairs are required. We were also told that New Waterford Consolidated, the second-oldest facility, requires electrical upgrades, a sprinkler system, and conversion of the 40-year-old boiler plant. A master renovation plan was completed for New Waterford Consolidated Hospital in 2013, with estimates ranging from \$9.5 to \$13 million. Staff also told us there are significant issues with the exterior brick work and heating system at the Cape Breton Regional Hospital.
- 2.38 Fishermen's Memorial Hospital is located 20 minutes from South Shore Regional Hospital. These two facilities work in partnership to provide different services to fit the needs of the community. Fishermen's Memorial Hospital is a community hospital that provides palliative care, addiction services, restorative care, a veterans unit, and care for patients waiting for long term care beds. South Shore Regional Hospital staff indicated there are issues with the size of their emergency department and they experience a high number of patients waiting for long term care. Management at both sites told us that the services offered at the community hospital take pressure off of the regional site.
- 2.39 While this appears to be a good example of finding different ways to use facilities that exist in close proximity to each other, many of the services



offered at Fishermen's Memorial could be offered appropriately, and more cost effectively, outside of a hospital facility. The costs of operating a hospital are greater than offering similar services elsewhere in the community. If the costs of maintaining Fishermen's Memorial increase, the Health Authority may face additional financial pressure and may require a new approach.

- 2.40 Given the maintenance needs, poor condition of certain facilities, varying occupancy rates, and proximity to other facilities, the Health Authority needs to assess the needs of all communities and the province as a whole, before it commits to replacing or significantly repairing any facility.

Recommendation 2.2

The Department of Health and Wellness and the Nova Scotia Health Authority should review hospitals located close to each other to assess whether this is the most efficient and effective approach to providing health care for Nova Scotians.

Department of Health and Wellness Response: *DHW agrees with this recommendation and intends to implement. As part of planning for health services, this review will include looking at the types of services in different facilities and looking at the needs of our population. The Department's role in this work will be in line with our legislated mandate for setting strategic direction, policy and standards, and ensuring accountability for funding through measuring and monitoring system performance. Assessment of proposals for significant infrastructure funding will include reviewing issues of access, patient safety and quality, and cost effectiveness.*

Nova Scotia Health Authority Response: *Nova Scotia Health Authority agrees with this recommendation and intends to implement. As we focus on the needs of the population, our work with communities will include how to ensure access to the range of services that help Nova Scotians be healthy and stay healthy and how we make best use of all our resources.*

► There are significant issues with the Victoria General site that need to be addressed

- 2.41 *Victoria General site* –The QEII is made up of 10 buildings located on two sites in Halifax. The age and condition of the buildings vary, with some having serious issues. Facility staff told us that a 2008 facility condition report recommended four buildings be replaced. Direct patient care is provided in two of these buildings – the Victoria building (built in 1948) and the Centennial building (built in 1967). Facility staff told us there are concerns with exterior cladding, heating and ventilation, plumbing, and electrical in both buildings. Serious issues with the Victoria and Centennial buildings, such as floods, legionella bacteria, and heating concerns, are well known in Nova Scotia.



- 2.42 The QEII is a tertiary care facility serving patients from across Atlantic Canada. In this role, the QEII treats some of the most vulnerable and sickest patients in the Atlantic region. Cancer care and organ transplant patients are treated in the Victoria building. Housing these patients in buildings with severe maintenance issues may cause challenges in providing health care.
- 2.43 Department management told us that planning for the VG project is well underway and they have started assessing which services could be offered in different settings; for example, having outpatient clinics outside of a hospital setting. Construction work has already begun at the Dartmouth General Hospital, with part of this work ultimately intended to allow the Health Authority to increase the number of beds and operating rooms in that facility so that more patients can be seen there in the future. Department management told us that the intent is to have services in appropriate locations and build a smaller, new facility. This project needs to be completed in a timely manner to ensure patients are receiving an appropriate standard of care.
- 2.44 While we acknowledge planning is underway, it is critical for the health of Nova Scotians that the Department and the Health Authority find a way to move this project forward quickly. Each subsequent flood or other infrastructure failure further erodes public confidence in the Province's health system and adds additional stress for staff and patients. If too much time goes by before a plan is completed and implemented, these facilities may not be fit for use before the services there are available elsewhere, either in existing facilities or in a new facility.

Recommendation 2.3

The Department of Health and Wellness and the Nova Scotia Health Authority should quickly determine how services at the VG site can be effectively provided through new or existing sites by preparing a detailed plan for how and where services will be offered and communicating this to Nova Scotians.

Department of Health and Wellness Response: *DHW agrees with this recommendation and intends to implement. A plan with details and timelines was shared with Nova Scotians on April 21st. Planning will continue to be shared, as details are developed, through a variety of mechanisms including: <http://qe2redevelopment.ca/> ; a Facebook site, as well as stakeholder and public engagements over the next few years.*

Nova Scotia Health Authority Response: *Nova Scotia Health Authority agrees with this recommendation and is in the process of implementing. Since the time of the audit, NSHA and government have released a multi-faceted and phased strategy to move services out of the VG site into new or existing sites. This initiative will see services relocated to the most clinically-appropriate locations while fully leveraging the existing infrastructure Nova Scotians have already invested in.*



The strategy includes the co-location of the most complex and specialized services at the Halifax Infirmary site of the QEII Health Sciences Centre. Operating room capacity will be moved from the VG site to the Halifax Infirmary, Dartmouth General and Hants County hospitals. Outpatient services will be moved to the Halifax Infirmary site and to the community as appropriate, while most outpatient cancer services will be consolidated at the Dickson building site. Some of this work is already underway.

► **Many emergency departments have few patients during overnight hours**

2.45 There are 37 emergency departments and collaborative emergency centres in Nova Scotia (excluding the IWK Health Centre). Tertiary and regional facility emergency departments are always open; community hospital emergency departments may experience closures.

2.46 *Lack of collaborative emergency centre usage at night* – It is important facilities are only operating when necessary to ensure effective use of resources. Health Authority management told us one of the requirements for establishing a collaborative emergency centre was that some level of service be made available 24/7. The following chart reports information from an external provincial review conducted in 2014 which determined many collaborative emergency centres were not experiencing significant numbers of patients at night.

| Site | Average Number of Patients/Night per Quarter |
|----------------------|--|
| Annapolis | Less than 1 patient per night |
| Musquodoboit Harbour | One patient per night |
| North Cumberland | Less than 1 patient per night |
| Parrsboro | Less than 1 patient per night |
| Springhill | Less than two patients per night |
| Tatamagouche | One patient per night |

Source – Care Right Now Evaluating the CEC experience in Nova Scotia – Report prepared by Stylus Consulting for the Department of Health and Wellness

2.47 The 2014 review also found that up to 44% of the time, there were no patients using the collaborative emergency centre services at night. While some of these facilities are not close enough to any others to meet the provincial standard requiring 95 percent of the population be within one hour of an emergency department, some are near other facilities and the provision of overnight service may not be required to meet the provincial standard.

2.48 New Waterford was not included in the provincial review because it had been operating for less than a year. However, facility management told us that despite averaging less than one patient per night, they are required to offer night time service. Management told us the resources used for this could



be more effectively utilized across the entire Sydney area. This continued underutilization reduces the opportunity for personnel to practice their skills, and results in money spent to offer a service that is not in demand. This is a poor use of resources.

- 2.49 With high infrastructure costs, and limited resources in the province, it is important the Health Authority consider the location, usage, and operation of emergency departments, collaborative emergency centres, and hospitals, to utilize its resources in a manner that adds the highest value. This should be addressed through health services planning.

How Patients Move through a Hospital

Conclusions and summary of observations

The Nova Scotia Health Authority is not adequately addressing issues that slow patient movement within hospitals and cause emergency department crowding along with longer emergency department waits for many patients. Admitted patients often remain in the emergency department because beds on hospital units are occupied. These patients may no longer require hospital care, but remain in hospital due to limited resources in the community. We also found the inability to access appropriate mental health services has a significant impact on patient movement through emergency departments and hospitals. Limited access to appropriate primary care can be an issue that also contributes to nonemergent patients seeking care at the emergency department, contributing to crowding. We recommended Health and Wellness and Nova Scotia Health Authority implement a system-wide plan to define the level of health services that will be available to Nova Scotians.

- 2.50 *The right care, in the right place, at the right time* – In speaking with health care professionals throughout the province, they often noted how important it is for patients to receive the right care, at the right place, and at the right time. This allows for the most efficient and effective use of resources, should reduce wait times, and provides a better experience for both the patient and the health care provider. When this does not happen, it can result in significant issues throughout the system, some of which are visible in crowded emergency departments. Medical personnel emphasized to us that bigger hospitals with more beds are not the solution. Timely access to treatment and expertise are the most important factor for patients.
- 2.51 The emergency department is meant to quickly assess and manage patients with unknown problems, patients with a pre-existing illness that is getting worse, or patients with an injury requiring emergency care. The most appropriate type of patient for the emergency department is one who is very



ill and requires treatment for a short period. This may require admitting to a hospital bed, although the intent should be to discharge patients as soon as they are medically ready.

► **Overcrowding in the emergency department often results from issues elsewhere**

2.52 *Emergency department crowding* – Crowding is an indicator of larger issues which occur outside of the emergency department, and sometimes outside of the hospital altogether. Many medical professionals we spoke to commented that issues such as lack of access to family doctors and an inability to move patients quickly from the emergency room to inpatient beds needs to be addressed on a system-wide basis. This is important to understand when considering patient movement and emergency department crowding.

2.53 Hospital management identified three key causes that result in emergency department crowding.

- Admitted patients remaining in the emergency department due to patients occupying hospital beds who no longer need hospital care.
- Patients seeking medical care at the emergency department who do not have a medical emergency.
- Patients waiting in the emergency department for further diagnostic services such as lab or other tests.

2.54 When someone visits the emergency department and the attending physician decides that person needs to be admitted to hospital, there may not be an inpatient bed available. In many hospitals, the patient remains in the emergency department until a bed is available on a unit. Spending longer periods in the emergency department is not ideal for the patient.

2.55 *Alternate level of care patients* – Hospital staff told us the lack of available beds is often related to patients requiring alternate levels of care. These patients typically remain in a hospital bed due to a lack of supports in the community, or at home, or because they are waiting for a bed to become available in a long term care facility. A hospital is not the most appropriate place for these patients to receive care, nor is this the most efficient use of resources for the health system. Hospital beds are meant for patients who require care for a short period, until they are healthy, stable, and able to be discharged. When patients requiring other levels of care occupy hospital beds, they do not receive the right care, in the right place, at the right time, nor do the patients remaining in the emergency department while they wait for a hospital bed.

2.56 Additionally, the cost of health care provided in a hospital is much higher than in a long term care facility. Figures obtained from the Canadian



Institute of Health Information's website show an average cost of just over \$1,300 per day for a hospital stay in Nova Scotia, while Health and Wellness figures show the average cost per day of a long term care facility is around \$250. This does not consider the potential lower costs for patients who could receive home care rather than being admitted to a hospital or long term care facility.

- 2.57 Staff at many facilities expressed concern about the number of alternate level of care patients occupying hospital beds, potentially resulting in admitted patients remaining in the emergency department. These patients were receiving care in a hospital when the care they required might have been better provided at home or in a long term care facility. This may reduce access to hospital beds for those patients who do require a hospital stay. This issue should be addressed by the Health Authority through health services planning.
- 2.58 *Nonemergent patients at the emergency department* – There are many instances when patients seek medical attention at the emergency department for care that could be provided in a primary care setting, such as by a family doctor. Frequent examples of why individuals arrive at the emergency department seeking nonemergent care are:
- patients not having a primary care physician or not being able to get an appointment with their doctor for the same or next day; or
 - patients viewing the emergency department as an outpatient department which they can use to replace seeing a family doctor for more routine concerns.
- 2.59 *Primary care access* – Management in many facilities we visited told us non-emergent patients are seeking care in the emergency department due to limited access to a primary care physician. This was more of an issue for hospitals outside of city centres, where personnel noted there can be fewer general practitioners. These patients are not a primary contributor to backlog in the emergency department, although they do result in crowding throughout the waiting and treatment areas, and highlight a possible resource gap within the health care system. The establishment of collaborative emergency centres is helping to address this, but primary care access remains an issue in areas of the province.
- 2.60 *The public's perception* – Many hospital personnel told us that some members of the general public view the emergency department as an outpatient clinic. They told us this has resulted in patients seeking care without attempting to see their family physician first, or without considering the seriousness of their medical issue. Some patients expect to see a physician quickly, even if their issue is not urgent. This is not practical in many situations, as the



emergency department prioritizes patients based on urgency. When possible, it is ideal for non-urgent patients to see their family doctor first, assuming they have one. This will assist medical professionals in providing patients with the right care, in the right place, at the right time.

2.61 *Access to services in hospital* – When patients are seen by a physician in the emergency department, further assessments may be required prior to leaving the hospital. This may consist of lab or other diagnostic tests, or seeing a specialist for a second opinion. The availability of equipment or personnel can have a significant impact on a patient's length of stay. This is true for inpatients as well, as they may require additional testing or therapy before they are discharged. Diagnostic imaging, laboratory, occupational and physical therapy were all noted as services that can slow patient movement, as well as increase length of stay. We recognize that offering all services in all locations is not feasible and may not be appropriate, so this issue will continue to have an impact. The expectations for these services should be clearly defined so Nova Scotians understand what can be expected. Recommendation 2.1 (noted earlier in the report) addresses this issue.

2.62 *Other matters* – Management and staff at many of the hospitals we visited expressed concerns regarding patients in need of mental health services and adult protection clients (may be clients of Health and Wellness or Community Services) who come to emergency departments. In some situations, these patients and clients may need medical assessment in emergency but, ultimately, care may be better offered outside of a hospital. Unfortunately, we were told some of these patients may experience extended stays in the emergency department while waiting for more appropriate care options to be found. This exposes the patient to an environment in which the lights are always on, while machines, equipment, and people create a lot of noise. This can be an unsettling environment for the patient and add to the existing trauma. Since these individuals may receive services from other entities, such as Community Services, it is important that Health and Wellness and the Health Authority engage those partners in determining the most appropriate care options.

Recommendation 2.4

The Department of Health and Wellness and the Nova Scotia Health Authority should work with their partner agencies or departments to determine the most effective and efficient means to provide care to mental health patients and adult protection clients.

Department of Health and Wellness Response: *DHW agrees with, and intends to implement, the recommendation that NSHA and DHW should work with partners such as the Department of Community Services regarding adult protection (AP) clients' and mental health patients' access to appropriate care. DHW supports all*



of these clients/patients accessing timely, appropriate placement which supports their needs in an appropriate setting. DHW, IWK, NSHA and DCS have been in collaboration as part of the Health System Alignment Advisory Group tasked to make recommendations to the Deputy Minister of Health and Wellness and the Deputy Minister of Community Services regarding a Collaborative Complex Needs Case Management Protocol.

Nova Scotia Health Authority Response: *Nova Scotia Health Authority agrees with this recommendation and has a number of initiatives underway to improve our ability to deliver the appropriate care at the appropriate time by the appropriate care provider. We intend to continue to build on these efforts. This includes working with partner agencies to increase availability of community-based supports and improving access to family physicians and other primary care providers. Another example is our efforts to work with the Department of Community Services to improve access to safe, affordable, supported housing in the community for mental health clients.*



Department of Health and Wellness: Additional Comments

The health system in Nova Scotia has been undergoing significant change over the past two years. Beginning with the consolidation of nine health authorities into the Nova Scotia Health Authority (NSHA) in 2015-16 and continuing with the redesign of the Department of Health and Wellness in 2016-17. These changes position the Department and the health authorities (NSHA and IWK) to improve the health outcomes of Nova Scotians, improve patient care and reduce system costs. As this audit demonstrates, one of the ways to make these needed changes in our system is for the Department to support the health authorities to plan services provincially.

The audit notes a number of concerning infrastructure issues in our system. It is important that Nova Scotians know the health and safety of our patients, healthcare providers and the public is a priority for the Department and the health authorities. Where issues are known, the health authorities have mechanisms in place to ensure patients and providers are not at risk. While we plan for the future, the Department, the NSHA and the IWK will ensure that safety remains a priority.

Nova Scotia Health Authority: Additional Comments

Nova Scotia has some of the poorest health outcomes in the country, despite spending more and more on health care over many years. As a population, we aren't getting healthier. Growing demands related to the needs of our population, inflationary costs and aging buildings and equipment continue to drive up costs. We know that continuing to invest more in the same way is not the answer and that change is needed. As the single largest publicly-funded organization in the province, Nova Scotia Health Authority is committed to making the health system as effective and efficient as possible to deliver quality and safety care and service. This means rethinking how we organize and deliver health services across the province to make the best use of our financial, people and infrastructure resources to get better results.

Nova Scotia Health Authority welcomes the findings contained in the Auditor General's report. The recommendations validate the work we've been doing to plan, co-ordinate and organize our programs, services and resources as a provincial organization. In just over twelve months, we have made significant progress in putting the people, processes and structures in place to bring nine organizations together as one and are on the path to a more integrated, collaborative, efficient and effective

Chapter 3: Species at Risk: Management of Conservation and Recovery



Why we did this audit:

- With human activity causing impacts in the world, more species are likely to become at risk
- The variety of and connections between life and supporting ecosystems are key
- Preservation of habitat for species at risk is important to their survival

Overall conclusions:

- Species at risk need to be a greater priority for Natural Resources
- Department not fully managing conservation and recovery of species at risk
- Department is not carrying out planning and completing species recovery activities satisfactorily
- Some success in achieving biodiversity goals; more work needed

What we found in our audit:

- Eight of 14 plans for species at risk were not done; some plans were more than seven years late
- Four plans due for review are one to four years late. This means actions taken may not be the most effective.
- Natural Resources coordination and communication with species recovery teams needs improvement
- Department's special management practices do not cover all listed species
- Department works well with external parties to monitor species at risk
- Natural Resources does not monitor some species as planned, while others are monitored more than planned
- Plans to act on biodiversity goals are not detailed enough to clearly show what should be done, when, and expected results



| Recommendations at a Glance | Auditee Response Page Reference |
|--|------------------------------------|
| Recommendation 3.1 The Department of Natural Resources should establish recovery teams, and develop and review recovery and management plans for species at risk, as required under the Endangered Species Act. | 54 |
| Recommendation 3.2 The Department of Natural Resources should implement a process for communicating with recovery teams, including the method of communication and response time. Natural Resources management should tell teams how they plan to address the concerns teams identify or why changes will not be made. | 55 |
| Recommendation 3.3 The Department of Natural Resources should review all species listed in the Endangered Species Regulations and amend or develop appropriate practices, as guided by recovery plans, to protect their habitat. | 56 |
| Recommendation 3.4 The Department of Natural Resources should create a comprehensive monitoring program for all species at risk and ensure monitoring activities are clearly communicated and completed as planned. | 59 |
| Recommendation 3.5 The Department of Natural Resources should establish detailed action plans with measurable outcomes to implement its biodiversity strategy. Plans should specify what needs to be done, when, and expected results. | 60 |

** Natural Resources agreed to implement all recommendations*

3 Species at Risk: Management of Conservation and Recovery

Background

- 3.1 The Department of Natural Resources is responsible for the provincial Endangered Species Act. The Act provides legal protection for species listed in the Endangered Species Regulations. As of February 2016, there were 60 species at risk. Appendix 1 provides a detailed list of individual species at risk. They are classified as follows.

| Status | Endangered Species Act Definition for Listed Species | Number of Species |
|------------|---|-------------------|
| Endangered | A species that faces imminent extinction or extirpation | 28 |
| Threatened | A species that is likely to become endangered if the factors affecting its vulnerability are not reversed | 9 |
| Vulnerable | A species of special concern due to characteristics that make it particularly sensitive to human activities or natural events | 15 |
| Extirpated | A species that no longer exists in the wild in the province but exists in the wild outside the province | 3 |
| Extinct | A species that no longer exists | 5 |
| Total | | 60 |

- 3.2 The Act mandates a provincial working group which is responsible for determining the addition and status of species at risk listed in the regulations. For all endangered and threatened species, recovery teams, made up of Department representatives and external experts, are to be set up and develop recovery plans. The Minister of Natural Resources has discretion concerning whether individual species recovery plans are feasible and designating core habitats which may be identified in the plans.
- 3.3 Across Canada, legal protection of species and their habitats is a shared responsibility. Federal, provincial and territorial governments signed the National Accord for Species at Risk, an agreement to establish complementary legislation and coordinate efforts to provide protection of species at risk. The federal Species at Risk Act establishes the role of the Committee on the Status of Endangered Wildlife in Canada to assess species at risk. This is an independent national committee of scientists from inside and outside of government. In Nova Scotia, the Species at Risk Working Group is responsible for assessing and legally listing species at risk under the Endangered Species Regulations. Members of the working group also participate in the Committee.
- 3.4 *Assessing and listing species at risk* – Once the Species at Risk Working Group adds a species to the regulatory list, the Endangered Species

Regulations require the Province to provide legal protection. Listing of species is determined based on the working group's review of technical reports commissioned by the Province or prepared by the Committee on the Status of Endangered Wildlife in Canada. An overview of the species at risk listing process is provided in the diagram below.



- 3.5 A *BioScience* magazine article (by the American Institute of Biological Sciences), based on a 2006 research study on the threats to endangered species in Canada, indicated that loss of habitat is a factor in approximately 84% of species at risk. Protection of habitat goes beyond protection of endangered species individually to that of their supporting ecosystems. Species protection is impacted by other legislation and involvement of other government departments and stakeholders.
- 3.6 For example, the provincial Department of Environment is responsible for protected areas (Special Places Protection Act and Wilderness Areas Protection Act) as well as environmental assessment and other responsibilities under the Environment Act. Other legislation, regulations and policies include:
- Forests Act (Wildlife Habitat and Watercourses Protection Regulations)
 - Wildlife Act
 - Conservation Easements Act
 - Environmental Goals and Sustainable Prosperity Act (Nova Scotia Wetland Conservation Policy)
- 3.7 The Department of Natural Resources has a strategy document – *The Path We Share – A Natural Resources Strategy for Nova Scotia 2011-2020*. It highlighted that biodiversity is one of our most important natural resources. According to the World Wildlife Fund, biodiversity is the term given to the variety of life on earth within and between all species of plants, animals, and micro-organisms and the ecosystems within which they live and interact.



3.8 The Department's *The Path We Share* strategy included four biodiversity goals.

- “Good governance – *establish clear and effective leadership and governance related to biodiversity in Nova Scotia*”
- Research and knowledge sharing – *increase and share knowledge about biodiversity to help governments and interested groups make informed decisions and take responsible action*
- Ecosystem approach – *work together to maintain and restore healthy wildlife populations, ecosystems, and ecosystem processes*
- Education and shared stewardship – *engage Nova Scotians in understanding, appreciating, and taking care of the province's biodiversity”*

Audit Objectives and Scope

- 3.9 In winter 2016, we completed a performance audit at the Department of Natural Resources. We examined activities relating to the protection and recovery of species at risk and related long-term planning. The audit was conducted in accordance with sections 18 and 21 of the Auditor General Act and auditing standards of the Chartered Professional Accountants of Canada.
- 3.10 The purpose of this audit was to determine whether the Department of Natural Resources is appropriately managing the conservation and recovery of Nova Scotia's species at risk.
- 3.11 The objectives of the audit were to determine if the Department of Natural Resources:
- undertakes species at risk conservation and recovery activities consistent with relevant legislation, plans, policies, and procedures;
 - appropriately monitors the status of species at risk; and
 - effectively implements its biodiversity strategic goals in relation to species at risk.
- 3.12 Audit criteria were developed specifically for this engagement. Criteria were discussed with, and accepted as appropriate by, Department management.
- 3.13 Our audit approach included interviews with management and staff; examination of legislation, policies, and other documentation; and testing compliance with legislation, policy, and processes.



- 3.14 Our audit scope did not cover enforcement of the Endangered Species Act and the Species at Risk Conservation Fund, except where specifically considered in species recovery plans.

Significant Audit Observations

Species at Risk: Conservation, Protection and Recovery

Conclusions and summary of observations

We believe species at risk need to be a greater priority of the Department of Natural Resources. Although the Endangered Species Act outlines specific duties to conserve, protect, and recover endangered species, the Department has not met all its responsibilities.

- No recovery or management plans for five of nine endangered or threatened species. Plans are six months to more than seven years late.
- Three of five vulnerable species do not have management plans.
- No recovery teams for four of nine endangered or threatened species (listed under Endangered Species Act and solely provincial responsibility).
- Four recovery plans past due for review by one to four years.

Natural Resources' coordination with recovery teams is weak and we recommended a communication process be developed. The Department's special management practices do not cover all species at risk listed under the provincial Act. We recommended the Department amend or establish practices to protect species habitat, as guided by the recovery plans.

► The Department is not preparing or reviewing required recovery and management plans

- 3.15 *Creating plans and recovery teams* – Once a species is listed for protection, the Endangered Species Act requires a recovery or management plan be developed. For the 37 endangered or threatened species listed provincially, 28 are also a federal responsibility. For these 28 species, the Department will work jointly with the federal government, following federal requirements, to develop recovery plans. The provincial Act allows for this. For the 15 vulnerable species listed, management plans for 10 species involve joint preparation following federal requirements. The chart later in this section summarizes the number of species with sole or joint responsibility and those with recovery or management plans.



3.16 Of those species which are provincial responsibility only, Natural Resources has prepared 6 of the 14 required species recovery or management plans. Eight plans are outstanding.

- Recovery plans for five threatened or endangered species are late by six months to over seven years.
- Three vulnerable species do not have management plans. These plans were due by the end of March 2016.

3.17 For listed endangered or threatened species, the Endangered Species Act also requires recovery teams be established to assist in the development and implementation of recovery plans. The Department has not established recovery teams for four of the nine listed endangered or threatened species.

| Number of Species | | | | | |
|-------------------|---------------------|----------------------|--------------------------------|---------------------------------|----------------------------|
| Species Status | Listed Provincially | Joint Responsibility | Provincial Responsibility Only | With Recovery/ Management Plans | Recovery Teams Established |
| Endangered | 28 | 21 | 7 | 3 | 3 |
| Threatened | 9 | 7 | 2 | 1 | 2 |
| Subtotal | 37 | 28 | 9 | 4 | 5 |
| Vulnerable | 15 | 10 | 5 | 2 | none required |
| Total | 52 | 38 | 14 | 6 | 5 |

3.18 The Endangered Species Act requires developing a species recovery plan which includes:

- the needs of and threats to the species;
- options for species recovery;
- costs and benefits of the options identified;
- recommended course of action for recovery;
- a schedule to implement the recovery plan and prioritized list of recommended actions;
- the species habitat; and,
- areas to be considered for designation as core habitat.

3.19 Plans developed jointly under federal legislation have similar requirements to those under the Endangered Species Act, although timelines for completion are different.

3.20 We examined five recovery plans; four were developed jointly following federal requirements and one was developed under provincial requirements



only. We found the four joint plans generally met the provincial Endangered Species Act requirements. The one provincial plan we examined did not meet all requirements of the Act. It did not include an implementation schedule or identify areas for consideration as core habitat. As well, a 2013 plan update showed that certain actions were complete which were not. For example, a study to better understand threats to the species was shown as complete, but it was not undertaken due to funding issues. Department staff told us that other planned actions were not completed due to resource constraints. We were also told the recovery team has not met since the recovery plan update was prepared in 2013.

- 3.21 *Review of recovery and management plans* – Species recovery and management plans are supposed to be reviewed every five years. We found timelines for reviewing recovery and management plans were not met. At the time of our audit, four provincially-prepared plans were overdue for review by between one and four years. Natural Resources does not track when plans are developed or when they are due for review. This information is not readily available. Without monitoring, the Department cannot be sure that plans are reviewed when needed or that appropriate actions to protect species are undertaken in a reasonable time.
- 3.22 Establishing clear plans with timelines is important to help guide staff efforts. As discussed above, some recovery plans are from six months to seven years late and reviews are overdue by one to four years. It is not reasonable that the Department is taking this long beyond the required time to develop and review species at risk plans. We are concerned that the Department is not fulfilling its responsibilities for establishing recovery teams and preparing and reviewing recovery or management plans, as the Endangered Species Act requires. When plans are not developed or are late, species may decline more than they would if recovery plans were in place. The Department's recovery efforts may be less effective or not undertaken at all if not coordinated within an overall, timely plan.

Recommendation 3.1

The Department of Natural Resources should establish recovery teams, and develop and review recovery and management plans for species at risk, as required under the Endangered Species Act.

Department of Natural Resources Response: *The Department agrees with this recommendation. By October 31, 2016 a multi-year work plan will be developed using a risk management approach to prioritize the most critical tasks. The plan will describe how and when recovery teams and plans will be established and will account for, and coordinate with, joint listings and planning under the federal SARA, for newly listed species and for changes in species' status.*

**Natural Resources' coordination with recovery teams is weak**

- 3.23 *Coordination of recovery teams* – Recovery teams, made up of Natural Resources representatives and external experts, are formed to develop and implement the recovery plans. Team members vary, depending on the species. The Department includes at least one representative who is to provide a communication link between the recovery team and the Department of Natural Resources. Recovery teams may communicate directly to the Minister in certain circumstances.
- 3.24 Staff told us coordination between the recovery teams and Department management was not always functioning well. For example, in June 2014, a recovery team sent the Department a letter recommending change to certain forestry practices developed by the Department for the species. The team was concerned the current practices could lead to further decline of the species. At the time of our audit, almost two years later, the Department had not responded to the recovery team or addressed its concerns.
- 3.25 The Department does not have a clear process that shows recovery team recommendations are considered, informs the teams whether recommendations are accepted, or provides reasons why they were not accepted. If the Department does not appropriately respond to recovery team concerns, it may affect the team's functioning. Not dealing with concerns the teams bring forward calls their usefulness into question. This may also create a barrier to achieving goals and objectives described in the recovery plans. Although we did not assess the validity of the recovery team's concerns, the level of expertise in the teams shows their concerns deserve appropriate attention.

Recommendation 3.2

The Department of Natural Resources should implement a process for communicating with recovery teams, including the method of communication and response time. Natural Resources management should tell teams how they plan to address the concerns teams identify or why changes will not be made.

Department of Natural Resources Response: *The Department agrees with this recommendation. DNR will continue its leadership on recovery teams and further improve the operation of the teams. By October 31, 2016 a process will be created to formally track and respond to new recommendations from recovery teams. Any outstanding recommendations from recovery teams will be addressed by October 31, 2016.*

- 3.26 *Protecting species in their habitat* – The provincial Endangered Species Act includes provisions to protect species by acquiring land and designating it as core habitat. Natural Resources has used other means, such as acquiring land



through various land trusts, or working with private landowners to protect habitat. As well, some areas in the province have critical habitat identified or designated under federal legislation.

► **The Department's special management practices are not sufficient for protecting species at risk**

- 3.27 In addition to protecting habitat through land acquisitions, the Department developed special management practices in its work with forestry and agriculture industries to protect species habitat. For example, creating no-cut zones in forests. Natural Resources has implemented special management practices for some of the species at risk listed provincially, including mainland moose, wood turtles, American marten, and certain lichens. The Department has not evaluated the need for these practices for all of the listed species at risk. While habitat is only one component of a species recovery plan, it is an important one. Establishing practices to protect habitat, if deemed appropriate by recovery plans, could strengthen recovery efforts.

Recommendation 3.3

The Department of Natural Resources should review all species listed in the Endangered Species Regulations and amend or develop appropriate practices, as guided by recovery plans, to protect their habitat.

***Department of Natural Resources Response:** The Department agrees with this recommendation. The threats to species at risk are diverse and include industrial activity, climate change, invasive species, recreational activities, urban and road development and pollution. The Province and DNR must employ a variety of complementary approaches including special management practices, protected areas, ecosystem based management, landscape-scale planning, private land stewardship, partnerships with other governments and non-government organizations, education and enforcement to maintain and protect habitat. By October 31, 2016 a work plan will be developed using a risk management approach to prioritize the most critical tasks in recovery plans.*

► **The Department coordinates well with stakeholders for recovery of species at risk**

- 3.28 *Partnerships and cooperation with stakeholders* – The Endangered Species Act encourages the use of nonregulatory means to protect and recover species at risk. Natural Resources' preferred approach to planning and protecting species at risk is through cooperation, stewardship, education, and partnerships to minimize the need for enforcement. The Department works with stakeholders on many aspects of protection and recovery. A number of interested groups and individuals participate and collaborate in species recovery. Department management told us their resources are limited and



working with stakeholders has been their primary means to extend limited resources.

- 3.29 For example, the Mersey Tobeatic Research Institute assists in recovery planning for various species. The Institute issued publications to help citizens identify species at risk and has undertaken a multi-year project to meet recovery plan objectives through science, education, and stewardship.
- 3.30 *Long-term vacancy* – The Endangered Species Act establishes a Species at Risk Working Group. This group determines which species are listed as at risk. The Act details the number of members needed and the general scientific expertise for the types of species and their habitat. The current working group includes individuals with scientific expertise. There has been one vacancy for several years. Management told us the expertise required is highly specialized and there are few potential candidates to fill the vacancy.

Monitoring of Species at Risk

Conclusions and summary of observations

Natural Resources is not planning and coordinating its monitoring activities for species at risk as it should. The Department uses the work of individuals and nongovernment organizations to supplement its own resources for monitoring species at risk. Staff monitoring is primarily through activities outlined in work plans. The work plans do not include all species listed under the Endangered Species Regulations and we found monitoring was not always completed according to the plans. Staff in one division create monitoring tasks and staff in another division are to complete the tasks. Staff doing the work do not report back to staff who assigned the work; as a result, there is no accountability for completing tasks. We recommended implementing a comprehensive monitoring plan that better coordinates activities between the two divisions.

- 3.31 *Monitoring of species at risk* – Monitoring of species at risk occurs both in the Department and through individuals and nongovernment organizations, with involvement of Natural Resources' representatives. This enables the Department to supplement its own resources with others available in the province. Results of monitoring activities from outside the Department are collected by the Atlantic Canada Conservation Data Centre. The Centre is supported by the four Atlantic Provinces. Information collected on species status, survey information, and other ecological conservation concerns is used by the Committee on the Status of Endangered Wildlife in Canada, as well as by Nova Scotia's Department of Natural Resources, for decision making on species at risk.



Natural Resources' coordination of its monitoring activities has weaknesses

- 3.32 Within Natural Resources, the Wildlife division determines which monitoring tasks are needed based on species at risk recovery plans. The Regional division is responsible for completing the tasks. Staff who are assigned monitoring tasks, through a work plan, are also responsible for other activities in their division. Department management told us species at risk were given first priority in assigning monitoring activities in both 2014-15 and 2015-16.
- 3.33 Staff told us the separation of monitoring responsibilities between the two divisions has sometimes resulted in unclear communication of tasks and reporting on completion. For example, a task may require staff to carry out a certain number of surveys of a species, but not specify where the surveys should be done or if certain things, such as banding, should also be carried out. Since regional staff do not report directly to those who assigned the task, getting additional instruction or reporting back on completion may not happen. This gap in coordination between the two divisions may limit the Department's ability to adequately monitor species at risk.

The Department is not monitoring species at risk as planned

- 3.34 The Department's annual monitoring of species at risk is not always completed as planned. As well, all listed species are not included in the monitoring plans. We looked at work plans for 2013-14, 2014-15, and 2015-16 to determine if annual monitoring tasks were completed. We found more monitoring than planned was done for some species at risk, while there was little or no monitoring for other species. For example, the 2014-15 work plan included 8 expected surveys for the coastal plain flora species; 26 surveys were completed. In the same year, six other species had expected activities, but none were completed. For some listed species there was no monitoring completed in any of the three years we examined. It is possible the Department could have provided better overall coverage of species at risk had it used the resources from the extra work in areas where little or no work was done. We found a similar situation in our 2015 forestry audit in which the Department's monitoring of companies harvesting trees on crown land needed improvement.
- 3.35 The Department's ability to determine if recovery efforts are working, or if species are experiencing further decline, is reduced if monitoring is not effectively carried out.

Recommendation 3.4

The Department of Natural Resources should create a comprehensive monitoring program for all species at risk and ensure monitoring activities are clearly communicated and completed as planned.



Department of Natural Resources Response: *The Department agrees with this recommendation. Existing monitoring conducted by governments, universities, NGOs and citizen scientists will be reviewed. By October 31, 2016, a coordinated species-at-risk monitoring plan will be created using a risk management approach to prioritize the most critical tasks as informed by the requirements of recovery plans and the feasibility of implementation.*

Biodiversity Strategy Implementation

Conclusions and summary of observations

The Department of Natural Resources did not prepare sufficient plans for the implementation of the biodiversity goals from its 2011-2020 Natural Resources strategy. Although some work has been completed to date, the Department's action plans to implement the strategy have often not included detailed, specific steps with clear outcomes that can be measured. Additionally, in some cases where the Department identified concrete actions to carry out the strategy, no action was taken. We recommended the Department establish detailed action plans to implement its biodiversity strategy. Plans should have concrete outcomes which clearly state what should be done, when, and expected results.

3.36 *Background* – Biodiversity describes the existence of many kinds of plants and animals. This variety is important to a sustainable environment. Natural Resources' publication *The Path We Share – A Natural Resources Strategy for Nova Scotia 2011-2020* listed 20 actions to achieve the strategy's biodiversity goals. Months later, a separate action plan listed only five activities linked to biodiversity. The Department did not state it had changed its original strategy in this new document. We looked at *The Path We Share*, the action plan, 2012 and 2013 progress reports, and efforts that followed, to assess work on the strategy.

► Action plans to implement biodiversity strategic goals are not always specific enough

3.37 *Plans to implement the strategy* – We expected Natural Resources to have a detailed plan to implement its biodiversity strategic goals with concrete action steps and clear outcomes which can be measured. While the Department developed an action plan, we found some actions were not specific or concrete enough and the work carried out did not always fully address the planned item. For example, the 2011 action plan included expanding the recovery of species at risk populations by reviewing recovery plans and reallocating resources to deal with more species. The one-year progress report noted that enforcement efforts had increased but did not indicate if resources were reallocated. The two-year progress report discussed the need to complete recovery plans for newly-added species, but no specific objectives or targets were established.



- 3.38 The strategy action plan also outlined a process to provide greater details on biodiversity in the province. This information was to be used to set species monitoring priorities and allocate resources, but no specific plans were identified. Progress updates included references to deer monitoring, consulting on protected area land purchases, and developing recommendations on highway protection measures for turtles. These activities, while likely of value, do not clearly link to the strategic action.
- 3.39 The Department put considerable effort into developing its 2011-2020 strategy, including the biodiversity goals. Specific objectives need to be established with performance targets, action plans need to be created and carried out, and results need to be reported. If Natural Resources had more concrete, detailed plans with measurable outcomes, it would improve assessing implementation progress for both Department management and the public.

Recommendation 3.5

The Department of Natural Resources should establish detailed action plans with measurable outcomes to implement its biodiversity strategy. Plans should specify what needs to be done, when, and expected results.

***Department of Natural Resources Response:** The Department agrees with this recommendation. DNR will continue to report on the implementation of the Natural Resources Strategy throughout its 10 year implementation period. By October 31, 2016 a detailed action plan, with clear performance criteria, will be developed in support of the biodiversity strategy and results will be reported in future progress reporting on the Strategy.*



There has been varied success in implementing biodiversity strategy to date

- 3.40 *Progress of implementation* – We assessed progress against the Department's biodiversity strategic actions. Where specific action was identified, we found varied success. Examples of this are detailed in the following paragraphs.
- 3.41 The Department planned to increase efforts to protect and recover species at risk. In 2013, 19 species were added to the list of provincial species at risk. In 2016, Natural Resources hired a biologist with species at risk responsibilities.
- 3.42 The strategy's 2011 action plan also required regular reporting on the state of biodiversity in Nova Scotia. A report was to be released by winter 2014. As of March 2016, no reports were released. Management told us they intend to issue three reports in spring 2016 covering an introduction to biodiversity, species at risk, and alien invasive species. They told us reports on other aspects of biodiversity are being considered but the content or potential release dates have not been finalized. Possible biodiversity topics include



freshwater ecosystems; general status of species; state of habitat; coastal/marine biodiversity; land/resource use; and land-based, non-forested ecosystems.

- 3.43 *Biodiversity and wildlife species management* – The strategy also noted the importance of considering biodiversity in overall decision making and wildlife species management. Department efforts in this area to date have focused on forestry. However, as detailed in the following paragraphs, there is little evidence that biodiversity was considered when Natural Resources approved forestry practices.
- 3.44 Natural Resources hired a consultant to review harvest practices after a 2014 forest harvest in an environmentally-sensitive area raised concerns with a number of Nova Scotians. The report, which the Department accepted, concluded that the forest harvest plan did not outline the biodiversity concerns that should be addressed. The report also concluded that the decision to clear cut the area indicated that, despite a requirement to include biodiversity in the planning process, the forest harvest was carried out without protecting the area's biodiversity. Since then, the Department published guidelines concerning biodiversity in western Crown lands.
- 3.45 More recently, the Department started a forest landscape planning pilot, with an industry partner, on eastern Crown lands. The expectation is that harvest planning will cover larger areas, over a longer time period, which should allow for better consideration of biodiversity and habitat protection in forestry planning. In summer 2015, Department management approved a forestry-planning framework. If the pilot is successful, the planning method will be applied on all provincial Crown lands. A guiding principle for the pilot project includes using the ecosystem approach in the framework and plan design. It is also expected that it will provide a framework for species monitoring activities in target areas.
- 3.46 Work in this area also included consulting with proponents on large wind projects to work with the landscape in determining the location of turbines. For example, wetlands are not to be disturbed and they are to remain viable as landing areas for migrating birds.



Department of Natural Resources: Additional Comments

Since the Endangered Species Act (ESA) came into effect in 1998, DNR has made a concerted effort to implement the ESA and has successfully built partnerships that have resulted in useful planning and important species at risk protection and stewardship actions. However, DNR acknowledges that it has not been able to meet a number of the administrative and other requirements of the ESA for a growing list of species at risk. DNR will review and develop work plans using a risk management approach that will address priorities and the resources required for the ongoing implementation of the ESA.



Appendix 1: Species at Risk Listed under the Endangered Species Act and Regulations

| Endangered Species: | Threatened Species: | Extirpated Species: |
|---|--|---|
| American marten ¹ Atlantic whitefish Barn swallow Bicknell's thrush Blanding's turtle Boreal felt lichen Canada lynx Canada warbler Chimney swift Eastern mountain avens Harlequin duck Hoary willow Little brown myotis Macropis cuckoo bee Moose ² Northern myotis Pink coreopsis Piping plover Plymouth gentian Ram's-head lady slipper Red knot Rockrose Roseate tern Rusty blackbird Thread-leaved sundew Tri-colored bat Vole ears Water pennywort | Black ash Brook floater Common nighthawk Eastern baccharis Eastern ribbonsnake Eastern whip-poor-will Olive-sided flycatcher Wood turtle Yellow lamp mussel Vulnerable Species: Blue felt lichen Bobolink Eastern lilaeopsis Eastern white cedar Eastern wood peewee Golden crest Long's bulrush New Jersey rush Peregrine falcon Prototype quillwort Redroot Snapping turtle Spotted pondweed Sweet pepperbush Tubercled Spikerush | Atlantic walrus Eastern wolf Woodland caribou Extinct Species: Eelgrass limpet Great auk Labrador duck Passenger pigeon Sea mink |

1. Cape Breton population

2. Mainland Nova Scotia population

Source: Categorized List of Species at Risk Regulations