
Table of Contents

Chapter 1 – Introductory Comments by the Auditor General

Introduction.....	3
Acknowledgements.....	7

Chapter 2 – Department of Social Development – Advisory Services Contract

Introduction.....	11
Conclusions.....	12
Scope Limitation.....	13
Results in Brief.....	13
Recommendations.....	13
Background.....	22
Procurement of PPI Agreement.....	28
Contract Management and Consultant Performance Monitoring.....	34
Measurement and Evaluation of Results.....	42
Status of PPI Initiatives.....	47
Control of Contract Payments.....	53
Appendix I – Convalescent Supplies and Services Contract – Canadian Red Cross Society.....	62
Appendix II – Audit Objectives and Criteria.....	71
Appendix III – Glossary of Terms.....	72
Appendix IV – Timeline for DSD PPI Contract.....	74
Appendix V – PPI Initiatives	76
Appendix VI – PPI Dashboard at June 30, 2016.....	78

Chapter 3 – Department of Environment and Local Government & NB Power – Climate Change

Introduction.....	81
Results in Brief.....	81
Recommendations.....	81
Background.....	87
Audit Objectives and Scope	91
Detailed Audit Observations.....	92
Mitigation.....	92
Adaptation.....	107
Coordination.....	115
Appendix I – Glossary.....	119
Appendix II – Status Report Generated From CCAP Progress Tracking System on May 2, 2017.....	122

Chapter 1

Introductory Comments by the Auditor General

Contents

Introduction.....	3
Acknowledgements.....	7

Introductory Comments by the Auditor General

Introduction

1.1 My Office's mission, as included in our 2014 to 2020 strategic plan is:

To provide objective, reliable, and timely information to the Legislative Assembly on government's performance in its delivery of programs and services to the people of New Brunswick.

1.2 In this volume of our 2017 Report, we include two performance audit reports.

1.3 Millions of dollars in goods and services are acquired by government every year through contract procurement processes. Robust and effective procurement processes assist New Brunswick citizens to have confidence government goods and services are acquired impartially and competitively, and with due regard for cost and quality.

1.4 Chapter 2 of this Volume presents our findings regarding a \$13 million Department of Social Development Advisory Services Contract. Several significant weaknesses were found in the procurement processes of this Department and in Service New Brunswick.

1.5 Chapter 3 reports on government's progress in addressing its commitments to climate change initiatives. Climate change is a global issue, however many New Brunswickers have experienced first hand the significant and devastating impacts of severe weather events.

1.6 Also in Chapter 3 of this volume we report whether the government has made progress towards adapting to climate change and towards its commitments to reduce Greenhouse Gas (GHG) emissions.

Very troubling disregard of procurement practices

Consultant was paid based on anticipated savings, not actual savings

Department paid for \$37 million in savings solutions that to date have not been achieved

\$10 million savings calculation could not be substantiated

Many other serious weaknesses found in our audit

1.7 In our audit of a Department of Social Development \$13 million contract for advisory services, we found the contract had no clear objectives or deliverables, used unfair procurement practices, and had a lack of performance monitoring.

1.8 This contract for advisory services was to assist the Department in identifying savings. The consultant was paid based on anticipated savings, not actual savings from implemented initiatives. In other words, the consultant was paid regardless of whether or not government implemented and achieved the savings solutions identified.

1.9 While the consultant identified \$ 47 million in government savings ideas, the Department indicated only \$10 million in savings had been achieved by the end of the contract. Therefore the Department paid for \$ 37 million in savings solutions that to date have not been achieved.

1.10 Further, the \$10 million savings identified as achieved by the Department could not be substantiated in our audit. The actual benefit to the Department of the \$13 million consultant payments remains unclear at best.

1.11 We noted many other serious weaknesses in our audit including:

- The Department relied solely on the consultant to evaluate their own performance and the project quality;
- The Department inappropriately used an urgent/emergency exemption for part of the contract process (which permits exclusion from a competitive procurement process);
- The Department did not measure and monitor deliverables;
- The Department used an invited tender for part of the contract process, however, the tender was only open for 12 days while the consultant was on site, providing a clear advantage to the consultant; all other respondents were disqualified;
- The Department paid \$1.3 million for out of scope services not covered in the contract.
- The Department exceeded the total amount allowed on the purchase order by at least \$700,000; and
- The Department did not verify invoices for discounts or time charges and paid over \$600,000 in travel expenses

with no invoices or support.

No repercussions to the Department

1.12 In addition, we found the same consultant is still doing work for the Department as of February 2017. The basis for this continued work is not evident, especially given the serious procurement issues experienced in the past with this consultant. There appears to be no repercussions to the Department from failures to follow proper procurement practices.

Department culture of complacency for procurement violations

1.13 As well, the length of time the Department has had a close relationship with this consultant is notable as it dates back to at least 2013. The close involvement between this consultant and the Department spans changes in Department senior leadership and changes in government. I am very concerned about the culture of complacency within the Department's bureaucracy regarding procurement violations and unfair procurement practices.

1.14 Overall the weaknesses noted in this chapter represent a very troubling disregard of provincial procurement practices within the Department of Social Development (DSD) and also Service New Brunswick (SNB).

1.15 Although my Office has made a number of recommendations to address our findings, no real change will occur without a concerted effort from the DSD and SNB Deputy Ministers and senior management.

1.16 SNB's role with respect to the Government of New Brunswick (GNB) procurement function is to spearhead a solid framework of legislation, regulation and policy resulting in fair and transparent practices throughout GNB. However, in this instance, SNB appeared to lack sufficient authority, rigorous processes and consequences for the numerous violations and inappropriate practices.

1.17 DSD's Deputy Minister holds ultimate responsibility and accountability for the Departmental operations. During the period of the Advisory Services Contract which was the subject of the audit there were four different DSD Deputy Ministers.

1.18 I am hopeful the DSD and SNB culture with respect to procurement will change in order to have a fair, transparent process in compliance with the legislative framework that is in the best interest of New Brunswickers.

Some progress on climate change, but details and commitments are lacking

1.19 In our audit on climate change we noted some progress in the efforts to reduce New Brunswick GHG emissions. New Brunswick GHG emissions peaked in 2001 and have since declined. The reduction target set for 2020 in the New Brunswick Climate Change Action Plan appears on track to be met.

No province-wide risk assessment

1.20 However, emissions are not projected to decline much further under the status quo and meeting the 2030 and 2050 targets will require significant action from provincial and Federal initiatives. Many climate change action items do not have a timeline, allocated funding or implementation plans, and New Brunswick's GHG emission targets are not protected in legislation. Also, there is no province-wide risk assessment performed to evaluate vulnerability to climate change.

No NB Power specific GHG reduction target

1.21 Electricity generation, industry and transportation are the three dominant contributors to New Brunswick's GHG emissions. Given that NB Power is one of the highest GHG emitters in New Brunswick I am concerned NB Power does not have a specific GHG reduction target.

No decision on the future of coal-fired plant

1.22 Also very concerning is the lack of an implementation plan regarding the Federal government's decision to phase out coal-fired electricity by 2030, as 13% of NB Power's total capacity comes from the coal-fired plant in Belledune. A decision respecting this situation is multi-layered and complex, however, needs urgent attention given the possible significant investments involved in either reducing electricity demands or seeking alternative energy sources.

1.23 Overall, the Province is making some efforts to reduce GHG emissions and implement measures for climate change adaptation, but it is not enough. The details, plans and funding are lacking to demonstrate commitment to implementing climate change initiatives.

Acknowledgements **1.24** Staff in my Office worked very hard in carrying out the work reported upon in this volume of our report. The individual chapters of this report are a reflection of their level of commitment, professionalism and diligence. I would like to express my appreciation to each for their contribution and continuing dedication to fulfilling the mandate of the Auditor General of New Brunswick.



Kim MacPherson, CPA, CA, ICD.D
Auditor General

Chapter 2

Department of Social Development

Advisory Services Contract

Contents

Introduction.....	11
Conclusions.....	12
Scope Limitation.....	13
Results in Brief.....	13
Recommendations.....	13
Background.....	22
Procurement of PPI Agreement.....	28
Contract Management and Consultant Performance Monitoring.....	34
Measurement and Evaluation of Results.....	42
Status of PPI Initiatives.....	47
Control of Contract Payments.....	53
Appendix I – Convalescent Supplies and Services Contract – Canadian Red Cross Society.....	62
Appendix II – Audit Objectives and Criteria.....	71
Appendix III – Glossary of Terms.....	72
Appendix IV – Timeline for DSD PPI Contract.....	74
Appendix V – PPI Initiatives	76
Appendix VI – PPI Dashboard at June 30, 2016.....	78

Department of Social Development

Advisory Services Contract

Introduction

- 2.1** In August 2015 our office identified a payment for consultation services as part of the audit of the Province's public accounts. We found the payment related to a contract for provision of Productivity and Process Improvement (PPI) advisory services. These services were provided to the Department of Social Development (DSD).
- 2.2** The contract, effective August 6, 2013, had been awarded to a consulting firm (consultant) who would assist in developing a formal productivity improvement program to reduce costs across various programs within DSD. The scope of this work included:
- Long Term Care and Nursing Homes;
 - Program Delivery and Control;
 - Procurement; and
 - Social Assistance.
- 2.3** We noted, by August 2015, accumulated payments had exceeded \$7 million. Further, a portion of the payments made were fees based on consultant performance. Consultant performance was rewarded on the basis of anticipated savings, not actual savings. Payments on this basis bear the risk that no actual benefit will be realized. As of August 2015, the anticipated savings identified by the consultant were approximately \$29 million.
- 2.4** Upon further investigation, we identified numerous additional associated risks with the contract and elected to proceed with an audit.

Audit Objectives

2.5 The objectives of our work were to determine if the Department of Social Development:

- 1. monitored consultant performance to ensure services were completed as per the Master Service Agreement;*
- 2. measured and evaluated the results of completed project initiatives against planned benefits;*
- 3. has a plan to complete all project initiatives resulting from the PPI Master Service Agreement; and*
- 4. approved professional fees in accordance with the Master Service Agreement and government policy.*

Criteria we used to arrive at our conclusions on these objectives are presented in Appendix II.

Conclusions

2.6 Upon completion of our work, we concluded the Department of Social Development:

- used inappropriate procurement practices;
- entered into a poorly structured contract that did not adequately protect the Province's interests;
- failed to effectively manage the contract;
- exceeded the \$12.25 million (before tax) purchase order by \$700,000 (or 6%); and
- reported only \$10.1 million (22%) of \$47 million in anticipated savings by June 2016.

Scope Limitation

2.7 Under the *Auditor General Act*, the Auditor General is entitled to information, reports and explanations considered necessary to fulfil her responsibilities in a timely manner. Throughout the course of our audit there were instances when documentation was not provided for our review on a timely basis. For example:

- DSD had to retrieve source documentation from the consultant, resulting in delays. We expected DSD to have such information on file at the Department.
- Further, 12 documents were provided to us three months after our initial request and after the conducting phase of our audit. After scanning the documents, we do not believe they would significantly alter our conclusions.
- Finally, the Department produced additional documentation related to other specific sections of our report during our final report clearing meeting. This information was provided too late to be reviewed as part of our audit work and consequently is not included in this report.

Results in Brief

2.8 Results in brief are presented in Exhibit 2.1.

Contract timeline

2.9 Exhibit 2.2 provides an overview of the contract timeline and significant events.

Recommendations

2.10 A summary of our recommendations can be found in Exhibit 2.3.

2.11 Appendix III presents a glossary of terms for this chapter.

Exhibit 2.1 Results in Brief

Advisory Services Contract

Why Is This Important?

- Millions of dollars in goods and services are acquired by government every year
 - Department of Social Development contracted a consultant to identify cost savings and similar contracts may arise in other areas of government in the future
 - Contract outcomes could impact services to vulnerable people
-

What We Found

Overall Conclusions

- The Department signed a contract in 2013 costing \$13 million containing no clear objectives
- \$47 million in savings were anticipated; however, the Department reported only \$10 million in savings by June 2016
- The consultant was paid performance fees based on anticipated savings, not actual savings
- The actual benefit of the \$13 million remains unclear

Very Troubling Disregard for Procurement Practices

- Emergency/urgent exemption was used without a competitive process for the first two phases of the project
- Department entered into the contract before Service New Brunswick approved the purchase order
- Tender was open only 12 days and all other respondents were disqualified

The Department allowed the consultant to:

- create their own agreement and use their own statement of work
- remain working in the Department during tender development, resulting in an apparent conflict of interest
- contribute significantly to tender requirements

Overall, the consultant was highly and inappropriately favored by the Department

No Contract Management Framework

The Department:

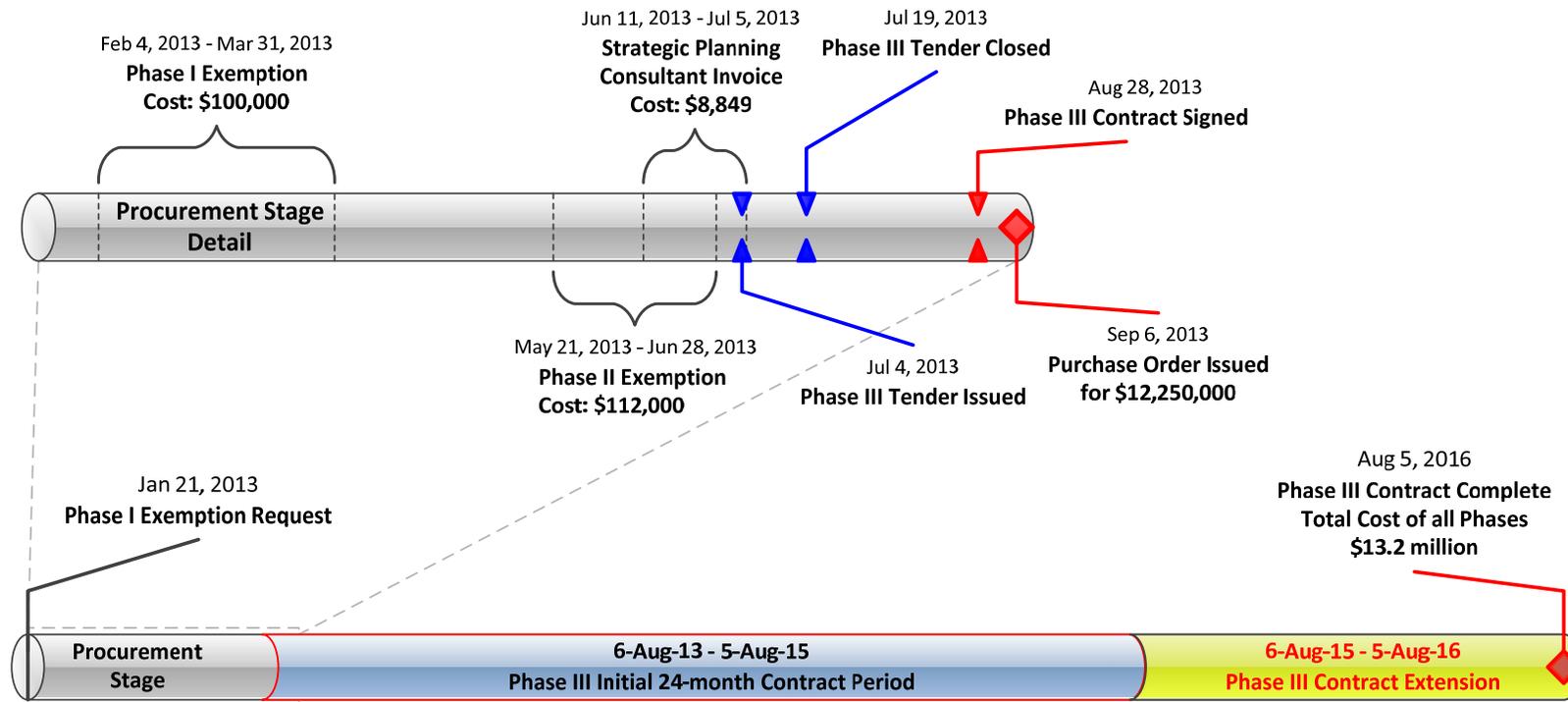
- Relied solely on the consultant to evaluate project quality
- Paid an extra \$1.3 million for services that should have been considered part of the contract
- Paid \$600,000 in travel expenses without receipts required by GNB policy
- Exceeded the total amount allowed on the purchase order by \$700,000

Lack of Monitoring Outcomes

The Department did not:

- Substantiate actual savings for every initiative
- Receive a management operating system as defined in the contract
- Measure impact to quality of service to clients
- Consistently plan and monitor implementation of initiatives

Exhibit 2.2 Contract Timeline and Significant Events



Note - The procurement section of this report begins at paragraph 2.33 and further timeline information can be found in Appendix IV.
 Source: Created by AGNB with information obtained from Service New Brunswick and the Department of Social Development

Exhibit 2.3 Summary of Recommendations

Recommendation	Department's response	Target date for implementation
<p>2.50 We recommend Service New Brunswick:</p> <ul style="list-style-type: none"> • ensure emergency and urgent exemptions are not used inappropriately by departments to bypass the competitive tendering process; • require that departments provide sufficient rationale and documentation to support requested exemptions; and • maintain a record of why the decision to approve the emergency and urgent exemption was made. 	<p><i>Staff from Service New Brunswick will ensure that the rationale provided by a client requesting an emergency or urgent exemption is consistent with the intent of the emergency or urgent exemptions as outlined in the Regulation under the Procurement Act. The Public Purchasing Act was in place at the time of this procurement. The Procurement Act provides greater clarity with respect to these exemptions.</i></p> <p><i>A record will be maintained in the procurement file to support approved exemptions.</i></p>	<p><i>September 2017</i></p>
<p>2.58 We recommend the Department of Social Development apply a cool down period between the end of existing contracts with potential future proponents to avoid undue influence and conflict of interest.</p>	<p><i>The Department of Social Development agrees with this recommendation for professional services contracts. The agreement template for professional services now includes a “conflict of interest” clause that prohibits a contractor who is acting as a project manager from submitting proposals to RFP’s concerning the same project.</i></p>	<p><i>Immediate</i></p>

Exhibit 2.3 Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
2.59 We recommend the Department of Social Development communicate to Service New Brunswick rationale for not following Service New Brunswick procurement procedures and advice.	<i>The Department of Social Development agrees with this recommendation.</i>	<i>Immediate</i>
2.89 We recommend the Department of Social Development structure contracts containing performance compensation only on actual, measurable results.	<i>The Department of Social Development agrees with this recommendation.</i>	<i>Immediate</i>

Exhibit 2.3 Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
<p>2.94 We recommend the Department of Social Development develop a framework to govern significant aspects of contract management such as procurement, administration, evaluation and reporting.</p>	<p><i>The Department of Social Development agrees with this recommendation. One initiative under Productivity and Process Improvement (PPI) was Contract Optimization and Grants. In September 2016, the Department established a Contract Management unit with a manager and three staff to initiate a contract management framework. Progress continues on the development of a contract management framework which will introduce industry best practices and greater cadence across all components of the contract management lifecycle; ranging from procurement planning to post-award contract management. Emphasis includes training/coaching for staff on the procurement and evaluation of contracts, as well as monitoring of existing contracts to ensure all services are delivered in accordance with service delivery expectations. Just in the past year, the Department has implemented a new standardized purchase of service agreement template developed in partnership with Service New Brunswick and the Office of the Attorney General.</i></p>	<p>March 2018</p>

Exhibit 2.3 Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
<p>2.103 We recommend the Department of Social Development design and develop agreements that provide for performance measurement by including objectives and clear, well defined deliverables.</p>	<p><i>The Department of Social Development agrees with this recommendation. The Department has implemented a new standardized purchase of service agreement template developed in partnership with Service New Brunswick and the Office of the Attorney General. This agreement template outlines all of the terms and conditions and includes schedules for statement of work, compensation and reporting requirements.</i></p>	<p><i>Immediate</i></p>
<p>2.117 We recommend the Department of Social Development:</p> <ul style="list-style-type: none"> • independently evaluate the performance of contractors against well-defined contract goals, objectives and deliverables; and • submit written feedback to Service New Brunswick on the contractor's performance for significant contracts. 	<p><i>The Department of Social Development agrees with this recommendation. As part of the contract management framework, the Department will establish a process to evaluate contractor performance and will submit written feedback to Service New Brunswick for significant contracts.</i></p>	<p><i>March 2018</i></p>
<p>2.118 We recommend Service New Brunswick require contractor performance reports be submitted by procuring entities for all significant agreements.</p>	<p><i>A contract management framework is under development and the requirement for clients to provide written feedback to Service New Brunswick on a contractor's performance will be sought for significant contracts.</i></p>	<p><i>April 2018</i></p>

Exhibit 2.3 Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
2.129 We recommend the Department of Social Development track actual savings as they accumulate over time supported by relevant data.	<i>The Department of Social Development agrees with this recommendation.</i>	<i>Immediate</i>
2.132 We recommend the Department of Social Development measure and report the impact to quality of client service delivery resulting from implemented performance improvement initiatives.	<i>The Department of Social Development agrees with this recommendation. The Department currently measures and reports on a number of client service indicators. To the extent possible, the Department will extend this to future process improvement initiatives.</i>	<i>March 2018</i>
2.146 We recommend Service New Brunswick ensure that service contracts include a 'not to exceed' clause in the amount matching the purchase order value.	<i>Service New Brunswick will ensure that any service agreements for purchases that have a "not to exceed" purchase order value include a "not to exceed" clause that matches the purchase order.</i>	<i>September 2017</i>
2.169 We recommend the Department of Social Development develop a monitoring strategy for implementation targets, milestones, deliverables, and service quality for significant Departmental initiatives.	<i>The Department of Social Development agrees with this recommendation.</i>	<i>Immediate</i>
2.180 We recommend the Department of Social Development not include clauses in contracts for consulting services that allow out of scope work to be undertaken.	<i>The Department of Social Development agrees with this recommendation.</i>	<i>Immediate</i>
2.199 We recommend the Department of Social Development include clear contract terms stipulating billing requirements such as a maximum timeframe for submission of invoices.	<i>The Department of Social Development agrees with this recommendation and will implement it to the extent possible.</i>	<i>Immediate</i>

Exhibit 2.3 Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
<p>2.228 We recommend the Department of Social Development design and implement controls to ensure:</p> <ul style="list-style-type: none"> • compliance with government policies governing travel expenses (AD-2801) and approval of payments (AD-6402); and • significant contract terms such as billing discounts and caps are adhered to. 	<p><i>The Department of Social Development agrees with this recommendation. For contracts with significant travel expected, establishing a cap on travel is an effective control to limit the province's exposure to costs exceeding the amount set. In contracts that include caps and discounts, the department will ensure these are adhered to.</i></p>	<p><i>Immediate</i></p>
<p>Appendix I - Convalescent Supplies and Services Contract – Canadian Red Cross Society</p>		
<p>2.259 We recommend the Department of Social Development not include consultants on procurement evaluation committees if compensation to the consultant is impacted by the procurement award.</p>	<p><i>The Department of Social Development agrees with this recommendation.</i></p>	<p><i>Immediate</i></p>

Background

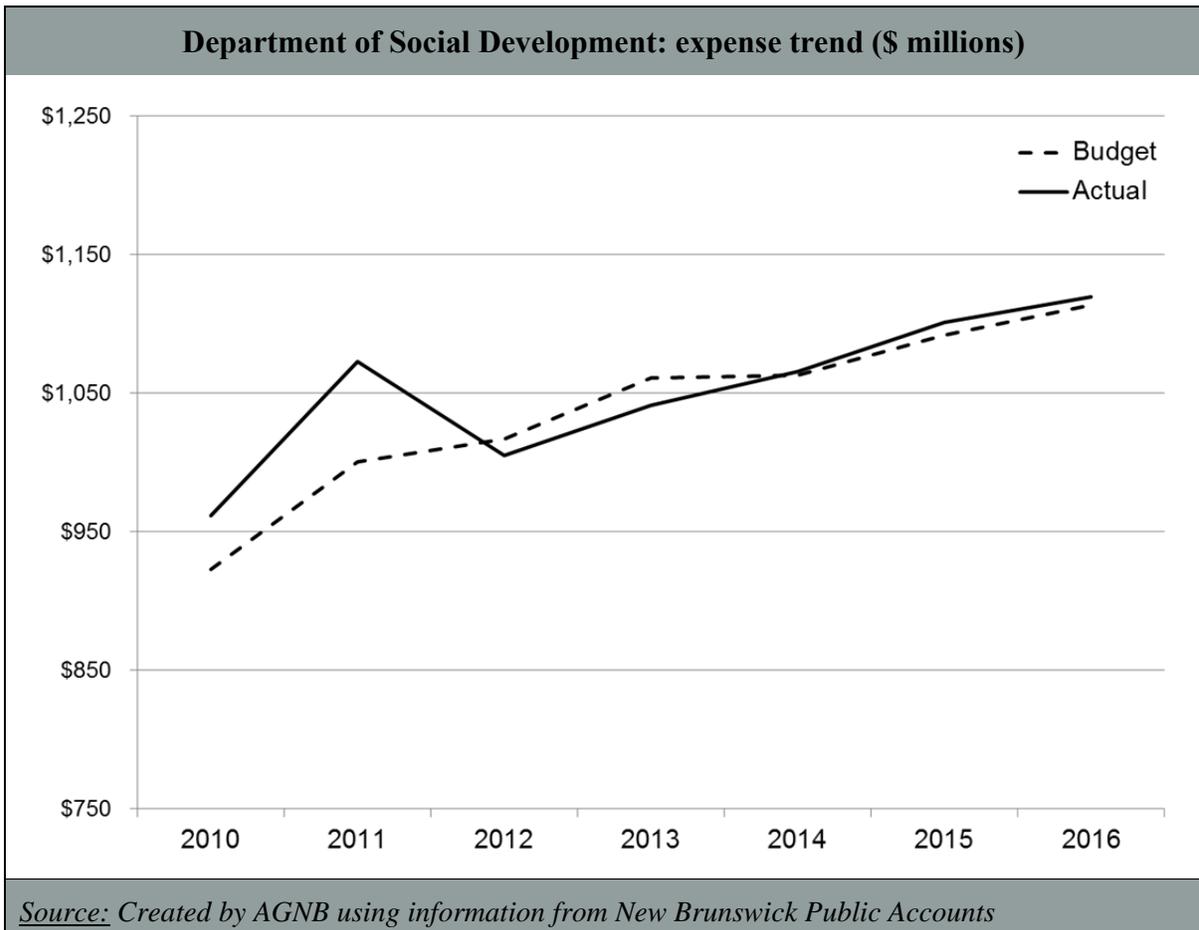
2.12 In July 2013 the Department of Social Development (DSD) issued an invited tender for provision of Productivity and Process Improvement (PPI) advisory services.

2.13 The successful proponent would deliver a program that included organizational change management, internal communication, coaching, training and development at all levels of the organization and creation or improvement of key management tools to achieve operational improvements, cost savings and other non-financial benefits.

2.14 The invitation to tender indicated that early savings were required to meet budget constraints and specified minimum cost reduction targets of \$5 million in the 2013-14 fiscal year and \$40 million in aggregate net benefits by March 31, 2016.

2.15 DSD provides a range of services via a \$1 billion budget. Exhibit 2.4 shows budget and actual expense trends over the last seven fiscal periods:

Exhibit 2.4 Department of Social Development: expense trend (\$ millions)



2.16 Overall expenses have increased from \$961 million in 2010 to \$1.12 billion in 2016. In 2016, DSD exceeded their Main Estimates budget by \$6 million.

2.17 In 2016, the majority of DSD spending was on four program areas as shown in Exhibit 2.5.

Exhibit 2.5 Department of Social Development: Program Spending Percentage of Total

Department of Social Development: Program Spending Percentage of Total (2016)		
Program Area	Expenditures (\$ million)	% of actual expenditures
Child Welfare and Youth Services	128	11%
Long Term Care	294	26%
Nursing Home Services	320	29%
Transitional Assistance Program and Extended Benefits Program	180	16%
Other programs and administration	198	18%
Grand Total	1,120	100%
<i>Source: Created by AGNB using information from New Brunswick Public Accounts</i>		

2.18 Child Welfare and Youth Services include such programs as Child Protection Services, Adoption Services, Community-Based Services for Children with Special Needs and, foster homes and group homes. In 2016 DSD spent \$128 million on Child Welfare and Youth Services.

2.19 Long Term Care services include provision of in-home care, residential long-term care and adult protection services. This includes services for adults with disabilities. In 2016 DSD spent \$294 million on Long Term Care services.

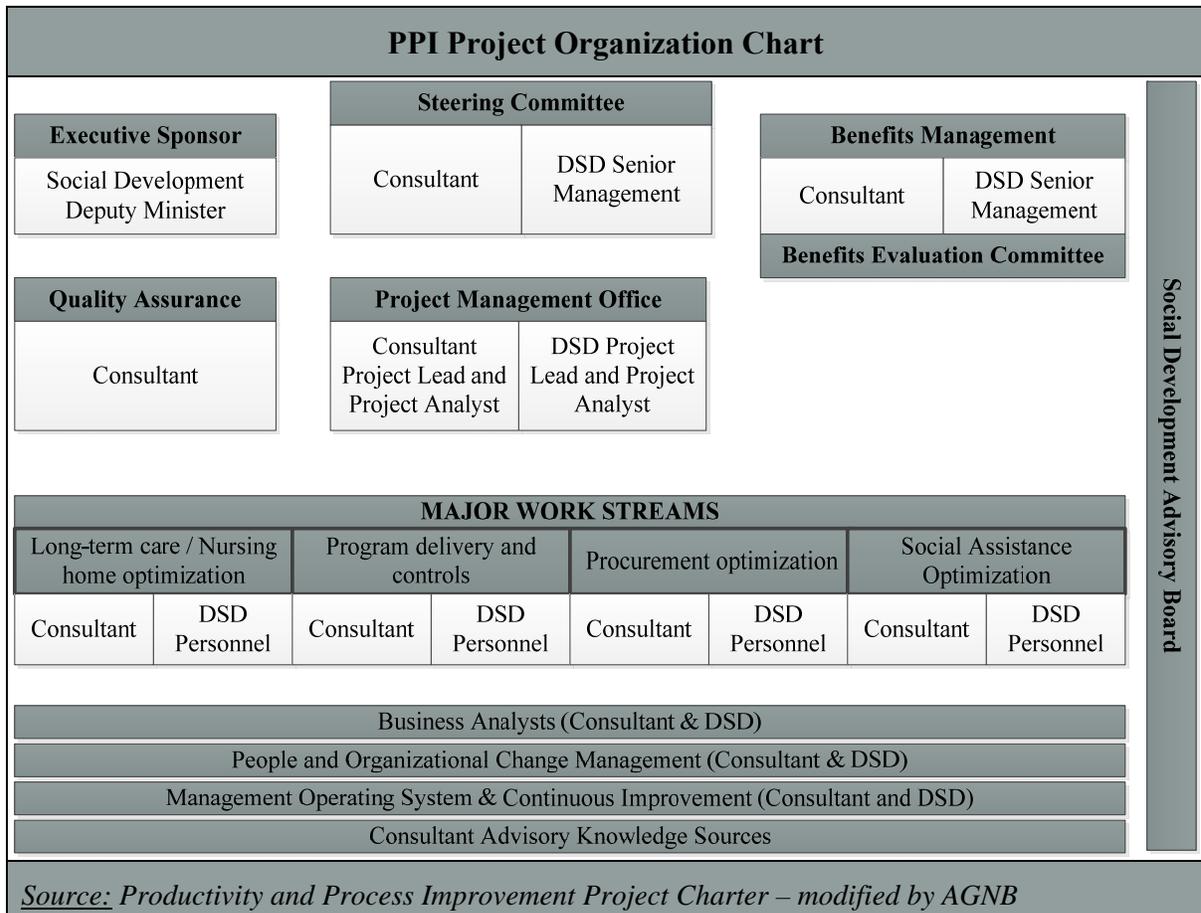
2.20 Nursing Home Services include the planning, design, monitoring and inspection of the services provided to residents in nursing homes. In 2016, DSD spent \$320 million on Nursing Home Services.

2.21 Transitional Assistance Program and Extended Benefits Program involve the provision of social assistance benefits to provincial residents in need. In 2016, DSD spent \$180 million on social assistance.

2.22 The PPI Project Charter describes the main objective to assist in the identification and implementation of PPI opportunities. Other project objectives described include:

- achieve sustainable cost savings to meet 2013-14 budgetary requirements;
- achieve additional significant anticipated cost savings and other operational cost improvements by August 16, 2015;
- identify other business models and opportunities to consider; and
- demonstrate more effective and responsible operations and management through a greater focus on:
 - continuous measurable improvement with a focus on innovation;
 - enhanced quality of service and quality of life for our clients; and
 - simplified citizen centric approach to accessing and using our programs.

Exhibit 2.6 PPI Project Organization Chart



2.23 The project was segmented into four work streams, which

provided focal points for savings opportunities. These four streams included:

- Nursing Home and Long Term Care;
- Procurement;
- Program Delivery; and
- Social Assistance.

Steering Committee 2.24 Decision making and project monitoring was the responsibility of a Steering Committee. Project documentation indicated the consultant presented PPI project status reports to the Steering Committee regularly to facilitate discussion of project health, progress, issues, risks, change requests, milestones and work products.

Benefits Evaluation Committee 2.25 The Benefits Evaluation Committee (BEC) was established in order to scrutinize the forecasted savings presented by the consultant. A portion of the consultant's fees was based on performance as measured by anticipated savings. Performance related fees were billed once the BEC approved the amount of the forecasted savings. The BEC was chaired by DSD's Deputy Minister and included an executive from the consulting firm as well as a representative from the Department of Finance.

Scope and Methodology 2.26 This chapter focuses on DSD's management of the advisory services contract and measurement of deliverables and results.

2.27 We interviewed DSD staff to gain an understanding of contract management processes including vendor performance monitoring and payment controls, implementation and control planning framework for cost saving initiatives and the measurement framework for evaluating success of implemented initiatives.

2.28 We reviewed relevant project documentation including tender documents, the Master Service Agreement, Statement of Work and Project Charter. We reviewed minutes of the Steering Committee and Benefits Evaluation Committee. We reviewed examples of consultant deliverables and DSD's dashboard tool for measuring initiative success.

2.29 We tested invoices and supporting documentation submitted by the consultant and approved by DSD. We performed audit procedures on the benefits tracking dashboard.

2.30 During the course of our audit we received information of a concerning nature regarding the Health Services convalescent contract initiative implemented under this advisory services agreement. While we believed the initiative fell within our existing audit scope, we decided to address the issues we considered significant in a separate report. Our report on this work can be found in Appendix I - Convalescent Supplies and Services Contract with Canadian Red Cross Society.

2.31 Our work was performed in accordance with standards for assurance engagements, encompassing value-for-money and compliance, established by the Chartered Professional Accountants of Canada, including such tests and other procedures as we considered necessary in the circumstances, except as described in paragraph 2.7.

2.32 Exhibit 2.7 highlights our key findings and observations.

Exhibit 2.7 Key Observations and Findings

Paragraph	Key Observations and Findings
2.33	<u>Procurement of PPI Contract – Inappropriate Actions & Decisions</u>
2.35	DSD signed a contract for \$100,000 with a consultant using an emergency / urgent exemption
2.38	No other consultant was considered by DSD
2.40	DSD entered into the contract before SNB approved the purchase order
2.41	Consultant created the agreement and statement of work
2.43	DSD signed a \$112,000 second agreement with the same consultant using the same emergency/urgent exemption
2.52	DSD contracted same consultant a third time without advising SNB by staying under the \$10,000 tendering exemption limit which inappropriately allowed the consultant to remain onsite during tender design and release
2.54	Consultant invoice charged against a purchase order not yet awarded
2.60	Consultant contributed significantly to tender requirements
2.61	All other tender respondents disqualified during procurement process
2.64	Communication of tender results to consultant before official approval by SNB
2.65	DSD accountability for procurement remains – regardless of staff turnover
2.68	<u>Contract Management – Poor practices in contract management</u>
2.73	MSA & SOW prepared by consultant and no DSD legal review document provided

Exhibit 2.7 Key Observations and Findings (continued)

Paragraph	Key Observations and Findings
2.80	The base for performance fees changed from “actual” savings to “realizable” savings during contract negotiations with no rationale for the decision
2.91	No standardized process or framework to manage or monitor contracts
2.96	No clear objective stated in the final Agreement
2.100	Deliverables not clearly defined in the final Agreement
2.105	DSD allowed the consultant to self-evaluate contract performance
2.113	DSD extended contract into option year with no re-negotiation of terms and conditions
2.114	No evaluation of consultant’s performance before extending contract
2.115	DSD missed an opportunity to amend the Agreement
2.119	<u>Measurement and Evaluation of Results – Not all measures reliable or reported</u>
2.125	DSD did not enforce delivery of the management operating system, although it was required by the agreement
2.126	Accuracy problems with DSD savings measurement tool
2.127	DSD savings measurement unreliable
2.131	DSD did not measure quality of client service delivery as part of the PPI project
2.142	No maximum cost included in the final agreement
2.143	Contract payments exceeded the \$12.25 million purchase order limit by \$700,000
2.147	<u>Status of PPI Initiatives – Implementation planning and monitoring</u>
2.156	Implementation plan quality was inconsistent
2.160	Weakness in monitoring implementation plan deliverables and client service quality
2.176	DSD paid \$1.3 million in out of scope implementation support charges
2.178	DSD had no defined criteria for approving out of scope initiatives
2.181	<u>Control of Contract Payments – No effective control over payments</u>
2.197	DSD allowed the consultant to submit invoices for payment as much as 531 days after work was completed and 251 days after the contract ended
2.212	DSD did not formally monitor application of a volume discount
2.213	DSD did not monitor for duplication of charges across departments
2.219	DSD did not require or review travel expense source documents on a regular basis

Exhibit 2.7 Key Observations and Findings (continued)

Paragraph	Key Observations and Findings
2.220	Surcharges and other premiums on travel expenses (not in compliance with government policy) were approved by DSD
2.225	DSD paid \$646,000 for travel expenses with no source documentation
2.227	DSD did not exercise adequate control measures to ensure adherence with government policy or the terms of the Agreement

Procurement of PPI Agreement

2.33 In order to undertake our objectives for this audit we completed an analysis of the process followed by DSD to procure the contract for advisory services. We expected to find that DSD initiated a public tender through the then Department of Government Services, now Service New Brunswick (SNB). We will reference SNB in this report to address both entities. A timeline of procurement events is provided in Appendix IV.

2.34 In 2013 the Minister of SNB had authority under the *Public Purchasing Act* (Act) to procure goods and services on behalf of government departments. Service contracts in excess of \$50,000 required a publicly advertised tender issued by the SNB Strategic Procurement division.

Phase I PPI Contract

DSD signed a \$100,000 Agreement using an exemption under the Public Purchasing Act

2.35 Instead of following the prescribed tendering process, on January 21, 2013 DSD entered directly into a \$100,000 Master Services Agreement (MSA) and Statement of Work (SOW) with a consultant for advisory services related to Phase I of what became a three-phase PPI project. DSD sent an exemption request to the SNB Strategic Procurement division seeking approval for Phase I work under sub-section 27.1(1)(d) of regulation 94-157 of the Act. In the request DSD noted they had been “*directed to achieve aggressive budget reduction targets for 2013-14*” as rationale for exemption from the public procurement process.

2.36 Sub-section 27.1(1)(d) exempts the Minister of SNB from the competitive procurement process for purchases “*where the supplies or services are required in the event of an emergency or urgent situation*”. DSD viewed the need to identify budget savings as an urgent situation.

2.37 The exemption request stated that DSD required assistance in completing “*...a preliminary analysis identifying operational efficiencies*”. The request noted the consultant had

experience in this area.

No evidence DSD considered other consultants

2.38 We asked DSD personnel what due diligence they had undertaken to review the consultant's qualifications and if any other consultants had been considered for the Phase I work. DSD could provide nothing beyond the limited information included in the exemption request. We found no evidence DSD considered any other consultant prior to signing the MSA.

2.39 We did note the consultant had been engaged by DSD in the recent past to perform work in other areas of the Department. Although it is likely DSD had some knowledge of the consultant's general experience, we expected they would have verified and documented the consultant's expertise as well as any review they completed on other possible vendors.

DSD entered into contract with consultant before SNB approved purchase order

2.40 Relying solely on the exemption request submitted by DSD, SNB Strategic Procurement recommended approval of the request on January 22, 2013 and the SNB Minister signed the Purchase Order (PO) approval on January 23, 2013, two days after DSD entered into the MSA with the consultant.

Agreement documents created by consultant

2.41 When we reviewed the MSA and associated SOW created by the consultant and signed by the DSD Deputy Minister, we noted the consultant had written "*The following outlines our proposed project team and structure to support the first two phases of the project*". From this statement it seems likely the consultant expected to be involved in more than the first phase of a multi-phase project.

Phase II PPI Contract

2.42 Our review of SNB procurement files revealed that in April 2013 DSD communicated to SNB their intent to use a pre-qualified list and release an invited tender for Phase II of their PPI project. DSD then began designing a document outlining requirements for the invited tender. Proponents would need to meet these requirements to be considered under the invited tender.

DSD signed a \$112,000 second agreement with the same consultant using the same Public Purchasing Act exemption

2.43 However, in a communication dated May 7, 2013 DSD informed SNB they intended to use a second exemption under the same subsection of the Act to again hire the same consultant for Phase II of the project. DSD rationale for hiring the same consultant highlighted program knowledge gained by the consultant during the Phase I engagement.

SNB warned DSD not to use a 2nd exemption due to potential bias

2.44 The Phase II Statement of Work drafted by the consultant and signed by DSD was dated May 2, 2013 covering a work term from May 21 to June 28 at a cost of \$112,000. This document was completed at least five days before the May 7, 2013 DSD communication to SNB making them aware of the forthcoming exemption request.

2.45 At that point SNB warned DSD against a second exemption, stating they would be “...unable to use “emergency/urgent” given that this is now becoming a lengthy engagement”. SNB also raised concerns over potential bias with DSD, stating “...we feel that the longer one company is engaged under exemption the more biased our evaluation becomes and could be challenged as an unfair process by the other qualified companies”.

2.46 Regardless of these concerns, SNB agreed on May 14, 2013 to approve the exemption for Phase II work, on the condition DSD use the invited tender for the more significant Phase III work to come. The Minister approved the procurement and a purchase order was issued on May 15, 2013.

2.47 We would consider the use of this exemption appropriate for situations or events such as flooding, prolonged power outages, or a pandemic. In our opinion, the use of this exemption for budget reduction planning is not appropriate.

2.48 In our 2009 review of the nursing home contract with Shannex Inc., we recommended “...the Department of Supply and Services formally document the definition of ‘urgent situation.’” We noted some changes were made within the new *Procurement Act* in an attempt to address our recommendation. Since changes to the Act were subsequent to the procurement of this contract, it would not have influenced the use of the exemption in this instance.

2.49 Our overarching concern is with the repeated use of this exemption for the same services with the same consultant inside of a four month period. In our opinion, this is clearly an inappropriate use of the exemption.

- Recommendation** **2.50** **We recommend Service New Brunswick:**
- **ensure emergency and urgent exemptions are not used inappropriately by departments to bypass the competitive tendering process;**
 - **require that departments provide sufficient rationale and documentation to support requested exemptions; and**
 - **maintain a record of why the decision to approve the emergency and urgent exemption was made.**
- 2.51** In our review of Phase II and III procurement files we noted SNB Strategic Procurement staff cautioned DSD twice that there would need to be a break from the engagement with the consultant after Phase II work was complete. Otherwise the consultant would not be eligible to bid on the Phase III invited tender due to conflict of interest concerns. At that time SNB Strategic Procurement personnel communicated “*we feel that there would be undue bias and influence if a proponent is on site while an SOW is out to market*”.
- Phase III PPI Contract**
- DSD contracted directly with the consultant for Strategic Facilitation*
- 2.52** Instead of following SNB’s advice we found DSD retained the same consultant a third time under a direct contract for strategic facilitation work. Under the Act, departments could contract directly with vendors for services, provided the cost did not exceed \$10,000 (including HST). This meant a department did not need to go through Strategic Procurement to hire a vendor if pre-tax cost in 2013 did not exceed \$8,849.56.
- 2.53** Our review of payments to the consultant found one invoice had been processed by DSD in November 2013 for “*the support and facilitation of a departmental-wide strategic plan from June 10th to July 5th 2013*”. The invoice, submitted almost four months after the work was complete, billed DSD \$8,849 before tax, amounting to a discount on consulting fees of approximately 65%.
- DSD paid the consultant for work completed before the Phase III purchase order existed*
- 2.54** We also noted the November invoice for this work was charged against the Phase III purchase order, yet to be issued. This was the PO eventually issued to the same consultant for Phase III advisory services as a result of the invited tender award. These fees should not have been charged against a PO for a tender that had not yet been awarded when the work was completed in July.
- 2.55** We expected SNB would have prevented DSD from re-

hiring the consultant, as it could have allowed the consultant considerable opportunity to influence the Request for Proposal (RFP) requirements prior to the tender issue date. However, SNB indicated they had no knowledge the consultant was hired by DSD between the Phase II exemption work and issuance of the Phase III invited tender. By keeping the cost of the strategic facilitation invoice under the \$10,000 limit, DSD did not need to report this procurement to SNB.

Phase III Tender for Advisory Services

Consultant remained onsite while tender requirements were developed

2.56 SNB issued an invited tender on behalf of DSD for Phase III consulting services to six qualified vendors on July 4, 2013 – one day before the incumbent consultant appears to have completed their strategy work at DSD. This means the consultant remained working for DSD during development of the DSD invited tender requirements and one day past the issue date. This was the situation SNB had specifically warned DSD to avoid.

High potential for undue influence and conflict of interest existed during tender development

2.57 We believe DSD should have followed the advice of SNB Strategic Procurement personnel. In our opinion, the manner in which DSD hired the consultant for strategic facilitation inappropriately allowed the consultant to continue working for DSD during their Phase III tender development. We believe this increased the possibility of a conflict of interest and undue influence by the consultant during the Phase III tendering process and may have led to an unfair procurement.

Recommendation

2.58 **We recommend the Department of Social Development apply a cool down period between the end of existing contracts with potential future proponents to avoid undue influence and conflict of interest.**

Recommendation

2.59 **We recommend the Department of Social Development communicate to Service New Brunswick rationale for not following Service New Brunswick procurement procedures and advice.**

Consultant contributed significantly to tender requirements

2.60 The DSD requirements document for the Phase III tender was based on results of the Phase I and II work completed by the consultant. Attachments to the tender included deliverables from the prior two phases as produced by the consultant.

All other respondents disqualified during procurement process

2.61 The invited tender closed on July 19th, approximately 12 business days after it was issued. Evaluation of four proponent responses was completed by DSD by July 25th. The consultant engaged for Phase I and II through the use of exemptions scored very high in the evaluation, meeting all requirements of

the RFP. The other three respondents were disqualified, having been assessed as not meeting minimum requirements for quality and experience.

2.62 In our opinion, the process followed by DSD during the Phase III procurement provided the consultant with a clear advantage over any other proponent responding to the Phase III invited tender. With only 12 business days to review the RFP and the attachments, we believe other proponents would have struggled to provide a response that could compete with the consultant.

2.63 According to SNB records, Ministerial approval to issue a \$12.25 million (before tax) purchase order to the consultant was obtained August 2nd with the actual purchase order issued on September 6th after negotiations were completed.

Communication of tender results prior to SNB approval

2.64 Finally, we noted the consultant had sent a Memorandum of Understanding dated July 31, 2013 to DSD thanking the Department for choosing them as a result of the tender. It appears communication of tender results was made to the consultant before official approval was received from the SNB Minister.

DSD accountability for procurement remains – regardless of staff turnover

2.65 We discussed the overall procurement process for these advisory services with DSD senior management. We were told DSD had undergone significant turnover and current management could not speak to the process that was followed in 2013. In our view, regardless of staff turnover, departmental accountability remains.

2.66 We believe procurement processes used by the Province should be transparent and fair to all potential vendors. Open competition and clear, well documented decisions are critical to achieve transparency, fairness, and best value to the Province from its procurement of goods and services.

Conclusion - Procurement

2.67 In conclusion, we believe the process followed by the Department of Social Development resulted in an unfair, non-transparent procurement. In our opinion, the sequence of events during this procurement indicated the consultant was inappropriately highly favoured by DSD throughout the process.

Contract Management and Consultant Performance Monitoring

Conclusion – Objective 1

Phase III Master Services Agreement

Phase III Statement of Work

Consultant prepared their own Statement of Work

2.68 Our first audit objective was to determine if DSD monitored the consultant’s performance to ensure services were completed per the Master Services Agreement. In order to begin our work on this objective we examined the final signed agreement documents from the procurement process. We expected the terms and conditions to be clear with well-defined, measurable objectives and deliverables.

2.69 We concluded the Department of Social Development did not independently monitor or evaluate performance of the consultant against the terms and conditions of the Master Services Agreement. Instead, DSD allowed the consultant to inappropriately self-monitor.

2.70 As a result of the Phase III procurement evaluation process, DSD signed a new MSA with the consultant effective August 6, 2013. This Phase III MSA was for a two year term from August 6th, 2013 through August 5th, 2015. The purchase order allowed for an optional 12 month extension to August 5, 2016.

2.71 As part of this MSA there was an associated Phase III SOW. This SOW attempted to define the scope of work to be completed over the Phase III PPI project timeline. A SOW such as this typically includes objectives, scope, tasks and milestones, deliverables and timeframes, and cost.

2.72 According to the Phase III Agreement letter signed by the parties, “*All of the Services will be subject to the terms and conditions of this letter, the attached General Terms and Conditions, and the applicable Statement of Work (together, the “Agreement”).*” We will use the term “Agreement” in this report to refer to the Phase III MSA and SOW.

2.73 We noted the MSA and SOW appeared to have been consultant prepared documents as they were on the consultant’s letterhead. In addition, we were unable to obtain a copy of any legal review document from DSD.

2.74 Negotiations took place between DSD and the consultant prior to signing the final Agreement. Our examination of the final Agreement terms and conditions revealed a substantial change in the Department’s requirements related to compensation. The final agreement included performance based fees largely favouring the consultant as part of a compensation package for the services provided. The performance payments would be based on anticipated savings

instead of actual savings, as DSD had originally required before formal negotiations began.

**Contract
Negotiation -
Questionable
Contract Terms**

2.75 The Agreement stated the basis for performance fees would be “*realizable cumulative savings*”(anticipated savings), defined as

“...savings or cost avoidance arising from solutions that accumulate from an agreed upon baseline. Savings are calculated on an annualized basis and are considered realizable when the solution is demonstrating the capability of achieving an anticipated savings level”.

2.76 This meant the consultant’s performance fee would be based on anticipated savings agreed upon with DSD once a \$10 million threshold in DSD-approved anticipated savings had been reached. The amount of overall performance based compensation would be 15% of agreed upon anticipated savings above this \$10 million threshold.

2.77 Exhibit 2.8 is a reproduction from the Agreement outlining how compensation would be applied, including the 15% performance-based fee. This shows two possible scenarios to explain application of anticipated savings under the Agreement.

Exhibit 2.8 Example of Consultant Compensation under the Agreement

Example of Consultant Compensation under the Agreement (millions)		
Professional Fees	Anticipated Savings \$40	Anticipated Savings \$60
Fixed resource fees	\$4.0	\$4.0
Performance based fees	\$4.5	\$7.5
Out of pocket expenses	\$0.5	\$0.5
Total	\$9.0	\$12.0
<i>Source: PPI Statement of Work - modified by AGNB</i>		

2.78 Exhibit 2.8 highlights the impact of changes in anticipated savings on performance-based fees ultimately paid to the consultant. Performance fees increase as mutually agreed upon anticipated savings increase above the \$10 million threshold. At \$40 million for example, the savings calculation would be: (\$40 million - \$10 million) x 15% = \$4.5 million in performance fees.

- 2.79** Anticipated savings were to be counted over 24 months but did not include recurring savings. In other words, only additional anticipated savings in the second 12 month period would be included with the anticipated savings from the first 12 month period in the total performance fee calculation.
- DSD originally required the consultant's performance fees to be based on savings from achieved and implemented initiatives**
- 2.80** In communicating their negotiation approach and requirements to SNB Strategic Procurement, DSD specifically stated:
1. *"the savings have to be achieved from opportunities that are actually implemented successfully and not just identified (and not implemented)"* and,
 2. *"Savings have to be defined as annual savings and not cumulative savings"*.
- 2.81** This means DSD wanted to ensure achieved, implemented savings would be the baseline of measurement for any performance-based fees paid to the consultant under the proposed Agreement.
- Agreement based the consultant's performance fees on potential savings, whether realized or not**
- 2.82** According to documentation we reviewed, negotiations were completed on August 1, 2013. While performance fees were part of the compensation agreed to by DSD, the base for these payments would be *realizable cumulative savings* and not actual *realized* or *achieved* savings as initially intended.
- DSD could not explain why significant contract changes occurred**
- 2.83** When we asked current DSD and SNB Strategic Procurement personnel why this significant change to anticipated savings occurred in the negotiation process they were not able to provide an answer to our question. Again DSD indicated senior staff in the Department changed in 2013. However, staff still employed with DSD who evaluated vendor responses to the tender indicated they were not part of the decision to change from achieved savings to *"realizable"* savings and had no idea why this change was made.
- 2.84** As noted previously, DSD is accountable for its actions regardless of staff turnover.
- 2.85** DSD senior management told us they believed performance based fees would promote strong vendor performance by tying performance to results. While performance based compensation can be an incentive for vendors to meet objectives, we believe it should have been tied to objectives such as actual savings. The risk borne by the Province under an Agreement to pay based on anticipated savings was, in our

view, highly unacceptable.

Example - Faulty assumptions lead to \$323,000 in performance fees and no savings to DSD

2.86 One early initiative, long-term care functional reassessments, is an example of increased risk due to faulty assumptions in a savings forecast. This initiative was approved for anticipated savings of \$2.2 million leading to approximately \$323,000 in performance fees. The initiative, though, was based on faulty assumptions and at the time of our audit work DSD had realized no savings.

2.87 In December of 2016 after the project was complete DSD was still hoping to negotiate a settlement with the consultant regarding this initiative. They wanted to lower amounts still owing on outstanding consultant invoices to recoup some of this cost in an effort to remain within the purchase order limit. Subsequent to our audit work DSD advised they were successful in recouping \$221,000 of the original payment from the consultant.

2.88 Performance based on actual results decreases ambiguity and ensures payments are tied directly to targets achieved and not based on potential savings that may or may not be realized by DSD.

Recommendation

2.89 **We recommend the Department of Social Development structure contracts containing performance compensation only on actual, measurable results.**

Contract Management Framework

2.90 As part of an overall contract management framework, we expected to find DSD had documented practices to measure, monitor, evaluate and report on consultant performance in meeting contract objectives. Specifically we expected DSD to monitor and evaluate the consultant's performance over the contract period to ensure contracted objectives and deliverables were met.

DSD has no contract management framework

2.91 DSD personnel could provide no evidence of a standardized process or contract management framework used to consistently monitor and manage contracts.

2.92 Department senior management did indicate contract templates were being developed as part of a larger contract management framework. Subsequent to our audit work they provided some information related to this initiative.

2.93 We believe it is important to have a consistent overarching methodology for managing significant aspects of contracts. Weak contract management inhibits value maximization and

limits effectiveness of contract delivery. If designed properly, a contract management framework enhances value through efficient and effective oversight practices.

Recommendation **2.94** **We recommend the Department of Social Development develop a framework to govern significant aspects of contract management such as procurement, administration, evaluation and reporting.**

Agreement Terms and Conditions **2.95** We reviewed the tender requirements and identified two specific DSD objectives for the project:

“Social Development has a reduction target for this initiative of a minimum of \$5 million in 2013-14 budget year and a target of \$40.0 million in aggregate net benefits by the end of fiscal 2015/2016”.

DSD signed a \$12.25 million contract with no objectives or targets detailed in the signed Agreement **2.96** Considering these targets were part of tender requirements, we expected to find them stated in the Agreement. We found the Agreement offered no mention of a clear objective. The consultant stated in the final Agreement:

*“** Our detailed approach for delivering early savings and savings target during the period is detailed in our response to tender # 2594007-14 dated 19 July 2013”.*

2.97 The tender submission by the consultant stated *“we have outlined a plan to support SD’s achievement of \$5 to \$7.5 million net savings for F13/14 and a targeted \$40M in savings for F15/16. We have presented 3 pricing options to execute on realizing the savings”.*

The pricing section of the document further stated:

“Our proposal and pricing model is designed to deliver in excess of \$5 million by March 2014 and no less than \$40 million in annual savings by March 2016”

2.98 Although these were quotes from the consultant’s bid response to the tender, there were no specific objectives included in the final agreement. In our opinion, final agreements should include clear objectives in order for both parties to understand the expectations.

Agreement Deliverables **2.99** We also expected to find all major deliverables clearly defined as part of the Agreement documentation. In the Agreement the consultant committed to preparing *“...written reports”* for the overall project.

Consultant deliverables not clearly defined in the Agreement

2.100 The Agreement included the following definition of reports:
“Reports” is defined in the General Terms and Conditions as including all information, advice, recommendations or other content of any reports, presentations, or other communications we provide to you”.
 We believe this definition could undermine the quality of the deliverables provided to DSD. Essentially any form or format of communication appeared to be acceptable under the Agreement.

DSD had no established criteria against which to measure the quality of contract deliverables

2.101 In order to assess the quality of deliverables that were part of the Agreement and any other supporting documentation provided by the consultant, we expected DSD would have criteria against which to measure work product they received. However, DSD indicated they had not established any such criteria or expectations regarding the quality of reports or deliverables with exception of a very limited project charter form already in use by DSD.

2.102 We believe it is important to include objectives, targets, and major deliverables in signed agreements to ensure expectations are clearly defined and understood by all parties. This is critical in order for a department to adequately monitor and report on the performance of a consultant.

Recommendation

2.103 **We recommend the Department of Social Development design and develop agreements that provide for performance measurement by including objectives and clear, well defined deliverables.**

Consultant Performance Monitoring

2.104 *“A public entity needs to monitor and manage the supplier’s performance to assess whether the public entity is receiving value for money.”¹* We expected DSD to independently monitor and report on performance of the consultant under the PPI project.

¹ Controller and Auditor General New Zealand. *Procurement Guidance for Public Entities*. 2008, 85.

DSD relied solely on the consultant to evaluate quality and performance under the Agreement

2.105 DSD had no specific staff assigned to monitor the consultant's performance on behalf of the Department. We found DSD relied solely on the efforts of the consultant to self-evaluate their performance in addition to the overall project performance. At the time of our reporting DSD had not independently evaluated the consultant's efforts in meeting the objectives of the contracted services.

2.106 DSD indicated a senior member of the consulting company was responsible for project quality and completed reviews with DSD senior management on a regular basis to address project problems or issues. In effect, the consultant was assigned responsibility by DSD for monitoring its own performance.

DSD had no documentation evaluating consultant performance

2.107 However, at the time of our audit, DSD could not provide us with reports, documentation or any other information detailing any quality control reviews undertaken by the consultant. There were also no minutes maintained by DSD of any quality control review meetings between DSD senior management and the consultant.

2.108 While including the consultant in the quality evaluation process provides the consultant with an opportunity to address performance issues as they arise, allowing the consultant to drive the process can lead to a biased evaluation of the consultant's performance due to an obvious conflict of interest. Since no reports were provided by DSD on this work, we could not assess the consultant's quality assurance efforts in evaluating their own performance.

2.109 In our opinion, a consultant should not be relied upon to evaluate their performance. We believe it is the responsibility of government departments to independently evaluate and report on the performance of contracted consultants.

2.110 In our 2013 report on procurement of goods and services, we recommended the Department of Government Services solicit department feedback and complete vendor performance reports.

DSD exercised the one-year optional extension under the Agreement

2.111 DSD requested SNB amend the purchase order to exercise the extension year option in a communication dated June 19, 2015.

- 2.112** Significant terms and conditions negotiated into the initial 24 month term, including a per diem discount and payment caps, were not included in the optional 12 month extension. We reviewed communications sent to SNB in an effort to identify how terms and conditions for the extension year were settled prior to exercising the option. We also expected DSD to evaluate the consultant's performance at this point and provide such information to SNB before an amended purchase order was released.
- DSD extended Agreement with no negotiations**
- 2.113** We found the communications provided no confirmation of re-negotiated terms and conditions for the extension or any evaluation of the consultant's performance during the initial Agreement term. In addition, SNB, for its part, did not request this type of information prior to amending the purchase order.
- DSD did not evaluate consultant's performance before extending Agreement for third year**
- 2.114** DSD senior management told us they did not formally evaluate the consultant's performance before making a decision to extend the Agreement. In addition, they made no attempt to renegotiate any terms and conditions with the consultant before extending the contract.
- DSD missed an opportunity to amend the Agreement**
- 2.115** At this point DSD had an opportunity to evaluate the overall status of the project and the performance of the consultant against their original objectives before requesting an extension of the contract. They could have attempted to re-negotiate the terms and conditions of the agreement and reset the relationship with the consultant.
- 2.116** It is important for government departments to independently monitor and report on the performance of contracted consultants to ensure they are meeting expectations and fulfilling contract requirements. Further, performance information should be reported to SNB Strategic Procurement where it can be used to assess vendor capability in the future, thereby strengthening the overall procurement process.
- Recommendation**
- 2.117** **We recommend the Department of Social Development:**
- **independently evaluate the performance of contractors against well-defined contract goals, objectives and deliverables; and**
 - **submit written feedback to Service New Brunswick on the contractor's performance for significant contracts.**

- Recommendation** 2.118 **We recommend Service New Brunswick require contractor performance reports be submitted by procuring entities for all significant agreements.**
- Measurement and Evaluation of Results** 2.119 Our second objective was to determine if the Department of Social Development measures and evaluates the results of completed project initiatives against planned benefits. Appendix V lists the initiatives referenced in this report.
- Conclusion – Objective 2** 2.120 We concluded that while the Department does measure the results of completed initiatives, not all measures are reliable. Qualitative results are not being measured. The Management Operating System (MOS), a key quality measurement tool, was not delivered by the consultant.
- Management Operating System (MOS) - Agreement requires consultant deliver MOS** 2.121 The Agreement indicates the consultant would implement a Management Operating System that aligned with the Province of New Brunswick MOS. We asked DSD what was meant specifically by alignment with the Provincial MOS but received no clear explanation.
- MOS to include simplified workload management tools** 2.122 DSD’s original tender requirements indicated the proponent would be expected to create or improve key management tools to achieve operational improvements, cost savings and other non-financial benefits. Detailed activities for the project included development and testing of an MOS and information tracking tools such as spreadsheets and dashboards to support daily decision making.
- Consultant committed to delivering MOS under the contract** 2.123 In their response to the tender, the consultant indicated they were well versed with the Provincial MOS. The consultant indicated they would support the deployment of the MOS through development of simplified workload management tools. Finally, they committed to build spreadsheet-based dashboards activated via automated controls to enhance decision making.
- 2.124 We inquired with DSD as to whether simplified workload management tools were now in place. DSD responded that this functionality would require software and was abandoned when it was determined cost would be prohibitive.
- DSD did not enforce delivery of a MOS as required in the Agreement** 2.125 Upon reviewing the documentation of what was expected with regard to the MOS, we found DSD did not ensure the consultant fully delivered on this part of the contract. Invoices billed by the consultant for the MOS totalled approximately

\$177,000.

Dashboard contained a number of accuracy and calculation issues

2.126 Exhibit 2.9 provides a summary of the dashboard provided by DSD for our review. The dashboard is designed to measure actual savings against anticipated amounts. DSD indicated the spreadsheet was not provided by the consultant. We performed basic audit procedures over the dashboard and found a number of accuracy and calculation issues. Further, some of the cells had not been updated. A reproduction of the dashboard is presented in Appendix VI.

Exhibit 2.9 Dashboard Summary (June 2016)

Dashboard Summary (June 2016)			
Initiative Status	Number of Savings Initiatives	Anticipated Savings (millions)	Actual Savings (millions)
Not implemented	10	\$34.5	\$0.0
Implemented	8	7.9	8.0
Implemented – not substantiated	4	4.2	2.1
Total	22	\$46.6	\$10.1
<i>Source: Created by AGNB with information obtained from the DSD PPI Dashboard</i>			

DSD could not verify or substantiate reported savings of \$2.1 million, therefore we cannot rely on the total reported savings of \$10.1 million

2.127 Of the 22 cost savings initiatives listed on the dashboard:

- 10 did not have accumulated savings recorded because they had not been implemented as of the dashboard date. These comprised \$34.5 million of the \$46.6 million in forecasted savings.
- 4 had actual savings of \$2.1 million reported on the dashboard but without any analysis or data to substantiate the amounts. In these cases, savings were presented using the anticipated savings as realized.
- 8 had data or analysis supporting \$8.0 million in actual savings.

2.128 Without performing sufficient analysis, DSD could not verify the accuracy of the actual savings. Due to the significant amount unsubstantiated, we consider the total actual savings figure to be unreliable.

Recommendation

2.129 We recommend the Department of Social Development track actual savings as they accumulate over time supported by relevant data.

- 2.130** Financial information is important but not sufficient to effectively measure performance. If DSD is to obtain a true picture of success or failure of the PPI project, the reporting tools must accurately measure key performance indicators to signal whether program changes have beneficial or negative impact on efficiency and quality of client services.
- DSD did not measure quality of client service delivery as part of the PPI project**
- 2.131** DSD did not measure quality of client service delivery as part of the PPI project. Without measuring qualitative results, DSD cannot determine whether there are adverse effects on quality as a result of program changes.
- Recommendation**
- 2.132 We recommend the Department of Social Development measure and report the impact to quality of client service delivery resulting from implemented performance improvement initiatives.**
- Savings Realization**
- 2.133** The overall objective for DSD from its contract for advisory services was to realize savings from the initiatives identified. Overall DSD had originally targeted \$40 million in savings by March 31, 2016. This target was based on work completed in Phase I and II of the project but was not included in the signed agreement.
- 2.134** We obtained the June 2016 project reporting dashboard from DSD in order to assess their progress toward the savings goal. We noted the dashboard identifies \$46.6 million in anticipated savings. DSD indicated the dashboard was the overarching mechanism for tracking actual savings. Earlier in the report we identified reservations respecting the accuracy of the information presented in the dashboard. However, we used the numbers provided by DSD for the purpose of presenting the status of actual savings to that date.
- 2.135** Exhibit 2.10 presents the dashboard reported status and actual savings to June 2016. Some of the initiatives, such as Nursing Home P3, are long term in nature and actual savings could be subject to change. While DSD signed a Project Agreement for a Moncton Nursing Home Facility, construction of the nursing home is not yet complete. For this reason the Department had not realized any savings from the initiative during the period of our audit. In addition, the Health Services Benefits implementation was only partially completed in May 2016 and no measurement of savings had been recorded in the dashboard by June.

Exhibit 2.10 June 2016 DSD Actual Savings (thousands)

June 2016 DSD Actual Savings (thousands)			
Benefits Evaluation Committee Approved Initiatives for Performance Pay	BEC Approved Anticipated Savings	DSD Actual Savings	<u>Performance Fees</u> ¹
<i>Implemented (per June dashboard)</i>			
Vacant Nursing Home Beds	\$ 400	\$ 1,350	\$ 60
Family Group Conferencing (in-care)	896	154	134
Federal Disability Support	1,460	2,486	219
Health Services Convalescent Contract	647	117	97
Federal Social Assistance funding	731	1,966	110
Long-term Care Functional Reassessment	2,154	-	323
Housing client contribution	1,000	1,334	150
AFLA client contribution	438	657	66
Shannex renegotiation	593	593	89
Medbuy (Phase I)	729	911	109
Health Services benefits	1,890	-	283
Nursing Home client contributions	1,172	487	176
<i>Sub-total (implemented)</i>	<i>\$ 12,110</i>	<i>\$ 10,055</i>	<i>\$ 1,816</i>
<i>Not implemented (per June dashboard)</i>			
Nursing Home P3	3,862	-	579
Family Support Order Services (FSOS)	410	-	62
Medical supplies	2,100	-	315
Minimum Data Set (MDS)	2,750	-	412
Direct Care Skill Mix (DCSM)	8,450	-	1,267
Delivery role analysis	3,200	-	480
Role Analysis Efficiencies at screening	700	-	105
Medbuy (Phase II)	691	-	104
<i>Sub-total (incomplete)</i>	<i>\$ 22,163</i>	<i>-</i>	<i>\$ 3,324</i>
<i>Not approved by government</i>			
Nursing home financing	\$ 6,450	-	\$ 968
Nursing home governance	5,900	-	885
<i>Sub-total (not approved)</i>	<i>\$ 12,350</i>		<i>\$ 1,853</i>
Unpaid fees due to \$10 million savings threshold			(1,500)
Invoice volume discount applied by consultant			(389)
TOTAL	\$ 46,623	\$ 10,055	\$ 5,104
<u>Notes</u>			
1- Performance fees calculated at 15% of anticipated savings (after \$10 million threshold)			
<i>Source: Created by AGNB using self-reported information and data supplied by DSD (unaudited)</i>			

DSD short of savings target by \$36.5 million (78%) **2.136** Exhibit 2.10 indicates that the June 2016 actual savings from implemented initiatives value of \$10.1 million falls short of the identified \$46.6 million savings target shown by about \$36.5 million (78%).

2.137 The consultant was paid performance based fees of \$5.1 million for their work on the initiatives included in Exhibit 2.10. This would not include professional fees and expense payments to the consultant as they could not be directly attributed to specific initiatives. In addition, this total does not include DSD internal costs, such as staff time, for project resources and administration.

Two initiatives not approved by government cost over \$1.85 million in performance fees **2.138** Of specific concern are two initiatives, both related to non-profit nursing home operations, which were apparently not approved by government. Due to terms of the Agreement the consultant was paid over \$1.85 million (before discounts) for their work on these initiatives.

2.139 DSD was required to pay the consultant due to the following clause in the Agreement:

“Decisions to delay benefits realization based on a preferred approach by SD shall not impact the quantum of the performance fees and the associated savings shall be included in the calculation of the agreed upon realizable cumulative savings”.

DSD did not mitigate the risk of government not approving costly initiatives **2.140** In other words, once DSD agreed anticipated savings could be realized, the performance fee would be paid. It did not matter when or if initiatives were implemented. If DSD could not implement an initiative due to lack of government support or any other reason, the consultant would be paid the performance fee.

2.141 While this protected the interests of the consultant we found no similar clause in the Agreement protecting the interests of DSD should the consultant not perform as expected in meeting their obligations.

Contract Cost **2.142** Exhibit 2.11 provides an estimated total of all expenditures charged against the PPI purchase order issued by the Province. We noted while the purchase order limited the total cost of the contract to \$12.25 million, there was no ‘not to exceed’ clause in the signed Agreement.

No ‘not to exceed’ clause included in the Agreement

Exhibit 2.11 Estimated Phase III Contract Payments to Consultant to April 2017
(thousands)

Estimated Phase III Contract Payments to Consultant to April 2017 (thousands)	
Consultant Phase III invoices to April 2017	\$ 12,951
Invoice for strategic facilitation (incorrectly billed to PO)	9
Estimated Total payments to April 2017	12,960
Purchase Order limit	12,250
Estimated Purchase Order over-expenditure	\$ 710
<i>Source: Created by AGNB using information and data supplied by DSD</i>	

DSD exceeded the PO limit by \$700,000 **2.143** Exhibit 2.11 indicates DSD will overspend against the purchase order by approximately \$700,000. This represents a 6% over expenditure by the Department.

2.144 We expected DSD to have tracked and controlled expenditures under the PPI purchase order. By the end of our audit work we had received no evidence from DSD this actually occurred.

2.145 We believe it is important for government departments to protect public interest when managing contracts with external entities. The significant lack of control over payments during the initial and extended terms of this contract resulted in approximately \$700,000 in unauthorized payments.

Recommendation **2.146** **We recommend Service New Brunswick ensure that service contracts include a ‘not to exceed’ clause in the amount matching the purchase order value.**

Status of PPI Initiatives **2.147** Our third objective was to determine if the Department of Social Development has a plan to complete all project initiatives resulting from the PPI Master Service Agreement. Under this objective we expected DSD to have current implementation plans guiding completion of outstanding initiatives under the Agreement.

Conclusion – Objective 3 **2.148** We concluded DSD had implementation plans for outstanding PPI initiatives but noted the plans were not always current and could be improved in format and consistency. In addition, DSD did not monitor cost control and quality of services to clients.

2.149 The extension year of the Agreement expired August 5, 2016. We evaluated the implementation status of outstanding

initiatives and overall results of the project against the savings targets as of that date.

2.150 In order to review the implementation status of the PPI initiatives we asked two key questions:

1. Did DSD have a completed implementation plan for each of the identified initiatives?
2. Did DSD regularly monitor the ongoing status of the implementation process against key deliverables required in the plan?

Implementation Planning

2.151 In December 2015 we requested DSD provide us with implementation plans for all PPI initiatives. We initially received implementation plans from DSD in various formats and differing degrees of completeness.

DSD had implementation planning documents for incomplete initiatives

2.152 Prior to starting our field work for this section of the audit in October 2016, we repeated our request for implementation plans, this time focusing only on incomplete initiatives as identified by DSD. We received the final implementation plans for our review in December 2016.

2.153 Exhibit 2.12 is a summary of incomplete PPI initiatives identified by DSD at the end of the Agreement in August 2016 and the savings target from the PPI June 2016 dashboard, the latest version available for our review.

Exhibit 2.12 Incomplete PPI Initiatives to August 2016

Incomplete PPI Initiatives to August 2016		
PPI Initiative	Status of Initiative	Savings Target (thousands)
Health Services Benefits	Implemented/partially complete	\$ 1,890
Medical Supplies	Implemented/partially complete	2,100
Minimum Data Set (MDS)	Implementation in progress	2,750
Direct Care Skill Mix	Implementation in progress	8,450
Delivery Role Analysis	Partially implemented	3,200
Role Analysis Efficiencies at Screening	Not implemented to date	700
Medbuy (Phase II)	Not implemented to date	691
Nursing Home Financing	Not approved by government	6,450
Nursing Home Governance	Not approved by government	5,900
Total savings target for incomplete initiatives (August 2016)		\$ 32,131
<i>Source: Created by AGNB from information supplied by DSD</i>		

2.154 All of the initiatives listed in Exhibit 2.12 included performance-based compensation. In order for the BEC to approve payment of the performance fees an implementation plan needed to be in place.

2.155 To address our first question we reviewed the implementation plans provided by DSD for the nine initiatives to determine if they included basic implementation planning elements we expected to find. Specifically, we expected the plans to include, at a minimum:

- Objectives
- Schedules with specified milestones (i.e. Gantt chart)
- Required actions and timelines for completion
- Resource allocation to project tasks
- Monitoring and reporting methodology
- Risk identification and mitigation strategies

We also considered the complexity level of the initiatives in evaluating the degree to which these elements were addressed in the plans.

Implementation plan quality and format was inconsistent

2.156 While we found DSD had implementation plans for all of initiatives listed in Exhibit 2.11 there were inconsistencies in plan quality, format and completeness. In addition, some elements we were looking for were in a separate document called a control plan. As we noted above, DSD had no criteria against which to measure the deliverable quality. We believe this contributed to the weaknesses we highlight below.

Plans were power-point presentations

2.157 A PowerPoint presentation format was used for the plans. This was a common tool used by the consultant to prepare business case and planning documents. Although this format works well when used as part of a presentation with the consultant onsite to address each section, we found it lacked the stand-alone quality of a standardized report structure. We believe this contributed to the inconsistency in content across the consultant's reports.

3 plans not updated to reflect delays in implementation

2.158 We found three significant initiatives were delayed after the initial implementation plan was completed yet there was no update to the plan provided by DSD. In order to manage ongoing implementation these plans should have been updated with new deliverables and dates for completion.

Ongoing Monitoring of Implementation Status

2.159 We expected implementation plans to be current and include monitoring of key implementation milestones and deliverables. We believe the quality of deliverables (such as policy documents) and the services delivered to clients should be important to government departments.

Weakness in monitoring strategy for implementation deliverables and ongoing service quality

2.160 Most of the initiatives we reviewed will likely have a direct impact on client services provided by DSD. In all but two cases, implementation plans we reviewed included no strategy to monitor specific implementation deliverables or quality of service impact as a result of the initiative being implemented by DSD.

3 plans did not include a monitoring and reporting methodology for savings realization

2.161 As a minimum, we expected DSD to have a strategy to measure and report on savings included in the implementation plans. However, we found three plans we reviewed did not include any specific monitoring and reporting mechanisms for measuring actual savings from implementation.

Implementation status reporting

2.162 The PPI Project Charter from October 2013 stated “*Project progress will be reported bi-weekly by the PMO co-leads during regular Steering Committee meetings using an agreed upon status report.*” Therefore, we expected each major initiative under the PPI contract would have a separate status report used to inform management of the implementation progress related to cost, schedule, and significant deliverables stated in the plan document.

2.163 We asked DSD personnel to provide us with a sample of these status reports so we could assess the quality of the documents for implementation progress reporting.

2.164 The documents provided were PowerPoint presentations. These reports were geared toward reporting on the overall PPI project, with color codes highlighting the health of different project components, including issues with specific initiatives.

Project status reports did report on issues and risks for initiatives

2.165 Issues with specific initiatives were generally part of “*Risks and Issues Update*” slides that included the risk status, description of the risk and issue as well as any comments, actions, or decisions related to the item noted.

Project status reports did not provide a detailed status update on each initiative

2.166 While we were pleased to find some status information on the initiatives in the project status reports, we found those we reviewed were not always consistent in content and did not address the key implementation areas we were looking for. We found nothing specific related to cost control or the status

of key deliverables or action items against scheduled milestones stated in the implementation plans.

2.167 Since six of the implementation plans we reviewed had identified some monitoring and reporting requirement as it related to savings, we believed more detailed reports likely existed. For this reason we again requested implementation status reports for the incomplete initiatives.

2.168 We finally received more detailed reports in February 2017, well after our field work was complete. We scanned these status reports but were unable to assess them fully in completing this report. This scope limitation is referred to in the introduction to this chapter.

Recommendation 2.169 We recommend the Department of Social Development develop a monitoring strategy for implementation targets, milestones, deliverables, and service quality for significant Departmental initiatives.

Out of Scope Services for Implementation Support 2.170 As the initial 24 month contract period ended, DSD realized it could not complete implementation of outstanding initiatives without assistance of the consultant. For this reason DSD engaged the consultant in the extension year to provide additional implementation support as out of scope services.

2.171 Exhibit 2.13 presents the estimated professional fee payments made to the consultant for implementation support to complete specific initiatives.

Exhibit 2.13 Professional Fees for Out of Scope Implementation Support (April 2017)

Professional Fees for Out of Scope Implementation Support (April 2017)	
Initiatives deemed out of scope for implementation support	Professional Fees (thousands)
Medical Supplies	\$ 417
Direct Care Skill Mix	337
Procure to Pay	233
Grant Optimization	165
Health Services Benefits	114
Minimum Data Set (MDS)	15
Out of scope services - implementation support payments	\$ 1,281

Source: Created by AGNB using information and data supplied by DSD

2.172 The additional implementation support provided by the consultant cost an estimated \$1.3 million in professional fees during the extension year of the Agreement.

2.173 The definition for out of scope services in the Agreement included “*strategies that are not directly impacting the realization of savings within the next 24 months*”. The Agreement stated out of scope services would be compensated with professional fees only. Performance based fees would not be paid to the consultant for out of scope services. Since all of these initiatives resulted in performance-based compensation, we do not believe these should have been considered out of scope services.

2.174 In the initial 24 month Agreement, the advisory services included implementation support, stating the consultant “*is accountable to identify, design and provide support in the implementation of savings solutions*”.

Clearly some level of support was part of the Agreement.

2.175 DSD indicated the support effort required by the consultant exceeded the level of support provided under the Agreement. Since the level of support under the Agreement was not defined, this assertion seems arbitrary and we question its validity. We disagree with the Department’s view and, in our opinion, paying additional professional fees for implementation support was inappropriate.

DSD paid an additional \$1.3 million in professional fees for implementation support

2.176 DSD senior management claimed resource capacity limited their ability to implement the outstanding initiatives without the consultant. We believe failure to control the scope of the overall PPI project combined with no negotiation of the extended year contract terms led to these initiatives being deemed out of scope and cost DSD approximately \$1.3 million in additional implementation support charges.

2.177 We expected DSD to have defined a process with specific, consistent criteria governing the selection and approval of out of scope initiatives prior to signing the Agreement.

DSD had no defined criteria for selecting and approving out of scope initiatives

2.178 However, DSD indicated they had no pre-established criteria regarding out of scope services. Only the definition in the Agreement governed what was considered out of scope. In our opinion, any project or initiative could potentially be considered out of scope under the contract.

2.179 We believe contracts should include only initiatives

meeting the scope of the original contract objectives. Adding out of scope work can result in significant cost increases and implementation delays.

Recommendation 2.180 We recommend the Department of Social Development not include clauses in contracts for consulting services that allow out of scope work to be undertaken.

Control of Contract Payments

2.181 Our fourth objective was to determine if the Department of Social Development approved professional fees in accordance with the Master Service Agreement and government policy.

2.182 Consultant compliance with terms and conditions of the contract is critical if maximum value is to be obtained from contracted services. In addition, departments must adhere to provincial policy when approving payments to consultants.

2.183 We expected DSD would have procedures in place to ensure compliance with:

1. contract terms and conditions; and
2. provincial policy.

Conclusion – Objective 4

2.184 We concluded DSD did not exercise effective controls in the administration of this contract and specifically in controlling payments to the consultant.

2.185 Specific terms established in the Agreement for each type of compensation are presented in Exhibit 2.14.

Exhibit 2.14 Contract Terms by Compensation Type

Contract Terms by Compensation Type		
Professional Fees	Performance Fees	Travel Expenses
Per diem rate (8-hour day) \$960 to \$4,000	Based on anticipated savings	Based on actual expenses incurred
50 % rate discount for <i>first 24 month period</i>	Applied after first \$10 million of anticipated savings	Subject to \$500,000 cap for <i>first 24 month period</i> (\$250,000 cap each year)
Subject to \$4,000,000 cap over <i>first 24 month period</i>	Calculated at 15% of anticipated savings	Adhere to GNB Travel Policy
7.5 % volume discount over <i>36-month extended contract</i> after aggregate applicable fees to all departments reached \$10 million		
<i>Source: Created by AGNB using information and data supplied by DSD</i>		

2.186 Professional fees were charged for the hours worked by the consultant's staff. The per diem charge (for an 8-hour day)

was based on the staff members' position in the consultant's organization, ranging from a minimum of \$960 to a maximum of \$4,000. For billing purposes, the consultant charged by the hour.

2.187 These base per diem rates were then discounted at 50% and the overall total was capped at \$4 million for the initial 24 month term of the contract. Neither of these conditions would apply to the extension term.

2.188 An additional discount was negotiated by SNB Strategic Procurement after a second department, Education and Early Childhood Development (EECD) completed a PPI tender, and awarded it to the same consultant. At this point the MSA was renegotiated to add an additional 7.5% volume discount on all fees (excluding out of pocket expenses) for both DSD and EECD when the aggregate total of applicable fees billed to all government departments reached a \$10 million threshold. This discount covered the full 3-year period under the DSD Agreement.

2.189 As previously explained, performance based fees were paid at 15% of the anticipated savings after a \$10 million anticipated savings baseline was reached. Performance payments were made after the Benefits Evaluation Committee reviewed the business case with the consultant and approved the anticipated savings value.

2.190 The Agreement stipulated out of pocket travel expenses to be invoiced as incurred by the consultant, stating the expenses:

"...will be invoiced based upon actual expense incurred in accordance with the government of New Brunswick travel policy and up to a cap of \$250,000 in each of year 1 and year 2 for a total of \$500,000 for the duration of the 24 month contract".

So for the initial 24 month term of the Agreement, out of pocket travel expenses billed against each 12 month time period could not exceed \$250,000.

2.191 We obtained the consultant's invoices from DSD and broke down the amounts paid by compensation type. The totals of the invoices we received to April 13, 2017 are presented in Exhibit 2.15.

Exhibit 2.15 Consultant Payments to April 13, 2017 by Payment Type

Consultant Payments to April 13, 2017 by Payment Type		
Payment Type	Invoice Amount (thousands)	% of Total Amount
Professional fees	\$ 6,342	49%
Performance fees	5,757	44%
Travel expenses	646	5%
Subcontractor fees	206	2%
Totals	\$ 12,951	100%

Source: Created by AGNB using information and data supplied by DSD

2.192 Exhibit 2.15 highlights that 49% of all billings against the Agreement were for professional fees and 44% of the total were performance-based fees. Invoices totaled nearly \$13 million by April 13, 2017 for all fee types.

Observations from Invoice and Payment Analysis

2.193 In order to assess if DSD utilized effective control over contract terms and authorized payment in compliance with provincial policy we examined 68 invoices submitted by the consultant between September 27, 2013 and April 4, 2016.

2.194 The 68 invoices reviewed consisted of:

- 37 professional fee invoices (including 4 subcontractor billings) averaging \$155,000 per invoice for the 33 main consultant's billings;
- 27 expense invoices averaging \$21,000 per invoice; and
- 4 performance-based invoices.

While we found only minor issues for most of the risk factors we identified, we did find that invoicing practices by the consultant were inconsistent in some cases.

2.195 We flagged invoice coverage periods exceeding 8 weeks and billings lagging more than 60 days after the last week covered by the invoice. As noted below we found a number of instances when the coverage period and the lag exceeded these values.

Invoice type	Invoice coverage exceeding 8 weeks	Invoice lag exceeding 60 days
Professional fees	6 of 37 (16%)	4 of 37 (11%)
Expenses	8 of 27 (30%)	9 of 27 (33%)

2.196 While some of the bills were only minimally over the limits we used, there were significant exceptions. Of particular note are two professional fee invoices totaling \$414,000 that were submitted 113 and 318 days after the invoiced work was completed. In addition, two expense invoices totaling \$41,000 were submitted 112 and 255 days after the expenses were incurred.

Invoices submitted as much as 531 days after work was completed.

2.197 Subsequent to our field work DSD received an additional invoice totaling \$124,000 in professional fees from the consultant dated April 13, 2017. We noted this invoice was significantly late, submitted by the consultant approximately 251 days after the contract ended and 531 days after the work period. DSD indicated they were told by the consultant this invoice was “*not produced in error*”. DSD was not aware this invoice was outstanding.

2.198 Given the time lapse, it would have been very difficult for DSD to question or verify the accuracy and completeness of the consultant’s invoices. We believe DSD should have addressed these inconsistencies in the consultant’s billing patterns.

Recommendation

2.199 We recommend the Department of Social Development include clear contract terms stipulating billing requirements such as a maximum timeframe for submission of invoices.

Billing Caps and Discounts under the Agreement

2.200 There were three major factors limiting consultant billings under the Agreement, including:

- professional fee cap;
- expense cap; and
- discounts.

We expected DSD to reconcile the consultant’s billings against these terms and conditions in the Agreement and request adjustment where necessary to ensure compliance with the Agreement.

2.201 We estimated 46,000 hours were billed in professional fees (excluding subcontractor charges) for the PPI project at an average invoice charge of \$159,000. The number of consulting staff charged per invoice ranged from 3 to 34, averaging at 20 per invoice billed.

Professional fees capped at \$4 million over 24 months **2.202** Professional fee billings were capped at \$4 million over the initial 24 months of the contract. Exhibit 2.16 presents the results of our analysis of the payments made to the consultant for professional fees over that period.

Exhibit 2.16 Professional Fee Cap over 24 months (thousands)

Professional Fee Cap over 24 months (thousands)	
Consultant invoices charged in initial 24 month period	\$ 4,374
Add: Subcontractor charges from invoices	<u>205</u>
Total consultant invoices during initial 24 month period	4,579
Cap applicable in initial period	<u>(4,000)</u>
Estimated charges over cap <i>before adjusting for out of scope services</i>	579
Less: Out of scope initiatives identified by DSD	<u>(584)</u>
Estimated charges over / (under) cap	<u><u>\$ (5)</u></u>
<i>Source: Created by AGNB using information and data supplied by DSD</i>	

2.203 From this analysis it appears the consultant did not exceed the professional fee cap value.

Impact of Out of Scope Services **2.204** However we were not able to verify the accuracy of this analysis with DSD as the Department did not complete a similar exercise, leaving the consultant to apply the cap. It is also important to note the analysis includes invoices for work completed by the consultant but deemed out of scope under the Agreement.

Billing caps not applicable to Out of Scope services under the Agreement **2.205** The Agreement stated out of scope services would be invoiced on a time and materials basis only but would not be subject to the caps on professional fees or expense charges. So although Agreement charges were limited by the cap, the consultant could continue to charge DSD professional fees if the initiatives were deemed out of scope.

2.206 Exhibit 2.17 provides an estimate of professional fees paid for out of scope services in each of the two contract periods. It also separately identifies initiatives deemed out of scope for implementation support in the extension period.

Exhibit 2.17 Estimated Professional Fee Payments for Out of Scope Services

Estimated Professional Fee Payments for Out of Scope Services	
Out of scope initiatives	Payments (thousands)
<i>Initial 24 month term (August 6, 2013 to August 5, 2015)</i>	
Home-first strategy	\$ 352
Strategic Program Review	65
Special Care Home Utilization	57
Nursing Home Financial Assessment	48
Direct Care Skill Mix	18
Health Services Benefits	12
Liquid Asset	11
Ministerial presentation & disability management	4
Minimum Data Set Long-term Care Assessment Tool	8
Nursing Home Transfer Charter	9
<i>Sub-total (24 month initial Agreement period)</i>	\$ 584
<i>Extension term (August 6, 2015 to August 5, 2016)</i>	
Aging Strategy	\$ 243
Strategic Program Review	212
Special Care Home Utilization	185
Organizational Structure	51
Liquid Asset	27
Medical Supplies implementation support	417
Direct Care Skill Mix implementation support	319
Procure to Pay implementation support	233
Grant Optimization implementation support	165
Health Services Benefits implementation support	102
Minimum Data Set implementation support	15
<i>Sub-total (12 month extension period)</i>	\$ 1,969
Total professional fee payments for out of scope services	\$ 2,553
<i>Source: Created by AGNB using information and data supplied by DSD</i>	

2.207 While the consultant billed \$584,000 for out of scope work during the initial 24 months of the Agreement, the initiatives were not clearly identified as out of scope on the consultant's invoices. This made it very difficult to reconcile invoices for inclusion in the cap analysis shown in Exhibit 2.16.

\$500,000 cap on travel and other expenses over 24 month Agreement

2.208 The consultant reached the \$250,000 expense cap for the first 12 month period of the contract in February 2014. From our review of these charges the consultant appeared to have complied with the cap.

Discounts under the Agreement

2.209 As highlighted in Exhibit 2.14 there were two discounts included under this Agreement. The first related to a 50% reduction in the professional fee per-diem for the 24 month contract.

50% per diem discount did not apply for out of scope services over the base 24 month Agreement

2.210 Our analysis of the invoices submitted and payments made to the consultant found three invoices submitted by the consultant that did not have the 50% discount applied during the initial 24 month period of the Agreement. DSD indicated all were deemed out of scope services and as such were not subject to the discount.

2.211 The second discount was a 7.5% volume discount applied to all fees (except expenses) when government-wide charges by the consultant under the PPI tender exceeded \$10 million. This came about as a result of negotiations with the consultant after they had been awarded contracts with both DSD and EECD for similar advisory services in the fall of 2013.

DSD did not formally monitor a 7.5% volume discount

2.212 DSD senior management indicated they had met with EECD officials to compare billings and confirm this discount was applied correctly on cumulative expenditures. However, neither department could produce any evidence or analysis supporting the accuracy of the discount received.

DSD did not monitor for duplicate charges

2.213 We also asked both departments if they had established a mechanism to control possible duplication of billings since the consultant was engaged with both departments over the same period and had staff working on both projects. Both departments indicated they did not check for duplicate payments.

2.214 We used the Province's financial system to estimate consultant billings to both departments at approximately \$17.5 million by the end of June 2016. We calculated the total of the 7.5% volume discount applied to the consultant's invoices to DSD only at approximately \$ 610,000.

2.215 We believe DSD should have monitored application of the volume discount to ensure it was applied accurately. In addition we believe DSD should have checked for duplicate charges with other departments engaged with the same consultant.

- Travel Expenses** **2.216** Travel expenses claimed by the consultant under the Agreement totaled \$646,000. From the invoices submitted by the consultant we estimated this total included:
- \$272,000 (42%) in airfare;
 - \$179,000 (28%) in accommodations;
 - \$148,000 (23%) in other (mileage, rentals, taxi, etc.); and
 - \$47,000 (7%) in meals.
- Detailed Expense Testing** **2.217** At the time of our testing DSD had approved 27 invoices totaling over \$570,000 in expenses. Of the total, \$240,000 (42%) was for airfare. We selected 33 individual claims across 22 weeks from these invoices. The individual expense claims we tested totaled \$25,000 in expenses charged.
- Expense source documentation provided by the consultant** **2.218** In order to perform detailed testing we requested source documentation from DSD for all 33 of the individual expense claims. DSD indicated it did not require submission of source documents on a regular basis and would need to request these from the consultant.
- DSD did not require source documents (receipts) from the consultant to validate expense claims** **2.219** Government policies require receipts for expenses over \$10 in most instances. At a minimum we expected DSD to audit random claims by comparing charges with receipts to ensure compliance with policy. DSD confirmed they did not conduct any regular review of source documents.
- Surcharges and other premiums added to expense items against government policy** **2.220** In the case of airfare we noted the charges usually included a surcharge of \$70.80, apparently from the consultant's booking agent. Airfare was a significant expense under this Agreement. We estimated the 27 invoices from which we selected our individual claim sample included about \$25,000 in these service fees for approximately 355 flights. The average airfare was \$675.
- 2.221** We also noted a surcharge applied to the receipt amount of approximately 0.9% for lodging, parking and taxi charges. While the markup is small, we believe DSD should have rejected payments that did not match receipts.
- 2.222** DSD did not realize these surcharges existed and could not explain the reasoning for making these payments. This is a result of not requiring any source documentation to justify the consultant's expenses before approving payments.

Expenses recorded incorrectly or against the wrong week

2.223 Fourteen of the 33 sample items (42%) we reviewed were recorded by the consultant in the wrong week or contained other errors. For instance the consultant billed airfare totaling \$23,000 for multiple weeks on a single invoice instead of assigning it to the correct weeks. The consultant cited travel policy changes as the reason for this situation.

2.224 We noted DSD did nothing to address poor billing practices. A simple review of the consultant's invoice documents is not an adequate control and would not reveal the issues highlighted above.

DSD paid \$646,000 for travel expenses with no source documentation

2.225 DSD paid the consultant approximately \$646,000 in total for travel expenses with no source documentation. We believe government departments need to exercise due diligence in controlling service contracts to ensure compliance with agreement terms and government policies, practices that contribute to maximizing contract value.

2.226 All of the observations outlined in this section result from poor control practices by DSD. We found little evidence to support any substantive control procedures had been applied by DSD to ensure payments processed complied with the terms and conditions of the Agreement or applicable government policy.

DSD did not exercise adequate control measures to ensure adherence with government policies or terms of the Agreement

2.227 We discussed control processes with DSD staff charged with ensuring adequate controls were exercised over payments. They indicated invoices were recalculated and rates charged were checked. They confirmed they did not:

- track or otherwise log the hours charged by the consultant for independent verification on either a regular or periodic basis;
- validate charges billed against adequate source documentation on a regular or audit basis; or
- track payments for the purposes of verifying caps and discounts were applied accurately per the Agreement.

Recommendation

2.228 **We recommend the Department of Social Development design and implement controls to ensure:**

- **compliance with government policies governing travel expenses (AD-2801) and approval of payments (AD-6402); and**
- **significant contract terms such as billing discounts and caps are adhered to.**

Appendix I – Convalescent Supplies and Services Contract - Canadian Red Cross Society

Introduction

2.229 During the course of our audit of the Department of Social Development Advisory Services contract, the Auditor General received several complaints related to a convalescent supplies and services contract awarded to the Canadian Red Cross Society in 2014 by the then Department of Government Services on behalf of the Department of Social Development. The Department of Government Services is now part of Service New Brunswick. As such, we will refer only to Service New Brunswick in this chapter.

2.230 We decided to initiate a limited review of the contract for convalescent supplies and services for the following reasons:

- Department of Social Development clients benefitting from supply of convalescent equipment under this contract can be among the most vulnerable in the Province;
- the total potential value of the two-year contract was \$10 million (before tax). Had the three available option years been exercised this value could have risen to \$25 million; and
- we were already engaged in an audit of the Productivity and Process Improvement Advisory Services contract and this initiative was implemented under that agreement, meaning it was within the scope of our audit.

Scope and Methodology

2.231 The scope of this work was limited to two specific areas of review:

1. contract procurement; and
2. contract performance and reporting requirements.

2.232 We examined procurement records from Service New Brunswick as well as the signed agreement and reports provided by the successful vendor to the Department of Social Development. We discussed the tender evaluation process, monitoring and reporting with Department of Social Development personnel directly involved in the evaluation of bid proposals. We reviewed the final agreement and reports

provided by the contractor.

Contract Procurement

2.233 In 2014 the Department of Social Development (DSD), through Service New Brunswick (SNB), issued a Request for Proposals (RFP) under a public tender for the provision of convalescent equipment, supplies, and services to DSD clients. Since 2006, DSD had used a special exemption under the *Public Purchasing Act* (Act) to provide these services and supplies to clients.

2.234 Section 41 of Regulation 94-157 of the Act stated:

“The following special exemptions from purchasing services and supplies through the Minister are made for the Department of Social Development:

(a) services and supplies purchased on an individual basis for clients of the department”

DSD utilized this exemption to enter into successive service and supply contracts with a consortium of New Brunswick companies called the Home Health Care Dealers Association of New Brunswick (HHCDA).

2.235 The business case supporting this decision to issue an RFP was developed and approved on advice of the consultant (PPI consultant) contracted for advisory services in 2013. An RFP background document describes the work completed to substantiate the use of an RFP as follows:

“After a series of interviews, workshops and data analysis, it is determined that opportunities exist in the strategic sourcing of a number of commodities purchased by the Health Services Group, including wheelchairs, convalescent supplies...”

2.236 DSD and the PPI consultant estimated savings by selecting a “basket of goods” sample of 53 transactions totaling \$146,000 in spend. Exhibit 2.18 was taken from the business case developed during the PPI project.

Exhibit 2.18 Anticipated Savings from Issuance of Request for Proposals (thousands)

Anticipated Savings from Issuance of Request for Proposals (thousands)			
	Health Services Group	Benchmark	Potential Savings
Basket of Goods	\$ 146	\$ 126	\$ 20
Total Annual Spend	\$ 3,100	\$ 2,700	\$ 430

Source: Reproduced by AGNB using information and data supplied by DSD (unaudited).

2.237 Exhibit 2.18 estimates the DSD Health Services Group (HSG) total annual spend using a benchmarked basket of

goods. The expected total annual savings was calculated to be approximately \$430,000.

Evaluation of Proponent Bids

2.238 DSD approved the business case and on June 17, 2014 the Service New Brunswick Strategic Procurement division issued the RFP under a public tender on behalf of DSD for “...*the provision of convalescent items and services...for a period of 2 years with an option to renew annually for three, one (1) year terms.*”

Two proponents submitted bid responses

2.239 The tender closed on July 22, 2014. Bid submissions were received from two proponents, HHCDA and the Canadian Red Cross Society (Red Cross).

Bid evaluation process

2.240 A two stage methodology was used to evaluate proponent bid submissions under the tender.

Stage 1 – Technical: Proponents would be evaluated on their technical submission during Stage 1. A score of 70 or over would move the proposal to Stage 2; and

Stage 2 – Pricing: Proponents would be evaluated on their bid price. The lowest price would decide which vendor would be successful.

Bid prices are not known before the Stage 2 evaluation takes place. This means the evaluation committee has no knowledge of any proponents bid price during the Stage 1 evaluation.

2.241 The DSD evaluation team included three DSD evaluators and two PPI consultants. In addition, DSD identified four observers – two DSD managers and two senior PPI consultants. SNB provided a Procurement Specialist as a fifth observer to the process.

No signed individual evaluations in procurement files

2.242 When we reviewed the procurement files we expected to find signed copies of individual evaluations. Instead we found only a final evaluation under a cover sheet signed-off by the five evaluators. An evaluation meeting was held where the five evaluators discussed and agreed to the final scores for each proponent. At least three observers, two from DSD and one from SNB, were present during the evaluation meeting.

2.243 We spoke with three current DSD personnel, two of which were evaluators and one who was an observer. While one evaluator could not recall if individual evaluations were completed, the other provided a copy of their individual evaluation from personal records. None of the three DSD staff we interviewed could explain why no record of the individual

evaluations was maintained in a DSD or SNB file.

2.244 Signed individual evaluations add credibility to the process through increased transparency. By not maintaining these documents it is difficult to evaluate the final group scoring against individual results.

**Stage 1 -
Proponent
Evaluations**

2.245 We reviewed each proponent's response against the terms of the RFP and in light of the final evaluation completed by DSD. We wanted to determine, as a minimum, if the proponent responses met mandatory requirements.

2.246 RFP section 3.2 stated "*Proposals not meeting all mandatory requirements will be rejected without further consideration.*" This meant that if the response did not meet mandatory requirement stipulated by DSD the bid submission would be rejected.

***HHCDA response
lacked mandatory
requirements***

2.247 Our review of the HHCDA bid submission under Phase I found that this proponent did not meet two mandatory requirements under the RFP.

2.248 The evaluation committee included the following comment related to this situation in the final evaluation documentation:
"...this is not crucial to the success of the RFP, and it has no bearing on the savings of SD."

While this may be true, we believe mandatory requirements should only be included in an RFP if they are of significance to the procuring entity. As such, DSD should have complied with the rules established for mandatory requirements and disqualified the proponent's bid submission.

2.249 The RFP allowed proponents to sub-contract aspects of the requirements, stating: "*The proposal MUST include the required information (identified in this RFP) for all parties and subcontractors*". It also stated the proponent should provide "*its approach to quality assurance in monitoring the performance of its resources and subcontractors.*"

***Red Cross
submission lacked
details on the
subcontractor's role***

2.250 Although Red Cross appeared to meet all of the mandatory requirements, we noted a subcontractor would be used to undertake some of the requirements under the RFP. We found neither the subcontractor's role nor the monitoring methodology was well defined.

Red Cross lacked current capacity to undertake all aspects of the contract at the time of the RFP

2.251 In addition Red Cross resource capacity to undertake technical aspects of the contract at the time of the RFP was limited. From our perspective, this means Red Cross did not have capacity to undertake the required work at the time of the RFP. We believe this increased risk of inadequate service delivery to the Department's clients during the first year of the contract while new personnel were being trained by Red Cross.

2.252 The DSD evaluation of the Red Cross response to the RFP included comments on both the lack of current capacity and the lack of detail regarding the relationship and role of the subcontractor. However, the evaluation committee did not believe either of these issues to be significant enough to disqualify Red Cross from moving forward to Stage 2.

Both proponents passed technical requirements

2.253 Despite the issues we noted above, both proponents passed the Stage 1 evaluation process. In our opinion, at least one of the proponents, HHCDA, should have been disqualified at Stage 1 for not meeting mandatory requirements.

PPI consultant's conflict of interest

2.254 As explained in the main body of this chapter, a significant part of the PPI consultant's compensation was in the form of performance payments based on anticipated savings. The performance fees invoiced to the Department would include anticipated savings from the Health Services Group Convalescent Contract initiative which resulted in this RFP.

2.255 As noted above, the PPI consultant anticipated potential savings from this RFP at approximately \$430,000 early in the RFP process. Performance fees for this level of savings would have totaled approximately \$64,500.

2.256 Since the PPI consultant would receive greater compensation based on the lowest price, it would be most beneficial to have both proponents pass to the second Stage of the evaluation, thereby ensuring the lowest price would be selected. This would result in maximizing anticipated savings and, therefore, contribute the highest possible performance payment to the PPI consultant. This means the PPI consultant was in a conflict of interest position due to their involvement in the Stage 1 assessment of proponent submissions.

2.257 We noted both DSD personnel and the PPI consultants signed conflict of interest forms for evaluation purposes but

these would not completely address the inherent conflict noted above.

2.258 Documents we reviewed highlighted the reliance of both DSD and SNB on the PPI consultant's information and advice during the tendering process. Given these circumstances, we believe DSD should have considered the inherent conflict that existed for their PPI consultant and excluded them from the evaluation committee. Any perceived conflict of interest in the process undermines credibility and transparency in public procurement.

Recommendation 2.259 **We recommend the Department of Social Development not include consultants on procurement evaluation committees if compensation to the consultant is impacted by the procurement award.**

Stage 2:

Contract awarded to Canadian Red Cross

2.260 In Stage 2 it was determined that Red Cross submitted the lowest bid, based on the basket of goods approach noted previously. The contract award to the lowest bidder was approved by SNB on August 13, 2014 and a purchase order for \$11.3 million was issued to the Canadian Red Cross Society. DSD signed an agreement with the Canadian Red Cross Society on November 7, 2014 for a two year initial term from January 12, 2015 thru January 11, 2017.

2.261 The DSD Benefits Evaluation Committee approved anticipated savings of \$647,000 on December 3, 2014. The performance fee benefiting the PPI consultant at this level of savings was approximately \$97,000.

June 2016 actual savings only 18% of estimate.

2.262 According to a June 30, 2016 DSD dashboard report, the actual savings from this contract had reached only \$116,500 or 18% of the anticipated savings of \$647,000 approved above.

Contract Performance and Reporting

2.263 As part of the signed agreement, we expected DSD to require performance reports on services to clients from Red Cross and to maintain copies of these reports. We also expected the Department to verify the reported performance on a regular basis and address deficiencies in service delivery.

2.264 The agreement had one specific section related to reporting requirements of the contractor. Section 12 stated:

“The Contractor agrees to maintain and submit written financial and program reports as set out in Schedule ‘D’.”

2.265 Schedule D of the agreement outlined reports required to be submitted by the contractor on a regular basis as follows:

- A monthly activity report to be submitted by the 15th of the following month to include, but not limited to, the:
 - service request date;
 - nature of service;
 - service requestor;
 - service completion date;
 - make, model and option information;
 - MSRP and discount from MSRP by component;
 - sale price by component;
 - ship-to address; and
- an annual activity report on each calendar year by January 31st of the following year including, but not limited to, the total amount paid to the contractor by month and the total amount paid to the contractor for the year.

Vendor not compliant with contract reporting requirements

2.266 We contacted DSD senior management and requested the monthly and annual reports for 2015. In response, the Department indicated they only received two monthly reports for 2015 (November and December) and no annual report. While they did receive monthly and annual reports for 2016, these were sometimes late.

Reports submitted did not provide the required information

2.267 We found only one of the report requirements noted above was included in the Red Cross reports received by DSD in 2016. The *nature of service* requirement stemmed from service standards specified in Schedule A-6 of the agreement.

2.268 We reviewed 6 of 10 minimum service standards included in Schedule A-6 against reports we received from DSD:

1. completing an assessment for providing new equipment;
2. delivery of assembled manual wheelchairs;
3. delivery of assembled power wheelchairs;
4. delivery and installation of non-wheelchair convalescent items and rehabilitation equipment;
5. response to emergency after-hours sales requests; and
6. response to non-urgent after-hours sales requests.

Contractor did not meet most service standards on a regular basis

2.269 While we did not audit the reports provided by DSD we noted the self-reported data submitted by Red Cross indicated they were struggling to meet at least four of these six standards much of the time. We asked DSD senior management why they did not enforce the reporting requirement under the agreement. They indicated Red Cross may not have been able to maintain client services due to lack of resources had DSD enforced all reporting under the agreement.

DSD indicated they set unreasonable service standards

2.270 DSD further indicated the service standards they had included in the agreement were a first attempt at setting targets for this program. They believed not all standards they developed were reasonable and this contributed to the contractor's inability to meet the targets on a consistent basis.

DSD was aware of client service issues in 2015

2.271 During our discussions with DSD personnel we noted service delivery issues affecting client service appear to have been known to the Department in 2015, including:

- a lack of representation by the contractor in parts of the province;
- slow response time to emergency requests;
- slow delivery of assessment equipment; and
- a lack of technical service knowledge and capacity.

Contractor Performance Evaluation

2.272 Since DSD was aware in 2015 of both significant client service issues and the reporting problems identified above, we expected an evaluation of the contractor's performance would have been completed by the Department.

DSD has not evaluated the performance of Red Cross

2.273 When contacted, DSD senior management indicated they had not undertaken any formal evaluation of the contractor's performance under the agreement. The Department did indicate it had initiated a project in January 2016 to "*improve the turnaround time for patients to receive necessary rehabilitative equipment*".

2.274 We believe it is important to monitor and evaluate the performance of contractors to ensure expected value has been achieved from the contracting process. In addition, performance evaluations can highlight issues with performance monitoring and reporting as well as problems with contract design. Knowledge of these issues can improve future contracting efforts.

Summary**2.275** In summary, we believe:

- DSD must exercise due diligence to ensure fair and transparent procurement processes are followed. By including a consultant who could benefit from the results of this procurement, the Department failed to provide that assurance;
- DSD failed to ensure client service quality was effectively monitored and reported in 2015, resulting in an inability to address poor service quality in a timely manner; and
- as previously recommended in our main chapter, DSD should ensure contract terms are respected and evaluate contractor performance against those terms.

Appendix II – Audit Objectives and Criteria

The four objectives and criteria for our audit of the Department of Social Development Contract for Advisory Services are presented below. Department of Social Development senior management reviewed and agreed with the objectives and criteria on May 6, 2016.

<u>Objective 1</u>	To determine if the Department of Social Development monitored consultant performance to ensure services were completed as per the Master Service Agreement
Criterion 1.1	The Department should use a standard process for monitoring contracts.
Criterion 1.2	The Department should monitor consultant performance against the terms of the Master Service Agreement.
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<u>Objective 2</u>	To determine if the Department of Social Development measures and evaluates the results of completed project initiatives against planned benefits
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<u>Objective 3</u>	To determine if the Department of Social Development has a plan to complete all project initiatives resulting from the PPI Master Service Agreement
Criterion 3.1	The Department should have a plan to implement, monitor, and report on each project initiative.
Criterion 3.2	The Department should monitor implementation of initiatives and, where required, take action to address significant project issues.
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<u>Objective 4</u>	To determine if the Department of Social Development approved professional fees in accordance with the Master Service Agreement and government policy
Criterion 4.1	The Department should approve professional fee payments to the consultant in accordance with government policy.
Criterion 4.2	The Department should approve professional fee payments to the consultant in accordance with the Master Service Agreement.

Appendix III – Glossary of Terms	
Aggregate net benefits	Combined total of all benefits less applicable cost
Dashboard	<i>“A business management tool that is used to show, clearly and succinctly, the health and status of a project by means of the following key project metrics: cost, schedule, scope, risks and issues.”</i> – Government of Canada
Invitation to tender	A written announcement for prospective vendors to submit offers, bids, quotations or proposals for specified services, goods or concessions.
Invited tender	Issuance of a tender that is restricted to vendors that have been prequalified (in this case through the use of a publicly advertised invitation to tender).
Master Services Agreement (MSA)	<i>“An overarching document that sets out the services included, how the bundle of services will be managed, and the operational details that are common for all services. The MA lays the overarching framework for multiple service level agreements, typically one for each service covered by the MA.”</i> – Government of Canada
Memorandum of Understanding (MOU)	<i>“The broad parameters of a service relationship between the parties to the agreement, the service vision, and the exercise of decision-making authorities.”</i> – Government of Canada
MSRP	Manufacturer Suggested Retail Price
Productivity and process improvement	Productivity and Process Improvement program to include organizational change management, internal communication, coaching, training and development at all levels of the organization, and creation or improvement of key management tools to achieve operational improvements, cost savings, and non-financial benefits.
Professional fees	Fees based on a per-diem (daily) charge rate. Also referred to as <i>“time and materials”</i> by the PPI consultant.
Project charter	<i>“Document issued by the project initiator or sponsor that formally authorizes the existence of a project, and provides the project manager with the authority to apply organizational resources to project activities.”</i> – Government of Canada quoting <i>“A Guide to the Project Management Body of Knowledge, third edition, 2004.”</i>
Proposal	A tender, bid or offer which may be either unsolicited or submitted in response to an invitation from a contracting authority.

Appendix III – Glossary of Terms (continued)	
Qualified bidders list	A list of approved bidders, established by a tender process, in which such factors as financial capability, experience, reputation and management are considered in order to develop a list of potential suppliers.
Request for proposal	A tender or bid solicitation method used where other criteria listed in the document will be considered in the selection of the contractor in addition to price.
Service contract	Typically client specific agreements to provide services for which there is a defined budget within the client department. Examples would include snow removal, janitorial services, and consulting contracts.
Standing offer contract / contract of supply	A long term contract for the supply of goods or services that has no quantities listed, an effective date and an expiry date and an estimated value.
Statement of Work	<i>“A narrative description of the work required and stipulates the deliverables or services required to fulfill the contract. It defines the task to be accomplished or services to be delivered in clear, concise and meaningful terms.”</i> – Public Works and Government Services Canada.
Tender	An offer that is submitted in response to an invitation from a prospective client.

Appendix IV - Timeline for DSD PPI Contract

January 21, 2013	DSD entered into a contract dated January 21, 2013 (contract term - February 4, 2013 to March 31, 2013) with a consultant to complete Phase I of a three-phase project.
January 21, 2013	DSD requested a Minister's exemption (<i>Public Purchasing Act, regulation 94-157 section 27.1(1)(d) - urgent situation</i>) to hire the consultant for Phase I work from January 28, 2013 to March 15, 2013.
January 23, 2013	SNB approved the exemption request and issued a purchase order for \$100,000 (PO contract dates - January 28 to March 15).
May 2, 2013	DSD entered into a contract dated May 2, 2013 (contract term – May 21, 2013 to June 28, 2013) with the same consultant to complete Phase II of the project.
May 14, 2013	DSD requested the same Minister's exemption (<i>Public Purchasing Act, regulation 94-157 section 27.1(1)(d) - urgent situation</i>) to re-hire the consultant from May 24, 2013 to July 12, 2013.
May 14, 2013	SNB approved the exemption request.
May 15, 2013	SNB issued a \$112,000 purchase order to the consultant (covering May 21, 2013 to June 30, 2013).
June 10 th to July 5 th of 2013	The same consultant was hired directly by DSD to undertake strategic facilitation work for a total of \$8,849.
July 4, 2013	SNB issued an invited tender for Phase III work to six proponents including the consultant working in DSD during the development of the tender statement of work.
July 19, 2013	The invited tender closed.
July 31, 2013	The consultant sent a Memorandum of Understanding to DSD thanking the Department for choosing the consultant as a result of the tender outlining the terms and conditions of the MOU.
August 2, 2013	Minister of Government Services approves the Phase III tender award for \$12,250,000 to the same consultant after DSD evaluation of the proponent responses was completed.
August 6, 2013	The consultant begins Phase III work.
August 28, 2013	DSD enters into an agreement with the consultant, effective August 6, 2013 for the PPI project (Phase III) with a contract term of August 12, 2013 to August 12, 2015.
September 6, 2013	DSD issues a purchase order (version 1) to the consultant not to exceed \$12,250,000 (before HST of 13%) for a 24-month contract term (August 06, 2013 to August 06, 2015) with a 1-year optional renewal clause.
November 2013	DSD and the Department of Education sign an undated Master Services Agreement (effective August 6, 2013) with the consultant to provide Productivity and Process Improvement Advisory Services.
August 5, 2014	End of the 1 st year of the Phase III contract.

Appendix IV - Timeline for DSD PPI Contract (continued)

June 19, 2015	DSD requests SNB amend the purchase order to the consultant to exercise the option year and extend the contract to August 5, 2016.
August 5, 2015	End of the 2 nd and final year of the base period covered by the PO and the contract. No new contract terms are documented by the Department.
August 6, 2015	Beginning of the option year. No new Statement of Work issued to cover the terms of this period.
August 5, 2016	End of option year / contract.

Appendix V – PPI Initiatives

This appendix provides a brief description of Productivity and Process Improvement (PPI) initiatives identified in this chapter. Source: Department of Social Development (DSD) PPI project documentation.

AFLA client contribution	Clean-up DSD files for AFLA (Alternate Family Living Arrangements) clients aged 19 – 64 year of age to ensure income and client contributions were correct. Complete full financial re-assessment for seniors over 65 (long-term care).
Delivery role analysis	<i>“Initiate an ongoing planning process to balance customer-driven workload with DSD human resources assigned to client-serving roles, leading to an equalized and acceptable resource utilization...”</i>
Direct care skill mix	Adjustment of the direct care skill mix (existing ratio of skilled professions) in New Brunswick nursing homes to <i>“help the Department of Social Development to:</i> <ul style="list-style-type: none"> • <i>Respond to the increasing demand while ensuring the service is sustainable</i> • <i>Align the level of care with acuity and needs of current and expected future nursing home residents</i> • <i>Manage costs overall through appropriate funding”</i>
Family Group Conferencing	<i>“To expand the Family Group Conference service to the Child in Care program to assist children/youth in permanent care of the Minister in achieving the highest level of permanency possible.”</i>
Family Support Order Services (FSOS)	<i>“Identify gaps in processes associated with FSOS and implement improvements to identify and secure FSOS income from non-custodial parents for Social Assistance clients in order to prevent revenue loss and/or overpayments.”</i>
Federal Disability Support	<i>“Optimize client application for CPP Disability (CPPD) benefits from the Federal Government.”</i>
Federal Social Assistance funding	Joint DSD – Post-secondary Education, Training & Labour (PETL) initiative to request eligible federal labour market funding.
Grant Optimization	<i>“To identify efficiencies and policies that will result in a decrease in operational costs and unaligned grant funding but will not impact services of agencies. This will be achieved by implementing a program delivery cost model and framework. This initiative includes implementing the following: a) an initial operational grant program for Group Homes; and b) a framework for setting and controlling appropriate funding levels for other major operating grants.”</i>
Health Services Benefits	Based on prior external consultant’s review, revising the DSD Health Services program by altering the program delivery model, implementing dollar maximums and frequency limits.
Health Services convalescent contract	Strategic sourcing of convalescent commodities to reduce per unit purchase price while maintaining/improving current service levels.
Housing client contribution	<i>“Simplify the client's financial contribution process so that financial information for assessments and reassessments is obtained in a timely fashion and client's contribution toward Housing are completed in a timely manner.”</i>
Long-term care functional re-assessment	<i>“...review case files and reassess all in-home LTC 65+ clients... who have not been reassessed in over 24 months... to ensure that clients receive the level of support that is commensurate with their actual needs...”</i>

Appendix V – PPI Initiatives (continued)	
Medbuy	Reduction of nursing home budgets based on expectation that nursing homes will use an existing contract for care and housekeeping supplies. This initiative was to be implemented in two phases.
Medical supplies	<i>“Achieve 26% savings for medical supplies through reduced markups.”</i> <i>“Leverage existing legislation that supports government-set pricing.”</i>
Minimum Data Set (MDS)	Provincial roll out of a minimum data set tool (system) to New Brunswick nursing homes to <i>“Help the Department of Social Development to:</i> <ul style="list-style-type: none"> • <i>Utilize a proven tool to support funding allocation and budget amendments aligned with actual resident care needs</i> • <i>Understand the distribution of resident complexity within and across nursing homes and align hours of care appropriately</i> • <i>Measure quality and establish care quality delivery requirements across all nursing homes and report on outcomes regionally and provincially (e.g., use of restraints, infection rates, falls, pain scores, pressure ulcers, medication utilization)</i> • <i>Enhance NH’s accountability for quality outcomes and financial performance and provide the opportunity to adjust the home by home care skill mix based on relative resident complexity.”</i>
Nursing home client contributions	Decrease DSD subsidy for nursing home clients by ensuring nursing homes collect adjusted client contribution amounts based on quarterly federal pension and supplement increases.
Nursing home financing	<i>“...re-structuring and re-financing the portfolio of Nursing Home loans and mortgages to take advantage of a lower Provincial Government borrowing rate.”</i>
Nursing home governance	<ul style="list-style-type: none"> • <i>“To clarify the current policy direction and share a common understanding of the boundaries of management functions to ensure governance options for the future are aligned with expected system outcomes and performance.”</i> • <i>“To implement changes for the nursing home sector to be better structured and governed for improved quality, accountability and performance management while driving commercial discipline in an outsourced service delivery model.”</i>
Nursing home P3	Leverage P3 model in NB to establish outcomes based standards and provide opportunity for new or existing nursing homes to innovate and create cost efficiencies with a long term commitment from the Province.
Procure to Pay	<i>“The objective of several phased initiatives are to achieve savings by a.) establishing Service Types spending standards and maximums across children’s programs (piloted in Child Protection and Child-In-Care) and b) implementing procurement and payment controls and amongst regions.”</i>
Role analysis efficiencies at screening	<i>“Initiate an ongoing planning process to balance customer-driven workload with DSD human resources assigned to client-serving roles, leading to an equalized and acceptable resource utilization.”</i>
Shannex renegotiation	Upon completion of P3 nursing home procurement, leverage to negotiate renewal of existing Shannex contract for three 72 bed facilities.
Vacant Nursing Home Beds	Increase funding recoveries from nursing homes for vacant beds.

Appendix VI – PPI Dashboard at June 30, 2016

Original Sign Off Amount	2013-14		2014-15		2015-16		2016-17		2017-18		Percent	Notes
	Forecasted	Realized										
AFLA	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	\$ 438,000	100%	
CPPD	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	\$ 1,460,000	100%	
LTC Functional Re-Assessment	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	\$ 2,154,000	100%	
Housing Client Contribution	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	100%	
NH Client Contribution	\$ 1,172,000	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	\$ 428,667	36.6%	Follow up with Regions. Should see increased benefits in last 6 months of FY2016-17. Manual process. IT solution required.
NH Vacant Bed Days	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	100%	
PETL MDU	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	\$ 731,000	100%	
HS Contracept	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	\$ 647,000	100%	
NH Mobility Phase I - Year 1	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	\$ 729,135	100%	
NH Mobility Phase II - Year 2	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	\$ 850,845	100%	
FGCC CC	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	\$ 896,000	100%	
NH P3 - Shannet Renegotiation	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	\$ 592,875	100%	
NH P3	\$ 3,861,700	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	\$ 2,686,400	69.6%	Monitoring not required. Contract signed; savings accumulating. First home to open Fall 2017.
NH MDS	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	\$ 2,750,000	100%	
NH Person Centered Care	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	\$ 8,450,000	100%	
BA,C,W,S,I,L,C,D,S	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	100%	
SA 150S	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	100%	
BA - Efficiency at Screening	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	100%	
Medical supplies	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	\$ 2,100,000	100%	
Health Services Benefits	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	100%	
Nursing Home Governance	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	\$ 5,900,000	100%	
Nursing Home Financing	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	\$ 6,450,000	100%	
Subtotal	\$ 46,622,575	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	\$ 43,343,942	93%	
	\$ 759,566	\$ 746,476	\$ 3,547,311	\$ 2,517,760	\$ 7,354,869	\$ 5,901,764	\$ 560,482	\$ 306,423	\$ 10,054,376	\$ 12,760,107	\$ (2,705,731)	

PPI Dashboard (at June 2016) – Dashboard image provided by the Department of Social Development.

Shaded Cells are Estimated \$
 Realized Savings >= 90% Forecasted
 75% < Realized Savings < 90%
 Realized Savings < 75%

Chapter 3

Department of Environment and Local Government & NB Power

Climate Change

Contents

Introduction.....	81
Results in Brief.....	81
Recommendations.....	81
Background.....	87
Audit Objectives and Scope.....	91
Detailed Audit Observations.....	92
Mitigation.....	92
Adaptation.....	107
Coordination.....	115
Appendix I – Glossary.....	119
Appendix II – Status Report Generated From CCAP Progress Tracking System on May 2, 2017.....	122

Department of Environment and Local Government & NB Power

Climate Change

Introduction

3.1 In April 2016 all Auditors General across Canada agreed to undertake work on their provinces' and territories' **climate change** initiatives. This work will then be summarized in a report to the Parliament in early 2018. The overall objective of this initiative was to work together to determine the extent to which federal, provincial and territorial governments in Canada are meeting commitments to reduce greenhouse gas (GHG) emissions and to adapt to climate change.

3.2 We assessed whether New Brunswick has made progress towards its commitments to reduce GHG emissions.

3.3 We assessed whether New Brunswick has made progress towards adapting to climate change.

3.4 We also assessed whether New Brunswick has established internal governance and coordination arrangements to achieve GHG reduction targets and adapt to climate change.

Results in Brief

3.5 Results in brief are presented in Exhibit 3.1. A glossary of terms can be found in Appendix I.

Recommendations

3.6 A summary of recommendations can be found in Exhibit 3.2.

Exhibit 3.1 – Results in Brief

Climate Change

Why Is This Important?

- Canada has experienced larger temperature changes than the global average
- New Brunswick has been experiencing extreme weather events, an elevated risk of rising sea levels and related coastal erosion

What We Found

Overall Conclusions

- Both the Province & NB Power have made progress towards commitments to reduce GHG emissions and adapting to climate change
- However, many action items do not have a timeline, allocated funding or implementation plans

NB's Greenhouse Gas Emissions (GHG)

- Electricity generation, industry and transportation are the three dominant contributors to NB's GHG emissions
- GHG emissions peaked in 2001, but are now trending downward
- NB's GHG emissions were 14.1 Mt in 2015

NB emissions compared to the rest of Canada:

(No. 1 rank is largest polluter and 13 is the least)

- 8th in total emissions
- 7th in emissions per capita (17.5 tonnes / person)

Uncertainty around Belledune Generation Station

- Federal government's plan to phase-out coal-fired electricity by 2030 poses risks to NB Power's future operations
- NB is the only province that has not reached an agreement or agreement in principle with the Federal government to operate a coal-fired plant beyond 2030 deadline

Commitments and Targets

- GHG emissions targets set for the Province are in the Climate Change Action Plan (CCAP)
- NB on track to meet 2020 target of 14.8 Mt
- However, significant actions are required to meet both 2030 and 2050 targets
- GHG emission targets should be legislated in NB as specified in its CCAP
- Specific GHG emission reduction targets should be set for NB Power

Adapting to Climate Change

- Vulnerability assessments completed in 46 NB communities
- However, there is no documented comprehensive risk assessment for the Province
- CCAP includes a fairly comprehensive list of adaptation activities
- However, detail of how each activity will be achieved, timelines and allocated funding are lacking

Exhibit 3.2 - Summary of Recommendations

Recommendation	Department's response	Target date for implementation
3.41 We recommend the Department propose to Cabinet that Greenhouse Gas emission targets, as specified in its Climate Change Action Plan be legislated, similar to other Canadian provinces.	<i>The Department will consider this recommendation further as greater certainty emerges on carbon pricing mechanisms and their impact on GHG reduction and economic growth.</i>	<i>Within two years.</i>
3.48 We recommend the Department set specific GHG emission reduction targets for NB Power to ensure the provincial targets set in the Climate Change Action Plan are achievable.	<i>The province has committed to regulating GHG emissions from electricity generation in a manner that will ensure provincial targets are achieved.</i>	<i>Within two years</i>
3.55 We recommend NB Power: <ul style="list-style-type: none"> • perform a comprehensive analysis on the potential impact of phase-out of Belledune Generating Station; • consult with the Department of Environment and Local Government on a proposed solution regarding the Belledune Generating Station; and • integrate the Belledune Generating Station phase-out analysis in its Integrated Resource Plan process to ensure it has the capacity to meet New Brunswick's future electricity requirements, while respecting energy efficiency and demand reduction programs. 	<p><i>New Brunswick Power is working with the Department of Environment and Local Government on various greenhouse gas scenarios and analysis related to potential reductions, including the phase out of coal in 2030 and 2040.</i></p> <p><i>New Brunswick Power will plan to include greenhouse gas emission sensitivities in the next version of the Integrated Resource Plan. Once a decision is made on the path forward for New Brunswick's greenhouse gas targets and how this may affect the Belledune Generating Station NB Power will incorporate this information in next version of the Integrated Resource Plan.</i></p>	<i>Pending Shareholder's direction on carbon policy.</i>

Exhibit 3.2 - Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
<p>3.63 We recommend the Department finalize an implementation plan that describes:</p> <ul style="list-style-type: none"> • how and when the actions identified in the Climate Change Action Plan will be implemented; and • how the Department intends to monitor and report on the progress. 	<p><i>The Climate Change Secretariat has commenced developing an implementation plan including how and when each of the actions in the 2016 climate change action plan will be implemented, a part of which is the substantive range of accountability and reporting commitments in the Action Plan.</i></p>	<p><i>End of 2017</i></p>
<p>3.108 We recommend the Department develop a provincial climate change risk assessment. The assessment should include:</p> <ul style="list-style-type: none"> • Risk identification; • Risk analysis; • Risk evaluation; • Risk treatment and adaptation measures; and • Implementation plan and monitoring. 	<p><i>Adaptation planning efforts in the province are guided by key risk assessments completed by Environment Canada (sea level rise), Natural Resources Canada (national/regional assessment), the province (regional adaptation collaborative) and various municipalities. Although, there is not a single comprehensive provincial climate change risk assessment, the assessments completed to date cover the elements outlined in the recommendation. The Climate Change Action Plan commits to developing vulnerability and risk assessments for critical infrastructure, municipalities, regional service commissions and natural resources. These actions remain the priority in the short term. The province will evaluate the need for a provincial climate change risk assessment.</i></p>	<p><i>Within 2 years</i></p>

Exhibit 3.2 - Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
<p>3.120 We recommend NB Power conduct a corporate level climate change vulnerability assessment.</p>	<p><i>A vulnerability assessment is a component of New Brunswick Power's Climate Change Management Strategy. NB Power will conduct this vulnerability assessment considering the effects of changes in key climate parameters on its operation and infrastructure by June 30, 2018. This assessment will provide insight on opportunities as well as vulnerabilities, and will be an iterative process as our understanding of climate change evolves, as the infrastructure is updated, and as the energy industry evolves.</i></p> <p><i>There may be a number of different options for managing the effects of climate change. Opportunities might be identified for increased loads (related to increased heating and / or cooling requirements, or increased supply options (hydro, solar, wind).</i></p> <p><i>NB Power will identify potential adaptation options, taking into account:</i></p> <ul style="list-style-type: none"> • <i>costs and benefits</i> • <i>risks</i> • <i>implications on rates</i> 	<p><i>June 30, 2018</i></p>

Exhibit 3.2 - Summary of Recommendations (continued)

Recommendation	Department's response	Target date for implementation
3.121 We recommend NB Power develop an implementation plan for adapting to climate change after the completion of its vulnerability assessment.	<i>After the vulnerability assessment is completed, an implementation plan will be developed including funding requirements and timeline. The implementation plan will be developed involving key internal and external stakeholders with a target date of December 31, 2018.</i>	<i>December 31, 2018</i>
3.134 We recommend the Department update the CCAP Progress Tracking System to reflect the changes in the most current Climate Change Action Plan.	<i>The Department is preparing to update the CCAP progress tracking system to both improve the system itself and to cover all actions in the 2016 climate change action plan.</i>	<i>End of 2017</i>

Background

Climate change

- 3.7 In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) concluded there is a more than 95 percent probability that human activities over the past 50 years have warmed our planet.¹ Increased concentrations of **greenhouse gases** in the Earth's atmosphere have contributed to an increase in the planet's surface temperature.
- 3.8 Average temperature in Canada has increased 1.6 °C or twice the global average since 1948. In northern Canada, the average temperature has gone up 2.2 °C. This is about three times the global average.²
- 3.9 New Brunswick has been experiencing the impacts of climate change. *“In general temperatures are going up, precipitation increasing and sea levels rising. The province can expect an elevated risk of heat-related health concerns, new pests and invasive species, flood damage, impacts from extreme winds, and icing of trees and power lines. Rising sea levels have also increased the risk of flooding and coastal erosion.”*³



Aerial images of a flooding event of the Saint John River basin on Thursday, May 1, 2008 in Fredericton, Source: CNB

¹ IPCC Fifth Assessment Report, 2014

² Key Issues - Climate Change, Environment and Climate Change Canada, <https://www.canada.ca/en/environment-climate-change/briefing/key-issues-climate-change.html>

³ Transitioning to a Low-Carbon Economy - New Brunswick's Climate Change Action Plan, December 2016

Exhibit 3.3 - 2015 Greenhouse Gas Emissions by Jurisdictions in Canada

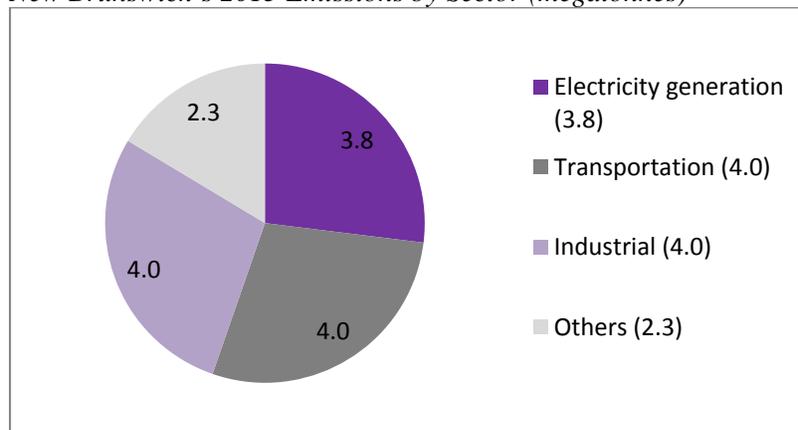
	<i>Total emissions* (megatonnes)</i>	<i>Emissions per capita** (tonnes)</i>
Alberta	274	65.2
Ontario	166	12.0
Quebec	80	9.6
Saskatchewan	75	68.2
British Columbia	61	13
Manitoba	21	16.2
Nova Scotia	16	17.8
New Brunswick	14	17.5
Newfoundland and Labrador	10.3	20.6
Prince Edward Island	1.8	18.0
Northwest Territories	1.4	35.0
Nunavut	0.6	15.0
Yukon	0.3	7.5
Canada in Total	721.4	20.1

Sources: *National Inventory Report, 2017

**Calculated by AGNB based on the data from National Inventory Report, 2017 and Statistics Canada

Notes: Amounts do not account for inter-provincial transfers.
There could be slight differences due to rounding.

Exhibit 3.4 - New Brunswick's 2015 Emissions by Sector (megatonnes)



Source: the Department of Environment of Local Government and National Inventory Report, 2017

New Brunswick's GHG emissions

3.10 As Exhibit 3.3 shows, New Brunswick is not a significant emitter in terms of total volume, however, the province's GHG emissions per capita ranked seventh among 13 provinces and territories. It is recognized that New Brunswick is very dependent on energy intensive exports, such as refined petroleum products, electricity and forestry products which include lumber, pulp and paper products.

3.11 Exhibit 3.4 shows New Brunswick's 2015 GHG emissions by sector. These figures use the most recent data from Environment and Climate Change Canada, a department of the Federal government, which compiles all GHG emissions information for Canada through its National Inventory Report. New Brunswick relies on the National Inventory Report for historical emissions. Electricity generation, industry and transportation are the three dominant contributors to New Brunswick's GHG emissions. Almost 90% of emissions in New Brunswick were energy related in 2015.

3.12 Irving Refinery and Belledune Generating Station are the two largest GHG emitters in New Brunswick. They emitted roughly 2.97 and 2.12 Mt of CO₂e in 2015, respectively. The other large GHG emitting operations are listed in Exhibit 3.5.

Exhibit 3.5- Large GHG Emitting Operations in New Brunswick – emissions (CO₂e) in 2015

Facility name	Tonnes CO₂e
Refinery – Irving Oil Commercial G.P.	2,966,931
Belledune Generating Station – New Brunswick Power Corporation	2,123,832
Coleson Cove Generating Station – New Brunswick Power Corporation	798,797
Bayside Power – Bayside Power L.P.	683,190
Brunswick Smelter – Glencore Canada Corporation	192,829
Irving Pulp & Paper – Irving Pulp & Paper Ltd.	119,695
AV Nackawic - AV Nackawic Inc.	106,522
Irving Paper – Irving Paper Limited	96,582
Edmundston Pulp Mill – Twin Rivers Paper Company Inc.	57,535
New Brunswick Division – PotashCorp	57,014
Lake Utopia Paper - a Division of J.D. Irving, Limited	56,327
Total	7,259,254

Source: GHG Facility Reporting, Environment and Climate Change Canada

Responses to climate change

3.13 Overall, there are two types of strategies to address climate change:

- **mitigation** focuses on lessening the extent of global warming by reducing greenhouse gas emissions, and
- **adaptation** focuses on reducing the potential harm caused by the effects of climate change.

There have been three Climate Change Action Plans since 2007

3.14 The Province published its first Climate Change Action Plan (2007 – 2012) in 2007. The second version of the action plan which covered from 2014 to 2020 was released in 2014. An additional document “*Building a Stronger New Brunswick Response to Climate Change - Discussion Guide*” was issued in May 2016. This was followed by the latest version of the action plan called “*Transitioning to a Low-Carbon Economy*” which dated December 2016. We noticed there is no time period specified for the current version of the action plan.

3.15 These plans have been an important step to address the many broad and interrelated aspects of climate change in this province. The common goals of these plans were to reduce provincial GHG emissions and manage adaptation to climate change impacts through a series of targets and policy actions.

3.16 The Climate Change Secretariat under the Department of Environment and Local Government (the Department) is mandated “*to develop, implement, and report, in cooperation with other departments, on actions that address GHG emission reductions and adaptation. It is also responsible to manage continued engagement with provincial stakeholders, federal, provincial, territorial, and international jurisdictions and the New England Governors and Eastern Canadian Premiers (NEG/ECP) region, on climate change matters, and the development of public awareness and education programs.*”

3.17 One of the key roles of the Climate Change Secretariat is coordination. Direct implementation of most of the actions rests with key departments such as Department of Energy and Resource Development for energy policies and Department of Transportation and Infrastructure for transportation and infrastructure related actions.

3.18 Given the Federal government recently announced climate change policies, the Province must consider the impacts in conjunction with the implementation of its own CCAP. Examples of these polices include the Federal Benchmark on Carbon Pricing released in October 2016, which requires the

province to implement carbon pricing mechanism by 2018 with specific conditions that must be met. Another example is the intention to regulate in 2018 GHG emissions from coal-fired generation such that it will be phased out by 2030.

Audit Objectives and Scope

3.19 Our audit objectives were to determine if:

- the Province of New Brunswick has made progress towards commitments to reduce greenhouse gas emissions;
- the Province of New Brunswick has made progress towards adapting to climate change; and
- the Province of New Brunswick has established effective internal governance and coordination arrangements to achieve greenhouse gas emissions reduction targets and adapt to climate change.

3.20 We communicated the audit objectives and criteria to the management at Department of Environment and Local Government (Department) as well as NB Power. They agreed on the suitability of our audit objectives and criteria.

3.21 We conducted our audit work mainly at the Department and NB Power. The Department is coordinating the actions of a range of key government departments that have the authority to implement the province's climate change policies. We decided to include NB Power in this audit because:

- GHG emissions from electricity generation accounts for almost 30% of New Brunswick's total emissions; and
- The utility sector including NB Power has some unique challenges in terms of adapting to climate change.

3.22 There are two other major sectors in terms of total GHG emissions: industrial and transportation. We did not conduct audit work on these sectors at this time as they are largely driven by the private sector.

3.23 We reviewed the Province's past and current climate change action plans, NB Power's climate change management strategy and its climate adaptation vulnerability assessment framework.

3.24 We interviewed staff members at both organizations. We compared the past climate change action plans with the current one to see how they have evolved. We analyzed the implementation efforts of those plans.

- 3.25** We also conducted jurisdictional scans to evaluate how New Brunswick compares to other jurisdictions in Canada.
- 3.26** Our audit was performed in accordance with standards for assurance engagements, encompassing value-for-money and compliance, established by the Chartered Professional Accountants of Canada, and accordingly included such tests and other procedures as we considered necessary in the circumstances.
- 3.27** Certain financial and statistical information presented in this chapter was compiled from information provided by the Department and NB Power. It has not been audited or otherwise verified. Readers are cautioned that this financial and statistical information may not be appropriate for their purposes.
- Detailed Audit Observations**
- 3.28** Our first audit objective was *to determine if the Province of New Brunswick has made progress towards commitments to reduce greenhouse gas emissions.*
- Mitigation**
- 3.29** There are four audit criteria under this objective. We gathered audit evidence to assess whether:
- The Province has established short and long term greenhouse gas (GHG) emissions reduction targets;
 - The Province has an implementation plan that describes how the New Brunswick’s entities will contribute to achieving the emissions reduction target;
 - The Province is on track to meet its GHG reduction target, and;
 - The Province regularly reports to the public on progress towards GHG reduction target.
- GHG emissions targets**
- 3.30** We believe setting emission targets is a very important first step in reducing GHG emissions.
- Emissions targets of the Province**
- 3.31** In 2001, New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted a Climate Change Action Plan for the region. The plan recommends stabilizing the GHG emissions at 1990 levels by 2010 and reducing 10% by 2020. Furthermore, the 2001 plan established a long-term target of 75-85% reduction from 2001 levels. Resolution 31-1 (2007) established a target date of 2050 for achieving the reductions.
- 3.32** As a member of the NEG/ECP, New Brunswick has based its reduction targets primarily on the reduction guideline set in the NEG/ECP plans. Exhibit 3.6 shows the emission targets set by the Province in its three action plans including the current one.

Exhibit 3.6 - Emission Targets Set by the Province in Past and Current Climate Change Action Plans

New Brunswick's CCAP	Targets	Status	Quotes from CCAPs
Climate Change Action Plan 2007-2012	Return to 1990 levels by 2012	Not Achieved 1990: 16.4 Mt 2012: 16.9 Mt	<i>The New Brunswick Climate Change Action Plan emission reductions are expressed in megatonnes (millions of tonnes) of CO2 equivalents. New Brunswick-led initiatives will result in greenhouse gas emission reductions of 5.5 Mt annually in 2012.⁴</i>
Climate Change Action Plan 2014-2020	10% below 1990 levels by 2020; and 75–85% below 2001 levels by 2050	Updated, see below	<i>New Brunswick's GHG emissions have decreased significantly over the past decade. While current actions are projected to stabilize GHG emissions, it is clear that additional actions must be taken in order for New Brunswick to meet its regional NEG-ECP commitments.⁵</i>
Climate Change Action Plan - Transitioning to a Low-Carbon Economy	14.8 Mt by 2020; 10.7 Mt by 2030; and 5 Mt by 2050.	The Department forecasted it is on track to meet 2020 (14.1Mt in 2015) and 2030 targets with the implementation of all initiatives listed in the 2016 CCAP and some federal initiatives, but is uncertain for 2050.	<i>Although New Brunswick's GHG emissions have declined in recent years, they are not projected to decline in the future under the status quo. This, along with increasingly stringent GHG reduction targets adopted by NEG-ECP and the provincial government, means that additional GHG emission reduction measures will be required.⁶</i>

Source: the Department of Environment and Local Government

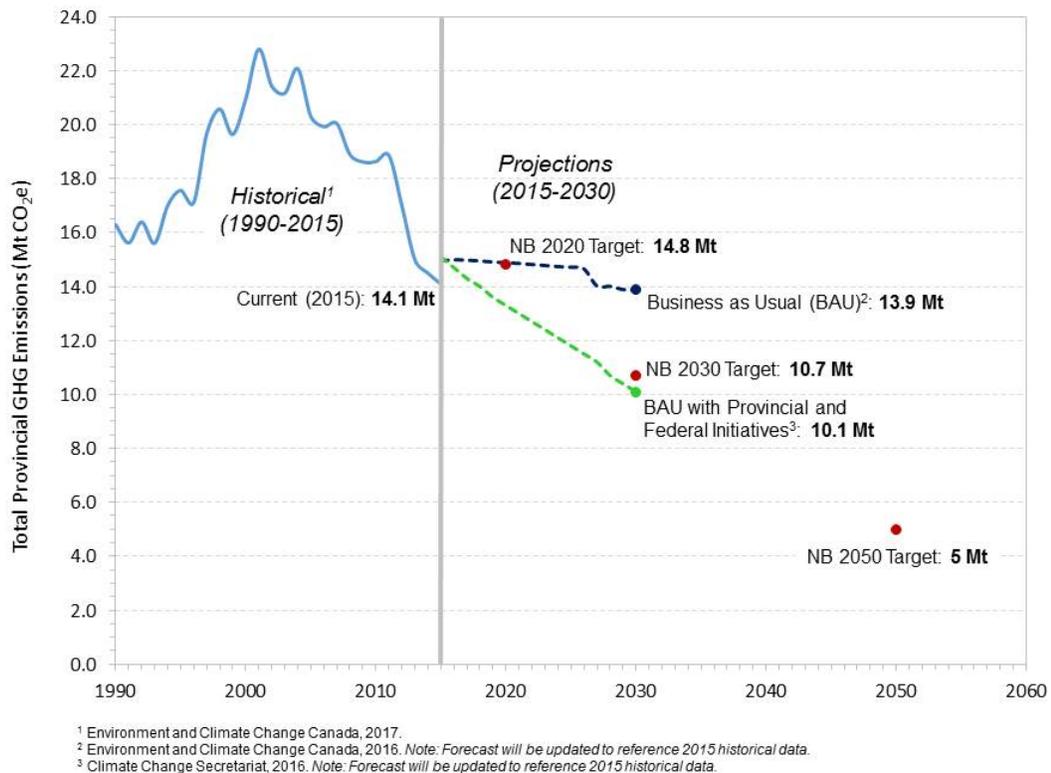
⁴ New Brunswick Climate Change Action Plan 2007-2012

⁵ New Brunswick Climate Change Action Plan 2014-2020

⁶ Transitioning to a Low-Carbon Economy - New Brunswick's Climate Change Action Plan, December 2016

- 3.33** The Province has committed to achieving GHG reduction targets since its first Climate Change Action Plan (CCAP). The short, medium and long term targets are clearly stated in the Province's CCAP. The targets are the same as the reduction levels suggested by the regional initiative NEG/ECP.
- 3.34** The Climate Change Secretariat is currently using the Long-range Energy Alternatives Planning (LEAP) model to track the Province's GHG emissions and to predict if New Brunswick will meet its GHG emission targets.
- 3.35** It has produced three provincial GHG emission projections analyses using the LEAP model in 2013, 2015, and 2016.
- 3.36** As shown in Exhibit 3.7, the Province predicted the 2020 and 2030 targets are achievable with provincial initiatives listed in the new CCAP and Federal ones such as plans to improve transportation vehicle (cars, trucks and heavy duty trucks) fuel efficiency.

Exhibit 3.7 - New Brunswick Greenhouse Gas Emissions and Target



Source: NB GHG Emission Projections, the Department of Environment and Local Government

3.37 Similarly, the Climate Change Secretariat conducted an analysis on 2030 and 2050 targets. Under certain assumptions, it estimates the Province, by implementing all the emission reduction actions identified in the CCAP, would be close in meeting the 2030 target but uncertain for its 2050 target.

3.38 We compared New Brunswick’s targets with the ones set by other jurisdictions in Canada. We found most jurisdictions have clearly identified targets, except Saskatchewan, PEI and Nunavut. Although some provinces have more aggressive reduction targets, New Brunswick has very similar targets with other Atlantic provinces.

Some provinces have legislated GHG emission reduction targets

3.39 We also noted that British Columbia, Quebec, Ontario, and Nova Scotia legislated their reduction targets. Alberta’s *Climate Change and Emissions Management Act (CCEMA)* and its key regulation – the *Specified Gas Emitters Regulation* have been in place since 2007. The Regulation created an intensity-based limit on industrial GHG emissions. We note that the measure chosen under the CCEMA is “emissions intensity”, measuring GHG emissions per unit output. As a result, the CCEMA does not place an absolute cap on Alberta’s aggregate emissions. In 2009 Nova Scotia released the *Greenhouse Gas Emissions Regulations* which established GHG emission caps on any facility located in Nova Scotia that emits greater than 10,000 metric tonnes of carbon dioxide equivalent (10 kt CO_{2e}) greenhouse gases in a calendar year.

3.40 Legislated targets show a government seriously commits to reduce GHG emissions. It also gives a government more authority to enforce actions intended to achieve legislated targets. However, it is recognized that it is important to limit GHG emissions without discouraging economic growth.

Recommendation

3.41 We recommend the Department propose to Cabinet that Greenhouse Gas emission targets, as specified in its Climate Change Action Plan be legislated, similar to other Canadian provinces.

Currently, there is no GHG emission targets set for NB Power

3.42 The Regulation under the *Electricity Act* requires NB Power to achieve by 2020 40% of in-province electricity sales being provided from **renewable energy**.

3.43 We realize the 40% goal is rather for renewable energy than GHG emission reduction. Achieving the target should have the benefit of significantly reducing GHG emissions.

3.44 According to NB Power, its GHG emissions in 2015 were 2.9 Mt, compared to 6.3 Mt in 1990. The reductions have

contributed to achieving New Brunswick's 2020 emission reduction target. Exhibit 3.8 shows NB Power's reduction compared to a variety of baseline emission years which exist within several international carbon dioxide emission reduction frameworks. We noticed these baseline years and reduction targets are specific to the particular framework shown. They are not NB Power's reduction targets, as NB Power is not a signing party of any of the frameworks.

3.45 NB Power projected its GHG emissions to remain similar to current levels by 2020.

Exhibit 3.8 - NB Power's Reduction Compared to a Variety of Baseline Emission Years

Framework for Comparison Purpose	Baseline year	Reduction target	NB Power's emissions in the baseline year (Mt)	NB Power's Emissions in 2015 (Mt)	Reduction (2015) relative to baseline (%)	Emission Lower than Baseline year?
Kyoto Protocol	1990	6%	6.3	2.9	54	Yes
NEG/ECP	1990	10% by 2020	6.3	2.9	54	Yes
	1990	35 to 45% by 2030	6.3	2.9	54	Yes
	2001	75 to 85% by 2050	10.0	2.9	71	No
Canada's Copenhagen Target	2005	17% by 2020	8.8	2.9	67	Yes
Canada's INDC* Submission to UNFCCC**	2005	30% by 2030	8.8	2.9	67	Yes

Source: Greenhouse Gas Management Plan, NB Power, October 2016, modified by AGNB (unaudited)

* intended nationally determined contribution

** United Nations Framework Convention on Climate Change

- 3.46** The data in Exhibit 3.8 shows NB Power's emissions in 2015 are significantly lower than in the baseline years. However, we found there are no specific GHG reduction targets set for NB Power to guide the reduction efforts in the future.
- 3.47** It is unclear what level of GHG reduction will be achieved by reaching the 40% renewable target. This is because the 40% renewable target is only applicable to in-province electricity sales and not affecting export sales. Additionally, the GHG reduction as a result of increased renewable energy totally depends on what sources of electricity generation the renewable is offsetting. For example, there would be no GHG emission reduction achieved if the renewable energy is offsetting nuclear generation as nuclear is a non-emitting source. Assuming renewable energy directly offsets 135 GWh of thermal generation and the average emission intensity for thermal generation ranges from 500 to 800 tonnes per GWh, NB Power estimated it could reduce in a range of 65,000 to 110,000 tonnes of GHG per year by increasing 1% renewable energy. This is based on in-province sales of 13,500 GWh. An increase in the renewable energy sources of 1% equates to 135 GWh in extra electricity generated from renewable sources.

Recommendation

- 3.48 We recommend the Department set specific GHG emission reduction targets for NB Power to ensure the provincial targets set in the Climate Change Action Plan are achievable.**

Federal government's plan to phase-out coal-fired electricity by 2030 poses potential risks to NB Power's future operations

- 3.49** In November 2016, the Federal government announced its plan to eliminate the use of traditional coal-fired electricity by 2030, but will offer some flexibility to the provinces. Currently, four provinces have coal-fired plants in operations, Alberta, Saskatchewan, New Brunswick and Nova Scotia.
- 3.50** Alberta has already announced its plan to shut down coal-fired power plants by 2030. On November 28, 2016, the Governments of Saskatchewan and Canada reached an agreement in principle to finalize the equivalency agreement for Canada's existing coal-fired electricity generation power

plant regulation.⁷ Once finalized, the federal/provincial equivalency agreement on coal-fired electricity generation regulation (coal equivalency agreement) is expected to provide Saskatchewan more flexibility in transitioning to additional renewable energy, including evaluating future opportunities for carbon capture and storage to trap carbon dioxide and store it.⁸

3.51 Nova Scotia and the federal government have also reached an agreement in principle that will allow Nova Scotia to keep its coal-fired electricity plants open beyond 2030.



NB Power's coal-fired generating plant in Belledune is one of the province's major sources of carbon emissions.

Source: CBC News, <http://www.cbc.ca/news/canada/new-brunswick/nb-power-carbon-tax-planning-1.3924685>

3.52 Currently NB Power operates one major coal-fired power plant -Belledune station with 467 megawatt generating capacity. It accounts for 13% of NB Power's total capacity. According to the Department and NB Power, they have been in discussion with the Federal government to continue the

⁷ Under the *Canadian Environmental Protection Act, 1999* the Federal Government may enter into an equivalency agreement with provinces and territories provided that the provincial approach delivers equivalent or better outcomes than the federal *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations*

⁸ www.saskatchewan.ca/government/news-and-media/2016/november/28/equivalency-agreement (16 December 2016).

operation at the plant beyond 2030. However, there was still no agreement reached at the time when we conducted our audit.

3.53 Moreover, the Province’s new CCAP states “*the provincial government will work with the federal government, our neighbouring provinces, local stakeholders and the electric utility toward eliminating coal-fueled electricity generation as quickly as possible. If adequate support can be found to minimize impacts on energy costs and the local economy, eliminate coal by 2030. Alternatively, phase out coal by the status quo date of 2040 with interim emission reductions aligned with new federal regulations.*”⁹

3.54 The plan to phase out coal-fired plants by the Federal government will have a significant impact on NB Power’s operation, as NB Power believes the Belledune station is an important and integral part of its electricity generation assets. NB Power uses an Integrated Resource Planning (IRP) process to ensure the Province’s long term electricity supply needs are met. This uncertainty creates a significant risk to NB Power’s future operations as well as New Brunswick’s ability to meet GHG emissions targets.

Recommendation

3.55 We recommend NB Power:

- **perform a comprehensive analysis on the potential impact of phase-out of Belledune Generating Station;**
- **consult with the Department of Environment and Local Government on a proposed solution regarding the Belledune Generating Station; and**
- **integrate the Belledune Generating Station phase-out analysis in its Integrated Resource Plan process to ensure it has the capacity to meet New Brunswick’s future electricity requirements, while respecting energy efficiency and demand reduction programs.**

⁹ Transitioning to a Low-Carbon Economy – New Brunswick’s Climate Change Action Plan, December 2016

***Implementation
plan of the Province
is not finalized***

3.56 An implementation plan is an essential part of overall climate change strategy. It is important to map out the key steps to ensure the GHG reduction targets can be achieved.

3.57 Compared to previous versions of the Province's CCAP, the 2016 plan has many important updates and enhanced action items. It intends to intensify the efforts to combat climate change.

3.58 There are 118 actions identified in the Province's CCAP. All the actions are linked to seven areas:

- Provincial government leadership;
- Collaboration with First Nations;
- GHG emission reductions;
- Adaptation to the impacts of climate change;
- Economic opportunities;
- Accountability and reporting, and
- Funding for climate change.

3.59 There are 35 action items related to GHG emissions reductions. One very important policy instrument was introduced in this CCAP – a price on carbon¹⁰. In October 2016, the federal government announced its intention to establish a price on carbon emissions of \$10 per tonne in 2018, rising to \$50 per tonne by 2022. Provinces and territories will have a choice in how they implement this pricing. Should any province or territory not establish a price on carbon by 2018, the federal government will implement carbon pricing in that jurisdiction.

¹⁰ There are two main types of carbon pricing: emissions trading systems and carbon taxes

3.60 According to the 2016 CCAP, the Province will implement a carbon pricing mechanism that addresses the requirements of the Federal government by 2018. This is a good example of an action item with a clear timeline. The CCAP also describes what the key considerations should be in setting the pricing mechanism and how the proceeds from carbon emissions pricing will be administered.

3.61 Unfortunately, very few action items have timelines attached to them as yet. For example, the CCAP states the Province “*will work to have 2,500 electric vehicles on the road in New Brunswick by 2020 and 20,000 by 2030*” and an electric vehicle strategy will be implemented. However, there are no details regarding when the strategy will be implemented and how infrastructure will be developed to accommodate that many electric vehicles on the road.

3.62 The staff members at the Secretariat have been working with other departments to draft an overall implementation plan after the new CCAP was published, but it is unclear when an implementation plan will be finalized. Without clear timelines and implementation plans, it is difficult to measure the Province’s progress toward achieving the goals it set in the new CCAP.

Recommendation

3.63 We recommend the Department finalize an implementation plan that describes:

- **how and when the actions identified in the Climate Change Action Plan will be implemented; and**
- **how the Department intends to monitor and report on the progress.**

There is a plan at NB Power to respond to its “regulatory requirement of supplying 40% of in-province sales from renewable sources by 2020”

3.64 The main focus of NB Power’s Integrated Resource Planning (IRP) process is to ensure the Province’s long term electricity supply needs are met. In addition to this load requirement, the IRP also seeks to establish a development plan that responds to the *Electricity Act* and operate under the following policy objectives:

- *To provide low and stable rates;*
- *To ensure a reliable power system; and*
- *To meet the requirements of a Renewable Portfolio Standard (RPS)*

The RPS requires NB Power to supply 40% of its in-province sales from renewable sources by 2020. The result is a “*combination of initiatives designed to reduce and shift energy*”

demand, encourage efficiency, foster locally owned, small-scale renewable projects and add new resources to ensure the utility meets its” renewable target.

3.65 NB Power updates the plan every three years to reflect new technology, changes in customer demand and updated fuel price forecasts.

3.66 As required by New Brunswick Regulation 2015-60 under the *Electricity Act*, NB Power “*shall file a progress report to the Minister of Energy within three months after the end of each fiscal year*”. NB Power reported 42% of its in-province electricity sales were generated from renewables in 2015-2016. NB Power believes the IRP process is effective in terms of achieving NB Power’s renewable target.

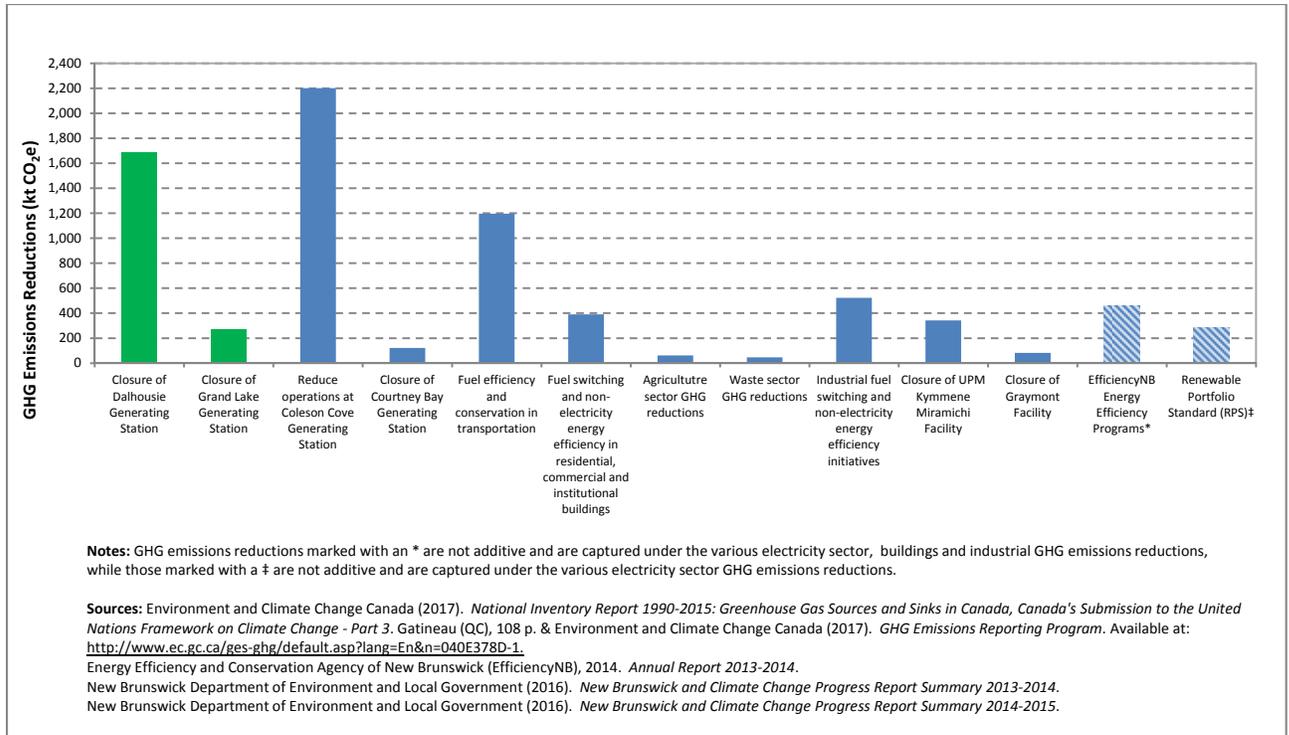
If all actions are funded and implemented, the Department forecasts the Province is on track to meet its 2020 and 2030 GHG reduction targets, but is uncertain for 2050

3.67 As shown in Exhibit 3.7, current New Brunswick GHG emissions are down significantly from their peak in 2001. As per the Department, this can be attributed to several significant factors including: market penetration of natural gas, substantial energy efficiency programs, 300 megawatts of wind power development as a result of government regulation, increased biomass use in industry with government support, capping of all solid waste landfills with biogas capture, closure of two fossil fueled electricity generation plants, and some restructuring of the forest processing industry. Exhibit 3.9 shows in detail the areas that contributed to reductions in New Brunswick’s GHG emissions.

3.68 The Climate Change Secretariat is currently using the Long-range Energy Alternatives Planning (LEAP) model to track the province’s GHG emissions and to determine if New Brunswick will meet its GHG emission targets. A detailed description of the LEAP model can be found in Appendix I. The Secretariat relies on GHG emission data published by Environment Canada to feed into its analysis.

3.69 The Climate Change Secretariat has produced three provincial GHG emission projections analysis using the LEAP model (2013, 2015, and 2016).

Exhibit 3.9 - *Attributions of Total Provincial GHG Emissions Reductions from 2004 to 2015*



Source: *NB GHG Emission Projections, the Department of Environment and Local Government (unaudited)*

3.70 The 2015 Report presents the results of an analysis related to the GHG mitigation actions identified in the CCAP 2014-2020, related to three action areas: Energy Efficiency; Fuel Switching and Behavioural Change. The LEAP model was used to estimate the emission reductions achieved in 2020 from the implementation of the mitigation actions identified. The analysis showed the province can meet its 2020 GHG emission target by properly funding and implementing all 2014-2020 Climate Change Action Plan GHG mitigation action items.

3.71 Similarly, results from latest analysis (2016) show the province can meet its 2030 GHG emission target by properly funding and implementing all Climate Change Action Plan GHG mitigation action items identified in the study.

- 3.72** In 2015-2016, 42% of NB Power's in-province electricity sales were generated from renewable energy sources.
- 3.73** NB Power states that it has already made significant GHG reductions to help the Province meet its 2020 target. As previously mentioned, NB Power's 2015 GHG emissions were 2.9 Mts, which is significantly lower than 6.3 Mts it emitted in 1990.
- 3.74** NB Power projected its total GHG emissions will remain similar to current levels up to 2020. It appears NB Power is on track to meet its 2020 renewable energy target.

The Province regularly reports to the public on progress towards GHG reduction targets

- 3.75** The Province has produced summary GHG progress reports on an annual basis since fiscal 2007-2008. The Department is in the process of finalizing the latest 2015-2016 progress report. As of May 2017, the report has not been published.
- 3.76** The Province always uses the most recent data from Environment Canada. Normally, there is a two year gap. For example, the 2012-2013 progress report contained data from 2011.
- 3.77** The progress report includes data for total NB annual GHG emissions and emissions by sector. A chart in the report clearly shows the emission levels from 1990 to the most recent year for which data is available. It also highlights some key actions taken in the most recent year in areas such as energy efficiency, transportation, industry, electricity generation, etc.
- 3.78** A website has been developed for the Government of New Brunswick by the Canadian Standards Association to track and report the Province's efforts to reduce GHG emissions through actions undertaken. It also offers viewers interactive graphs and data tables of the Province's GHG emissions.
- 3.79** Through the above publicly available information, the Province reports in a consistent way its progress toward GHG reduction targets.

NB Power regularly reports to the public on progress towards renewable energy target

- 3.80** Starting in 2016, NB Power is required by the Department to submit its annual Greenhouse Gas Management Plan to Government. The intention of this initiative was to ask the Crown agency to document a framework to properly address GHG emissions and identify potential reductions. A guideline document published by the Department requires the plan to include such key elements as:
- GHG reduction targets;
 - GHG reduction strategy;

- Continual improvement; and,
- GHG monitoring and reporting.

3.81 NB Power submitted the plan in November 2016. The plan was assessed and accepted by the Department.

3.82 All industrial facilities in Canada emitting 50,000 tonnes of CO₂ or more per year are required to report on their annual GHG emissions under Environment Canada's GHG Emissions Reporting Program (GHGRP). NB Power continues to monitor and report to Environment Canada on its GHG emissions as required.

3.83 NB Power also publishes its carbon dioxide emissions and intensity rates in its annual report.

3.84 NB Power's emissions data can also be found at the Department's website. The website contains information on large industrial emitters in New Brunswick including NB Power. Currently the website lists the emissions data from 11 large industrial emitters in 2014. The emissions data in 2015 can be found in Exhibit 3.5.

Conclusions

3.85 We have concluded the Province has made progress towards commitments to reduce GHG emissions since it published the first CCAP in 2007.

3.86 The Province has committed to achieving GHG reduction targets since its first CCAP. The short, medium and long term targets are clearly stated in the Province's CCAP. The targets are the same as the reduction levels suggested by the regional initiative NEG/ECP. If all actions are funded and implemented, the Department forecasts the Province is on track to meet its GHG reduction 2020 and 2030 targets, but is uncertain whether the 2050 target can be met or not.

3.87 The current versions of the Province's CCAP listed many important and enhanced action items. It intends to intensify the efforts to combat climate change. However, very few action items have timelines attached. It is not specified how they will be implemented.

3.88 Through an interactive web portal and annually published progress report, the Province reports in a consistent way its progress toward GHG reduction targets.

- 3.89** We have concluded NB Power has made progress towards commitments to reduce GHG emissions.
- 3.90** The Regulation under the *Electricity Act* requires NB Power to achieve by 2020 40% of in-province electricity sales being provided from renewable energy.
- 3.91** The 40% goal is rather for renewable energy than GHG emission reduction. Achieving the target would have the benefit of significantly reducing GHG emissions.
- 3.92** The data shows NB Power's emissions in 2015 are significantly lower than in the baseline years of 2005 and prior. However, we found there is no specific GHG reduction targets set for NB Power to guide the reduction efforts in the future.
- 3.93** The Province's "*regulatory requirement of supplying 40% of in-province sales from renewable sources by 2020*" is included in NB Power's integrated resource planning process "*through a combination of initiatives designed to reduce and shift energy demand, encourage efficiency, foster locally owned, small-scale renewable projects and add new resources to ensure the utility meets its*" targets¹¹. NB Power appears to be on track to meet its renewable energy target by 2020.
- 3.94** Finally, NB Power regularly reports to the public on progress towards its renewable energy target.



Cottage on New Brunswick coastline (Cap-de-Cocagne on Route 530) in 2010 (Photo-Courtesy of Gilles Allain. Source: <http://www.cbc.ca/news/canada/new-brunswick/new-brunswick-coasts-are-at-risk-climate-change-report-says-1.2661881>)

¹¹ Greenhouse Gas Management Plan, NB Power, October 2016

Adaptation

3.95 Our second audit objective was to determine whether the Province of New Brunswick has made progress towards adapting to climate change.

Adaptation criteria

3.96 There were three audit criteria under this objective. We gathered audit evidence to determine whether:

- The Province has a comprehensive and coherent specific risk assessment;
- The Province has a plan for adapting to climate change; and
- The Province has implemented its actions in accordance with the timelines in its plan.

Assessment of risks

3.97 Adapting to climate change may be one of the greatest challenges for communities, governments and corporations in the coming decades.

A risk assessment is the first and very crucial step in developing an adaptation strategy

3.98 The impacts of a changing and more variable climate involve almost every aspect of society and create risks to the social, economic, cultural and environmental fabric of the Province. That is why a risk assessment is the first and very crucial step in developing an adaptation strategy. A brief description of risk management can be found in Appendix I.

3.99 There are certain key steps in conducting a climate change risk assessment:

- Engaging stakeholders (internal and external) throughout the risk assessment process;
- Recording the information / decisions / differences of opinion throughout the entire process;
- Establishing the context / scope of the risk assessment, including objectives, timeframe, clear accountabilities and appropriate resources;
- Identifying the climate change risks (present and future climate scenarios) using best available information;
- Estimating the risk level, which involves looking at the consequence of impacts, and determining their likelihood;
- Assessing the vulnerability of key systems to impacts, which should include a determination of the adaptive capacity of the organization (ie. how they can adapt to impacts) and how sensitive areas are to climate change (this can be based on existing and potential stress);

- Ranking the potential impacts – comparing risks to each other and discussing level of acceptability of risks; and
- Obtaining approval from senior management.

Identification of areas of risk in New Brunswick

3.100 The New Brunswick Climate Change Secretariat has several pieces of information that help identify:

- areas at risk to climate change impacts;
- the development and application of vulnerability assessments for these areas, and
- the creation of climate change adaptation plans identifying measures needed to adapt to the changing conditions and make landowners, homeowners, infrastructures, and whole communities more resilient to climate change impacts.

The Department believes coastal impact is a critical issue for New Brunswick

3.101 An awareness of the problems associated with a changing climate was first identified in the 2002 *Coastal Areas Protection Policy for New Brunswick*. This coastal land use document identified coastal ecosystems such as wetlands, dunes, beaches, etc. that were critical natural assets in need of regulatory protection. This was because they were known to provide protection to landowners, infrastructure, and whole communities from storm surges and severe meteorological events that cause flooding and erosion in coastal areas.

New Brunswick participated in some national and regional initiatives

3.102 In 2006, the Government of Canada published the study “*Impacts of Sea-Level Rise and Climate Change on the Coastal Zone of Southeastern New Brunswick*”. The report identified climate warming, through ocean thermal expansion and melting of ice on the continents, is expected to raise the mean sea level on a global basis over the coming century. This will accelerate historical rates of relative sea-level rise through a combination of earth surface shifting downward and rising sea level in the Northwest Atlantic. Analyses done by the study presented estimates of relative sea-level rise for the coming century (2000-2100) to be in the range of 50-59 centimeters plus or minus 35 centimeters.

3.103 In April 2007, Natural Resources Canada announced a program for the development of Regional Adaptation Collaborative (RAC) to support the advancement of climate change adaptation in six regions across Canada. RAC helped facilitate the integration of climate-related risks and opportunities into planning and decision-making in Canada.

3.104 The Regional Adaptation Collaborative (RAC) in Atlantic Canada is housed in the Atlantic Canada Adaptation Solutions Association (ACASA), a partnership among the governments of New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. These jurisdictions are working with the Government of Canada to assist Atlantic Canadians in adapting to climate change. One of the key action items is to identify climate risks and vulnerabilities. Products developed on New Brunswick climate-related issues include:

- case studies on vulnerability assessment;
- technical studies on NB’s projected sea level rise and flooding estimates, coastal flooding and erosion,
- adaptation planning guidebooks and tools;
- website on future climate projections and climate change indicators of New Brunswick;
- economic evaluation of climate change impacts on New Brunswick and Nova Scotia; and
- adapting to climate change via land-use planning in the communities of the Acadian peninsula.

3.105 In 2014, Natural Resources Canada (NRCan) released its updated report “*Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation*”. This document spoke to the vulnerabilities and implications for communities, infrastructure, and ecosystems in Canada, and discussed current and future risks and opportunities that climate change presents to Canada.

3.106 According to these NRCan studies, Atlantic Canada will experience more storm events, increased storm intensity, a rising sea level, storm surges, and coastal erosion and flooding. Anticipated higher temperatures and longer growing seasons could benefit agriculture and forestry, but increased storm frequency and water variability pose risks as well.

3.107 Although these above-mentioned regional and national initiatives do not comprise a comprehensive risk assessment, the Climate Change Secretariat has been using the results of that research to guide the province’s adaptation activities. The increased risk of flooding and erosion, both along the coasts and inland, has been one primary focus of research in the Province. According to the Department, vulnerability assessments have been completed in 46 communities in New Brunswick as of December 2016, including many coastal areas and the three biggest cities in the Province. These assessments

Vulnerability assessments have been completed in 46 communities in New Brunswick, however, no provincial comprehensive risk assessment conducted

covered 75% of the population of New Brunswick. However, we found there is no documented comprehensive risk assessment for the Province. Without an over-arching provincial risk assessment, it will be difficult for the Province to consistently:

- Identify key climate risks that have significant impacts;
- Prioritize the risks; and
- Assess the community perception of risks associated with past and current climate variability.

Recommendation 3.108 We recommend the Department develop a provincial climate change risk assessment. The assessment should include:

- **Risk identification;**
- **Risk analysis;**
- **Risk evaluation;**
- **Risk treatment and adaptation measures; and**
- **Implementation plan and monitoring.**

***Extreme Weather
Events in New
Brunswick***

3.109 Recent climate related extreme weather events have generated much investigation, planning exercises, tools and guidance development on adapting to new climate realities. These events include:

- Flooding damage and resulting evacuations in Perth-Andover and St. Stephen in 2012 and 2013;
- damages and power outages caused by post-tropical storm Arthur in 2014;
- a freezing rain event in the lower Saint John River valley in December 2013;
- a severe precipitation event of 125 + mm of rain that washed out roads, culverts, and bridges across the Province in September 2015; and
- an ice storm that led to widespread power outages in 2017.



One scene from New Brunswick's ice-coated Acadian Peninsula (Jerome Luc Paulin/Twitter)
 Source: CBC News, <http://www.cbc.ca/news/canada/new-brunswick/new-brunswick-weather-brennan-allen-1.3954613>

***New Brunswick
 Climate Change
 Adaptation Projects***

3.110 A number of climate change adaptation projects funded by the New Brunswick Environmental Trust Fund have been administered by the New Brunswick Climate Change Secretariat. Besides flooding and erosion, research has also been carried out on climate scenarios and climate adaptation tools. The Province is continuing to collaborate with individuals, businesses and communities to better understand climate change risks and opportunities in New Brunswick, and how to manage them.

3.111 Other adaptation efforts facilitated by the Climate Change Secretariat include:

- Development of adaptation guidebooks for NB communities;
- the updated sea-level rise flooding estimates for New Brunswick coastal sections- based on IPCC 5th Assessment Report;
- Flood risk scenarios mapping for Acadian Peninsula communities, mapping of coastal erosion rates on the provincial GeoNB map viewer site;
- Production of erosion data and projections of the coastal shoreline evolution in the greater Tracadie area; and
- The enactment of a sea level rise regulation for all new development by the Regional Service Commission aimed at protecting new infrastructure from flooding by requiring the habitable area of any new construction be located at an elevation above projected sea levels in 2100.

3.112 The New Brunswick Legislature’s Select Committee on Climate Change Report, tabled in November 2016, proposed 85 recommendations to government in dealing with climate change issues. The majority of these recommendations have been adopted by the Province as part of its new CCAP.

3.113 The new CCAP identified six areas to focus its adaptation efforts on:

- *Understand climate change impacts;*
- *Build climate resilient infrastructure;*
- *Support community adaptation planning;*
- *Adapt natural resources and agriculture;*
- *Reduce climate-related hazards; and*
- *Reduce climate change impacts on public health.*

Most of the actions do not have timelines attached to them, making it difficult for the public to assess the progress made by the government and other participants

3.114 The adaptation plan is fairly comprehensive. It outlines many clear and important actions to be taken. It also recognizes the needs for cooperation and collaboration with municipalities, infrastructure owners (e.g., Department of Transportation and Infrastructure, NB Power, Bell Aliant etc.). However, what is lacking in the plan is the detail of how the targets will be achieved. Most of the actions do not have timelines attached to them, making it difficult for the public to assess the progress made by the government and other participants. The recommendation in paragraph 3.63 already addressed this issue.

NB Power climate change adaptation projects

3.115 NB Power has chaired the Climate Change Adaptation Working Group of Canadian Electricity Association (CEA) to develop CEA's *Climate Change Adaptation Management Planning Guide*. This document has been used by many utility companies in Canada to develop their adaptation strategy. Following the recommended adaptation process, NB Power drafted its first Climate Change Management Strategy in February 2015. The strategy identified six key elements for managing the effects of climate change on NB Power activities:

1. *improving our understanding of climate change (Research/Understanding);*
2. *continuing emission reduction strategies (mitigation against the causes of climate change), consistent with legislative and policy mandates (Mitigation through Emission Reduction);*
3. *defining a credible scenario for future conditions (Scenario Definition);*
4. *assessing the vulnerability of existing facilities and business strategies to the future conditions (Vulnerability Assessment);*
5. *identifying and selecting options for managing the impacts on existing facilities (Adaptation Options); and*
6. *incorporating climate change considerations into long term decision making (Decision Making).*

3.116 In 2015, NB Power engaged an environmental consulting firm to study the future climate scenarios. This study presented the projected change for a number of climate indices that will be used by NB Power in planning required changes in the company's operations. NB Power developed a high level vulnerability assessment framework after this study. It identified five priorities:

- *Extreme Precipitation Events;*
- *Changes to Spatial and Temporal Availability of Water;*
- *Vegetation Management;*
- *Rising Sea Level; and*
- *Lightning*

3.117 Individual projects, studies and initiatives related to vulnerability assessment and adaptation have been conducted. For example:

- A sea level rise assessment for Point Lepreau Generation Station;
- A water availability study for Mactaquac;
- A climate change adaptation options in Atlantic Canada - Chignecto Isthmus Case study;
- A preliminary discussion with University of Quebec on collaboration of freezing rain study; and
- A project piloting the use of **LiDAR** (see Appendix I for definition) technology and growth models to identify where trees have the potential to come into contact with power lines.

3.118 It is unclear, though, when NB Power will conduct a broad corporate level **vulnerability assessment**. Without such a vulnerability assessment, it will be difficult for NB Power to prioritize its adaptation efforts and analyze its adaptation options.

3.119 In fact, NB Power has not identified potential adaptation options taking into account costs and benefits, risks, and implications on the rates.

- Recommendations**
- 3.120** We recommend NB Power conduct a corporate level climate change vulnerability assessment.
- 3.121** We recommend NB Power develop an implementation plan for adapting to climate change after the completion of its vulnerability assessment.
- Conclusions**
- 3.122** We have concluded the Province has made some progress towards adapting to climate change, although many significant actions related to adaptation are still in their very early stage.
- 3.123** The New Brunswick Climate Change Secretariat has been working on identifying areas at risk to climate change impacts, the development and application of vulnerability assessments for these areas, and the creation of climate change adaptation plans. However, we found there is no documented province-wide comprehensive risk assessment.
- 3.124** The adaptation plan included in the CCAP is fairly comprehensive. It outlines many clear and important actions to be taken. It also recognizes the needs for cooperation and collaboration with municipalities, infrastructure owners (e.g., Department of Transportation and Infrastructure, NB Power, Bell Aliant etc.). However, what is lacking in the plan is the detail of how the actions will be achieved. Most of the actions did not have timelines attached to them.
- 3.125** We have concluded NB Power has made progress towards adapting to climate change.
- 3.126** NB Power drafted its first Climate Change Management Strategy in February 2015. The strategy identified six key elements for managing the effects of climate change on NB Power activities. Individual projects, studies and initiatives related to vulnerability assessment and adaptation have been conducted throughout the years.
- 3.127** It is unclear though when NB Power will conduct a broad corporate level vulnerability assessment. Without a vulnerability assessment, it will be difficult for NB Power to prioritize its adaptation efforts and analyze its adaptation options.
- Coordination**
- 3.128** Our third audit objective was to determine if the Province of New Brunswick has established effective internal governance and coordination arrangements to achieve GHG emissions reduction targets and adapt to climate change.

- 3.129** There were two audit criteria under this objective:
- Roles and responsibilities to implement greenhouse gas emissions mitigation strategies and climate change adaptation strategies should be clearly assigned to accountable entities; and
 - Mitigation and adaptation efforts should be coordinated across government departments and Crown agencies.
- 3.130** One of the key roles of the Climate Change Secretariat is coordination. A new tracking tool called CCAP Progress Tracking System was created by the Climate Change Secretariat to track all the efforts by each department and agency in implementing the four goals found in New Brunswick's CCAP (2014-2020):
- *Enhanced Resilience to the Impacts of Climate Change;*
 - *Reduced Greenhouse Gas Emissions with Sustained Economic Growth;*
 - *Demonstrated Leadership by the Provincial Government; and*
 - *Measured and Reported Progress.*
- 3.131** Currently there are 20 projects in the system. Eight were completed, 10 are on track and two are proposed. It clearly shows the department responsible, the status of the project (proposed, on track, or completed), and key action of the project. This makes it easier for the Secretariat to coordinate the projects across the government. A status report generated by the system can be found in Appendix II.
- 3.132** This tool simplifies the way the data is gathered internally. It also serves as a useful method for individuals and departments to track and monitor their own climate change activities.
- 3.133** We found the projects tracked in this system were still categorized using the four goals listed in the previous version of the CCAP. The system has not been updated to reflect the goals in the recent December 2016 CCAP.

Recommendation 3.134 We recommend the Department update the CCAP Progress Tracking System to reflect the changes in the most current Climate Change Action Plan.

3.135 The new CCAP lists a few action items that, if implemented, would result in stronger leadership from the government and better coordination across government entities:

- Climate change Cabinet Committee chaired by the Premier to oversee the implementation of the action plan;
- Climate change included in the mandate letter to all Ministers; and
- Enhance the Climate Change Secretariat to coordinate, measure and report on climate change.

Coordination between departments and agencies

3.136 The Climate Change Interdepartmental Committee (CCIC) was established in 2001. The overall objective of CCIC is to successfully complete activities which increase New Brunswick's GHG reductions and resilience to climate change. The CCIC is comprised of all key departments and agencies with a responsibility for acting on climate change. The Committee's intention was to work collaboratively to achieve the targets, goals and actions consistent with the CCAP.

3.137 The CCIC is chaired, coordinated and administered by the Climate Change Secretariat. According to its terms of reference, the CCIC meets biannually. We found the committee had been relatively inactive, but activities increased in 2016. Meanwhile, there have been many bilateral meetings between the Climate Change Secretariat and departments and agencies to discuss and coordinate climate change activities.

Coordination between departments and NB Power

3.138 Coordination between the government and NB Power at various levels is evident. NB Power is also part of the CCIC. Besides participating in the regular committee meetings, NB Power has had many b-lateral meetings with the Climate Change Secretariat to discuss issues particular to NB Power.

3.139 NB Power has been evaluating the impacts of all the key actions proposed in the new provincial CCAP that are related to NB Power such as carbon pricing and the planned phase out of coal by 2030. There is active communication between the government and NB Power to ensure both parties are well informed.

3.140 NB Power is working co-operatively with the Climate Change Secretariat to develop relevant scenarios for use across New Brunswick such as those related to sea-level rise. The NB

government and NB Power also purchase weather data needed to plan adaptation activities such as projection of temperature and precipitation level in future years. They share the data and the costs.

Conclusion

3.141 We have concluded the Province of New Brunswick has made efforts to establish internal governance and coordination arrangements to achieve GHG emissions reduction targets and adapt to climate change. Some of the action items proposed in the new CCAP, if implemented, would result in greater coordination across government entities.



Aerial images of the Saint John River basin on Thursday, May 1, 2008.

Source: <http://www1.gnb.ca/cnb/multimedia/display-e.asp?ID=1465&num=2>

Appendix I – Glossary

Climate Change

In the United Nation’s Framework Convention on Climate Change (UNFCCC), Article 1, Climate Change is defined as:

“...a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

From the federal government (climatechange.gc.ca):

“Climate change is a long-term shift in weather conditions identified by changes in temperature, precipitation, winds, and other indicators. Climate change can involve both changes in average conditions and changes in variability, including, for example, extreme events.”

Greenhouse Gas

From the Glossary of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change:

“Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth’s surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃) are the primary greenhouse gases in the Earth’s atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Beside CO₂, N₂O and CH₄, the Kyoto Protocol deals with the greenhouse gases sulphur hexafluoride (SF₆), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).”

Mitigation

From the Glossary of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change:

“A human intervention to reduce the sources or enhance the sinks of greenhouse gases.”

Adaptation

From Natural Resources Canada:

“Adaptation to climate change is any activity that reduces the negative impacts of climate change and/or takes advantage of new opportunities that may be presented. Adaptation includes activities that are taken before impacts are observed (anticipatory) and after impacts have been felt (reactive). Both anticipatory and

reactive adaptation can be planned (i.e. the result of deliberate policy decisions), and reactive adaptation can also occur spontaneously.”

Renewable/Non-emitting/Clean Energy

Renewable energy can be defined by the International Energy Agency as:

“Energy derived from natural processes (e.g. sunlight and wind) that are replenished at a faster rate than they are consumed. Solar, wind, geothermal, hydro, and some forms of biomass are common sources of renewable energy.”

Biomass is an emitting energy source, but it is still renewable as the carbon emitted is simply being returned to the atmosphere.

A definition of Clean Energy is more difficult to pin down, as “Clean” could mean different things to different actors. For instance, the BC government considers natural gas as a type of “Clean Energy,” while there is increasing concern that a surge in renewable energy will deplete the decidedly non-renewable supply of some rare earth elements . The Draft audit on Clean Technology by OAG Canada provides the following definition (which could change prior to publication):

“Clean energy technologies include technologies that bring about production, transmission, distribution and use of energy with low or no greenhouse gas and other air emissions. Examples of such technologies include

- solar photovoltaics, a technology that uses solar cells to convert sunlight into electricity without producing greenhouse gas emissions;
- wind turbines, a non-emitting technology that uses turbines with large propellers to capture wind energy and produce electricity;
- tidal turbines, a non-emitting technology that uses turbines in the ocean to capture the energy from ocean tides and produce electricity; and
- fuel cells, which use the chemical energy of hydrogen or another fuel to create electricity with zero emissions”.

Clean energy technologies also include innovations that reduce energy use, improve environmental performance, or support other low- or non-emitting energy technologies. For example, smart grids use information technologies to monitor, control, and optimize the usage of the electricity system. These technologies are designed to increase efficiency, reduce outages, and integrate more renewable electricity.

Long-range Energy Alternatives Planning (LEAP) Model

The LEAP model is an energy analysis and estimation model and has been used internationally including Canada, the United States, throughout Europe, and in many developing countries for climate change action planning. It is an integrated model that includes analysis of both energy demand and energy supply. Being a “bottom-up” model, it can be used to understand the unique details of New Brunswick’s

economy and society that contribute to emissions and which are attributed to the province. While LEAP is a model whose structure and formulations are geared largely to energy end use, it can be used to examine and project emissions in non-energy sectors, such as from agricultural production, waste disposal, and industrial processes.

More specifically, LEAP considers the details of each economic sector in terms of: (i) activities that lead to energy consumption; (ii) direct emissions, such as with agricultural production and waste; (iii) technical details of the energy end-use technologies used; and (iv) energy supply mix. Ultimately, the trend in GHG emissions is a function of changes in activity, energy efficiency, and the fuel mix used to provide energy services.

Risk Management

Risk management is a process for selecting the best course of action in uncertain situations involving risk. It does this by helping to identify, understand, analyze and treat risks and to communicate to others about them.

Risk management offers a practical and credible approach in the face of uncertainties for prioritizing complex risk issues and for selecting optimal risk reduction strategies in order to achieve acceptable levels of remaining risk. It also provides a means for balancing a range of considerations, for using predictive information and for dealing with uncertainties.

Vulnerability Assessment

Canadian Electricity Association provides an assessment of climate change risks and opportunities for Canada's electricity sector from three perspectives:

- A. An inventory of significant risks and opportunities for the electricity sector in Canada arising from climate change impacts, which is grouped into three areas: electricity demand; electricity generation; and electricity transmission, distribution and infrastructure;
- B. A discussion of high impact weather events over the last decade and their impacts, in order to highlight the importance of building a system that is as resilient as possible; and
- C. An examination of the increasing likelihood of high impact scenarios, and the need for the electricity sector to incorporate the risk of high impact, low frequency events in investment planning and operations management.

LiDAR

LiDAR, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.

Appendix II – Status Report Generated from CCAP Progress Tracking System on May 2, 2017

Generate Report

Status Report
 Planning Report
 GHG Report
 Financial Report

Action Plans

Goals

Key Actions

Categories

Note: To Filter: Click to select any of the above options to filter the report results. Leave blank to select all. Hold Ctrl on your keyboard and click to unselect options. To Print: Right-click on the report (outside of the graph images) and click "Print Preview".

Status Report

Activity Statuses

Activities are organized by CCAP Goals, Key Action Areas, and Key Actions. The activity name, lead department, ID number, and status are provided.

GOAL 1: ENHANCED RESILIENCE TO THE IMPACTS OF CLIMATE CHANGE					
Activity ID	Key Action Area	Key Action	Lead Department/Agency	Activity Name	Activity Status
99	Data collection and Research into Climate Change Impacts	Establish research priorities and greater collaboration between academics and jurisdictions	Environment and Local Government	test	Proposed
81	Risk and Opportunity Assessments	Evaluate and Address Resilience of Provincial Infrastructure	Transportation and Infrastructure	AM – Adaptation Strategies	On Track
92	Risk and Opportunity Assessments	Evaluate and Address Resilience of Provincial Infrastructure	Transportation and Infrastructure	Chignecto Isthmus Project	Proposed
73	Mainstreaming Adaptation	Foster Collaboration Amongst Government Departments on Climate Change	Health	Heat Alert Response System	Completed
82	Mainstreaming Adaptation	Integrate Climate Change Considerations into Infrastructure management	Environment and Local Government	Improvement of the Balmoral Storm Sewer System	On Track

GOAL 2: REDUCED GREENHOUSE GAS EMISSIONS WITH SUSTAINED ECONOMIC GROWTH					
Activity ID	Key Action Area	Key Action	Lead Department/Agency	Activity Name	Activity Status
91	Renewable and Low Emissions Energy	Encourage Local Renewable Energy Projects	Natural Resources	LORESS Program	On Track
90	Reduced Industrial Emissions	Develop and Implement GHG Management Planning for Industry	Environment and Local Government	Development of GHG Management Plan Guidelines for Industry	Completed
80	Reduced Industrial Emissions	Develop and Implement GHG Management Planning for Industry	Transportation and Infrastructure	Warm Mix Asphalt (WMA)	On Track
77	Reduced Emissions from Other Sectors	Support Sustainable Farming Practices	Agriculture, Aquaculture and Fisheries	Agroenvironmental Clubs	On Track

GOAL 3: DEMONSTRATED LEADERSHIP BY THE PROVINCIAL GOVERNMENT					
Activity ID	Key Action Area	Key Action	Lead Department/Agency	Activity Name	Activity Status
98	Public Buildings	Conduct Energy Audits to Further Reduce GHG Emissions	Tourism, Heritage and Culture	Mount Carleton Provincial Park - Campground solar array	Completed
97	Public Buildings	Conduct Energy Audits to Further Reduce GHG Emissions	Tourism, Heritage and Culture	Provincial Parks - Campground solar hot water	Completed
96	Public Buildings	Conduct Energy Audits to Further Reduce GHG Emissions	Tourism, Heritage and Culture	Mactaquac Provincial Park – Lighting Waste Walk	Completed
96	Public Buildings	Conduct Energy Audits to Further Reduce GHG Emissions	Tourism, Heritage and Culture	Mactaquac Provincial Parks – PowerShift Atlantic	Completed
79	Public Buildings	Conduct Energy Audits to Further Reduce GHG Emissions	Transportation and Infrastructure	Energy Retrofitting and Renewable Energy	On Track
93	Vehicle Fleet and Employee Travel	Explore Alternative Fuels and Fuel Efficiency in Provincial Fleets	Transportation and Infrastructure	Fleetcarma -Electric Vehicle Feasibility Project	Completed
94	Vehicle Fleet and Employee Travel	Promote Minimized and Efficient Travel by Public Servants	Transportation and Infrastructure	Assess current GPS technology in government fleet for potential expansion	On Track
86	Inter-jurisdictional Partnerships	Contribute Actively to the Implementation of Climate-Related Action Plans	Environment and Local Government	NEG-ECP Resolution 39-1: Establishing a 2030 Regional Target	On Track

GOAL 4: MEASURED AND REPORTED PROGRESS					
Activity ID	Key Action Area	Key Action	Lead Department/Agency	Activity Name	Activity Status
87	Government Energy Use and Emissions Inventory	Use LEAP to Ensure Accountability with GHG Reduction Targets	Environment and Local Government	Long Range Energy Alternative Planning (LEAP) Model	On Track
88	Reporting Progress	Continue to Release Annual Progress Reports	Environment and Local Government	CCAP Progress Tracking System	Completed
89	Reporting Progress	Continue to Release Annual Progress Reports	Environment and Local	Climate Change Annual Progress	On Track

Source: CCAP Progress Tracking System, the Department of Environment and Local Government