



National Energy
Board

Office national
de l'énergie

Evaluation Report

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Pipeline Safety and Public Awareness Initiatives

National Energy Board

Approved by the Chair and CEO | March 20, 2017

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Executive Summary

Evaluation

- 2012 Treasury Board Submission for Pipeline Safety
- 2012 and 2014 Treasury Board Submission for Public Awareness

The TB Submissions provide the National Energy Board (NEB, Board) with additional funding between 1 April 2012 and March 31, 2017 to increase activities related to pipeline safety oversight (“Pipeline Safety Initiative”) and to address increased public awareness of energy safety (“Public Awareness Initiative”).

Total value of initiatives:
\$32.1 million

Pipeline Safety

2012: \$5.9 million
 2013–2016: \$5.1 million/year

Public Awareness

2012: \$830,000
 2013–2016: \$588,000/year

Pipeline Safety Initiative

1	Alignment with Federal Role	Yes
<p>The activities and outcomes committed through the 2012 Safety Submission for <i>Enhanced Safety Oversight</i> (“Pipeline Safety Initiative”) are aligned with federal roles and responsibilities.</p>		
2	Alignment to Government Priority	Yes
<p>The outcomes and expected results that were planned for the Pipeline Safety Initiative have been consistent with strategic outcomes and organizational priorities.</p>		
3	On-going need	Yes
<p>Resources are needed to continue monitoring and verifying NEB regulated-companies compliance and performance. However the approach to compliance verification shifted from the time of the submission in 2012, from task-oriented company performance verification through compliance activities (inspections, audits) to management system-oriented which is inclusive of all types of verification activities, analysis of data and enforcement actions, leading to enhanced company and industry performance.</p> <p>Given that the 2012 TB Submission provided temporary funding, the NEB will have to assess both its base allocation and sources of other temporary funding in order to have a clear understanding of the resources needed for program delivery and the risks of not having what is required.</p>		
4	Performance	Yes
<p>Analysis of existing information supports the conclusion that the intended outcomes have been achieved and that the NEB made efforts to deliver them in an economic and efficient manner, although improvements are required in resources and data management.</p>		

Public Awareness Initiative

1	Alignment with Federal Role	Yes
<p>The ATIP function at the Board is a legislated requirement and Communications Services are a standard internal service.</p>		
2	Alignment to Government Priority	Yes
<p>The 2012 TB Submission outlined several activities and expected results for public awareness and outreach that are aligned with the NEB's strategic outcome and organizational priorities identified in the yearly Report on Plans and Priorities (RPP), now called Departmental Plan.</p>		
3	On-going need	Yes
<p>The ATIP office carries out its activities in response to a legislated requirement and service standards and it is a relevant function at the NEB that contributes to being responsive to the needs of Canadians.</p> <p>The internal reorganization of the Communications Business Unit into an engagement-focused team and a communications-focused team will help determine whether additional dedicated resources are needed. The NEB will need to assess its program delivery needs in light of its base allocation and other sources of temporary funding in order to determine appropriate needs for continued program delivery.</p>		
4	Performance	Yes
<p>Analysis of existing information supports the conclusion that the intended outcomes have been achieved for both aspects of the initiative: ATIP and Communication. The NEB made efforts to deliver expected results in an economic and efficient manner given the resources allocated and the increase workload experienced in the first two years for both aspects of the initiative.</p>		

Management Response

Management accepts the recommendations of this evaluation and is committed to actions that will support implementation of all recommendations by March 31, 2017 (see Annex 7).

Management notes that this evaluation took place in the first half of 2016. Since that time, the NEB has continued to advance its pipeline safety, oversight and public awareness agenda through a variety of interrelated internal and external initiatives. The following events have taken place since the evaluation as completed and also support the recommendations of the evaluation.

External Audit

- ⦿ The NEB developed a Corrective Action Plan in response to the January 2016 publication of the ***Audit on Oversight of Federally Regulated Pipelines*** by the Commissioner of Environment and Sustainable Development. The NEB began implementing the recommendations at the time this evaluation was being carried out, with the majority of recommendations implemented by September 2016 and full implementation by December 2016. Several of the recommendations are focused on the same topics as this evaluation such as improving documentation and data management systems. Steps were also taken to enhance the NEB website and better track and share more regulatory information which also contributes to the desired outcomes of the 2012 TB Submission.

Transformation Initiative

- ⦿ In March 2016, the NEB initiated a transformation initiative and as part of this documented a **Management System Manual (MSM)** describing management principles, governance structure and guidance in carrying out responsibilities. Multiple projects have occurred since then with a particular focus on implementing the MSM, improving internal governance and enhancing transparency of information. A current project is focused on process management and organizational improvement which will help address the evaluation's observations related to inconsistent use of the tool to manage and update process documentation.
- ⦿ In November 2016, the NEB adopted and began implementing a new **Departmental Results Framework (DRF)** to drive and measure results. The DRF will help inform management decisions, resource allocations and drive achievement of results and continual improvement. The Departmental Results under each core responsibility will be shared publically and provide assurance that the NEB delivers on its results.
- ⦿ In 2016, there was an internal reorganization at the NEB to better align resources to the mandate and context the NEB operates in especially with regards to pipeline safety and public awareness as well as core responsibilities. For example, the Communications Business Unit team became part of a new BU called Transparency & Strategic Engagement which also includes an engagement-focused team. The Operations Business Unit reorganized into two new business units with a focus on Field Operations and another on System Operations to promote a strong management system focus.

Safety Culture

- ⦿ In April 2016, the NEB became the first regulator in North America to require pipeline companies to publish oil and gas emergency procedures manuals on their internet sites. Taking this step supports the objectives of the 2012 TB Submission to be responsive to the needs of Canadians and enhance public awareness of pipeline safety.

Key Findings and Recommendations

Key Findings

Relevance

- ⦿ The initiatives of the 2012 TB Submission are aligned with the roles, responsibilities and priorities of the federal government as well as the mandate and priorities of the NEB. There is a continuing need for the activities that relate to pipeline safety and public awareness as a result of legislated requirements (e.g. ATIP) and the responsibilities of the *National Energy Board Act*. The NEB will need to assess its base allocation and other sources of temporary funding as well as other changes to its operating environment in order to determine appropriate needs for continued program delivery.

Achievement of Outcomes

- ⦿ The NEB has achieved the outcomes it was committed to through the 2012 and 2014 TB Submissions.

The following are highlights:

- Steps were taken to introduce newer IT systems in 2015 to collect and manage pipeline safety data (Online Event Reporting System or ERS and the Operations Regulatory Compliance Application or ORCA) with the goal of improving efficiency and reducing administrative work. Assessment of these goals and system performance should take place at a later date though in order to allow time for implementation and sufficient data to become available for analysis.
- Progress was made against the regulatory agenda and new tools and guidance to support enforcement with regulations were developed. Initiatives are also underway to improve internal systems and processes and to allow quick access to data. This includes, for example, an open data project in parallel with the rest of government as well as data visualizations that are publicly available.
- Since April 2015, an interactive pipeline incident map is available on the NEB website and users have the ability to download data for further analysis.
- Analysis of regulatory data and activity information indicates the NEB has been successful in delivering on its target number of inspections and companies are demonstrating improved safety results, indicated by a declining trend in incidents. The NEB also takes steps to publicly share reports and summaries of its findings from audits and inspections and its correspondence with companies.

Some challenges were also noted during the evaluation and have or are being addressed:

- When the 2012 TB Submission was approved, the NEB did not have adequate systems to track actual expenses against the submission. As well, some Full-time Equivalent (FTE) positions were not immediately allocated and had to be risk-managed. Management confirmed that for subsequent TB Submissions, the NEB has the system in place to track expenses and FTEs against source of funds.
- The evaluation matrix had several questions that rely on data to determine the outcome and thus extensive effort and time were spent during the evaluation to check the accuracy and completeness of data extracted from the NEB's systems and spreadsheets and follow-up for explanation or correction prior to data analysis. Staff indicated that in the past, data entry of certain activity or administrative information was neither timely nor implemented consistently or the systems lacked the ability to perform automatic quality checks. This led, over the years, to more work to make essential corrections and improve the quality of data. Teams are now working on reviewing data that has been migrated to newer systems (e.g. ERS) or will be considering alternative approaches to data collection and analysis.
- Many processes related to compliance verification, enforcement, public awareness and ATIP were formally established at some earlier point in time. While the NEB has a quality management system and a supporting tool to control documents and facilitate continual improvement, the documents describing the process and procedures for carrying out the activities examined in this evaluation vary in age and timeliness of updates. This may indicate a lack of understanding by staff in the NEB's approach and available tool to centralize and update program processes.

Efficiency and Economy

- ⊙ The 2012 TB Submission introduced specific activity-based targets for audits and inspections as they were considered the most effective tools for compliance verification. The NEB has met this target each year for inspections. This had an effect on compliance verification planning and implementation, leading to a heavy workload in carrying out all the necessary compliance work each year in addition to carrying out unplanned activities. Rather than determining the most appropriate compliance activity, the incentive has been to do audits and inspections to count towards the target.
- ⊙ Activity and time data are available for both pipeline safety and public awareness initiatives; however without specific goals related to efficiency/economy, baseline information or consistent use of time codes it is difficult to analyze for improvements. As well, staff are often involved in several activities or provides support to various teams and functions, making it that much harder to capture how time is spent in a detailed way. Nevertheless, the available information was analyzed and ongoing initiatives were noted, with the following key improvements:
 - Significant improvement to the time to close an incident investigation;
 - The majority of media requests receive a same-day response;
 - Historical information is used during planning in order to optimize resources and activities coordinated across different program areas; and
 - Demonstrated initiative to develop specific time codes for staff in order to better track effort against certain activities.
- ⊙ Newer IT systems to manage workflow could help improve efficiency, however as noted above, more time is required to generate the performance data that will help determine whether this goal has been met.

Recommendations

1. Data Management (Pipeline Safety)

Many years of pipeline data has been collected and stored at the NEB as a result of its regulatory activities. Accurate and timely data is central to planning the next year's work; it can inform the regulatory development agenda; indicate public perception and interests and it has the potential to establish topics that the NEB can engage on with companies and the public. Data and analysis is also routinely made available to the public.

As the NEB introduces new data management systems or processes, older data is migrated to these new systems; however this data does not get as much priority for checks on accuracy and completeness. Since trend analysis requires multi-year data, the NEB should:

- a) Create a plan, with timelines, to address the validity and completeness of older data;
- b) For those systems that do not have a built-in data validation function, ensure processes require and enforce mandatory quality control of data; and
- c) Where spreadsheets are used as databases for data collection and analysis including public reporting, ensure there is oversight and review for quality of data and calculations are accurate.

2. Measuring Efficiency

Implementing more specific activity time codes is a positive move that will allow the NEB to assess its workload by activity. At the same time, the NEB should assess which data its systems are designed to capture and introduce the appropriate data fields to better measure and report on efficiency. A starting point to this assessment would be to:

- a) Determine timelines for key processes based on trend analysis and define targets for process completion;
- b) Designate an accountable lead for process performance; and
- c) Continual monitoring of process performance based on defined targets.

3. Regulatory Development

Data and information are used as input into regulatory development and updates. Given this, the NEB should:

- a) Further define data and information needs to measure regulatory effectiveness; and
- b) Have a mechanism to verify the expected results of regulatory design that have been achieved.

4. Data Management (Communications)

Trend analysis requires multi-year data, thus the NEB should:

Where spreadsheets are used as databases for data collection and analysis including public reporting, ensure there is oversight and review for quality of data and calculations are accurate.

1. Background

Over the years, the NEB has requested and received temporary or new permanent funding to respond to an increased demand for regulatory oversight and to enable carrying out its mandate and respond to government priorities (see page 8). This additional funding is acquired by submitting a proposal to the Treasury Board Secretariat (TBS), detailing how the resources would be used over a certain period of time, the benefit to Canadians and how the NEB will measure and report on its activities. Since the NEB is funded by the process of cost recovery through the industry it regulates, these TB Submissions result in industry absorbing these temporary or permanent increases to the NEB's funding level.¹

The 2012 and 2014 TB Submissions are the subject of this evaluation as they expire on March 31, 2017. The activities and resources funded by TB Submissions are in the following areas of the NEB:

- a) **Operations:** responsible for safety oversight through compliance verification and enforcement
- b) **Legal Services (LSU):** responsible for supporting business units with legal review and advice
- c) **Regulatory Approaches:** responsible for regulatory development and updates with the assistance of Legal Services
- d) **Strategic Communications:** responsible for public outreach and media response
- e) **Secretary's Office:** responsible for Access to Information and Privacy Requests (ATIP) with the assistance of Legal Services

¹ The process of cost recovery is regulated by the [National Energy Board Cost Recovery Regulations](#). The NEB regularly reports on its spending trends through its annual Report on Plans and Priorities and Departmental Performance Report.

2007

TB Submission

Temporary funding of \$25.52 million (40 FTE) is approved for a three year period in order for the NEB to respond to an increase in workload related to hearings and compliance verification activities as well as support recruitment, special IT/IM projects and public consultation.

2010

TB Submission

Permanent funding of \$8.04 million (40 FTE) per year to continue to meet the demands in workload outlined in the 2007 TB Submission. The funding supports roles in hearings, compliance verification, information management and other internal services.

2014

TB Submission & Economic Action Plan 2014

Includes \$1.76 million for a three period to continue the public awareness portion (4 FTE) of the original 2012 TB Submission.

2009

TB Submission

Permanent funding of \$9.34 million (56 FTE) per year to support regulation of the TransCanada Alberta System (NGTL) which came under the NEB's jurisdiction in 2009. Funding will result in more staff for its regulatory programs in safety, security and environment as well as stakeholder engagement and internal services.

2012

TB Submission & Economic Action Plan 2012

Temporary funding of \$30.30 million is approved for a 5 year period for the NEB to strengthen its capacity to inspect pipelines, promote safety performance and to strengthen capacity to address public awareness of pipeline safety. This is meant to address the challenges of the new operating context. Funding provided for 30 FTE for five years & 4 FTE for 2 years. Roles include inspectors, auditors, regulatory analysts, legal services, communication and internal services.

2015

TB Submission & Economic Action Plan 2015

Temporary funding of \$80.35 (51 FTE) is approved for a five year period for safety and environmental protection and increased stakeholder engagement. Funding will result in more staff and resources for compliance and enforcement, emergency management, IM system projects, regional offices, communications and engagement activities.

2. Evaluation Plan

This evaluation was conducted in accordance with the TBS *Policy on Evaluation* (2009) and addresses the core evaluation questions related to relevance and performance, efficiency and economy, namely:

1. Alignment with federal roles and responsibilities;
2. Alignment with government priorities;
3. The continued need for the program;
4. Achievement of expected outcomes; and
5. Demonstration of efficiency and economy.

The results of the evaluation provide information that can be used to further assess continued need for resources to deliver the objectives of the safety and public awareness submission. The report is organized in two parts. Findings and observations are presented in Section 3 as it relates to the Pipeline Safety Initiative and in Section 4 as it relates to the Public Awareness Initiative.

2.1 Evaluation Objectives

During the planning phase for the evaluation and in consultation with staff and accountable leaders—a logic model, evaluation questions and outcome measures were defined.

The logic model (Annex 1) was based on the information in the Treasury Board Submissions.



EVALUATION QUESTIONS FOR THE PIPELINE SAFETY INITIATIVE

Issue	Question	Conclusion
Relevance		
	Are the activities and outcomes outlined in the safety initiative aligned with federal roles and responsibilities?	Yes
	Are the activities and outcomes outlined in the safety initiative aligned with the mandate, strategic outcomes and priorities of the NEB?	Yes
	Is there a continued need, beyond FY 2016–17 to support the outcomes for pipeline safety?	<i>To be determined by Management given current baseline and temporary resources available.</i>
Performance		
	Do companies demonstrate improved safety results?	<i>Yes – declining trend in incidents</i>
	Does the NEB have current regulations and guidance?	Yes
	Are regulations and guidance updated in a timely and transparent manner?	Yes
	Has the NEB developed processes to collect information to support the availability of data for analysis on the safety of pipelines?	<i>Yes – however improvements needed in quality of data</i>
	Does the NEB achieve its planned number of completed inspections and audits?	Yes
	Does the NEB respond to and follow-up on each incident investigation and analyze corrective action plans?	Yes
	Does the NEB provide direct legal support to the compliance program and regulatory development work?	Yes
	Does the NEB understand the technical and systematic causes of pipeline incidents?	Yes
	Does the NEB share its findings and understanding of the causes of pipeline incidents?	Yes
Efficiency and Economy		
	Are inspections, audits and investigations delivered in an increasingly efficient manner?	<i>Difficult to conclude on without baseline data</i>
	Are inspections, audits and investigations delivered in an increasingly economical manner?	<i>Difficult to conclude on without baseline data</i>

EVALUATION QUESTIONS FOR THE PUBLIC AWARENESS INITIATIVE		
Issue	Question	Conclusion
Relevance		
	Are the activities and outcomes outlined in the public awareness initiative aligned with federal roles and responsibilities?	Yes
	Are the activities and outcomes outlined in the public awareness initiative aligned with the mandate, strategic outcomes and priorities of the NEB?	Yes
	Is there a continued need, beyond FY 2016–17 to support the outcomes for public awareness?	<i>To be determined by Management given current baseline and temporary resources available.</i>
Performance		
	Does the NEB have the capacity to meet increased demand for outreach, engagement and communication on pipeline safety?	<i>To be determined by Management given current baseline and temporary resources available.</i>
	Does the NEB have the capacity to respond to ATI and Privacy requests and does it uphold a transparent approach to releasing public information?	Yes
Efficiency and Economy		
	Does the NEB respond to and process media and ATIP requests in an increasingly efficient manner?	<i>Difficult to conclude on without baseline data</i>
	Does the NEB respond to media requests and ATIP requests in an increasingly economical manner?	<i>Difficult to conclude on without baseline data</i>

2.2 Methodology & Limitations

The evaluation was carried out between January and May 2016 using qualitative and quantitative approaches. This included assessing program documentation, analyzing and running calculations on a variety of data collected by the NEB and conducting interviews across all areas of responsibility. Data included for analysis in this evaluation had a cut off of either 31 December 2015 or 31 March 2016.

Over the course of the evaluation, it became apparent that for some areas, data is not collected or if it is, the quality (defined as timely, understandable, complete, consistent and accurate), could be enhanced. As a result, this report recommends where caution should be taken when interpreting the data.

3. FINDINGS: Pipeline Safety Initiative

3.1 Relevance

3.1.1 Federal Roles and Responsibilities

Findings and Supporting Evidence

The activities and outcomes committed through the 2012 Safety Submission for *Enhanced Safety Oversight* (“Pipeline Safety Initiative”) are aligned with federal roles and responsibilities.

The intent of the submission was for the NEB to increase its activities related to oversight of safety and environmental protection and to enable regulatory development work.

The role of the NEB is established through the *National Energy Board Act*. It is responsible for the safety and security of pipelines, workers, the public and the protection of property and the environment. The NEB fulfills this responsibility through a range of activities such as inspections, investigations and developing regulations.

3.1.2 Alignment with Government Priorities and NEB Strategic Outcomes

Findings and Supporting Evidence

The outcomes and expected results that were planned for the Pipeline Safety Initiative have been consistent with strategic outcomes and organizational priorities.

Funding for the Safety Initiative was announced in conjunction with the Government’s 2012 Budget and Economic Action Plan² to strengthen pipeline safety. The actions outlined in the government’s plan for Responsible Resource Development³ in 2012 established the same goals and outcomes—that the pipeline safety system will become stronger by, for example, increasing the number of inspections and audits and introducing financial penalties.

Safety and environmental protection are paramount for the NEB and are reflected in its strategic priorities since 2012. In each Annual Report since 2012, the NEB has outlined four goals, two of which relate to pipeline safety. They are:

1. NEB-regulated facilities and activities are safe and secure, and
2. The environment is protected throughout the lifecycle of NEB-regulated facilities and activities.

² Government of Canada: [Economic Action Plan 2012](#)

³ Government of Canada: [Responsible Resource Development 2012](#)

3.1.3 On-going Need

When the 2012 TB Submission was approved, the NEB was committed to collecting and analyzing key data on safety performance and program activities so that it could assess value for money. It also anticipated a program evaluation to assess the extent to which the initiative is effective and achieved expected outcomes and to determine whether there is an ongoing need for additional resources.

Findings and Supporting Evidence

Resources are needed to continue monitoring and verifying NEB regulated-companies compliance and performance. However the approach to compliance verification shifted from the time of the submission in 2012, from task-oriented company performance verification through compliance activities (inspections, audits) to management system-oriented which is inclusive of all types of verification activities, analysis of data and enforcement actions, leading to enhanced company and industry performance.

Given that TB Sub 2012 provided temporary funding, the NEB will need to assess its base allocation and other sources of temporary funding as well as other changes to its operating environment in order to determine appropriate needs for continued program delivery.

The NEB monitors and verifies compliance with requirements such as regulations, conditions and standards. During its annual planning exercise, the NEB schedules mostly planned activities based on a risk model, leaving some time and resources for unplanned activities that may be needed throughout the year. Planned activities include inspections, audits, meetings, manuals and report review and emergency response exercises. These activities are organized by six programs as shown to the right. Examples of unplanned activities are those that involve responding to incidents reported by companies, responding to concerns, complaints and emergencies and taking action to enforce compliance with regulations.

Between FY 2008–09 and FY 2015–16, approximately 54% of Compliance Verification Activities (CVAs) conducted were planned and the rest were demand-driven. Inspections are mostly likely to be a planned activity.

Figure 1 below demonstrates that the overall number of CVAs usually rises each fiscal year. In general, most activities are planned, but the number of unplanned activities is also trending upwards year over year.

The requirements on regulated companies to notify the Board of any incident and submit additional reports generates work for the NEB to review, follow-up on and sometimes even deploy staff to the site of the incident. It also requires management of data and the capacity to analyze in order to detect

Number of Compliance Verification Activities 2012–13 to 2015–16



106
Damage
Prevention



213
Safety



429
Environment



86
Security



307
Integrity



164
Emergency
Management

1,305

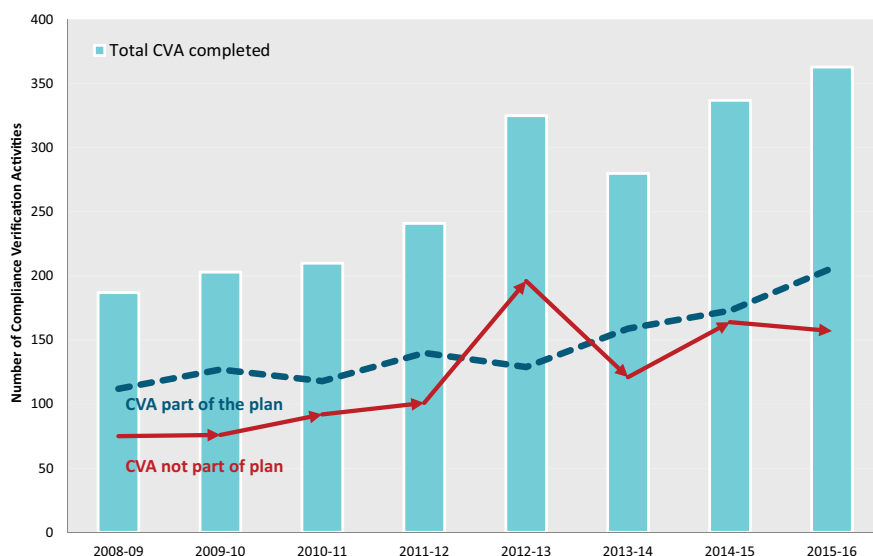
trends. There is a declining trend in the number of events reported to the NEB since FY 2013–14 as shown later in this report in Figure 4 and Table 7.

In 2012, the NEB was concerned about making progress on its regulatory work plan, and keeping pace with responding to emerging safety issues and providing relevant and timely regulatory instruments, especially for the compliance program at the NEB. Four FTEs that were allocated to help develop and update regulations, guidelines, orders and filing manuals were not filled immediately until the third year (three FTE); however the existing team at the NEB has managed to address its regulatory development agenda and be responsive to the changes that were driven by new legislation in recent years.

Safety oversight has continued to demand the assistance of the Legal Services Unit. Increasingly, inspections, compliance and enforcement work is leading to more comprehensive, management-oriented Safety Orders, for which LSU input and advice is essential. It is expected that counsel involvement with comprehensive Safety Order issuance and compliance verification and providing associated risk-based legal advice to staff and Members will continue to be a significant draw on the resources of LSU.

Since the TB 2012 Submission was approved, the NEB has introduced new processes. For example, the *Administrative Monetary Penalties Regulations*, introduced in 2013 (discussed in section 3.2.2.5), involves a process that is particularly legal in nature and can result in Board findings of non-compliance and associated financial penalties. It draws heavily on LSU counsel and paralegals to support the process and lead any subsequent review requested by a company or individual that does not agree with the finding of non-compliance or penalty amounts assessed.

Figure 1: Number of CVAs between 1 April 2008 and 31 March 2016



There was a sharp rise in the number of unplanned CVAs completed in 2012–13. This was made up of an increase in the number of inspections and information exchange meetings.

Note: The figure does not include the number of management system audits or financial regulatory audits.

In Budget 2015, the government committed \$80 million over five years to the NEB for safety and environmental protection and greater engagement with Canadians. This submission was meant to supplement the funding provided under Budget 2012 (2012 TB Submission). With this 2015 funding, the NEB can address the increased complexity of regulatory activities and implement programs and follow-up activities in response to the work completed since 2012. As well, the NEB intends to use the 2015 funding to support more comprehensive audits and investigations, develop or update data management and information systems, establish regional offices and initiate public engagement and outreach. The funding is mainly allocated to regional offices, engagement and communications positions, data collection and analysis specialists, and the Operations BU for its compliance verification work.

3.2 Effectiveness (Outcomes)

3.2.1 Intermediate Outcomes⁴

Outcome: Companies have adequate and effective systems and programs to prevent and manage pipeline safety risks.

The funds received through the safety submission were to ensure that energy infrastructure is operated safely and securely with minimal impacts on the environment, people and economic benefits. The NEB assesses effectiveness of company management systems by developing and collecting data on:

a) **Leading indicators**

Example: performance of the systems meant to prevent incidents (e.g. delivery of safety training); and

b) **Lagging indicators**

Example: the number of incidents that occurred (e.g., number of fires).

The NEB assesses lagging indicators through its CVAs and through company reporting of events/incidents. Leading indicators are also assessed through CVAs and company reporting on pipeline performance measures. The NEB expects that a company with an effective management system will have fewer incidents to report on.

The data for some indicators demonstrate a year-to-year improvement in meeting the NEB's target, while others have fluctuated (Figures 2 to 6). Overall, the number of events reported, and of these the number of significant events, is on a decreasing trend since FY 2011–12.

The NEB encourages a precautionary principle such that 'when in doubt, report'.⁵ Since FY 2011–12, there has been some fluctuation in the number of reportable events but no significant change has occurred. Once the NEB determines whether the event was a reportable event under regulation, it can also determine whether the event is a symptom of either an isolated safety issue or a symptom of a trend. The 2012 TB Submission was meant to help the NEB improve its capacity to conduct more analysis of trends and root causes and be proactive in addressing potential safety issues and promote safety performance.

⁴ An intermediate outcome is *an outcome that is expected to logically occur once one or more immediate outcomes have been achieved*. Treasury Board Secretariat, Centre of Excellence for Evaluation: [Results-based Management Lexicon](#).

⁵ Note that the Board encourages a precautionary approach to reporting events such that "when in doubt, report". Following further information from the company, the NEB determines whether the evidence does indeed indicate the event was reportable or not and then changes the record if required (*Event Reporting Guideline, Section 2.2*).

Findings and Supporting Evidence

3.2.1.1 Audits

One way the National Energy Board assesses companies for compliance with regulatory requirements is by auditing their management systems. Auditors follow the criteria outlined in the 2013 Audit Protocol⁶ to assess compliance with the *Onshore Pipeline Regulations* (OPR) as well as all other associated regulations, applicable legislation and standards.⁷ The audit report contains findings and conclusions of compliance or non-compliance with requirements. Companies respond with a Corrective Action Plan (CAP) which must receive Board approval prior to its implementation.

This evaluation summarizes the findings from Audit Reports completed under both the former OPR (1999) and the revised OPR (2013) between FY 2008–09 and FY 2015–16. The last few years have focused on auditing Group 1 companies⁸.

No audit has resulted in findings of 100% compliance with the requirements of the OPR. All completed audits report at least one non-compliant finding. Half of all findings were related to non-compliance and required a CAP. The other half of all findings did not require a CAP.

The top five areas of non-compliance:

- Management of Change
- Management Review
- Legal Requirements
- Internal Audit
- Communication



The top five areas of compliance:

- Leadership
Accountability
- Records Management
- Operational Control-Upset or
Abnormal Operating Conditions
- Operational Control under Normal
Operating Conditions
- Policy and Commitment
Statements



⁶ NEB: [Management System and Protection Program Audit Protocol](#), 2013

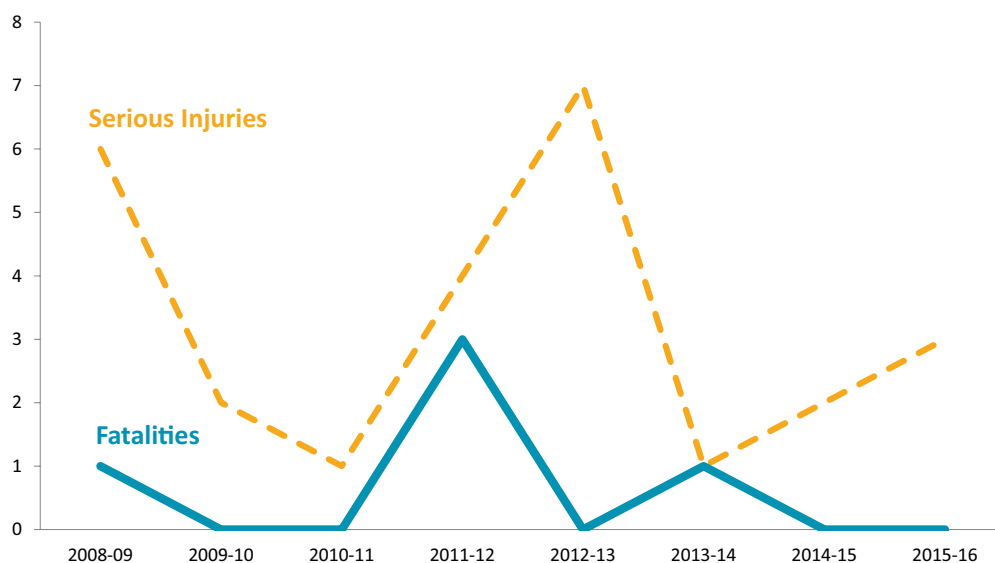
⁷ Other requirements are outlined, for example, in [CSA Z662](#), [Canada Labour Code](#) and the [National Energy Board Pipeline Crossing Regulations](#).

⁸ Group 1 Companies have more extensive systems and are thus subject to more regulatory oversight than a Group 2 Company. A list is provided on the [NEB website](#).

3.2.1.2 Fatalities and Injuries

Between 1 April 2008 and 31 December 2015, there were 766 events reported to the NEB under the OPR. This represents 789 incidents because one event could represent more than one incident (e.g. Injury and Fatality). Significant incidents⁹, such as serious injury and death (fatality), must be reported immediately by phone to the Transportation Safety Board of Canada (TSB) and the information must also be submitted to the TSB and NEB through the online event reporting system. Figure 2 below shows that the number of serious injuries has declined since 2012. There were a total of 5 fatalities over the last 8 fiscal years, however few or none in the past few years.

Figure 2: Trends in Injuries and Fatalities reported under the OPR between 1 April 2008 and 31 December 2015



Note: When serious injuries/fatalities reported under other legislation are included, there are a total of 6 fatalities and 30 serious injuries that were reportable for this time period; however the trends remain the same.

3.2.1.3 Leaks and Ruptures



The OPR also requires companies to report incidents that relate to an unintended or uncontained release of gas (e.g. natural gas) of any volume and the release of liquid hydrocarbons (e.g. crude oil) over 1.5m³. There is no accurate method to estimate the release of gas for a particular event thus companies report all unintended releases of natural gas regardless of the volume.¹⁰ Between 1 April 2008 and 31 December 2015, companies reported a total of 51 incidents under the OPR that were related to the release of liquid hydrocarbons and 405 that were related to a release of gas (Figure 3).

⁹ See Annex 4 for the full list of significant incidents.

¹⁰ NEB: [Interactive Incident Map – FAQs](#)

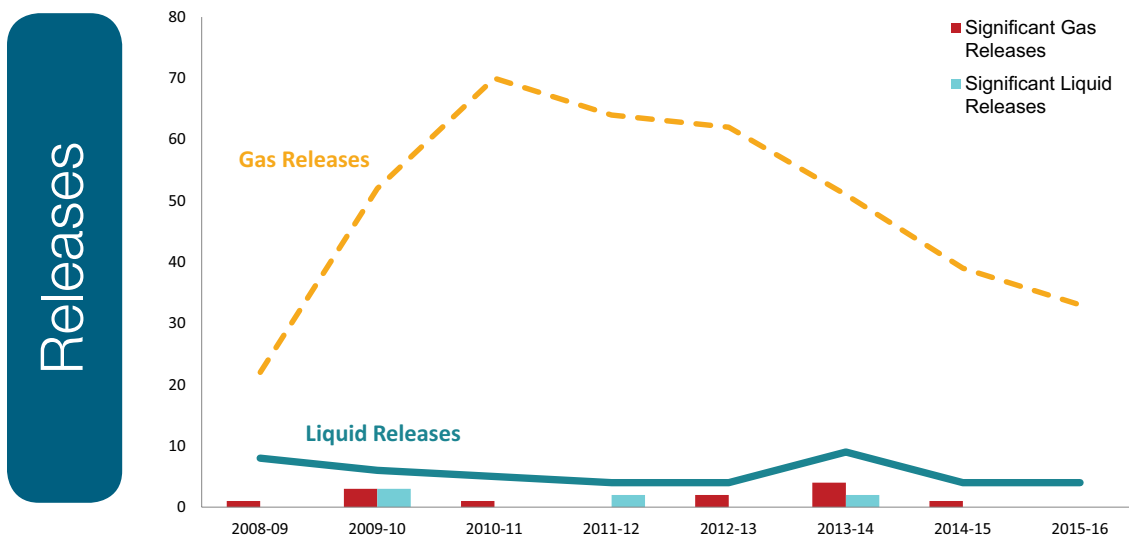
TABLE 1: RELEASES THAT LEAVE COMPANY PROPERTY		
Fiscal Year	m ³	# incidents
2009–10	295	3
2011–12	261	2
2013–14	38	2
TOTAL	593	7

If a liquid release leaves the company property or right-of-way it is also considered a significant incident.

TABLE 2: RELEASES THAT STAY ON COMPANY PROPERTY		
Fiscal Year	m ³	# of incidents
2008–09	83	8
2009–10	468	6
2010–11	79	5
2011–12	103	4
2012–13	26	4
2013–14	47	9
2014–15	193	4
2015–16	52	4
TOTAL	1051	44

It has been more common for a liquid release to stay on company property than to leave it.

Figure 3: Number of Substance Releases reported under the OPR between 1 April 2008 and 31 December 2015

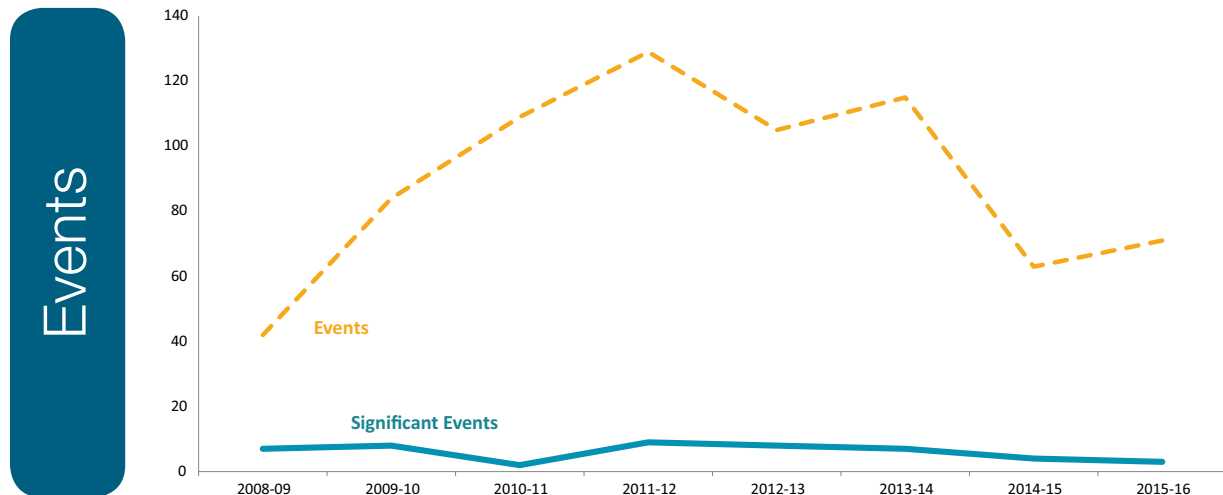


A **rupture** is defined as a *type of unintended or uncontrolled liquid or gas release incident*.¹ Between 1 April 2008 and 31 December 2015 there were 11 incidents reported that resulted in investigations. All of them related to the release of natural gas and mostly took place in FY 2009–10 or FY 2013–14. They are independently investigated by the NEB and the TSB. The TSB makes its reports available on its website while the NEB has provided historical information on its website up to March 2014. At the time of the evaluation, the NEB had completed eight reviews, while two reviews were pending closure and one that was still in the initial stages of review pending further information from the company.

3.2.1.4 Event and Incident Trends

The number of reported events under the OPR varies by fiscal year and location as shown in Figure 4 and 5.

Figure 4: Number of Events reported under the OPR between 1 April 2008 and 31 December 2015



The total number of events reported under the OPR peaked in FY 2011–12 and has since fallen. The number of events considered “significant” has also fallen.

Knowing the volume of incidents occurring at one particular company and analyzing for trends can inform the NEB’s approach to management system audits at a company or signal a risk that should be examined across the industry.

Figure 5: OPR related events reported between 1 April 2008 and 31 December 2015

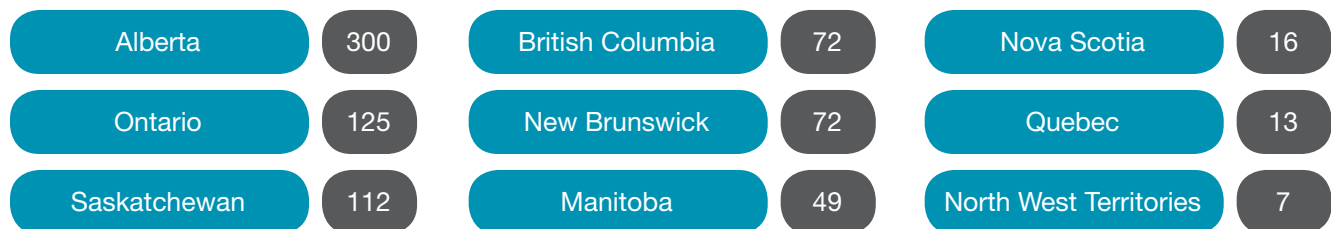
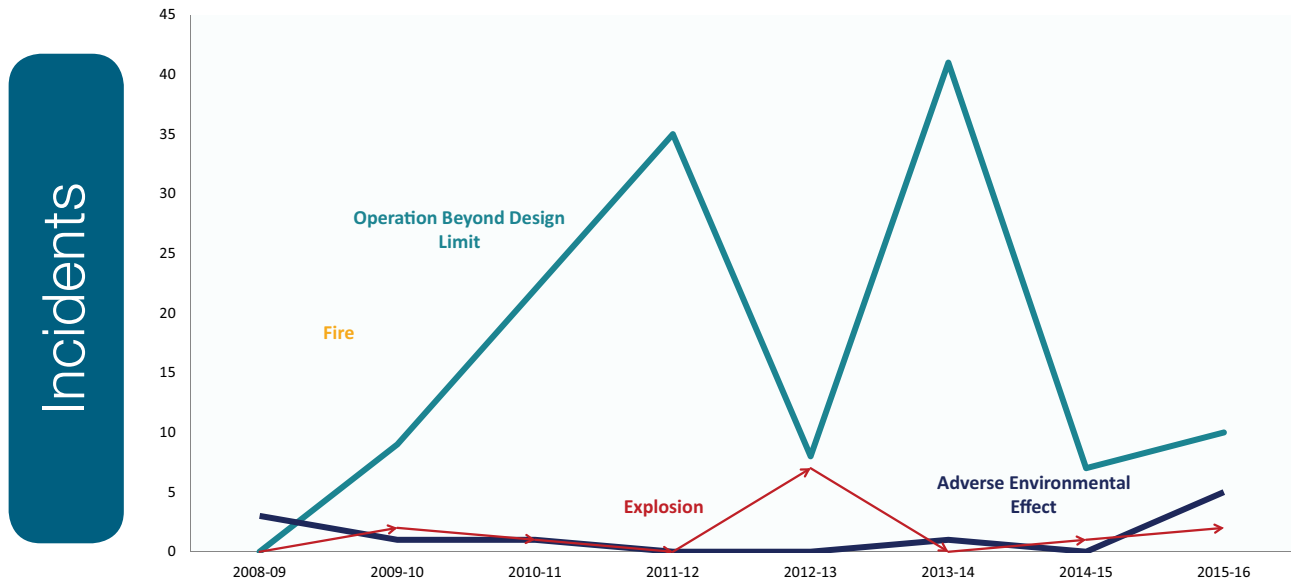


Table 3 summarizes the number of companies that reported events under the OPR. In every province/territory, one company was responsible for reporting 50% or more of the total events. 66% of all events reported were from three companies. Other incident types are illustrated below and have also been variable for the past eight years. A glossary is provided in Annex 4.

TABLE 3: EVENTS REPORTED UNDER THE OPR	
Province or Territory	Number of companies reporting events
Alberta	11
British Columbia	8
Manitoba	4
New Brunswick	2
Northwest Territories	1
Ontario	9
Quebec	3
Saskatchewan	12



Figure 6: Other types of incidents reported under the OPR between 1 April 2008 and 31 December 2015



The number of other reportable incidents has fluctuated each year with no specific trend in either direction.

3.2.2 Immediate Outcomes¹¹

Outcomes:

- o *Regulations and guidance are developed and updated in a timely and transparent manner.*
- o *Processes exist so that data can be used for analysis of pipeline safety risks.*
- o *Capacity to conduct and complete planned inspections and audits of oil and gas pipelines.*
- o *Capacity to respond to and follow-up on incidents, conduct investigations and analyze corrective action plans.*
- o *Capacity to provide direct legal support to the compliance program and regulatory development.*
- o *Understanding of technical and systemic causes of pipeline incidents and information shared with regulated companies and stakeholders.*

¹¹ An immediate outcome is an outcome that is directly attributable to a policy, program or initiative's output. TBS, Centre of Excellence for Evaluation: [Results-based Management Lexicon](#)

Findings and Supporting Evidence

3.2.2.1 Inspection Activities



The 2012 TB Submission committed the NEB to increasing the number of inspections and comprehensive audits per year. At the same time, Budget 2012 announced that the NEB would complete 150 inspections and 6 audits per year. The NEB also contributes to the Federal Sustainable Development Strategy (FSDS)¹² theme on Protecting Nature and Canadians.

It does this by reporting on the number of inspections and audits conducted.

The NEB has not only completed this planned inspection target but exceeded it each year since the target was set in FY 2012–13.

Data from the Environment and Safety Information Management System (ESIMS)¹³ indicate that the on-site portion of an inspection has been completed in 4 days or less for 98% of inspections.

Following the on-site portion of an inspection, inspectors are required to write the inspection report, have it peer and quality reviewed and fact checked with the company. Since fall 2015, inspection report summaries are made available on the NEB website. Data management requirements have been established and all documentation must be finalized within two weeks of completing the activity and submitted to the data management team.

Based on data captured in ESIMS, 1,022 out of 1,083 inspections had finalized documentation at the time of the evaluation.¹⁴

Several inspections that do not have finalized documentation include those that were completed in 2008. Since ESIMS has not been built with the capacity to track the date documentation is considered complete, it would be a time consuming activity to determine whether activities are actually carried out in a two-week timeline. Staff indicates though from experience that more than two weeks is usually needed.

The inspection procedure has been updated in 2015 to reflect the introduction of a newer electronic system called ORCA. More information is provided on ORCA in Section 3.2.2.4. In the procedure, timelines have been established to guide inspection work and the data management process. It anticipates that around 30 business days (6 weeks) are needed between completing field activities and posting a final report to the NEB's website.

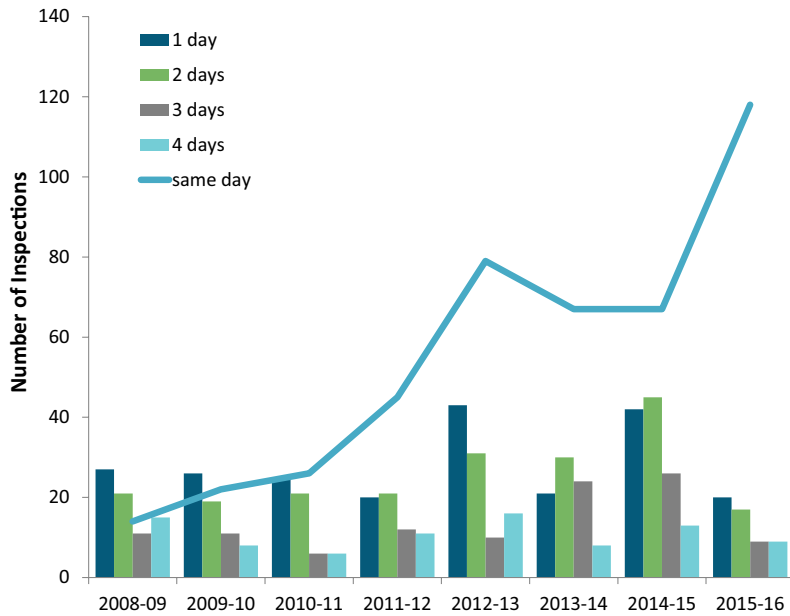
Fiscal Year	Number of Inspections
2008–09	98
2009–10	86
2010–11	86
2011–12	109
2012–13	181
2013–14	152
2014–15	194
2015–16	177
Total	1083

¹² Environment and Climate Change Canada: [Federal Sustainability Development Strategy \(FSDS\)](#) 2013–16

¹³ ESIMS is a system used at the NEB to record and track information on compliance verification activities.

¹⁴ Data was extracted 13 April 2016. In ESIMS, a finalized inspection file is noted with a status of “documentation complete” because all administrative requirements have been finalized by the inspector. All other inspections had their on-site portion ‘completed’ and were mainly from FY 2015–16.

Figure 7: Days to complete the onsite portion of an inspection



There is an upward trend in the share of inspections completed the same day they were initiated.

3.2.2.2 Audit Activities



The NEB audits companies for compliance with the *NEB Onshore Pipeline Regulations*. The OPR requires companies to *establish implement and maintain a management system* and specifies that companies shall have programs that address safety management, security management, emergency management, integrity management and environmental protection. In its audits, the NEB assesses these programs as well as Crossings and Public Awareness programs.

The overall audit timeline was examined in this evaluation. The key activities in the audit process are illustrated in Figure 8. There are no other timelines that have been set, implemented and measured other than those demonstrated in Figure 8. Documentation, such as procedures, process maps, work instructions and templates, meant to help describe and support the pipeline audit process, are outdated. The existing audit work instruction is almost ten years old and provides no specific guidance on the timing of an audit notification letter to a company. Instructions for preparing a draft audit report have not been updated to refer to the twelve week service standard for preparing draft audits.

The NEB has completed 6 comprehensive audits each year since FY 2012–13, except for FY 2015–16 where it completed 5 as shown in Table 5.¹⁵ The number of audit programs in FY 2012–13 was higher than in the following years because of the way audits were counted — an audit of a several programs within one company counted as one audit, whereas in the following years, the NEB conducted comprehensive audits of all program areas within a company and as a result, each audited program is counted as one audit. This change occurred when the NEB OPR was updated in 2013 and a new Audit Protocol was introduced.

TABLE 5: COMPLETED MANAGEMENT SYSTEM AUDITS FY 2008–09 TO FY 2015–16		
Fiscal Year Final Report Completed	Number of Final Audit Reports	Number of Programs Audited
2008–09	5	8
2009–10	1	4
2010–11	1	5
2011–12	1	1
2012–13	6	29 ¹⁶
2013–14	6	6
2014–15	6	6
2015–16	5	5
TOTAL	31	64

The NEB collects and reports service standard information on audits each year. They are:

1. Draft audit reports sent to the audited company within 12 weeks of field work completion.
2. Final audit reports sent to the audited company within 12 weeks of receiving the company’s comments on the draft report.

In both cases the target is to achieve this standard 80% of the time. Between FY 2012–13 and FY 2014–15 these targets were met 5 out of 6 times. Data from FY 2015–16 indicates that draft audits did not meet the target but final reports did.

For this evaluation, audits completed between FY 2008–09 and FY 2015–16 were examined and key dates (where available) were compiled and analyzed for the main activities that are illustrated in Figure 8. The findings are in Table 6 and are organized by audits that were carried out before the 2012 TB Submission and after. The numbers in square brackets indicate the number of audits used in the calculation.

¹⁵ The planned audit that was not completed in time to count towards the target was still underway and required more time to finalize.

¹⁶ There are more programs audited in this year due to the way audits were counted.

Figure 8: Summary of Audit Process

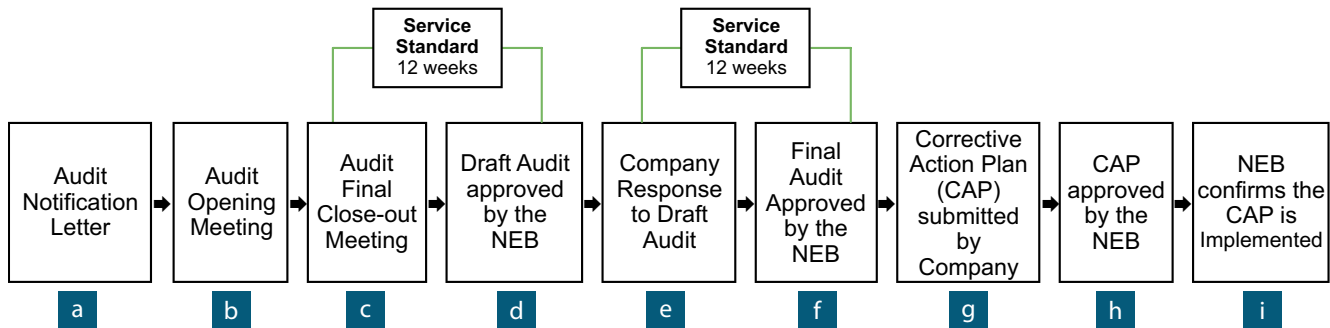


TABLE 6: AUDIT TIMELINE CALCULATIONS

Topic	Time Calculation	Audits between FY 2008–09 and 2011–12	Audits between FY 2012–13 and 2015–16
Advance notification of Audits	b – a	<ul style="list-style-type: none"> 1 week to 26 weeks o 40% were 8 weeks or less [6/15] 	<ul style="list-style-type: none"> 1 week to 113 weeks o 38% were 8 weeks or less [9/24]
Length of Audit Field Work	c – b	<ul style="list-style-type: none"> Less than a week to 17 weeks o 53% were 14 weeks or less [8/15] 	<ul style="list-style-type: none"> Less than a week to 98 weeks o 58% were 22 weeks or less [14/24]
Time taken to draft Audit	d – c	<ul style="list-style-type: none"> 2 – 62 weeks o 33% were 12 weeks or less [5/15] 	<ul style="list-style-type: none"> 2 – 43 weeks o 70% were 12 weeks or less [16/23] (Service Standard: 12 weeks)
Time taken to respond to feedback and finalize Audit	f – e	<ul style="list-style-type: none"> 1 – 15 weeks o 31% were 12 weeks or less [4/13] 	<ul style="list-style-type: none"> 1 – 31 weeks o 91% were 12 weeks or less [21/23] (Service Standard: 12 weeks)
Time taken to review the CAP	h – g	<ul style="list-style-type: none"> 4 weeks to 33 weeks o 69% took less than 8 weeks to approve [11/16] 	<ul style="list-style-type: none"> 5 weeks to 80 weeks o 50% took less than 8 weeks to approve¹⁷ [6/12]
Time taken to correct non-compliance and close audit file	i – h	<ul style="list-style-type: none"> 2 to 5 years [8] 	<ul style="list-style-type: none"> 3 to 4 years [2]
Time taken to start and finish an audit	f – b	<ul style="list-style-type: none"> 2 to 68 weeks o 60% of audits were completed in 48 weeks or less [9/15] 	<ul style="list-style-type: none"> 2 to 108 weeks o 82% of audits were completed in 48 weeks or less [19/23]

¹⁷ Note that not included in this calculation are five audits where the NEB had recently received the corresponding CAP, and was reviewing them at the time of the evaluation. As well, another 6 audits for which the NEB had received a CAP but was still reviewing them 11 months later (as of 31 March 2016).

When the NEB provides the final audit report to the company it includes directions to prepare a CAP to address the non-compliances identified in the audit. The NEB usually gives companies 30 days to submit their CAP, although sometimes extensions have been granted if requested. Once the NEB has approved the CAP (which often includes deadlines and a requirement to provide regular updates on progress), Operations staff review information filed by the company in order to determine whether corrective action by the company is satisfactory to address non-compliant findings. The time required for this process varies by audit.

The data indicates that since FY 2012–13:

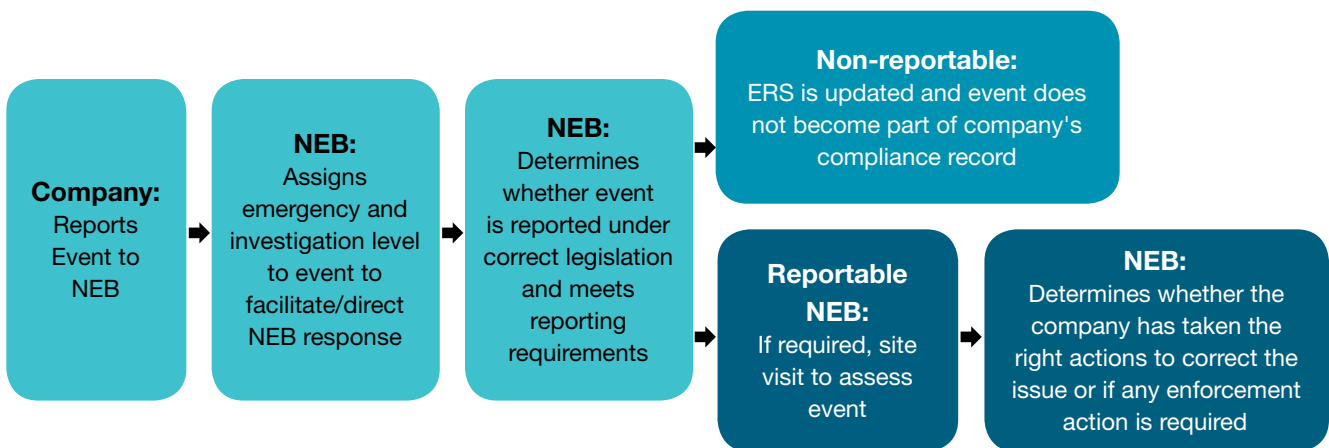
- o More audits have been completed in 12 months or less – this may be due to the target of 6 each year.
- o Audits require more time for field work however the time required to draft the audit has noticeably improved as well as the time taken to respond to company feedback and finalize the audit report.
- o The NEB is still taking considerable time to review the CAP. Not enough audits have been closed to determine whether there has been improvement in the closure times but from the data so far, it appears unchanged from previous years.

3.2.2.3 Incidents



Another way in which the Board manages its oversight for the safety and environmental protection¹⁸ is by collecting information from companies on certain situations that may arise during the course of constructing, operating or abandoning a pipeline or related facility (e.g., pumping station). The requirement on companies is to report ‘events’ which may consist of incidents (such as serious injury or release of oil) under the OPR, the NEB *Processing Plant Regulations* and the *Canada Oil and Gas Drilling and Production Regulations*. It also includes unauthorized activities (UAs) under the NEB *Pipeline Crossing Regulations Part II*. These regulations have all specified a requirement on companies to report an event to the NEB within a certain timeframe.

Since 1 January 2015, an event has to be reported using the online ERS. Significant incidents must also be reported immediately to the Transportation Safety Board using their reporting hotline number and then the factual information must also be submitted through the ERS. The following process diagram summarizes the main steps to reviewing events that are reported:



¹⁸ NEB: [Event Reporting Guidelines](#), December 2014

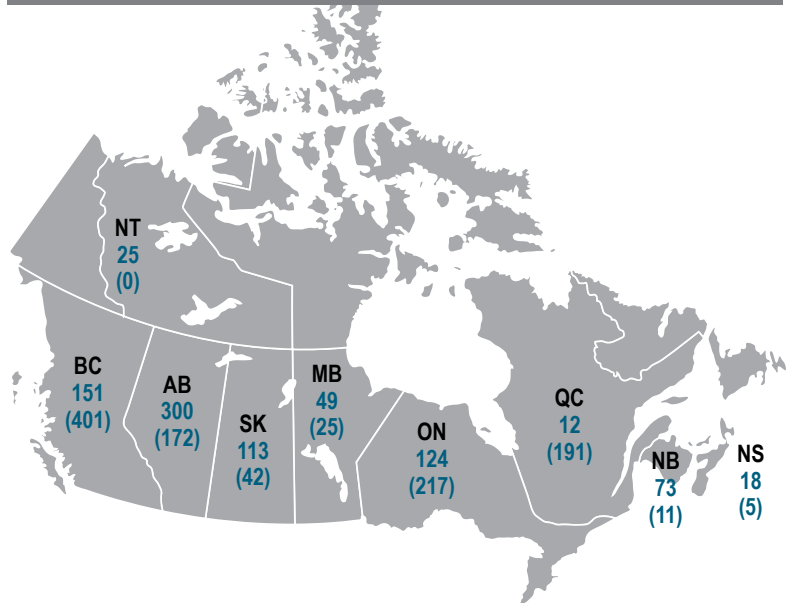
Data was extracted from the ERS for events that were both discovered and reported by companies between 1 April 2008 and 31 December 2015¹⁹. There were a total of 1,308 events and of these 865 (66%) were considered “reportable” to the NEB. Some events represent more than one incident (e.g. explosion and fire). Almost all of the reportable events were classified as a *Level I Emergency & Investigation Level A*, which indicated that there is:

- no effect outside company property;
- no immediate threat to the public or personnel; and
- no property damage or minimal damage to infrastructure.

As a result, fewer investigative resources were required for follow-up.

NEB was deployed 37 times to the site of the event between 1 April 2008 and 31 December 2015. This represents 3% of all events reported during this time period. Table 7 shows a general decline in the number of non-reportable and reportable events since FY 2011–12.

Figure 9: Incidents and UAs discovered and reported between 1 April 2008 and 31 December 2015.



The map shows the total number of reportable incidents and UAs (in brackets) reported by the province in which they occurred. All UAs were considered reportable according to the ERS.

TABLE 7: NUMBER OF EVENTS BY YEAR AND TYPE

Fiscal Year	Number of Non-Reportable Events	Number of Reportable Events
2008–09	67	58
2009–10	58	101
2010–11	77	117
2011–12	70	140
2012–13	61	120
2013–14	64	131
2014–15	39	94
2015–16 up to 31 December 2015	7	104
Total	443	865

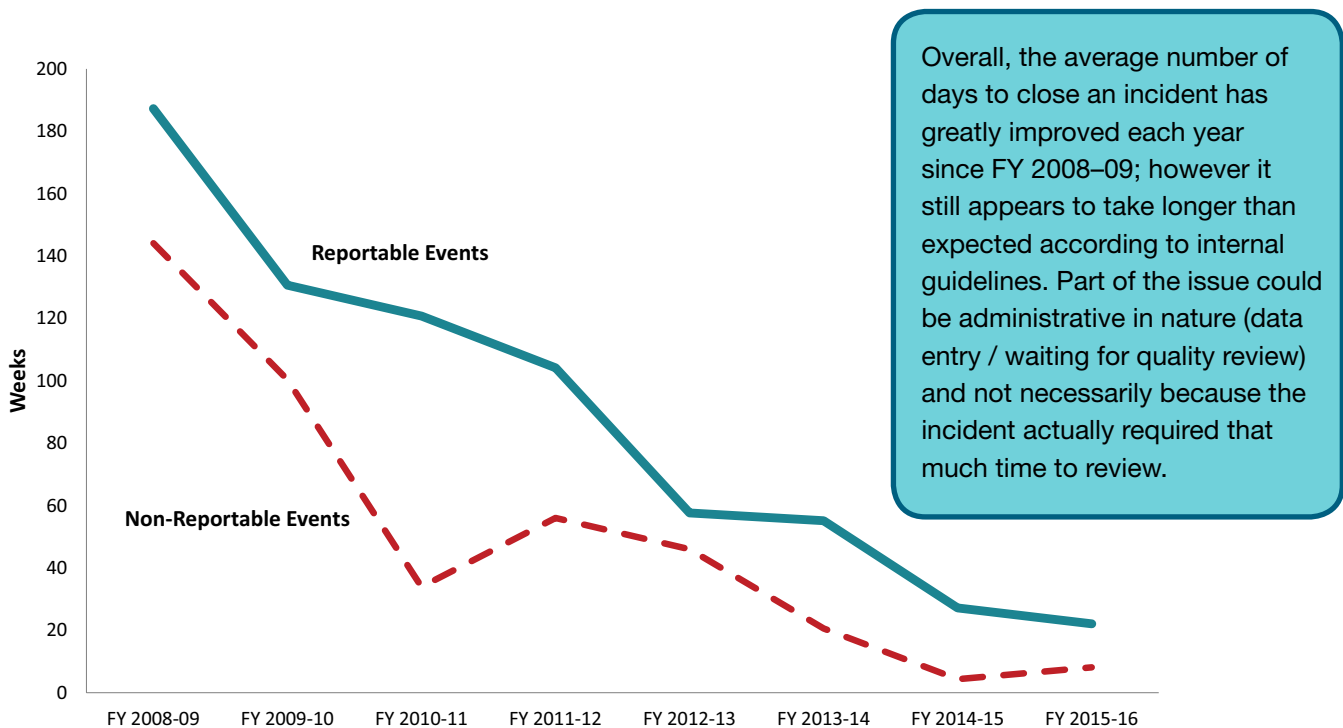
¹⁹ Data was extracted from ERS on 22 March 2016

75% of reportable events (651) are closed on ERS. Table 8 demonstrates the range of time between the date the event was reported by the company and the date the event was closed by the NEB. Internal procedures require that a review be completed within 14 weeks.

TABLE 8: TIME TO CLOSE A REPORTABLE EVENT			
Fiscal Year	Range (weeks)	Average (weeks)	% closed in 14 weeks or less
2008–09	7 – 370	187	2%
2009–10	4 – 315	131	8%
2010–11	6 – 258	121	4%
2011–12	8 – 182	104	4%
2012–13	6 – 189	58	11%
2013–14	4 – 126	55	13%
2014–15	6 – 83	27	31%
2015–16 up to 31 December 2015	3 – 40	22	35%

Since the ERS was introduced (1 January 2015), there have been 29 events reported and closed by 31 December 2015. 9 events were closed in 14 weeks or less. The closure time for the 2015 calendar year has ranged from 3 to 48 weeks, and averaged 23 weeks which is an improvement from previous years and may demonstrate that the ERS could be enabling improved close-out times.

Figure 10: Average number of weeks to close an incident reported between 1 April 2008 and 31 December 2015



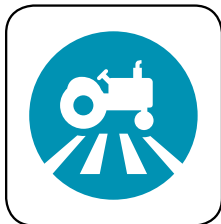
Other findings as a result of data analysis²⁰ for events discovered and reported between 1 April 2008 and 31 December 2015:

On average, companies reported 4.5 days after discovery of non-reportable events and 6 days for reportable events. The majority of events (95%) in general have been reported within 7 days of discovery. There were 22 events that took longer than 30 days to report from the time they were discovered and half were considered reportable. The Event Reporting Guidelines outline the timelines for reporting 'immediately' and for 'significant' incidents and thus for some events, these timelines have not been met.

There are events dating back to FY 2008–09 that were still not closed (214 reportable events and 116 not-reportable events). Staff indicated that when older data was migrated to the new online reporting system (ERS), reviewing the accuracy of data on the events that are not reportable has been less of a priority than other work since it does not form part of a company's compliance record.

The timing of incident review depends on the company providing information in a timely manner. Companies must also provide the root cause of the incident and details on any corrective action taken to prevent it from happening again (ERS Guidelines). The NEB has developed internal guidance for the process of reviewing and closing an incident investigation, however some updates are needed.

Unauthorized Activities (UA)



The NEB *Pipeline Crossing Regulations* also requires companies to report UAs using the event reporting system. A UA could be ground disturbance, encroachment or a vehicle crossing in a specified area near a pipeline. The Guidelines²¹ state that companies should apply a precautionary approach and report all occurrences that *may* have resulted in an UA. Subsequently a company can submit additional information that will help the NEB determine whether the UA was in fact reportable or not.

Between 1 April 2008 and 31 December 2015, there were 1,064 UAs discovered and reported to the NEB. As shown in Table 9 below, the greatest share occurred in British Columbia and related to ground disturbance. The NEB also determines the severity of the UA and whether it is high risk. Around 30% in total were considered high risk.

Note that sometimes one UA event reported could include more than one type (e.g. encroachment + vehicle crossing) and as a result the total number of UA in Table 9 is higher.

Figures 11 to 13 illustrate the unauthorized activities by year and type.

²⁰ Data Analysis of NEB data on events was conducted in March 2016

²¹ NEB: [Event Reporting Guidelines \(2014\)](#), Section 5.0

**TABLE 9: TYPE OF UNAUTHORIZED ACTIVITY
BY PROVINCE FROM 1 APRIL 2008 TO 31 DECEMBER 2015**

Province	Encroachment	Ground Disturbance	Vehicle Crossing	Total	# of High Risk UA
Alberta	16	135	29	180	66
British Columbia	41	336	24	401	96
Manitoba	0	22	4	26	5
New Brunswick	2	6	3	11	0
Nova Scotia	0	4	1	5	2
Ontario	11	193	13	217	66
Quebec	18	167	8	193	79
Saskatchewan	5	31	6	42	12
Total	93	894	88	1,075	326

Observations:

- Ground disturbance is the most common type of UA overall, accounting for 83% of all reported UAs.
- All types of UAs appear to be trending upwards since FY 2013–14.
- The most common *Violator Type* was Contractors or Landowners.
- Not all UAs had a specific *Violator Type* assigned. For those not specified, these cases were still open. For those that were “Other”, it could be that there were not enough categories at the time for an accurate selection to be made or these files have not been updated.
- The length of time between the UA discovered and reported ranges from 0 to 254 days.
- 60% of UAs were closed by the NEB in 50 days or less from the date they were reported.

Unauthorized Activities by Year and Type

Figure 11: Vehicle Crossing

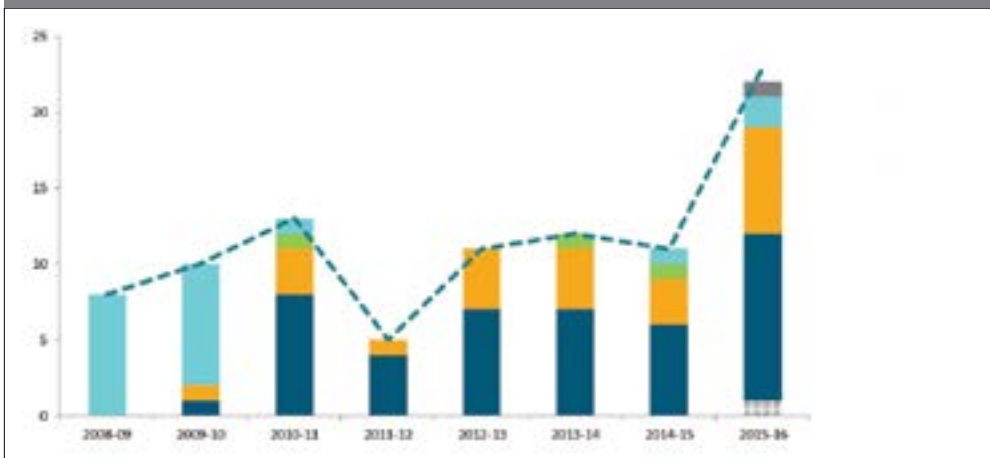
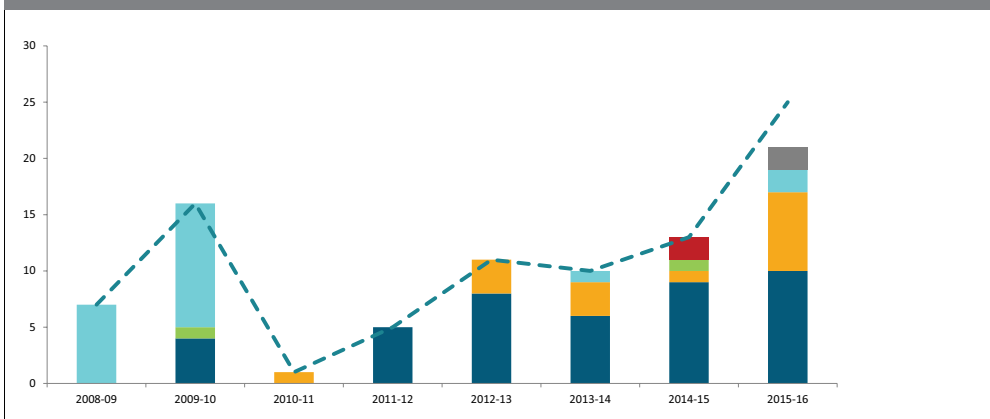


Figure 12: Ground Disturbance



Figure 13: Encroachment



LEGEND

- Utility Company
- Tenant
- Other
- Municipality
- Landowner
- Contractor
- Not Specified

3.2.2.4 Data Collection, Analysis and Transparency



The NEB recognizes that because it generates and collects data on safety performance from those it regulates, it can analyze the information in more depth and share the findings with industry and stakeholders as well as use this information for its compliance verification planning.

The NEB is well aware of its aging information systems that pose a risk to communicating inaccurate, incomplete or inadequate information about NEB-regulated facilities or NEB operations.²² In its 2015 report, the Commissioner of the Environment and Sustainable

Development²³ notes that the NEB has significant challenges with information management tools and systems. For example, the Environment Safety Information Management System (ESIMS) has limited capability to integrate with other Board systems and was found to be out of date for certain information which results in manual work to find information in other sources.

The following examples demonstrate continual improvement in the approach the NEB is taking to address its risks in data collection and the opportunities to integrate routine data analysis right into its processes. Annex 5 also illustrates some key activities on transparency.

Operations Regulatory Compliance Application (ORCA)

The Operations BU has been working for the past year with other staff, including Legal Services, on a new internal system called ORCA to streamline the inspection process and improve data quality. By reducing the administrative burden, the goal is that there will be fewer errors in data entry and less time will be spent on fixing errors.

With this new platform, inspectors have the option of filling out an online inspection form on a Tablet while they are doing field work or to complete this step right after the inspection. This system not only helps to actively manage workflow, but also has automated features that provide controls on data entry to ensure the information is complete and entered correctly. It automatically saves documentation to the Records Documents and Information Management System (RDIMS) and provides a consistent reporting template. The system has also been enabled with features such as sending a draft inspection report to the company, accepting comments and sign off, quality review and submission to translation and graphics for posting the summary report to the NEB website.

Analytical Tools

Staff at the NEB has started to use Tableau software to analyze and visualize raw data from a variety of databases in order to gain better insight into industry performance and regulatory effectiveness. At the same time, staff has started to use available data to create live dashboards to actively oversee and manage compliance verification workload at the individual and program level and to monitor the status of reported events. Staff currently uses this information at their weekly resource meetings. This is a positive step to build data checks directly into the processes themselves (ORCA and ERS) and in addition to implementing monitoring of live data, it will help support the Board's ongoing goal to *improve the completeness, accuracy and timeliness of regulatory data*.²⁴

²² NEB: [Report on Plans and Priorities 2014–15](#)

²³ Commissioner of the Environment and Sustainable Development: [Report 2: Oversight of Federally Regulated Pipelines](#), 2015

²⁴ NEB: [Report on Plans and Priorities 2016–17](#)

Event Reporting System (ERS)

Incident data from the ERS is important because it informs compliance verification planning. When a company reports an incident, it must provide the NEB with the root cause of the incident and details of any corrective action take to prevent it from happening again. Staff review the information submitted by the company through ERS. A peer reviewer subsequently examines staff assessments and can provide feedback if required. The peer reviewer is also responsible for closing the incident on the system. Staff indicated that there are a number of quality control steps that are incorporated throughout the process from the point the incident is reported to closure. Staff indicated that they plan to develop a process to automatically report to the company when the incident is closed and no further action is required. This may provide the opportunity and time to make the updates needed on the system.

Internal procedures specify a 14-week time for the reviewer to complete and close their review. This does not include a specified timeline for the peer review. As mentioned earlier, there have been year to year improvements in timelines for the overall process from the day the incident is reported to the date it is closed on the system. By establishing a timeline for the overall process, including peer review, staff will be able to track improvements against this goal.

For unauthorized activities, the NEB analyzes the information provided by the company on ERS and then determines the causal factors. Staff are able to use the information for trend analysis to inform promotion and prevention activities. The number of UAs per 1,000 km of pipeline is also calculated to assess areas of interest in each province.

Advisories

Incident data from the ERS can result in a public advisory. Between FY 2008-09 and FY 2015-16, the NEB issued 13 Safety Advisories and 4 Information Advisories. An advisory is a way to raise awareness and share important information with the public and it isn't directed at any particular company. It helps convey the NEB's requirements and overall expectation that companies will take appropriate action. For example, a safety advisory from 2015 was the result of a common non-compliance finding from several safety inspections over a period of time. In the advisory the NEB also recommends preventative actions.

The NEB has made important progress in proactively sharing the data it collects, information on its activities for pipeline oversight and the results of its analysis. The following are some key ways the NEB demonstrates that it is transparent in providing information to the public on its activities and company performance. Providing data or reports on the NEB website are the common approach to transparency and sharing information.

Publishing Key Documents

Since 2011, the NEB has regularly made documentation related to compliance and enforcement activities accessible on its website. Currently, there are inspection reports, management system audits, Administrative Monetary Penalties, corrective action plans, letters, orders, notices and related correspondence with companies. For inspections, considerable information is provided such as the company name, dates, location, observations and compliance findings and status. For audits, links are provided to the complete audit report and as they become available—the corrective action plans and the NEB’s communication with the company.

Publishing Special Reports

In December 2011, the NEB published a report titled “*Focus on Safety and Environment: A Comparative Analysis of Pipeline Performance 2000-2009*”.²⁵ This report presents a historic trend analysis for the years 2000 to 2009 and demonstrates that NEB extracts its incident data, analyzes and reports on it. It also uses this data to focus its resources on areas of risk.

Pipeline Incident Map

Since April 2015, there has been an interactive incident map on the NEB website that provides information on incidents that were reported under the NEB OPR. The information provided includes the name of the company, date of incident, location and status of the investigation. Data can also be easily downloaded. Information is static, since it also includes incidents that have just been reported but not necessarily reviewed or investigated further. Thus the information on the website is updated quarterly.

Safety Performance Portal

On its website, the NEB has summarized data through tables and graphs of pipeline incidents reported under the NEB OPR. This dashboard provides some detail behind the incidents and presents the information by calendar year.²⁶ The visuals and tables can be analyzed to interpret the data over multiple years.

Pipeline Performance Measures

Based on an observed trend in the number and severity of incidents over the years—the NEB has introduced mandatory reporting by certain companies on a set of (leading) performance indicators. The NEB collects this information on a yearly basis and has so far compiled data and published the result of its analysis for 2013 and 2014 data. It expects that trend analysis will be possible once it has three years of data. This activity may require a better interface for accepting company data rather than receiving it through spreadsheets. There may also be an opportunity to increase efficiencies in data analysis by using Tableau.

²⁵ NEB: [Focus on Safety and Environment: A Comparative Analysis of Pipeline Performance 2000–2009](#), December 2011

²⁶ Note that this evaluation presents information by fiscal year.

3.2.2.5 Regulatory Development



The NEB operates under a suite of acts, regulations and guidance material. The NEB may make regulations under the authority of the *National Energy Board Act*, the *Canada Oil and Gas Operations Act* (COGOA) and the *Canada Petroleum Resources Act* in order to carry out the purpose and provisions of these Acts. Regulations are a form of law and represent one of the policy instruments that the government can use to influence the behaviour of people and organizations for the purposes of, for example, protecting the health and safety of Canadians and the environment.²⁷

There are standard steps across the government for developing regulations and this is supported by NEB internal processes. The *Cabinet Directive on Regulatory Management* (“Directive”)²⁸ requires departments and agencies provide advance public notice of regulatory proposals that are coming forward, and each year publish the plan to their website and at a minimum:

1. *Identify and describe expected regulatory changes;*
2. *Provide information on planned consultations; and*
3. *Provide departmental contacts for further information.*

The NEB has a dedicated regulatory team (Regulatory Policy) that is responsible for the regulatory development lifecycle and management of regulatory and policy projects, consultation and engagement, parliamentary appearances, and liaising with Natural Resources Canada. The team is made up of technical and regulatory development specialists and analysts as well as Legal Services.

In its current Forward Regulatory Plan (2016–18), as well as in the previous 2012 and 2015 plans, the NEB has identified public consultation opportunities and a contact for each initiative. The plan is updated and adjusted every two to three years.

Since 2012, the NEB has made progress against its regulatory agenda. In 2013, the 1999 version of the *Onshore Pipeline Regulations* was updated. This was accompanied by the development of a new Audit Protocol (2013) and guidance notes that helps companies understand requirements and provides NEB auditors the criteria to assess in audits. In 2013, the NEB also introduced a system for Administrative Monetary Penalties (AMPs) which provides another tool to NEB inspectors to enforce regulatory requirements regarding safety and the protection of the environment. Since it was introduced, the NEB has issued 15 AMPs. The NEB has also made some changes to the *Processing Plant Regulations*, amended the *Power Line Crossing Regulations* and updated the NEB Filing Manual six times between 2013 and 2015. Staff indicated that in addition to the NEB’s own proposed regulatory initiatives, much of their time is also spent on regulatory work that is triggered by new legislation introduced by the government.²⁹

²⁷ TBS: [Guide to the Federal Regulatory Development Process](#)

²⁸ TBS: [Cabinet Directive on Regulatory Management \(2012\)](#), Regulatory Management, Section 7

²⁹ For example, the [Pipeline Safety Act \(2015\)](#) which amended the NEB Act and COGOA and the [Energy and Safety Security Act \(2015\)](#) which also amended the COGOA.

The NEB has also worked for many years on updating the *Damage Prevention Regulations* and Annex 6 demonstrates how the NEB actively works with the public, industry and other government departments during the process as well as how these activities inform the regulations early on in the process. It also demonstrates that there are also factors in the process such as the timing of regulatory development that are outside the NEB's direct control.

In all cases, the NEB notified companies and other interested parties of proposed changes, collected comments on draft regulations and followed the government's process for providing notice, opportunities for consultation and publication of proposed and final regulations. In most cases the NEB published to its website the outcomes of its consultations as required by the Directive. Staff indicated that a project management approach is used to develop or amend regulations. For example, when the *Onshore Pipeline Regulations*, 1999 were updated to the NEB OPR 2013, there was a work plan from 2012 that identified timelines, leads, resources and consultation.

In addition to the requirement to consult throughout the regulatory process, the Directive (Section 6B) also states that: *Departments and agencies are responsible for assessing public policy issues, including potential risks, and demonstrating through the best available evidence and knowledge that government intervention is needed.*

Staff who are responsible for regulatory development indicate that their work is informed by several sources and as part of the project management process. Interactions with technical staff and legal counsel can highlight observed compliance issues as well as the gaps or issues on clarity experienced when enforcing the various regulations. Since the Regulatory Policy team does not oversee or manage the NEB's compliance and enforcement data, they rely on staff to provide this evidence-base to inform the work on identifying regulatory gaps or opportunities for improvement.

Given the importance of having an evidence-base for the regulatory program to carry out its work, it is essential to provide formalized guidance to staff indicating how this can be accomplished and the mechanism for doing so. Staff were able to provide recent draft work instructions, however they are still under development and require more time to finalize specific steps and integrate it with other processes. The Regulatory Policy team has developed processes, guides, templates and sample documents that originate from 2010–2013 in order to describe the business processes for staff. More work though is required in this area to regularly review and update these processes to ensure they respond to feedback for continual improvement, are relevant to staff and stakeholders, reflect current approaches and legislation and meet quality objectives of NEB activities.

At the time of the evaluation, the Regulatory Policy team had just started to formalize a management system approach for its program that will focus on improving internal systems and processes for managing and overseeing the lifecycle of regulations and address emerging trends and issues. As a result, the team plans to increase its coordination and collaboration with other teams at the NEB on regulatory projects and introduce related tools for its strategic approach.

3.2.2.6 Regulatory Program Support

Legal Services at the NEB are essential to carrying out the compliance and regulatory programs. In 2012, the NEB highlighted its need for additional resources in order to keep pace in providing legal opinions on safety matters and supporting the review and analysis of, for example, safety orders, correspondence, inspection and audit reports and regulations as a result of increasing activities of compliance verification and enforcement and regulatory change. Updating regulatory tools to promote longer-term and industry wide improvements also requires legal services, therefore impacting workload.

The funds received in the 2012 TB Sub committed resources for 3 FTE in Legal Services. Based on information from both Finance and Legal Services, there were 5 FTE provided at the outset because resources were not immediately needed by the Operations BU as there was difficulty in hiring FTEs immediately following the approval of the 2012 TB Submission. Staff indicates that in approximately mid-2014, the FTE count was later reduced to 4 (See Annex 3 for the breakdown). The Legal Services Unit has organized its staff by the area they are responsible for. The purpose is to clearly dedicate resources to support the work of the NEB in the areas of compliance and enforcement, audits, AMPs, hearings, ATIP, regional offices and other temporary projects. Since 2012, Legal Services has used a dedicated coordinator to triage requests from the Operations Business Unit for the purposes of assigning legal resources from its pool of staff.

Legal services has set an internal service standard to guide its work. Meeting this service standard isn't tracked for each request; however the legal team is confident that business units receive timely advice and can respond within the hour to time-sensitive requests (e.g., inspection officer order). There are also efforts since early 2015 to code working time to the NEB's TIME system by specific activity that a staff member worked on. As a result there will be better data for analyzing workload and the areas or activities at the Board that the Legal Services Unit provides a direct contribution to.

In terms of workload, legal services spend considerable time supporting the operations staff in their work. For example, legal staff review documentation and provide advice throughout the course of the management system audits. Legal Services input was also instrumental in development of ORCA and enhancing the transparency of inspection reports. Regulatory development work at times also accounts for a significant demand on Legal Services with regards to reviewing and providing input on draft legislation and regulations, briefing Board Members, public consultation, coordination with other federal departments and developing guidance to the regulations or enforcement tools (e.g., AMPs).

3.3 Efficiency and Economy

The Centre of Excellence for Evaluation (CEE) defines efficiency and economy as³⁰:



Efficiency

How are inputs used and converted into outputs to achieve intended outcomes



Economy

Minimizing the use or cost of resources in implementation and delivery of programs

For both, the analysis focused on the degree to which outputs and inputs have been optimized. The following information and calculations should be interpreted with caution. They are completed for the purposes of this evaluation, however they simplify reality and assume that staff work full time on these activities, when in fact staff work on a variety of CVAs as well as activities that relate to other areas of the lifecycle of pipelines such as application reviews. As well, it is only recently that a specific time code has been used to capture hours spent exclusively on audits versus all other CVAs. Thus, without time data by specific activity over several years, a multi-year trend analysis is not possible at this time.

3.3.1 Conducting activities efficiently

Findings and Supporting Evidence

The average yearly funding budgeted for the pipeline safety initiative, including salary and O&M costs and internal services (e.g., finance and procurement) are shown in Table 10. Information on actual funding spent against the 2012 TB Sub is not available since O&M and salary was not tracked at the initiative level.

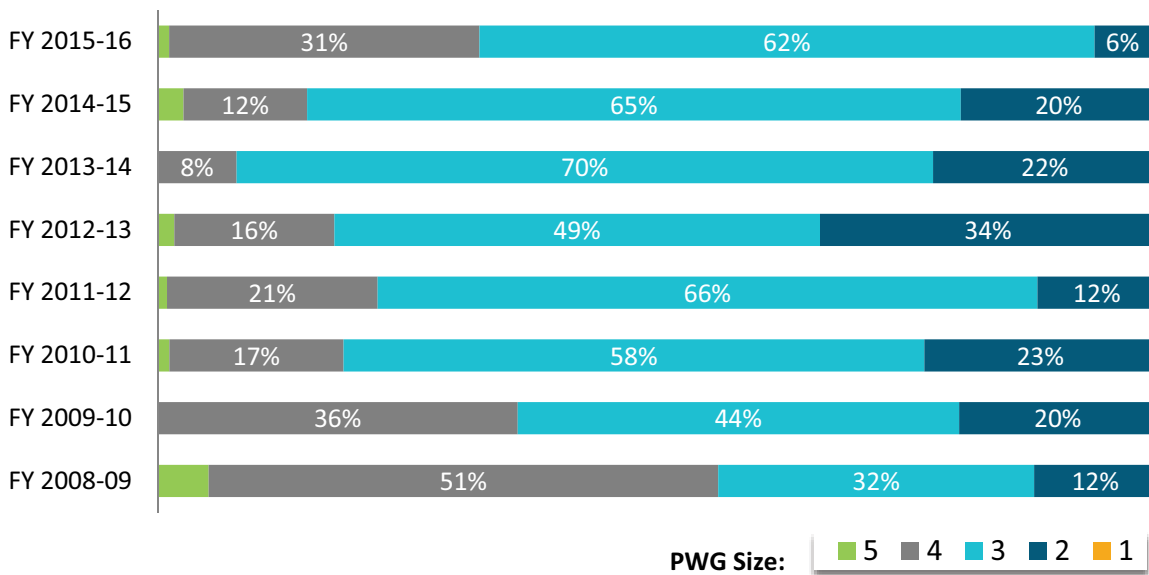
Fiscal Year	TB 2012
2012-13	\$5,776,400
2013-14	\$5,776,400
2014-15	\$5,776,400
2015-16	\$5,776,400
2016-17	\$5,776,400
TOTAL	\$28,882,000

³⁰ TBS, Centre of Excellence for Evaluation: [Assessing Program Resource Utilization When Evaluating Federal Programs, 2013](#)

Inspections

Inspections completed between FY 2009–10 to FY 2015–16 were usually carried out by a Project Working Group (PWG) of 3 staff, which includes 2 inspectors and a quality reviewer. This size of group has been used for the majority of inspections related to environment and safety. Figure 14 shows the share of inspections completed by their PWG size. The inspection procedure does not indicate how long the on-site portion of an inspection should take but it does provide timelines for carrying out the rest of the process such as drafting the inspection report.

Figure 14: % share of completed inspections by size of PWG



Data from the Operations BU indicates that completing the on-site portion of an inspection in one day occurred more often between FY 2012–13 and FY 2015–16 compared to previous years. This is regardless of the size of PWG.

Audits

Half of all audits completed since FY 2008–09 were done by a PWG of 4 staff. Audits completed between FY 2008–09 and FY 2012–13 ranged from 3 to 7 people and resulted in 14 audits of 47 programs. Between FY 2013–14 and FY 2015–16, the PWG size was 3 to 4 people and resulted in 17 audits of 17 programs. This difference is partially due to how audits were counted but also because a new audit protocol was introduced in 2013 for comprehensive audits.

Staff indicates that there are other ways to improve efficiency of the audit process itself. In the past, data entry has been an intensive process and current systems (ESIMS) or RDIMS are not ideal for an audit team to carry out audit work, manage documentation or track findings and non-compliances. There are existing audit software programs that are readily available and could be customized to the audit function at the NEB.

Reviews of Unauthorized Activities and Incidents

Unauthorized activities are a certain type of event that must be reported to the NEB. Based on data from the event reporting system (where data entry is complete), there has been an average of 30 UA assigned per staff between 1 April 2008 and 31 December 2015; however the range of UAs per person varies each year. Table 11 demonstrates that given the number of UAs and staff that have responded, the percent change in the average number of assigned events per investigator has fluctuated year to year.

Changes in productivity, indicated by the percent change in average number of events closed, have also varied by year (Table 12). These are simplified estimates of changes in productivity and assume that staff is focused full time on reviewing UA reports when in fact they may be involved in other compliance activities or other priority work. As well, UAs may require a different level of time to review and assess. Caution in interpreting these results should thus be taken.³¹

TABLE 11: UA ASSIGNED

Fiscal Year	Number of investigators	Average number of UA events assigned to investigator	% change in average # of UA events assigned per investigator
2008–09	4	31.3	–
2009–10	3	42.7	37%
2010–11	3	31.0	-27%
2011–12	4	18.8	-40%
2012–13	6	22.5	20%
2013–14	2	58.5	160%
2014–15	6	27.0	-54%
2015–16 up to 31 December 2015	6	30.7	14%

TABLE 12: UA CLOSED

Fiscal Year	Number of investigators	Average number of UA events closed per investigator	% change in average # of UA events closed per investigator
2008–09	4	27.5	–
2009–10	3	44.3	61%
2010–11	3	31.7	-29%
2011–12	3	20.0	-37%
2012–13	6	22.0	10%
2013–14	3	34.0	55%
2014–15	5	23.4	-31%
2015–16 up to 31 December 2015	5	30.6	31%

³¹ Calculations of Productivity (% Change) is calculated by: $\frac{\text{Current Year} - \text{Previous Year}}{\text{Previous Year}}$

TABLE 13: CLOSING OTHER EVENTS

Fiscal Year	Number of investigators	Average number of investigations closed per investigator	% change in average # of events closed per investigator
2008-09	5	2.8	-
2009-10	9	2.0	-29%
2010-11	21	3.5	76%
2011-12	20	4.4	23%
2012-13	33	7.1	62%
2013-14	39	6.3	-10%
2014-15	29	4.9	-22%
2015-16 up to 31 December 2015	16	6.5	32%

For all other events that are reported, there has been an average of 4 to 7 events assigned to an investigator but ranges from 1 to 36 events per person depending on the year.

In terms of closing events, the average is 2 to 7 per investigator and ranges from 1 to 52 events per person depending on the year. Productivity calculations in Table 13 are a simplification of reality as there may be other variables outside of the NEB's control affecting the ability to close-out an incident (e.g., time taken by a company to submit the required documentation).

The 2012 TB Submission noted an increase in time to complete major incidents such that it had gone from average of 50 days to 60 days of effort and also required experienced senior level staff. There was also an increase in time to complete minor incidents from 2 days effort to 5 days effort. Staff indicated that they do not assign a major/minor rating to incidents. Instead the rating that is used is an Emergency Level of I to III as shown in Table 14 and an Investigation Category of A through E as shown in Table 15.

Without knowing the methodology of calculating effort levels for the TB Submission, calculations for this evaluation were done using the data available from the ERS. The data indicates that there are improvements each year. Caution should also be exercised with this data, as historical information was migrated to the ERS, and while an investigation may have been completed, it may have not been administratively closed on the system. The Operations BU is working to update historical information to ensure the completeness of information. For reportable events that were reported between 1 April 2008 and 31 December 2015, Table 14 and 15 below show the average closure times.

TABLE 14: AVERAGE NUMBER OF WEEKS TO CLOSE BY EMERGENCY LEVEL

Fiscal Year	Level I	Level II	Level III
2008–09	192	–	132
2009–10	127	315	147
2010–11	121	–	–
2011–12	105	83	–
2012–13	57	37	87
2013–14	54	80	67
2014–15	27	27	–
2015–16 up to 31 December 2015	23	13	–

There has been significant improvement for average closure rates for Emergency Level I and II.

Fewer Level III investigations have occurred, but also saw improvement between FY 2012–13 and FY 2013–14.

TABLE 15: AVERAGE NUMBER OF WEEKS TO CLOSE BY INVESTIGATION LEVEL

Fiscal Year	Category A	Category B	Category D	Category E
2008–09	190	135	–	–
2009–10	130	144	–	152
2010–11	121	–	–	–
2011–12	89	154	–	–
2012–13	58	11	87	–
2013–14	56	41	101	–
2014–15	27	–	–	–
2015–16 up to 31 December 2015	22	14	–	–

There has been significant improvement in closure rate as well when viewed by Investigation Category. Between FY 2012–13 and FY 2015–16, the average number of weeks to close a Category A event dropped by 62%.

Note: There were no Category C events.

3.3.2 Delivering activities economically

Findings and Supporting Evidence

The goal of compliance verification is to verify that regulated companies are complying with legal requirements and take action if required to enforce compliance. Thus, the NEB plans its CVAs on an annual basis using a risk-informed process. This process is built on a risk assessment model, incorporating information the NEB has collected on company performance through past CVAs, risk scores, incident data, information from UAs and performance information directly from companies. The three components that are targeted through CVAs are the adequacy, implementation and effectiveness of company management systems.

The CV plan also anticipates that unplanned activities may have to be added if issues arise throughout the year. For example, reviewing and investigating an incident is demand driven and resourcing is based on historical workload. Figure 1 previously showed the proportion of planned versus unplanned activities.

The NEB must optimize its resources when delivering its CV plan. Thus, following the creation of the list of activities for the next fiscal year, the resource allocation process is used to estimate the number of staff required for each activity and the corresponding O&M costs such as travel to the site of the inspection. Steps are taken to minimize costs and avoid duplication at the planning stage by coordinating the activities of different program areas.

For example, if both the environmental and integrity programs intend to inspect the pipeline of a certain company, the respective inspectors would coordinate their schedule and go together. Since inspections are completed by pairs of two, this reduces the number of inspectors needed from each program area and also generates savings on travel. Minimization of cost is discussed dynamically as part of the planning process but is not captured in detail for tracking purposes. Thus, data is not available to identify a monetary level of savings.

Another step taken by the Operations BU to manage time, prioritize and direct the work of staff is through the process of assigning an emergency level and investigation category to an incident and conducting risk triage of a reported UA. By doing so, program areas can actively manage their resources and customize their processes to the nature of risk posed by the event.

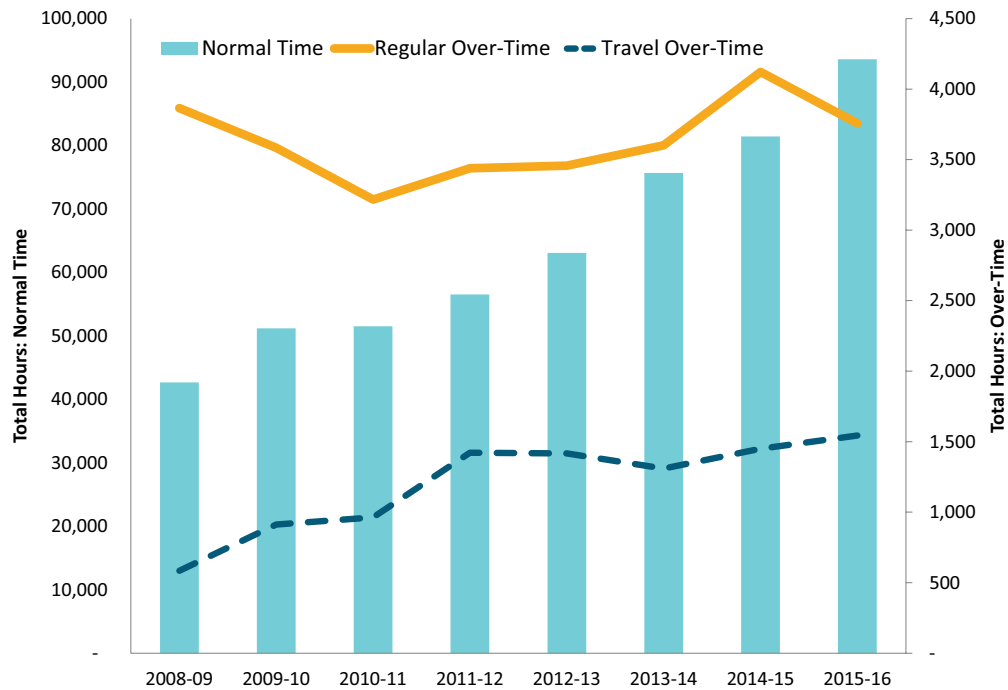
The 2012 TB Submission introduced an activity-focused target of 6 audits and 150 inspections per year. This has imposed a constraint on planning and implementation. Staff indicate that there would be more flexibility for safety oversight if work was planned using a management system approach. This would help to better match the most appropriate compliance verification tool to the risks identified by the Risk Model during the planning stage. For example, a compliance screening meeting may be more effective than an inspection at assessing a company's management systems and can be more efficient than a comprehensive audit.

Staff that carry out compliance verification activities (including audits and inspections) record their hours of work in the TIME system at the NEB under a single time code.³² Overall, the number of hours spent on CVAs has increased each year as shown in Figure 15 and the over-time attributed to travel has been on a gradual upward trend. Regular over-time peaked in 2014–15 but has recently decreased.

The Operations BU has recently been working with the Finance team to implement more specific time codes, so that, for example, the total hours worked on audits versus inspections versus other activities can be captured. At this time, only the total hours spent on compliance verification in general are available. A more specific time code would provide more reliable and meaningful information for reporting purposes and to assess workload on different compliance activities. It will also enable better measurement of productivity changes as a result of changing a process or an IT platform such as ORCA.

³² Data is from the TIME system and by a specific time code that is used Operations BU staff for activities under the compliance program.

Figure 15: Summary of hours spent on compliance verification activities by staff in the Operations BU



Regular over-time increased by 14% in FY 2014–15 and then fell by 9% the following year. This may be due to an increase in the number of unplanned CVAs which rose by 36% and then fell by 4%.

Conclusion

Analysis of existing information supports the conclusion that the intended outcomes have been achieved and that the NEB made efforts to deliver them in an economic and efficient manner, although improvements are required in resources and data management.

4. FINDINGS: Public Awareness Initiative

4.1 Relevance

As part of the 2012 TB Submission, the NEB received funding for “public awareness and outreach”. Resources were for one ATIP Officer and three Communications Officers. This evaluation examines both of these functions.

4.1.1 Federal Roles and Responsibilities

Findings and Supporting Evidence

The ATIP function at the Board is a legislated requirement and Communications Services are a standard internal service.

The NEB must comply with the *Access to Information Act* (ATI) and *Privacy Act*. The ATI provides a right of access by the Canadian public to information records under the control of the federal departments. The NEB is required to make every reasonable effort to assist a person in their request for information and respond accurately and completely, provide timely access and in the format requested.³³ The NEB is also required to respond to requests for or changes to personal information under the *Privacy Act*.³⁴

The Strategic Communications Business Unit³⁵ (Communications BU) is part of Internal Services and according to the TBS guidance³⁶, *Internal Services is a standard program...these services enable the efficient and effective delivery of Government of Canada programs*. The *Financial Administration Act* authorizes departments to provide internal services that support a department or a program. Communications Services are included along with financial management, IM/IT, HR Services and Counsel within LSU which provide essential support to ATIP. At the NEB, the Communications BU provides support and advice to internal and external projects and activities. The work of a Communications Officer includes written or verbal communication and interaction with the public, media, organizations and other governments.

³³ [Access to Information Act](#), Section 4 (2.1)

³⁴ [Privacy Act](#), Section 12 and 13

³⁵ Communications Services was part of another Business Unit (People and Corporate Solutions) from FY 2012–13 to FY 2014–15 and then became its own Business Unit (Strategic Communications) starting in FY 2015–16 and is made up of 4 teams: Corporate Communications, Public Affairs & Media Relations; Web, Design and Print; and Translation

³⁶ TBS: [Guide on Internal Services Expenditures: Recording, Reporting and Attributing](#) (2015)

4.1.2 Alignment with Government Priorities and NEB Strategic Outcomes

Findings and Supporting Evidence

The 2012 TB Submission outlined several activities and expected results for public awareness and outreach that are aligned with the NEB's strategic outcome and organizational priorities identified in the yearly Report on Plans and Priorities (RPP).

The focus on responding to the public is also a way in which the NEB advances the organizational priorities and related initiatives such as communicating its safety and enforcement actions.³⁷

4.1.3 On-going Need

When the 2012 TB Submission was first approved it provided two years of funding for “public awareness and outreach” with the intent to renew if there was a continued need. In 2014, the NEB determined that there was still a high volume of both ATIP and media requests that exceeded capacity to respond and thus there was continued need for funding. The 2014 TB Submission committed funds for another three years (FY 2014–15 to FY 2016–17).

Findings and Supporting Evidence

4.1.3.1 ATIP

The ATIP office carries out its activities in response to a legislated requirement and service standards and it is a relevant function at the NEB that contributes to being responsive to the needs of Canadians.

At the time of the 2014 TB Submission, it was expected that the number of ATIP requests would continue to rise by another 20% over the next two years. Data available from the ATIP office shows that the total number of new requests has actually fallen by 40% when comparing FY 2015–16 to FY 2013–14 and is now closer to FY 2011–12 levels. The ATIP Annual Reports and staff suggest that workload is driven by the complexity of requests and is reflected by the number of pages that have to be processed. There has been a substantial increase in the number of pages processed between FY 2014–15 and FY 2015–16 (see section 4.2.2 below) even though there has been a decline in the overall number of requests. The nature of these requests has also been open-ended and sometimes requests for information implicate an entire database. This in turn generates more information to be processed and strategies that must be developed in order to access the information in a meaningful way for the requestor while following legislated requirements and exemptions.

Fulfilling an ATIP request is demand driven and the data demonstrates that the hours of work remain elevated. While historical information may help predict the future workload and the required staff complement, ongoing monitoring should continue to determine whether the ATIP office and the Legal Services Unit has the flexibility and capacity to respond in a comprehensive and timely manner.

³⁷ Each NEB RPP / DPR for Fiscal Years 2012–13 to 2016–17 have examples of priorities, outcomes and supporting initiatives or activities.

4.1.3.2 Communications Services

Communications Services are a standard service within a department and thus will always be a core service at the NEB in carrying out its mandate.

The 2012 TB Submission was meant to provide communications resources to lead external engagement activities and coordinate writing, editing, media relations and communications support to the regulatory work of the NEB.

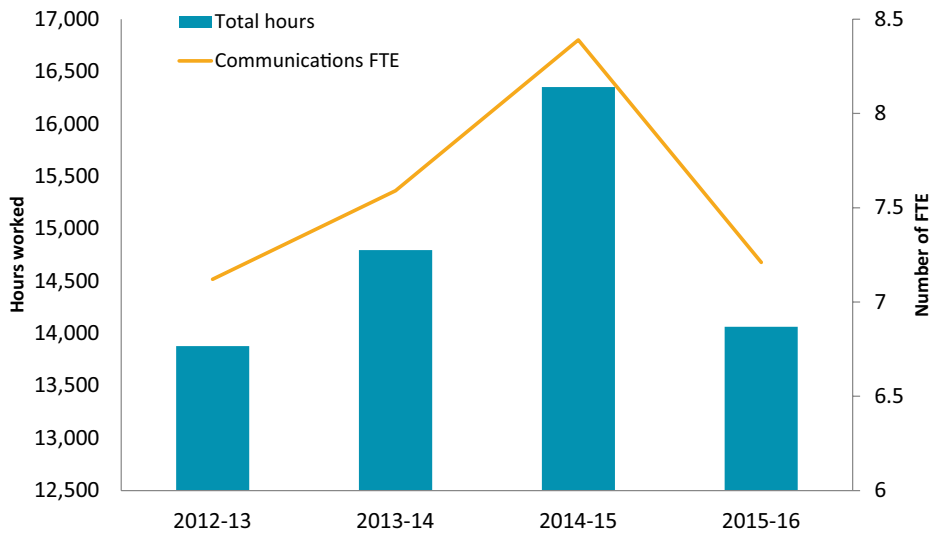
The internal re-organization of the Communications Business Unit into an engagement-focused team and a communications-focused team will help determine whether additional dedicated resources are needed. The NEB will need to assess its program delivery needs in light of its base allocation and other sources of temporary funding in order to determine appropriate needs for continued program delivery.

The 2012 TB Submission was meant to provide the communications resources to lead external engagement activities and coordinate writing, editing, media relations and communications support to the regulatory work of the NEB. The NEB continues to place high priority on engaging Canadians, including it as a strategic priority, and, through the 2015 TB Submission it is supplementing the activities and goals of the 2012 TB Submission. The 2015 TB Submission provides the NEB with the resources to support more Communications Officers positions (7 FTE). The goal is to perform media relations and issue management, write reports, speeches, news releases and briefings. Dedicated engagement specialists (11 FTE) will organize and deliver general public engagement events and respond to the public.

There are a variety of time codes that staff can use to record and denote their time. Figure 16 shows the total number of hours recorded and attributed by staff under a specific main activity called “communication services”. Other teams at the NEB have also periodically used this specific time code, although its use has greatly varied by year. There were a total of 879 hours spent by other teams and business units on communication services between FY 2012–13 and FY 2015–16.

The Communications Services BU provides both internal and external services and the nature of the work can involve proactive and reactive work. Section 4.2.1.2 further demonstrates the variability in media requests and news releases, both of which indicate some of the workload of Communications Officers.

Figure 16: Time spent on Communications Services



The data show an increasing trend up to FY 2014–15 for hours worked and number of FTE. In FY 2015–16, the number of staff decreased by 14% (1 FTE) compared to the previous year. This led to fewer total hours worked which may also be due to fewer media requests.

At the time of the 2014 TB Submission, it was noted that the number of media requests had tripled between 2011 and 2013 and over the next two years it was expected to double. In fact, the total number of requests increased in 2014 by 13% compared to 2013 but then fell in 2015 by 36% compared to 2014 levels. Meanwhile, the number of proactive news releases increased.

There is a continued need to be responsive to the public but to also take initiative to proactively engage and raise public awareness about pipeline safety. Results for the past four years, demonstrate that the Communications Services BU has achieved its expected outcomes.

4.2 Effectiveness (Outcomes)

Since 2012, the NEB has increased its capacity to respond to the variable demand for external Communication Services as well as ATIP requests. It has also demonstrated that it continues to pursue its goal of increased transparency by introducing different approaches to releasing information to the public.

Findings and Supporting Evidence

4.2.1 Communications



Communications Officers help the NEB with planning communication activities, writing, editing and media and public relations.

In 2012, the NEB noted an increase in contact from media, parliament and the public. There was a corresponding increase in the workload and, at current resource levels, it was having an impact on the ability of staff to complete their day to day work. In 2014 funding was renewed based on the same observations.

4.2.1.1 Resources

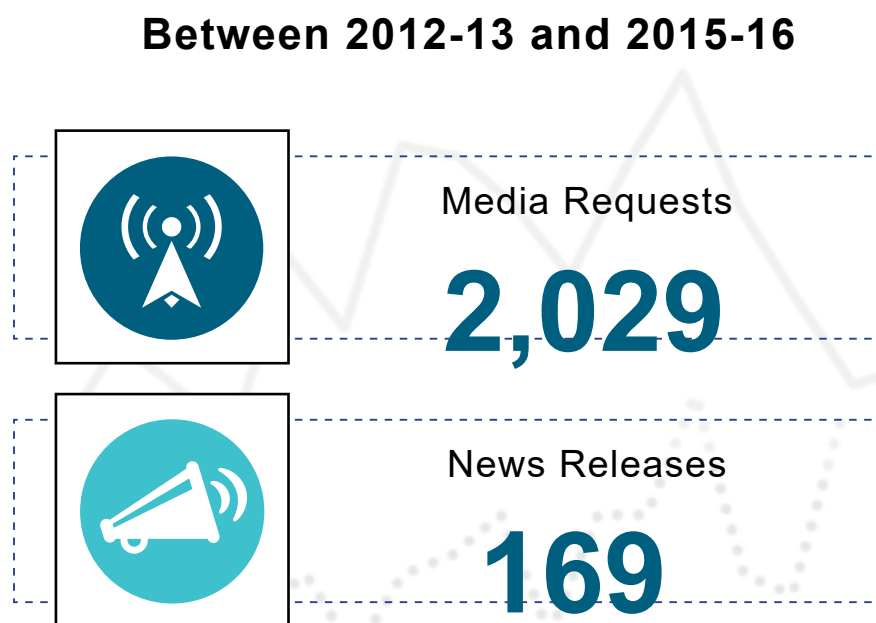
The NEB has dedicated staff for both internal and external communications. Communications is also supported by staff and counsel with subject matter expertise. The 2012 Safety Submission specified that three full time Communications Officers for a period of two years would help to respond to the increased workload. Funding was renewed in 2014 to continue the three positions in order to address the continued and anticipated growth in work.

A review of the available data and information shows that for the first two years only 1 FTE was funded by the 2012 Safety Submission. When funding was renewed in 2014, 3 FTE were funded.

Staff indicated that resources have been prioritized for external communications which has reduced the capacity of the Communications BU to meet the demand for internal support. Interviewees indicated that their workload continues to be higher but also unpredictable since it is an internal service driven by the needs of the public and the NEB. For example, staff provide support to the core functions at the NEB such as CVAs, hearings and external reporting.

4.2.1.2 Media Requests and News Releases

In FY 2015–16, Communications Officers recorded fewer media requests compared to each of the previous two fiscal years; however it is still around 55% higher than the number of requests received in FY 2012–13 (Figure 17). The number of requests continues to be variable each month and responding to some requests requires more work than others because staff may need to consult with a technical expert from the NEB to be able to respond to a specific question. In terms of overall count of requests, it has not grown exponentially as expected a few years ago.



Media request topics change

from year to year but the most common are related to major pipeline projects (e.g., Trans Mountain Expansion) or to safety and environmental protection. Communications Officers also re-direct media requests to subject matter experts at the NEB in order to obtain input into a response.

Between FY 2012–13 and FY 2013–14, the number of news releases more than doubled and has stabilized at this new higher level with around 3 to 5 news releases per month on average. These news releases are driven by new information across all areas of the NEB—on its activities, decisions and reports.

The Communications BU has a “Media Monitoring Report Procedure” that directs staff to monitor media coverage (e.g. online or printed articles) and rate the tone of the media report whenever it mentions the NEB or is related to the NEB’s initiatives. The purpose is to gauge public perception and help determine emerging issues that may impact the NEB. The procedure and accompanying guide, however, do not indicate how tone is determined and the guide has not been updated since it was created in 2012.

The Communications BU had data available from 1 July 2012 to 31 January 2016. During this time period staff reviewed a total of 4,437 media related items and of these 4,387 (or 99%) were assigned a tone rating. Since the end of January 2016, media monitoring and tone analysis has been contracted out by the NEB.

Figure 17: Media Requests and News Releases from 1 April 2012 to 31 March 2016

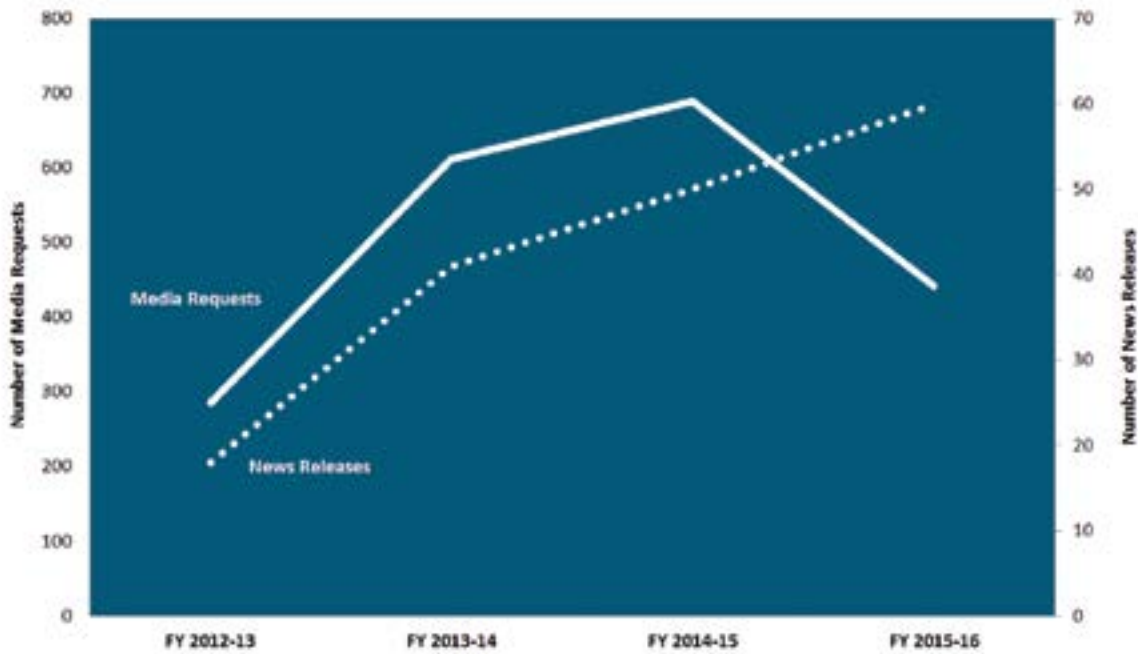


Figure 18: Media Tone from July 2012 to January 2016



In the past 3.5 years, on average, the tone has been neutral 83% of the time, negative 10% of the time and positive 7% of the time. There has been no significant year over year change for any of these tone categories in relation to the overall media items that were rated. Of those tone-rated media items where the subject was recorded by staff in a database (10%), the most common topics were related to a major hearing or the NEB's authority.

4.2.1.3 Communicating Information on Safety and Environmental Protection

The NEB provides readily accessible information on its regulatory activities through its website so that stakeholders, such as Canadians and industry, can stay informed. For example, the NEB has a safety performance portal where it provides a visualization and analysis on pipeline incidents and regularly updates the data, making it available for download. There is also a compliance and enforcement webpage where the NEB has demonstrated its commitment to providing safety information on pipelines and facilities that it regulates and the results of its compliance and enforcement actions. Starting in 2011, the Communications BU began to support the NEB in proactively posting compliance and enforcement information (e.g., audits, inspection reports, compliance & enforcement activities, letters and orders).

The NEB website is also used to disseminate safety and information advisories and fact sheets, speeches, presentations and videos—all to inform the public about the NEB and the regulatory lifecycle as well as future plans in regulatory development and opportunities for consultation. Communications Officers also manage the NEB social media accounts and use these tools to engage the public on a variety of information and provide updates or information of interest.

4.2.1.4 Public Outreach

The Communications BU has a three year plan that is focused on external communications-related activities. It contains several areas of focus in order to deliver on its objective of being proactive in public relations and issue management. One of the focus areas is to increase community engagement activities and outreach to inform Canadians and discuss the NEB's mandate, role and responsibilities.

Staff indicated that the Communications BU does not initiate its own stand-alone outreach events but supports other areas of the NEB in their initiatives. Staff pointed to other events related to outreach and engagement. For example, the Chair's National Engagement Initiative had the support of communications staff throughout and culminated in a report that highlighted the discussion held with stakeholders on pipeline safety and environmental protection³⁸. There was also a concurrent online discussion forum held by the NEB to gather public feedback on several themes related to safety and environment.

Another noteworthy event initiated by the NEB and held in 2013 and 2015 is the Pipeline Safety Forum. The public and stakeholders are invited to attend and discuss emerging safety issues and opportunities for improved safety outcomes, exchange information on technical pipeline issues and increase understanding of stakeholder concerns. The Communications BU provides some key support in delivering this event as well.

³⁸ NEB: [National Engagement Initiative Report: Engaging Canadians on Pipeline Safety 2015](#)

4.2.2 ATIP

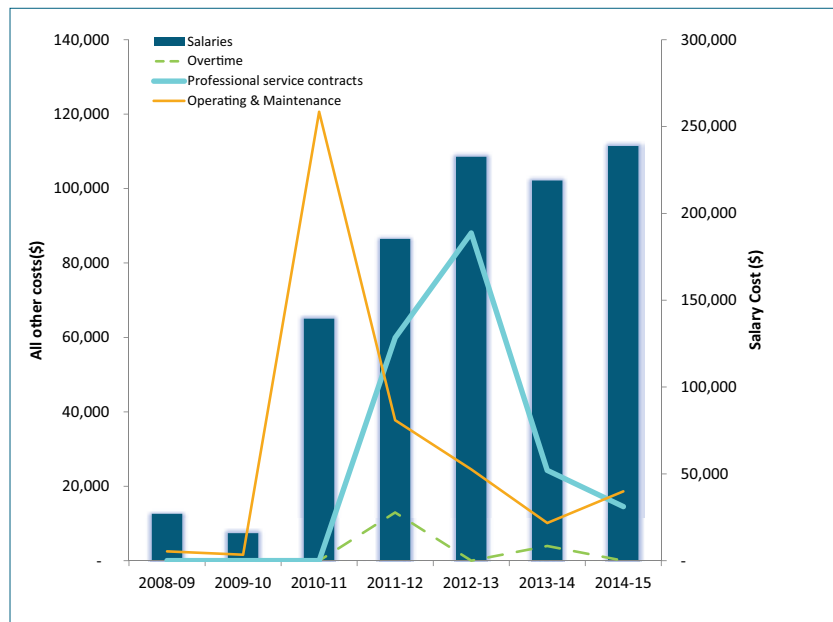


Responding to access to information requests³⁹ (ATI) or privacy requests⁴⁰ is a federally legislated requirement. In 2012, the NEB noted increased visibility of energy issues and general public scrutiny which had resulted in a noticeable increase of ATIP requests. This required an extra ATIP Officer for a period of two years to help meet demand within service standards and support the release of public information. These challenges were again highlighted in the 2014 TB Submission and funding was renewed for a period of 3 years.

4.2.2.1 Resources

The total number of people working full or part-time on ATIP since FY 2012–13 has been either 3.5 or 4.5 depending on the year. While one position has been funded through the 2012 and 2014 TB Submission, another position was funded under another initiative in the 2014 TB Sub and the remaining 1.5 FTE positions currently in the ATIP office are from the NEB’s annual base funding. A part-time contractor has also assisted each year in preparing an ATIP response except for FY 2015–16. Figure 19 highlights the actual expenditures over seven years to deliver responsibilities under the Access to Information Act and Privacy Act.

Figure 19: Breakdown of ATIP expenditures



Salaries represent the greatest share of costs and have stayed elevated since FY 2010–11. Note that in 2015-16, professional service contracts (e.g., training) are included in O&M. Also note that the ATIP function at the Board is supported by input and review from Legal Services, and other Business Units, however this is not reflected in Figure 19.

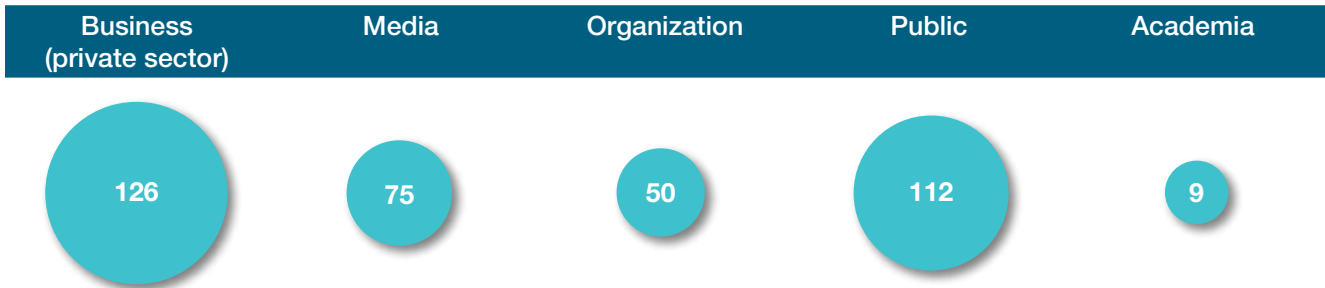
4.2.2.2 ATI and Privacy Requests

Over the course of a year, staff process new requests and requests carried forward from a previous year (if there were any). For those requests that are not closed at the end of a given fiscal year, they will be carried forward to the next year. The largest share of requests under the Access to Information Act (ATI) has come from the private sector followed closely by requests from the public as shown in Figure 20.

³⁹ Access to Information Act

⁴⁰ Privacy Act

Figure 20: Source of ATI Requests from 1 April 2008 to 31 March 2015

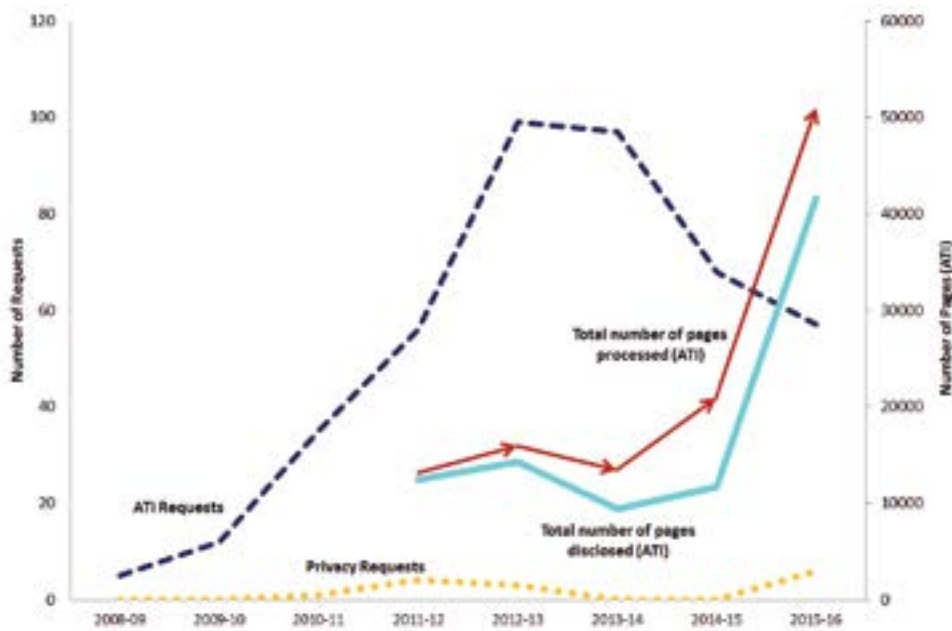


The NEB, like the rest of government, has handled an increase number of ATI requests for since 2008–09. The number of privacy requests received each year is substantially smaller than the number of ATI requests at the NEB. This is the opposite for the whole of government.⁴¹ The number of ATI requests has fallen though each year since the 2012 TB Submission. Between FY 2012–13 and FY 2015–16, it fell by 42 percent; however the number of pages processed and disclosed for ATI requests has increased during this time period by approximately 200 percent. The sharpest increase occurred after FY 2014–15.



⁴¹ Infosource: <http://www.infosource.gc.ca/bulletin/bulletin-eng.asp>

Figure 21: Requests received by the NEB between 1 April 2008 and 31 March 2016



At the NEB, the number of ATI requests received each year grew substantially (by 20,00%) between 2008–09 and 2012–13 whereas the whole of Government saw a 62% increase for the same time period as shown in Figure 21.

Note: Data prior to April 2011 for the number of pages processed/disclosed was not available through NEB Annual Reports.

When a request is received, the ATIP office directs relevant staff at the NEB to provide the requested documents by a certain deadline. Information may have to be retrieved from different sources across the NEB and several topics may be included in one ATI request. The 2014–15 ATI Annual Report⁴² and the 2015–15 DPR⁴³ state that the number of pages processed and disclosed indicates the complexity of a request and thus the workload because each page has to be analyzed to determine whether information can be disclosed, exempted or excluded in accordance with legislation. Additional work and time is also needed when ATI requests necessitate additional consultation and legal advice.

If pages are used as a proxy for workload, then the data indicates that the workload has recently and significantly increased. The number of requests though has stabilized and has not risen as expected in the 2014 TB Submission. Another year of data and tracking the number of requests that require a management response may help indicate whether the requests and the nature of the requests continue to trigger the number of pages to be processed as experienced in FY 2015–16. Section 4.3 provides further information on performance against legislated timelines for responding to ATI requests.

⁴² NEB: Annual Report pursuant to the [Access to Information Act](#), 2014–15

⁴³ NEB: [Departmental Performance Report](#), 2014–15, Supplementary Information Table

4.2.2.3 Performance and Reporting

The NEB is required to submit an Annual Report to Parliament describing how it has fulfilled its responsibilities under the *Access to Information Act* and the under the *Privacy Act*. A link to these Annual Reports for ATIP is on the NEB website⁴⁴. The ATIP office uses electronic software to track requests and collect data. It posts summaries of completed ATIP requests each month on the NEB website including a summary of the request and the number of pages processed and disclosed. Further information about service standards is described in section 4.3.

The *Access to Information Act* specifies that the Information Commissioner is responsible for receiving and investigating complaints. The Commissioner must submit annual reports to Parliament on the activities of the office. The NEB also reports the number of complaints and investigations and any court action in its annual reports on ATIP.

There have been very few complaints overall. Between 2012 and 2014, there were 3 well-founded complaints—complaints related to the NEB not meeting the ATIP deadline for providing information or expressing concerns with the estimated fees involved in preparing the information for a request.

4.3 Efficiency and Economy

4.3.1 Resources and Workload Analysis

The average yearly funding budgeted for “public awareness and outreach” is shown in Table 16. TB 2012 also includes O&M for start-up. Information on actual funding spent against the 2012 TB Submission is not available since O&M and salary was not tracked at the initiative level.

ATI Requests

The average number of ATI requests and pages processed per person in the ATIP office, including a contractor and part-time staff is shown in Table 17. This is an approximation since staff also process privacy requests (though numbers are minimal) and other types of external or internal requests. Both the number of new requests and completed requests has fallen since FY 2013–14. Instead, workload has been driven by the number of pages processed which has sharply increased per person in FY 2015–16. Data demonstrates that with the same number of resources, the ATIP office has responded to this increased workload. Data in future years will help determine the volume of ATIP requests, and whether these requests continue to involve a greater number of pages and if so how this affects resource requirements to respond in a timely manner.

TABLE 16: SOURCE OF FUNDS

Year	TB 2012	TB 2014
2012–13	\$709,000	–
2013–14	\$709,000	–
2014–15	–	\$588,794
2015–16	–	\$588,794
2016–17	–	\$588,794
TOTAL of both Subs		\$3,184,382

⁴⁴ NEB website: [Annual Reports for ATIP](#)

TABLE 17: AVERAGE NUMBER OF REQUESTS PROCESSED PER ATIP STAFF

Fiscal Year	# people in ATIP office	# of new requests	# of completed requests	# of pages processed	Average # of completed requests per person	Average # of pages processed per person
2008–09	1	5	7	Not available	7	Not available
2009–10	1	12	8	Not available	8	Not available
2010–11	3.5	35	30	Not available	9	Not available
2011–12	4.5	56	47	13,192	10	2,932
2012–13	5.5	99	98	15,964	18	2,903
2013–14	5.5	97	110	13,422	20	2,440
2014–15	4.5	68	56	20,842	12	4,632
2015–16	4.5	57	66	50,974	15	11,328

Media Requests

The average number of requests per communications staff involved in media response can be calculated, though this is an approximation since not all staff responding to media requests are Communications Officers. Some staff are more dedicated to media response than others and record more than double what is depicted by the calculation in Table 18.

TABLE 18: AVERAGE NUMBER OF REQUESTS PER COMMUNICATIONS STAFF

Fiscal Year	# of Media Requests	# Staff Responding to Media Requests	Average # of requests per staff
2012–13	286	8	36
2013–14	612	11	56
2014–15	689	11	63
2015–16	442	10	44

4.3.2 Service Standards for ATIP

The *Access to Information Act* and the *Privacy Act* have a 30 day time limit to respond to a request from the date it is received. There is the possibility though that this time can be extended under certain circumstances as stated in the Acts. In the Annual Reports, the NEB reports on its performance against this service standard and includes reasons why it has not met the legislated time limit. Reasons have included a higher workload, or internal/external consultation required to respond to a request.

The NEB reports its performance against this legislated service standard in the supplementary tables accompanying the annual Departmental Performance Report. Table 19 has the results compiled and demonstrates that over four years, the NEB has consistently met the legislated response time for 82–85% of requests. Most requests that took longer had an extension with the workload being the main reason for a delay.

ATIP staff is also involved in other activities in addition to responding to ATIP requests. They provide support and advice to increase transparency and public access to data. These activities include reviewing information before it is posted to the NEB website as well as responding to requests from other government departments to review information (pages) that relate to the NEB before they are released.

The total number of hours that ATI staff record in the NEB’s TIME system between fiscal years 2010–11 and 2011–12 jumped by 278 percent. This sharp increase is also demonstrated by the number of new requests, which had jumped by 60 percent within a year. Figure 22 shows data available since FY 2008–09. The total hours spent on ATIP have remained elevated due to an increased number of pages to process even though the total number of new requests has fallen and the number of completed requests is substantially less than it was in FY 2012–13.

Staff from other areas at the NEB also assists in responding to ATIP requests. For example, Legal Services provides direct regulatory support to the Board’s ATIP staff, providing legal advice as well as independent review of ATIP staff analysis in respect of ATIP release packages that require a management response. Based on data from the TIME system, Legal Services spends the most time on ATIP, followed by the Business Integration Business Unit.

Figure 22: Hours worked by ATIP staff

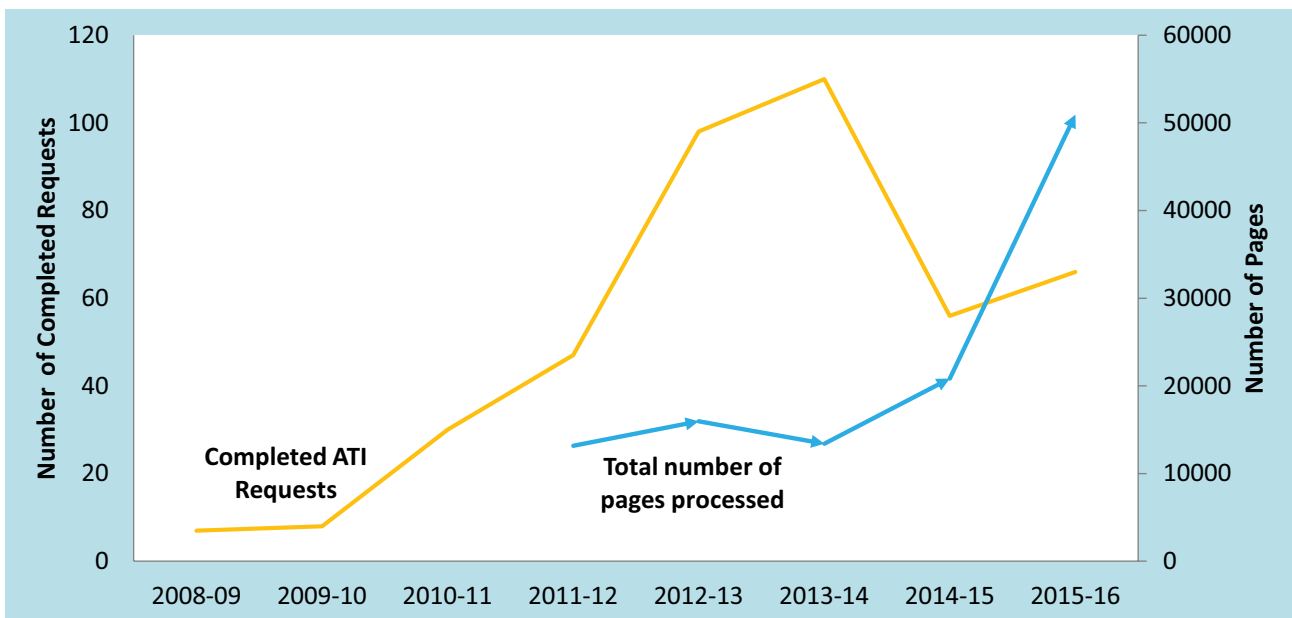
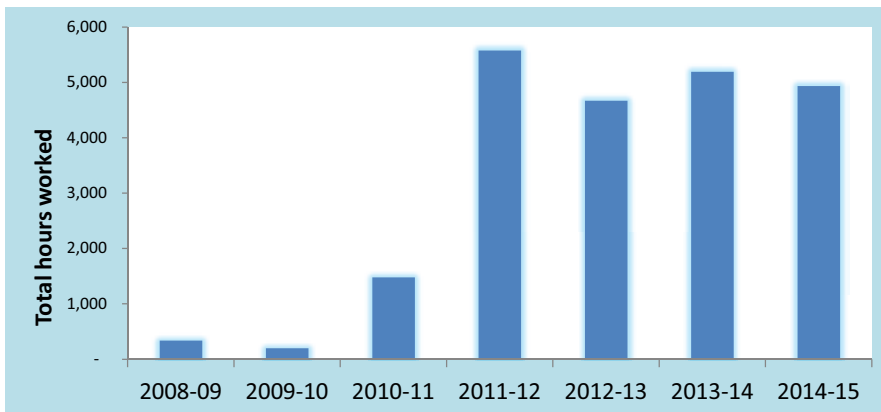


TABLE 19: ATI SERVICE STANDARD RESULTS

FISCAL YEAR					
Results	2011-12	2012-13	2013-14	2014-15	
% of requests that met the 30 day response time	83%	85%	82%	82%	
# of requests past deadline with an extension	7	14	14	9	
# of requests past deadline without an extension	1	0	6	1	
Main reason for not meeting statutory deadline	✔ Workload	8	11	6	7
	✔ External Consultation		3	5	1
	✔ Internal Consultation			6	1
	✔ Other			3	1

4.3.3 Service Standards for Media Requests

Communications Officers have an internal service standard goal to respond to media requests within 3 hours (for those questions where facts are easily acquired such as NEB website). A media request that leads to an interview has a timeline that varies depending on reporter’s deadline and availability of a technical expert at the NEB.

Most media requests are made between Monday and Friday. On occasion the request has come on a weekend; however this is usually a ‘safety and environmental protection’ request related to an incident.

Between 1 April 2012 and 31 March 2016, most media requests were given a same-day response (91 percent) or one day response (5 percent). Very few requests took longer than five days to respond to. Between FY 2012-13 and FY 2015-16 the proportion of media requests with a same day response increased by 10 percent.

4.3.4 Resource planning and outcomes

Each year, the NEB uses the Resource Allocation Plan (RAP) as its budget planning tool to plan, allocate and track resources. Team leaders can manage their team resources and budget by accessing the RAP system and its database. The NEB also prepares an annual RPP. The RPP outlines key planned activities, expected results, indicators and targets as well as planned expenditures and FTEs for a three year period and allocates the budget by strategic outcome and program area. The budget for Communications Services falls under Internal Services budget while the ATIP office falls under the Secretary of the Board’s budget.

4.3.4.1 Costs

ATI

Based on financial data from the ATI Annual Reports, Figure 23 illustrates the cost of the ATIP office in terms of salaries, over-time, contracts and operating and maintenance. The cost rose sharply between FY 2009–10 and FY 2010–11 and has remained at this higher amount ever since with some variability by year.

Figure 23: Total Cost of ATIP office

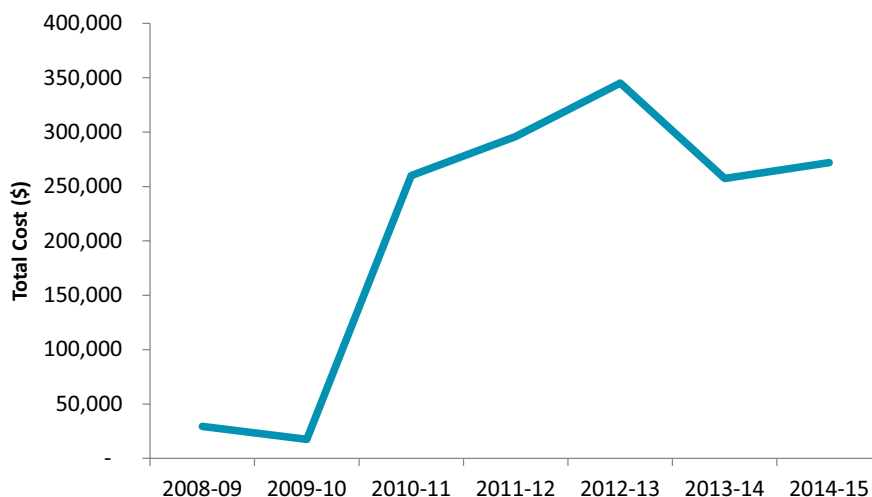


Table 20 demonstrates an approach to analyzing the cost of responding to an ATI request; however it reflects only the direct ATIP staffing and over-time costs and does not include O&M and contract costs like Figure 23 above. ATIP is a core responsibility for the team and given that staff is involved in other activities and staff from other business units at the NEB also contributes to responding to an ATI request, these calculations are an approximation. The average cost to complete a request or to process a page varies by year according to the total number of completed requests or pages processed. Usually, the greater the volume of completed requests, the lower the average cost for a request, however this has not been true every year. This is due to the increase in the number of pages to be processed as shown, for example, in 2014–15 compared to 2013–14.

TABLE 20: AVERAGE COSTS FOR ACCESS TO INFORMATION REQUESTS

Fiscal Year	# of completed requests	Total # of pages processed	Total # of hours submitted by ATIP office	Average cost per completed request	Average cost per page processed	Average # of hours spent on completed requests
2008–09	7	N/A	337	\$3,857	Note (a)	48
2009–10	8	N/A	195	\$1,985		24
2010–11	30	N/A	1,476	\$4,646		49
2011–12	47	13,192	5,574	\$3,943	\$14	119
2012–13	98	15,964	4,666	\$2,373	\$15	48
2013–14	110	13,422	5,190	\$1,991	\$16	47
2014–15	56	20,842	4,932	\$4,264	\$11	88
2015–16	66	50,974			Note (b)	

Note (a): The number of pages were not reported in the ATIP Annual Report.

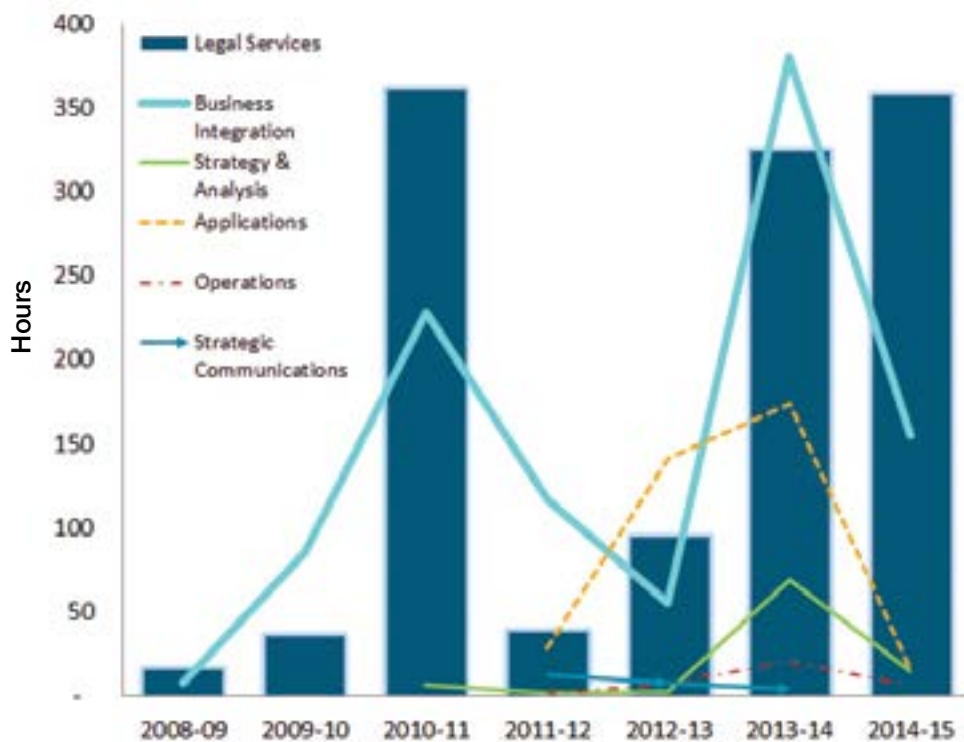
Note (b): The 2015–16 ATIP Annual Report was not available at the time of the evaluation.

The cost of responding to ATIP requests reflects more than just the cost of the ATIP office. Whenever there is a new request, other staff at the NEB is involved in locating and reviewing information before providing it back to the ATIP office to review as well and prepare for release. Staff can code time spent on ATIP to a special time code. Based on the data available, around 25,000 additional hours have been spent on ATIP related work across the rest of the NEB over seven years. The largest increase occurred between FY 2009–10 and FY 2010–11.

Figure 24 shows the overall number of hours that the entire NEB spends on ATIP (based on the information available in the TIME system as reported by staff) and how it fluctuates each year and how the workload for other BUs can be unpredictable. This information should be used with caution as the record of TIME for ATIP may not be accurate and consistent across the organization.

Note: that when the Time Code for ATIP is used consistently by all BUs, there can be a more accurate assessment of ATIP workload across the organization.

Figure 24: Hours spent on ATIP by other Business Units



Media Requests

Calculating the financial cost per media request response may not yield accurate information since Communications Officers are responsible for a variety of tasks and their time codes are not detailed enough to reflect this type of work specifically. Calculations would likely overestimate the communications cost for this activity. At the same time, it could also underestimate the true cost since other staff at the NEB may assist in responding (e.g. technical matter experts).

Conclusion

Analysis of existing information supports the conclusion that the intended outcomes have been achieved for both aspects of the initiative: ATIP and Communication. The NEB made efforts to deliver expected results in an economic and efficient manner given the resources allocated and the increase workload experienced in the first two years for both aspects of the initiative.

Acronyms

AMP	Administrative Monetary Penalty
ATIP	Access to Information and Privacy
BU	Business Unit
CAP	Corrective Action Plan
CEO	Chief Executive Officer or “Chair”
COGOA	<i>Canadian Oil and Gas Operations Act</i>
CV	Compliance Verification
CVA	Compliance Verification Activity
DPR	Departmental Performance Report
ESIMS	Environment and Safety Information Management System
FAA	<i>Financial Administration Act</i>
FTE	Full-time Equivalent
FY	Fiscal Year
LSU	Legal Services Unit
NEB	National Energy Board
O&M	Operating & Maintenance
ERS	Event Reporting System
NEB OPR	<i>National Energy Board Onshore Pipeline Regulations</i>
ORCA	Operations Regulatory Compliance Application
PWG	Project Working Group
RAP	Resource Allocation Plan
RDIMS	Records, Documents and Information Management System
RPP	Report on Plans and Priorities
TBS	Treasury Board Secretariat
TSB	Transportation Safety Board of Canada
UA	Unauthorized Activity
2012 TB Submission	Refers to the Treasury Board Secretariat Submission from 2012 for safety and public awareness
2014 TB Submission	Refers to the Treasury Board Secretariat Submission from 2014 which includes public awareness

Annexes

Annex 1: Logic Models

PIPELINE SAFETY INITIATIVE		
Ultimate Outcome	Energy infrastructure is operated safely and securely with minimal impacts on the environment, people and economic benefits.	
Intermediate Outcomes	Companies have adequate and effective systems and programs to prevent and manage pipeline safety risks.	
Immediate Outcomes	The National Energy Board develops and updates regulations and guidance to promote improved safety performance and develops and makes these changes in a timely and transparent manner.	
	The NEB has developed processes to ensure data is available and used for analysis to facilitate improved management of pipeline safety risks and safety practices.	
	The NEB has the capacity to conduct and complete planned inspections of oil and gas pipelines and audits of pipeline company programs.	
	The NEB has capacity to respond to and follow-up on incidents, conduct investigations, analyze corrective action plans.	
	The NEB has the capacity to provide direct legal support to the compliance program and regulatory development work.	
	The NEB understands the technical and systemic causes of pipeline incidents and pro-actively shares this information with regulated companies and other stakeholders to prevent and reduce the number of incidents.	
Outputs	<ul style="list-style-type: none"> • Regulations • Regulatory documents and plans • Consultation reports • Guidance • NEB filing manual • Legal review, research and analysis • Correspondence 	<ul style="list-style-type: none"> • Orders • Notices • Incident Investigations • Administrative Monetary Penalties • Advisories • Data and trend analysis • Incident map
Inputs	<ul style="list-style-type: none"> • Salary Funding • O&M Funding • Time spent on safety and environmental protection activities • Event reports 	

PUBLIC AWARENESS INITIATIVE

Ultimate Outcome	Enhanced public awareness of pipeline safety and strengthened public confidence in the NEB.
Immediate Outcomes	The NEB has the capacity to respond to the increased demand for outreach, engagement and communication on pipeline safety.
	The NEB has the capacity to respond to ATI and Privacy requests and upholds a transparent approach to releasing public information.
Outputs	<ul style="list-style-type: none"> • News Releases • Communications and media strategy • Communications advice • Website information on pipeline safety and performance measures • ATIP Summary and Annual Reports
Inputs	<ul style="list-style-type: none"> • Salary Funding • O&M Funding • Time spent on public awareness and outreach activities • ATIP requests • Media requests

Annex 2 : Evaluation Matrix

Core Issue #1 : Alignment with federal roles and responsibilities	
	Are the activities and outcomes outlined in the safety initiative aligned with federal roles and responsibilities?
Core Issue #2: Alignment with government priorities	
	Are the activities and outcomes outlined in the safety initiative aligned with the mandate, strategic outcomes and priorities of the NEB?
Core Issue #3: Continued need for the initiatives	
	Is there a continued need, beyond FY 2016-17, to support the outcomes for Pipeline Safety and Public Awareness?
Core Issue #4: Achievement of expected outcomes	
Pipeline Safety Initiative	Do companies demonstrate improved safety results?
	Does the NEB have current regulations and guidance?
	Are regulations and guidance updated in a timely and transparent manner?
	Has the NEB developed processes to collect information to support the availability of data for analysis on the safety of pipelines?
	Does the NEB achieve its planned number of completed inspections and audits?
	Does the NEB respond to and follow-up on each incident, investigation and analyze corrective action plans?
	Does the NEB provide direct legal support to the compliance program and regulatory development work?
	Does the NEB understand the technical and systematic causes of pipeline incidents?
	Does the NEB share its findings and understanding of the causes of pipeline incidents?
Public Awareness Initiative	Does the NEB have the capacity to meet the increased demand for outreach, engagement and communication on pipeline safety?
	Does the NEB have the capacity to respond to ATI and Privacy requests and does it uphold a transparent approach to releasing public information?
Core Issue #5: Demonstration of efficiency and economy	
Pipeline Safety Initiative	Are the inspections, audits and investigations delivered in an increasingly efficient manner?
	Are inspections, audits and investigations delivered in an increasingly economical manner?
Public Awareness Initiative	Does the NEB respond to and process media and ATIP requests in an increasingly efficient manner?
	Does the NEB respond to media requests and ATIP requests in an increasingly economical manner?

Annex 3: Resource Allocation

TB SUB 2012	PLANNED	TOTAL FTE APPROVED IN 2012	ACTUAL	TOTAL FTE APPROVED IN 2014	ACTUAL
Inspections and Audits	7 inspectors	19	18	Not Applicable	
	1 team leader				
	6 compliance analysts				
	5 auditors				
Strengthen Safety Compliance	4 regulatory development analysts	4	3 ^a		
	2 legal counsel	3	4 ^b		
	1 paralegal				
Internal Services	<ul style="list-style-type: none"> • Performance Measurement and Reporting • IM/IT • Real Property • Financial Oversight • Human Resources 	4	3.5		
Public Awareness & Outreach	• Communications Officers	3	0	3	3
	• ATIP Officer	1	1	1	1
TOTAL		34	31.5^c	4	4

Note^a: 3 FTE were received for 3 out of 5 years.

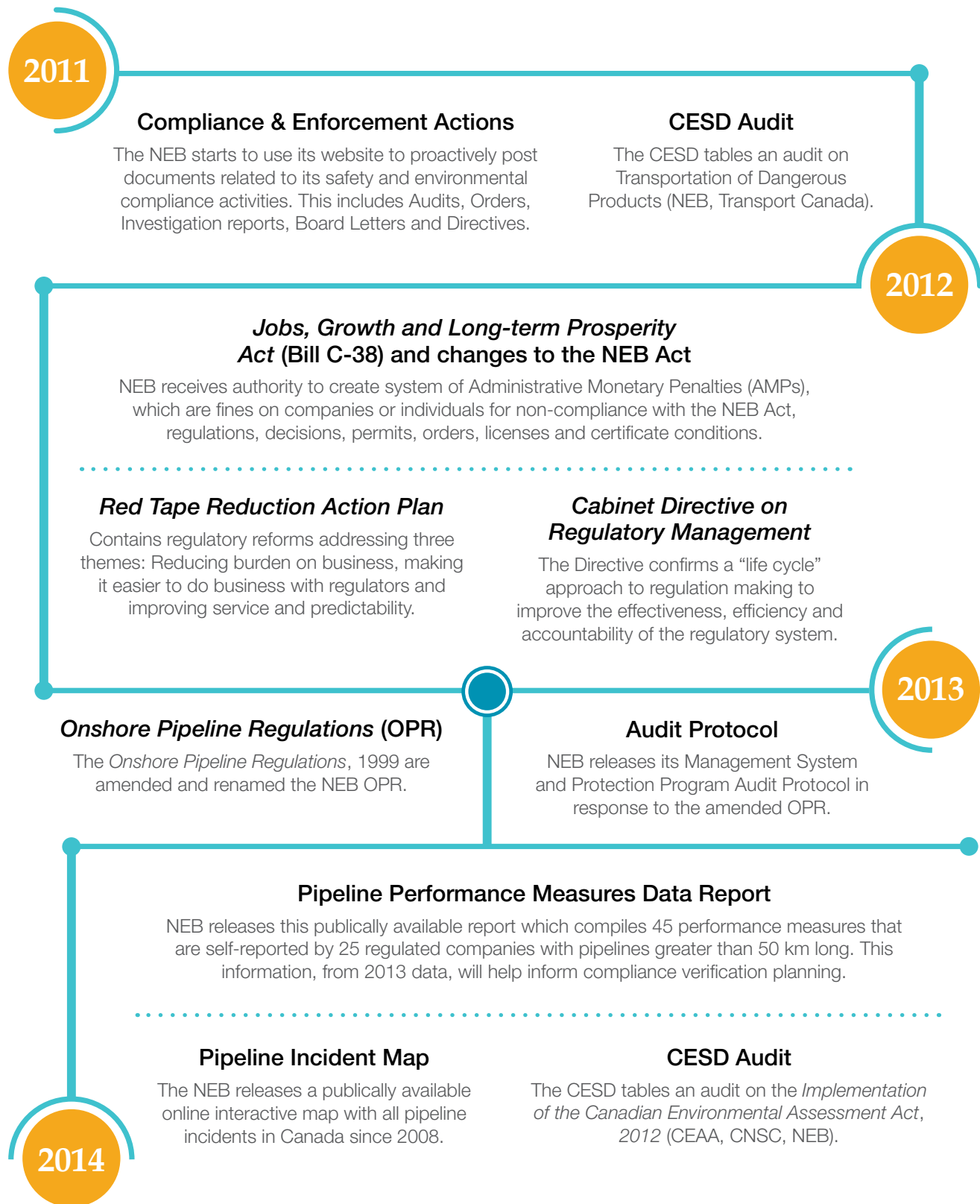
Note^b: 5 FTE were initially received as the Operations BU was not able to immediately staff their new positions. Legal Services later adjusted to 4 FTE in mid-July 2014.

Note^c: The other 2.5 FTE were allocated to the Secretary and Regulatory Services and Temporary Board Members.

Annex 4: Glossary of Terms

DEFINITIONS UNDER THE NEB ONSHORE PIPELINE REGULATIONS	
<p>Incident</p> <p>An occurrence that results in:</p> <ul style="list-style-type: none"> • the death or serious injury to a person • a significant adverse effect on the environment • an unintended fire or explosion • an unintended or uncontained release of low vapour pressure (LVP) hydrocarbons in excess of 1.5 m³ • an unintended or uncontrolled release of gas or high vapour pressure (HVP) hydrocarbons • the operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board 	<p>Serious Injury</p> <p>Includes an injury that results in:</p> <ul style="list-style-type: none"> • the fracture of a major bone • the amputation of a body part • the loss of sight in one or both eyes • internal hemorrhage • third degree burns • unconsciousness or • the loss of a body part or function of a body part
<p>Significant Incident</p> <p>An acute event that results in:</p> <ul style="list-style-type: none"> • death • a serious injury (as defined in the OPR) • a fire or explosion that causes a pipeline or facility to be inoperative • a LVP hydrocarbon release in excess of 1.5 m³ that leaves company property or the right-of-way • a rupture or • a toxic plume (as defined in CSA Z662) 	<p>Operation Beyond Design Limits</p> <p>Includes situations such as:</p> <ul style="list-style-type: none"> • over pressures • vibration beyond design limits • slope movements causing movement in the pipeline beyond design limits • pipe exposures in rivers or streams • introduction of an inappropriate product (e.g., sour gas in excess of CSA limits)
<p>Significant Adverse Effect on the Environment</p> <p>Occurs when any chemical substance is released at a concentration or volume that has the potential to change the ambient environment in a manner that would cause harm to human life, wildlife or vegetation (e.g., glycol, potassium carbonate, methanol, methanol mix from hydrostatic testing, etc.).</p>	
DEFINITIONS UNDER THE NEB PIPELINE CROSSING REGULATIONS, PART I AND PART II	
<p>Ground Disturbance</p> <p>Excavation using power-operated equipment or explosives within the 30 metre safety zone as measured from the edge of the right-of-way.</p>	<p>Encroachment</p> <p>Unauthorized construction or installation across, on, along, or under a right-of-way. This includes activities such as construction of structures/facilities (e.g., swimming pools, skating rinks, sheds) on a right-of-way as well as stockpiling of materials such as sand or soil.</p>
<p>Vehicle Crossings</p> <p>Unauthorized operation of a vehicle or mobile equipment across or on a right-of-way. Includes operation of heavy equipment or trucks across the right-of-way, with the exception of any vehicle operating across the right-of-way on the travelled portion of a highway or a public road.</p>	

Annex 5: Timeline of Key Events and Activities at the NEB



2015

Online Event Reporting System (OERS)

All regulated companies can use this system to report events including incidents, unauthorized activities and operations and maintenance activities.

Red Tape Reduction Act receives Royal Assent

The Act is to control the growth of federal regulatory red tape by requiring the removal of a regulation to offset the administrative burden of the new regulation that imposes an administrative burden (one-for-one rule). The corresponding *Red Tape Reduction Regulations* define a formula for calculating administrative burden.

The Pipeline Safety Act (Bill C-46) receives Royal Assent

The Act amends the NEB Act and the *Canada Oil and Gas Operations Act (COGOA)* and includes \$1 billion absolute liability for major oil pipelines, the authority for the NEB to order reimbursement of clean-up costs and authority for the NEB to take control of incident response if company is unable or willing to do so. The Act also brings abandoned pipelines under the Board's jurisdiction. In force June 2016.

Regional Offices

NEB announces its plans to open two regional offices (Vancouver and Montreal) to better connect with communities and build relationships and broaden the ability to communicate about regulatory requirements and pipeline safety.

The Energy Safety and Security Act (ESSA or Bill C-22) receives Royal Assent

The Act amends COGOA and provides the NEB with new tools to regulate Northern oil and gas activities within its jurisdiction including the ability under COGOA to provide participant funding for projects and Administrative Monetary Penalties. Came into force February 2016.

Inspection Reports

The NEB starts posting field inspection reports online from November going forward.

Pipeline Performance Measures Data Report

NEB releases the second Pipeline Performance Measures Data Report based on 2014 information submitted by companies.

2016

Pipeline Approval Conditions

The NEB starts posting information online related to the status of company compliance with conditions for pipeline projects. Information is available for 2010–2015 and will be updated monthly.

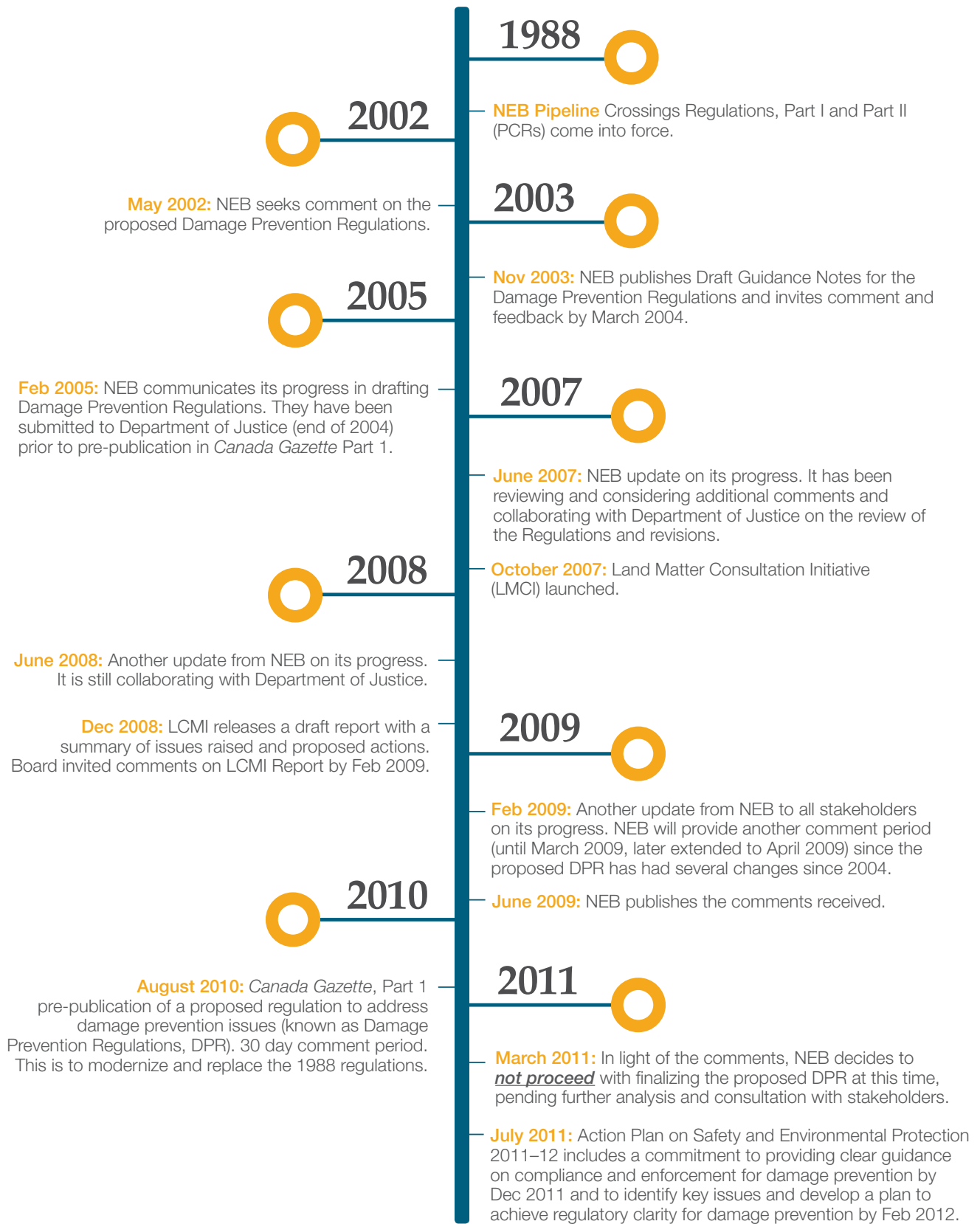
CESD Audit

The CESD tables an audit on the *Oversight of Federally Regulated Pipelines* (NEB).

Emergency Response Exercises

The NEB commits to posting emergency response exercise evaluations online.

Annex 6: Chronology of Damage Prevention Regulations



2012

Feb 2012: Damage Prevention Framework Plan commits to regulatory change.

Feb 2012: NEB publishes a compliance enforcement framework that provides guidance on how NEB responds to reports of unauthorized excavation and construction activity nearly federally regulated pipelines.

Dec 2012: NEB publishes a Discussion Paper: Proposed Changes to NEB Regulations for Damage Prevention and is open to comment until Feb 2013.

2013

April 2013: NEB publishes comments received on the Discussion Paper.

July 2013: Board publishes Administrative Monetary Penalties Regulations making non-compliance with Pipeline Crossing Regulations, Part I and II a violation subject to penalty.

Nov 2013: NEB issues a Notice of Proposed Regulatory Change for the Damage Prevention Regulations. NEB seeks comment until Dec 2013.

October 2013: NEB releases a Safety Culture Discussion Paper and opens it to comment. Consultation process ends Jan 2014.

Dec 2013: Forward Regulatory Plan 2015–17 proposes to amend the regulations for damage prevention.

2014

Jan 2014: NEB publishes comments received on Notice of Proposed Regulatory Change – NEB Damage Prevention Regulations (13 comments submitted).

June 2014: NEB releases a Statement on Safety Culture.

Sept 2014: NEB opens a 30 day comment period on proposed amendments to regulations for Pipeline Damage Prevention.

Oct 2014: NEB publishes the comments received (18 comments submitted).

2015

Oct 2015: NEB opens a 25 day comment period for the DPR Framework Amendments to the DPR Regulations.

Nov 2015: NEB publishes the comments received (18 comments submitted).

March 2016: *Canada Gazette*, Part 1 pre-publication of proposed regulations for Pipeline Damage Prevention. 30 day comment period. The NEB must update these regulations in response to the Pipeline Safety Act.

2016

January 2016: NEB releases a letter to Indigenous Organizations inviting comments on the changes to the Damage Prevention Framework and regulations. The DPR must be updated and in place by June 2016 when the *Pipeline Safety Act* comes into force.

Annex 7: Management Response and Action Plan

EVALUATION RECOMMENDATION	MANAGEMENT RESPONSE	MANAGEMENT ACTION PLAN	AREA RESPONSIBLE	EXPECTED COMPLETION DATE
<p>1. Data Management Since trend analysis requires multi-year data, the NEB should:</p> <p>a. Create a plan, with timelines, to address the validity and completeness of older data;</p> <p>b. For those systems that do not have a built-in data validation function, ensure processes require and enforce mandatory quality control of data; and</p> <p>c. Where spreadsheets are used as databases for data collection and analysis including public reporting, ensure there is oversight and review for quality of data and calculations are accurate.</p>	<p>Accepted</p>	<p>1.a. A plan for addressing the validity and completeness of older data will be developed in the context of the NEB Departmental Results Framework. This plan, with projects, priorities and timelines, will be developed during the 2017–18 business planning process.</p> <p>1.b. and c. Through the Operations Regulatory Compliance Application (ORCA) and the Event Reporting System (ERS), the majority of Operations data has built-in data validation. For the remaining data sets (e.g. Environment and Safety Information Management System—ESIMS), quality assurance/quality control and oversight is defined in the Data Management Roles and Responsibilities approved by the Chief Operating Officer in November 2016.</p>	<p>Regulatory Group</p> <ul style="list-style-type: none"> - System Operations - Consult Data Management Committee in accordance with data roles and responsibilities - Areas identified in Data Management Roles and Responsibilities 	<p>a) Operations BU Business Plan: 31 March 2017</p> <p>b) Complete</p> <p>c) Complete</p>

EVALUATION RECOMMENDATION	MANAGEMENT RESPONSE	MANAGEMENT ACTION PLAN	AREA RESPONSIBLE	EXPECTED COMPLETION DATE
<p>2. Measuring Efficiency The NEB should assess which data its systems are designed to capture and introduce the appropriate data fields to better measure and report on efficiency. A starting point to this assessment would be to:</p> <ul style="list-style-type: none"> a. Determine timelines for key processes based on trend analysis and define targets for process completion; b. Designate an accountable lead for process performance; and c. Continual monitoring of process performance based on defined targets. 	Accepted	<p>2.a. Timelines for incident and investigation close-out are identified in the NEB Departmental Results Framework and will be monitored regularly. The timelines set for companies to address non-compliances and implement corrective actions (identified through NEB oversight activities) will be closely monitored to assess lifecycle compliance of regulated companies operating their facilities.</p> <p>2.b. The Programs and Evaluation Team within System Operations will be accountable for leading process performance.</p> <p>2.c. Continual monitoring of performance targets will be carried out in accordance with the NEB Departmental Results Framework.</p>	<p>Regulatory Group</p> <ul style="list-style-type: none"> - System Operations - Field Operations - Regulatory Development Team 	Complete

<p>3. Regulatory Development Data and information are used as input into regulatory development and updates. Given this, the NEB should:</p> <ul style="list-style-type: none"> a. Further define data and information needs to measure regulatory effectiveness; and b. Have a mechanism to verify the expected results of regulatory design that have been achieved. 	<p>Accepted</p>	<p>3.a. As part of the NEB Departmental Results Framework, a procedure has been developed in June 2016 for assessing regulations and developing regulatory plans. This procedure was already used to develop the 2016–2019 Regulations Plan. Data sources and information needs have also been identified in the accompanying work instructions to support an assessment of the effectiveness of regulations. This is now being implemented in the current planning cycle.</p> <p>3.b. <i>The Regulatory Framework Program</i> contains a measure and methodology for the regular review of program effectiveness and will be used starting in 2017 for the <i>2017–2020 Regulations Plan</i>. The assessment of regulations, including how the regulatory design led to the expected results, will also be undertaken. These assessments will inform future regulatory improvement initiatives.</p>	<p>Regulatory Policy</p>	<ul style="list-style-type: none"> a) Complete b) Complete
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EVALUATION RECOMMENDATION	MANAGEMENT RESPONSE	MANAGEMENT ACTION PLAN	AREA RESPONSIBLE	EXPECTED COMPLETION DATE
<p>4. Data Management (Communications) Trend analysis requires multi-year data, thus the NEB should:</p> <p>a. Where spreadsheets are used as databases for data collection and analysis including public reporting, ensure there is oversight and review for quality of data and calculations are accurate.</p>	<p>Accepted</p>	<p>4.a. Data collection methods, trend analysis as well as data needs and current capabilities will be analyzed and reviewed with an eye to modernizing the approach and ensuring proper oversight. This review will include looking at systems other departments use for tracking and recording media requests.</p> <p>In addition, the media monitoring and analysis contract will be evaluated to support implementation of this evaluation recommendation.</p>	<p>Communications & Engagement - Media Relations Unit</p>	<p>31 March 2017</p>