

Department of Natural Resources



**Annual Performance Report
2014-15**

Report prepared by:

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Table of Contents

Message from the Minister	
Performance Reporting	i
Change in Departmental Responsibilities	ii
<u>Section 1: The Department</u>	
Overview of Industry Sectors	1
Overview of the Department	7
<u>Section 2: Accomplishments</u>	
Report on Performance	14
Shared Commitments	31
Additional Highlights and Accomplishments	32
<u>Section 3: The Year Ahead</u>	
Opportunities and Challenges	36
Appendix I: Legislation	37
Appendix II: Statement of Revenues and Expenditures	39
Appendix III: Inactive Entities	41

Message from the Minister



Speaker of the House of Assembly

Dear Mr. Speaker:

In accordance with the *Transparency and Accountability Act*, I hereby submit the 2014-15 Annual Performance Report for the Department of Natural Resources.

This report provides an account of the department's performance towards its annual objectives for 2014-15. The outcomes reported reflect government's strategic directions for the province's natural resources. My signature below is indicative of my accountability for the actual results reported.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Dalley'.

Derrick Dalley
Member for the Isles of Notre Dame
Minister of Natural Resources



Department of Natural Resources

Performance Reporting

The *Transparency and Accountability Act* requires government departments, agencies, boards and commissions to engage in a formal planning and reporting process. As part of this process, the department must prepare and publish a strategic plan every three years. The strategic plan identifies the goals and objectives chosen by the department to advance its priorities over the planning period. Under this planning model, goals represent targeted outcomes over a three-year cycle, while objectives cover smaller achievements targeted for each year within the planning period. The strategic plan also lays out the department's overall mission which represents its single most important focus area and is typically carried through two planning cycles (usually six years) and reflected in two, subsequent, strategic plans. When engaging in the strategic planning process, the department must step back from day-to-day operations and identify the areas of its mandate that are of strategic importance to clients and/or the province as a whole, and identify mechanisms for advancing work in these areas. By publishing these plans, the department is able to inform the citizens of the province of what these priority areas are and how it plans to move them forward.

After the strategic plan is finalized and published, the department is required to monitor performance and provide periodic updates to the public on progress towards the priorities identified. Each year, the department prepares an annual performance report which provides updates on the achievement of annual objectives. In the final year covered by a planning period, the department must also report on progress toward the goals set out in the strategic plan. In the last year of a mission period, the department must provide an update on achievements toward its overall mission.

This past fiscal year was the first year in the Department of Natural Resources 2014-17 strategic planning period. As a result, this report will provide an account of the department's performance towards its annual objectives for 2014-15. Achievements with respect to its three-year goals for 2014-17 will occur in the annual report for 2016-17 as will an account of progress toward the department's mission.



Department of Natural Resources

Change in Departmental Responsibilities

The department's 2014-17 Strategic Plan was made up of two "sub-plans": one for the Mines and Energy Branches of the department and one for the Forestry and Agrifoods Agency (the agency). At the time the plan was prepared, the agency was considered part of the Department of Natural Resources. In March 2015, however, responsibility for the agency was transferred to the Minister of Fisheries and Aquaculture. To reflect this change, the 2014-15 annual report for the Department of Natural Resources will focus only on Mines and Energy performance results. The Forestry and Agrifoods Agency will prepare a separate annual report to address its performance against the strategic plan. This same approach will be used for the 2015-16 and 2016-17 annual reports.



Photo Credits, previous page:

Top: Teck Duck Pond Operations, Mine Site at Night (Teck)
Bottom: Terra Nova FPSO (Suncor)



Department of Natural Resources

Overview of Industry Sectors

The Department of Natural Resources (the department), has responsibility for legislative, regulatory and policy functions related to the mining, oil and gas and electricity sectors. These sectors are key contributors to the province's gross domestic product (GDP), employment and overall economic growth, and make significant contributions to the provincial treasury in the form of royalties and taxes. This introductory section of the annual report provides an overview of these sectors in the province. This overview will provide context for a discussion, in the following section, of the department's structure and functions which are sector-based.

Mining

Newfoundland and Labrador has a large and diversified minerals industry that accounted for 5.8 per cent, or over \$1.9 billion, of the province's nominal gross domestic product in 2013.¹ The industry provides a wide variety of commodities to the world market and while large, world-class iron and nickel deposits make up the largest part of the province's mineral shipments, production also includes copper, gold, cobalt, zinc, peat and other industrial minerals.

The past year has been challenging for the global mining and exploration industry in the face of weakening prices for many commodities. Based on data from the province's mining companies, the gross value of mineral shipments for 2014 was roughly \$2.9 billion, down from an estimated \$3.7 billion in 2013. Direct employment in the minerals industry reached an all-time high of 11,250 person-years in 2013 and was expected to decrease to just over 8,100 person-years in 2014. Current data shows that employment in 2014 was actually closer to 7,400 person-years.

Despite this downturn, mining projects continue to progress and mining will continue to be a major contributor to employment and economic development in the province. It is forecasted that shipments for 2015 will rise to roughly \$3.6 billion and employment will amount to 6,800 person-years.² The future remains promising with new mines or expansions in construction, or in advanced feasibility studies; and other mines returning to production after hiatuses. The following paragraphs provide an overview of some of the largest projects ongoing currently in the industry. More information on current and prospective developments is available on the department's web site (www.nr.gov.nl.ca).

¹ *The Economy 2015*, Department of Finance.

² Sources: Department of Natural Resources and NRCan.



Department of Natural Resources

Iron Ore

Iron ore deposits in the province's "Labrador Trough" are some of the richest in the world with decades of production. Even though prices for iron ore have fallen, production in Labrador has continued. The Iron Ore Company of Canada (IOC) has been producing iron ore at the Carol Lake project in Labrador West since the 1960s. In 2014, total shipments (pellets and concentrate) were approximately 14.3 million tonnes. This is expected to increase to 17.4 million tonnes in 2015. In addition, IOC is proceeding through the Environmental Assessment process concerning the development of the Wabush 3 deposit. The company submitted an Environmental Impact Statement (EIS) in August, 2014 and received feedback in December, 2014 that an amendment to the EIS would be required. Production from Wabush 3 is projected to start in late 2016 and extend to approximately 2060 but would not increase IOC's overall annual production.

Tata Steel Minerals Canada Limited (TSMC) is a joint venture between Tata Steel of India and New Millennium Iron Corp. TSMC is developing/operating a high-grade iron ore project in the Menihek area of northwestern Labrador. TSMC shipped the first load of iron ore to Europe from the project in September, 2013 and 2014 shipments were 250,000 tonnes. This material was processed using dry crushing and screening methods however a new processing plant, under development, will use a wet process allowing lower grade ore to be processed. The new plant, which is expected to be operational before the end of 2015, will enable projected shipments for the year to reach three million tonnes. Capacity in 2016 and future years is expected to be six million tonnes with plant feed coming from both Labrador and Quebec. Annual operating employment at the site is estimated at about 340 person years.

The Provincial Government, through the Department of Natural Resources, also continued its efforts toward the development of the crown-held Julienne Lake iron-ore deposit in Labrador. Exploration and assessment work has identified Julienne Lake as a high quality deposit with over one billion tonnes of iron ore. In recent years, the department solicited proposals from industry parties interested in developing the resource and in 2014 entered into discussions with a prospective developer.

Nickel/Copper/Cobalt

Vale Newfoundland and Labrador Inc. (VNL) is planning for the development of an underground mine at Voisey's Bay in Labrador where the company currently operates an open-pit nickel-copper-cobalt mine and concentrator. During 2014-15, the company completed an engineering study which projected a start to construction in 2016 and



Department of Natural Resources

completion in late 2019. At present, the Voisey's Bay operation employs about 450 people. It is estimated that an additional 400 people will be employed at the mine and concentrator when underground mining begins.

VNL also continued development work at its hydrometallurgical processing facility in Long Harbour. The Long Harbour Processing Plant (LHPP) achieved a major milestone in July, 2014 with the production of first nickel. The LHPP is currently processing a combination of imported, low impurity nickel matte and concentrate from Voisey's Bay while the remainder of the plant is being completed and commissioned. The remaining construction will complete additional circuits required to permit a switch to 100 per cent Voisey's Bay concentrate. The LHPP will employ about 475 people at full production.

Rambler Metals and Mining Canada Ltd. operates the Ming copper mine on the Baie Verte Peninsula and will release results in mid-2015 of a prefeasibility study for expansion. The study considers the development of a large zone of lower grade copper ore that would be blended with remaining high grade reserves and processed at double the current rate. Current operations employ about 150 people and current reserves (i.e., pre-expansion) are sufficient for six more years of operation at a processing rate of 630 tonnes per day. Should the expansion go ahead, mine life could be extended by two years, providing significant economic benefits to the Baie Verte area.

Exploration

The province hosts a vigorous mineral exploration sector, including many locally-based companies and individuals who provide expertise and financing to seek the next generation of mineral wealth. Exploration for minerals is conducted throughout the province, providing economic stimulation in rural areas, as well as provides the potential for new industrial growth. Government supports exploration through modern, on-line mineral rights systems, efficient permitting, comprehensive public geoscience, and direct financial support to junior exploration companies and prospectors.

Mineral exploration expenditures for 2014 are forecast at nearly \$62.4 million. This is down from an estimated value in 2013 of \$76.7 million and reflects a trend being seen in the exploration sector around the world.³ While several factors have contributed to the decline, it is mainly due to the difficulty being experienced by exploration companies in raising capital on the open market. This challenge is closely associated with the downward pressure on commodity prices.

³ Source: Department of Natural Resources.



Department of Natural Resources

Despite a dampening in the industry, Newfoundland and Labrador's mineral exploration industry is still in excellent standing among the mining regions of the world. The 2014 Survey of Mining Companies by the Fraser Institute ranked Newfoundland and Labrador among the top ten jurisdictions in the world on its Investment Attractiveness Index. The Investment Attractiveness Index considers regions based on two broad factors: 1) pure geologic attractiveness, and 2) the effects of government policy on attitudes toward exploration investment.⁴

Energy

Oil and Gas

The oil and gas industry has been an important part of Newfoundland and Labrador's economy since production began at the Hibernia oil field in 1997. In 2013, oil extraction and support activities accounted for 28.4 per cent of the province's nominal GDP, at over \$9.5 billion; and for fiscal year 2013-14 offshore oil royalties accounted for approximately 28 per cent of Provincial Government revenues.⁵ In 2014, these same activities resulted in 3.9 per cent of provincial employment, or roughly 9,200 person years. Similar to the minerals sector, however, 2014-15 was a difficult year for the oil and gas industry globally as the price of oil declined sharply. The price of Brent crude oil, a benchmark for Newfoundland and Labrador oil, averaged US\$98.97/barrel in 2014, down from an average of US\$108.56/barrel in 2013. The price decline was particularly steep throughout the second half of 2014 and into January of 2015. Brent prices fell from a peak of US\$115.19/barrel on June 19, 2014 to a low of US\$45.13/barrel on January 13, 2015.

Despite the drop in prices, production from the existing Hibernia, Terra Nova, White Rose and North Amethyst oil fields⁶ remained strong in 2014 with 78.9 million barrels of oil produced (down from 83.6 million in 2013). These will soon be joined by the Hebron project for which construction began in 2012 and first oil is expected in 2017. It is estimated that Hebron will produce more than 700 million barrels of oil. The Hebron field will be developed using a stand-alone concrete gravity based structure (GBS) which is being constructed in Newfoundland at Labrador at Bull Arm. The GBS will support an integrated Topsides deck that includes living quarters and facilities to perform drilling and production. A substantial portion of the Topsides is also being fabricated in the

⁴ Fraser Institute Annual Survey of Mining Companies 2014

⁵ The Economy, 2015, Department of Finance.

⁶ The White Rose and North Amethyst oil fields are both being produced under the White Rose project.



Department of Natural Resources

province, and the integration will be performed at the Bull Arm site.⁷

With the introduction of the new scheduled land tenure system in 2013 a renewed focus on exploration has occurred. Recently Statoil and Husky Energy made three new oil discoveries in the Flemish Pass Basin with recoverable oil reserves estimated between 400 and 800 million barrels of oil. In 2014 ExxonMobil with partners Suncor Energy and ConocoPhillips submitted a work commitment bid of \$559 million for a single parcel of land in the Flemish Pass Basin. This bid was the largest made in the history of licensing rounds being conducted offshore Newfoundland and Labrador. TGS-NOPEC Geophysical Company ASA and Multi Klient Invest AS, a wholly owned subsidiary of Petroleum Geo-Services ASA, continued with their multi-year 2-D seismic program in 2014. Since 2011 over 84,000 kilometers of new offshore 2-D seismic data has been collected in our region. The companies have announced plans to continue with the program in 2015 with an additional 30,000 kilometers to be collected. This is one of the world's largest, most modern datasets over a specific region. In addition, the companies have announced that 6,000 square kilometers of 3-D data are scheduled to be acquired in 2015, the first ever multi-client 3-D program to be completed in the province.

The combination of new developments, new discoveries and an increased level of exploration activity positions Newfoundland and Labrador's oil and gas industry to be a major contender for new development.

Electricity

In addition to oil and gas, the province is home to large stores of clean, renewable energy. Newfoundland and Labrador has nearly 7,500 megawatts (MW) of electric generating capacity, of which approximately 90 per cent is hydro and wind, as well as transmission and distribution systems serving about 280,000 customers.

Electricity utility service is provided by Newfoundland and Labrador Hydro (Hydro) and Newfoundland Power. Hydro is a subsidiary of Nalcor Energy (Nalcor), a Crown corporation, and is primarily a generation and transmission utility providing over 80 per cent of the electricity consumed in the province, as well as providing distribution services in Labrador and to rural parts of the island. Newfoundland Power is primarily a power distribution utility company, with some generation and transmission assets, operating on the island portion of the province. Newfoundland Power purchases the majority of its

⁷ Hebron Project web site, www.hebronproject.com.



Department of Natural Resources

customer electricity supply from Hydro. Both are regulated by the Board of Commissioners of Public Utilities (PUB).

There are two primary generation-transmission systems in the province: the Island-interconnected system and the Labrador-interconnected system. The Island-interconnected system has a total generating capacity of approximately 1,950 MW, 75 per cent of which originates with Hydro. The Labrador-interconnected system serves customers from Labrador West to the Lake Melville region and is powered by electricity generated at the Churchill Falls hydroelectric generation plant located on the upper Churchill River. The majority of the 5,428 MW generated at Churchill Falls is sold into external markets with the exception of up to 525 MW used in the Labrador-interconnected system. In addition to the two primary systems in the province, there are another 21 electrically-isolated coastal community systems in place. These systems are powered primarily by small diesel generation.

The province is also home to the Lower Churchill Project which is being led by Nalcor. Phase I of the project is underway and includes the development of three major components: an 824 MW hydro generation facility on the lower Churchill River at Muskrat Falls and two transmission links, one between Labrador and the island and another between the island and Nova Scotia. The project will result in:

- long-term, stable electricity rates for people of the province;
- lowest-cost power for homes and businesses;
- decreased dependence on oil and unstable electricity prices;
- energy for future mining and industrial development in the province;
- connection to North America's electricity grid for exports; and,
- environmental benefits through renewable power – 98 per cent sustainable energy.



Department of Natural Resources

Overview of the Department

The sections below provide an account of the department's legislative mandate, lines of business and basic organizational structure.

Mandate

The official mandate of the Department of Natural Resources, as laid out in the *Executive Council Act*, includes the supervision, control and direction of all matters relating to promotion, exploration and development of mineral and energy resources and related industry developments including:

- Mines, minerals, quarries, quarry materials and beaches;
- Onshore petroleum resources;
- Offshore petroleum resources, managed jointly with the federal government;
- Electrical generation and transmission;
- Overall responsibility for provincial energy supply and demand;
- Development, monitoring, supervision, assistance or other government intervention into any of the industries as described above;
- Petroleum royalties and associated matters, within or outside the province; and,
- Identifying, assessing and monitoring industrial benefits commitments from major resource development projects.

The department carries out its mandate, in part, through the administration of a number of pieces of legislation, outlined in Appendix I, and associated regulations. Programs and services delivered by the department fall within one of the four lines of business defined below.

Lines of Business

Resource Policy

Working closely with key stakeholders, the department develops, maintains and administers resource policy to coordinate and facilitate sustainable development and management. In doing so, the department directly and indirectly develops, monitors and/or initiates supporting regulatory and benefits activities.



Department of Natural Resources

Resource Management

In the onshore area of the province, the department ensures that industry follows responsible resource development and management practices for the maximum benefit of the people of the province. To achieve this, the department monitors resource development activities to ensure adherence to relevant policy and is responsible for the development and administration of royalty regimes for petroleum projects (onshore and offshore). The department also administers title allocation and ensures compliance with site development and rehabilitation requirements⁸.

With respect to offshore petroleum activity the department discharges its operational resource management functions under a joint federal-provincial regime administered by the C-NLOPB.

In the electricity sector, the department provides advice and support for government decision-making related to resource management. Other resource management activities are implemented through the PUB and Newfoundland and Labrador Hydro.

Resource Exploration and Assessment

This line of business is a major contributor to the advancement of exploration in the province's mineral and petroleum sectors. The department's main lever in attracting resource exploration is through the collection and dissemination of geoscience data. Through investment and direct geoscience research, the department accumulates and distributes scientific information to the exploration community. The availability of this information reduces overall exploration risk and provides an incentive for industry to explore in Newfoundland and Labrador. It is this exploration activity that will lead to new resource development projects, along with the associated economic benefits to the province. As a supplement to its work in the area of geoscience, the department also maintains an extensive library of drill core originating from mineral and onshore petroleum exploration activities and provides training, mentoring and other supports to prospectors.

Promotion and Facilitation of Resource Development

Resource development projects generally tend to be long term and capital intensive and generate significant economic and employment benefits. These projects can be

⁸ A number of onshore resource management activities are carried out by the Department of Environment and Conservation (e.g., monitoring compliance with environmental regulations) and Service NL (e.g., monitoring compliance with occupational health and safety regulations).



Department of Natural Resources

important catalysts of growth, particularly for rural areas, as well as for the development of industrial infrastructure and the province's supply and service capabilities. Activities are specifically directed to negotiating, promoting and facilitating well-planned, responsible mineral and energy development and associated business and employment opportunities.

Vision and Mission

The department's vision and mission represent the higher ideals and outcomes that the department strives for in the delivery of its programs and services. The vision is an inspirational statement that represents the ideal state that would exist if the department was successful in completely fulfilling its mandate. The department's vision is as follows:

The vision of the Department of Natural Resources is a province that realizes the full benefit from the sustainable development of its natural resources.

The department's mission represents an ultimate outcome that the department intends to achieve over a period of time. While there are a number of outcomes that the department is working towards, the mission represents the single-most important focus for the period identified. The department's mission, first developed in 2011 for the period 2011-17, is as follows:

By March 31, 2017, the Department of Natural Resources will have supported the growth of the energy and mineral resource industries in a sustainable manner for the benefit of future generations.



Department of Natural Resources

Organizational Structure

The department's programs and services are delivered through two main branches, supported by shared executive and support services.

Mines Branch

The Mines Branch is divided into three main divisions:

The **Mineral Development Division** is responsible for the approval and permitting of mining operations through the *Mining Act*, the administration of the Mineral Incentive Program; the collection, analysis and publication of mineral production data; and the assessment and rehabilitation of abandoned mine sites across the province.

The **Mineral Lands Division** is responsible for the administration of mineral land tenure through the *Mineral Act*, the *Mineral Holdings Impost Act* and related legislation, including the issuance of exploration licenses and mining leases; the administration of quarry material rights and developments, including on-going field investigations, through the *Quarry Materials Act*; issuing exploration approvals and the performance of follow-up inspections; the maintenance of the core library system and the provincial mineral rights registry.

The **Geological Survey Division** is responsible for mapping and interpreting the province's geology; conducting geochemical and geophysical surveys; conducting mineral deposit studies; maintaining and publishing maps, reports and databases concerning the province's geological and mineral endowment, including geographic information system databases and web-delivery; and promoting the province's mineral potential.

Energy Branch

The Energy Branch is divided into three main sections, each made up of several divisions.

The **Petroleum Development Section** is responsible for fostering the exploration, development and production of the province's hydrocarbon resources. Responsibilities include: the provision of technical services in the areas of petroleum geoscience, petroleum engineering and petroleum operations to facilitate sustainable development



Department of Natural Resources

and management for both onshore and offshore deposits; and, the provision of marketing and promotional services, both nationally and internationally, to help ensure continued interest and investment by industry.

The **Royalties and Benefits Section** is responsible for maximizing the benefits to the local economy from the development of major resource projects. Responsibilities include: the negotiation, development and administration of energy and mines project agreements and royalty legislation/regulations; the negotiation and monitoring of industrial benefits commitments related to energy and mines resource developments; the auditing of petroleum project costs and revenues to verify the accuracy of royalties paid to the province; the provision of energy-related economic/financial and supply/demand information, analysis and advice to inform resource management decisions; and the promotion of the province's industrial capacity and capabilities.

The **Energy Policy Section** is responsible for developing, planning and coordinating legislative, regulatory and policy matters relating to the province's energy sector. Responsibilities include: the management/co-management of onshore/offshore petroleum exploration and development, including regulatory development and compliance; electricity industry governance and structure, electricity industry markets, alternative energy, and responsibility for the *Electrical Power Control Act*; and general policy, planning and coordination related to the energy sector, including a lead role in the implementation of the province's Energy Plan.

Employees

As of March 31, 2015, the Department of Natural Resources had 195 positions. At the time of reporting there were 179 staff members.

Branch	Female	Male	Total
Mineral Resources	31	55	86
Energy	25	30	55
Financial Operations ¹	4	6	10
Executive Support	14	6	20
Executive	3	3	6
Total	78	101	177

1. Financial Operations staff are shared with the Forestry and Agrifoods Agency and the Department of Fisheries and Aquaculture.

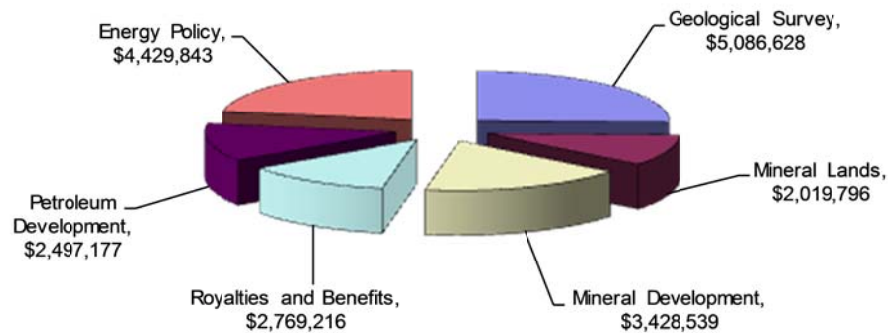


Department of Natural Resources

Expenditures

In 2014-15, expenditures for the divisions and sections of the department were just over \$19.9 million. The chart below shows expenses for the three divisions of the Mines Branch as well as the three sections of the Energy Branch. These figures do not include \$4.5 million related to executive and support services, some of which were shared with the Forestry and Agrifoods Agency as well as the Department of Fisheries and Aquaculture.

2014-15 Expenditures by Division/Section



In addition to these amounts, \$3.9 million was directed toward operational funding for the C-NLOPB and \$337.67 million was directed to Nalcor for oil and gas activities and the Lower Churchill Project. For more information on expenditures for the year, refer to Appendix II.



Department of Natural Resources

Physical Location and Web Site

The department's main office is located in the Natural Resources Building in St. John's which houses the majority of department staff. Several staff members work at departmental/government facilities in Grand Falls-Windsor, Pasadena and Happy Valley-Goose Bay. In addition, several employees are located at the department's geochemical laboratory at the Howley Building in St. John's.

The department's main office address is as follows:

Department of Natural Resources
50 Elizabeth Avenue
P.O. Box 8700
St. John's, NL A1B 4J6

The department's web site address is www.nr.gov.nl.ca. A link to the department's web site is also provided on the main web site for the Government of Newfoundland and Labrador at www.gov.nl.ca.



Department of Natural Resources

Report on Performance

This section of the Annual Performance Report details the department's accomplishments towards 2014-15 objectives and indicators, as set out in the 2014-17 Strategic Plan.

Issue 1: Sustained Industry Growth

The mineral and petroleum sectors are significant contributors to Newfoundland and Labrador's economy and continued success in these industries is vital to ongoing economic growth. To keep resource revenues flowing, new developments will be needed, particularly as existing projects reach maturity and decline. New developments are dependent on the discovery of new, economically viable resource deposits. The projects of tomorrow lie in the province's undiscovered and/or underdeveloped petroleum and mineral resources.

Locating and assessing the viability of these resources, however, usually requires capital-intensive exploration programs by industry. Mining and petroleum companies often operate global exploration programs and choose the specific areas where they will explore based on a number of factors. One of the most important factors is the resource potential, based on existing scientific evidence, of each region under consideration. As such, the more geoscience knowledge that can be amassed and shared with industry, the better.

Scientific Supports for Exploration

The department is continually focused on increasing the amount of geoscience data collected in the province, along with related analysis and interpretations. During 2014-15, the department continued to carry out its own geoscience field work and analytical studies through its Geological Survey Division and began development of a new five-year plan to guide the Geological Survey's projects.

Complementing this work, the department initiated an evaluation of its core storage program. Through the program, the department maintains a library of drill core samples for inspection by the exploration community. The department receives new core samples each year and, with the collection continually growing, is facing a challenge in terms of adequate space. The evaluation will help determine how best to sustain the program and its facilities over the long-term.



Department of Natural Resources

Targeted Supports for Smaller Participants

Some of the most successful mineral developments in Newfoundland and Labrador are the result of discoveries first made by prospectors. Members of this community play an important role in mineral exploration and the value of their efforts cannot be underestimated. Prospectors typically do not possess the same resources or knowledge as large exploration companies and the department continued to provide incentives and supports for this group during 2014-15.

Promotion and Investment Attraction

In addition to technical and financial support for resource exploration, the department places emphasis on raising industry awareness about Newfoundland and Labrador as an attractive region for exploration. The department regularly participates in promotional events on a local, national and international scale to ensure that companies looking to explore know about this province's resource potential, industrial supply and service capabilities and stable economic and political environment. The department also helps facilitate connections between local mineral rights holders and global industry players/investors. Such connections can help provide the funds needed to complete exploration/ assessment work on a resource property that may eventually lead to a new development project. During the year, the department continued to advance its promotion and investment attraction efforts with attendance at key exploration-focused conferences, the preparation and distribution of promotional materials and the dissemination of geoscientific and licensing information.

The department's work on this issue was in direct support of the Provincial Government's strategic direction toward *increased exploration and development of mining and energy resources*. In particular, the department made progress in several of the focus areas associated with this strategic direction including: *acquisition and promotion of geoscience data, increased exploration and development activity, and enhanced marketing and promotion of our natural resources*. This work also supported the strategic direction toward *maximum benefits to the province through the strategic development of our resources* and the associated focus area of *supporting increased local industrial and employment benefits*.



Department of Natural Resources

Goal

By March 31, 2017 the Department of Natural Resources will have advanced initiatives to attract investment and encourage exploration in the province's mineral and petroleum sectors.

2014-15 Objective

By March 31, 2015 the Department of Natural Resources will have enhanced programs and initiatives which support mineral and petroleum exploration activity in the province.

Measure: Enhanced programs and initiatives

Indicators:

1. Begun development of the Geological Survey Division's five-year plan

The first draft of the five-year plan was completed and consultations on the plan were initiated with Mining Industry NL, a not-for-profit business association representing all sectors of the mineral industry in Newfoundland and Labrador. Many of the Geological Survey Division's research projects are multi-year, requiring up to four years of field work (in order to map contiguous areas, for example) and up to two years of data analysis and documentation. The five-year plan provides division geoscientists with a context for their work, provides client groups with information about ongoing and upcoming research and, in general, provide overall guidance for the division's work over the medium term. The intention is to finalize the plan in 2015 following further consultation with client groups.

2. Completed the 2014-15 geoscience field program within the Geological Survey including:

- **Iron ore and uranium studies and lake sediment sampling in Labrador**
- **Bedrock mapping on the Bonavista Peninsula**
- **Surficial mapping and till geochemistry in the Bay D'Espoir area**

Geoscientists with the department's Geological Survey completed the field program during the 2014 summer field season. Projects included bedrock and surficial geological



Department of Natural Resources

mapping, mineral deposit research, collection of samples for geochemical analysis (lake sediment and till), and monitoring of coastlines vulnerable to erosion. Findings from these field projects, as well as from a number of office-based projects, were published in March, 2015 as part of the department's 2015 Current Research volume. Seventeen new research articles were included in the publication, adding to the province's geoscience knowledgebase.

3. Initiated an evaluation of the long-term maintenance/enhancement of the Core Storage Program

During the year, the department began evaluation activities with respect to the Core Storage Program. Efforts were focused on overall planning for how best to perform the evaluation, including the identification of information to be gathered through industry consultations. The evaluation will continue in 2015-16.

4. Completed planned efforts with respect to mineral and petroleum resource promotion and investment attraction including:

- **Development and publishing/distribution of investor-focused information materials**
- **Participation at major conferences and industry meetings locally, nationally and internationally**
- **Provided supports to the Western Newfoundland petroleum community through participation in the ninth International Symposium on Oil and Gas Resources in Western Newfoundland through participation on the technical committee, conference field trip and conference sponsorship**

Mineral Resource Promotion

The Geological Survey's promotion team continued to support initiatives to encourage growth in the mining and mineral exploration sectors. The group organized and delivered promotional initiatives at China Mining (Tianjin), Canada-China Minerals Forums (Beijing and Shanghai), and Quebec Exploration (Montreal), as well as local venues in St. John's, Baie Verte and Happy Valley-Goose Bay. A successful Mineral Resources Review was held as part of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) meeting in St. John's in November and the promotions team attended Quebec Mining in Quebec City, also in November. In January 2015 the promotion program continued through representation at Mineral Exploration Roundup in Vancouver,



Department of Natural Resources

followed by another successful event in March 2015 at the Prospectors and Developers Association of Canada (PDAC) convention in Toronto.

Petroleum Resource Promotion

The Petroleum Development team continued to encourage exploration investment through promotion of opportunities both onshore and offshore. The team completed promotional material on the new offshore scheduled land tenure system and associated licensing rounds administered by the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB). This material was distributed nationally and internationally and the team participated at major industry conferences and exhibitions in St. John's, London, Houston, Calgary, Dublin, and Stavanger. As well, the department sponsored and provided technical support (field trips and conference committee) for several local conferences including the Western Newfoundland Oil and Gas Symposium and the Atlantic Conjugate Margins.

5. Provided supports to the prospector community through Mineral Incentive Program grants, administration of and participation in prospector training sessions, and providing technical and other support through the Matty Mitchell Prospectors Resource Room (a government–industry–university partnership).

Contribution agreements for 62 prospector assistant grants totaling \$328,000 were put in place in 2014-15. A two-week prospector training course was delivered by the department from May 26 to June 6 in Stephenville. Curriculum for the course has been developed in-house by departmental staff over the 24 years the program has been offered and is updated annually. In addition, course instruction is provided by departmental geoscientists. Planning for the 2015-16 training course took place during the year and incorporated input received by the Newfoundland and Labrador Prospectors Association (NLPA). The next course offering will be in September 2015.

The Matty Mitchell Prospectors Resource Room continued to provide information services, mainly through on-site visits but also through responses to email or telephone requests. Basic rock and mineral identification was one of the primary services offered. Resources available through the room were enhanced during the year, largely as a result of activities by the Geological Survey. In addition, the Matty Mitchell page on the department's web site was re-organized with the introduction of a new section called *Educational Tools for Prospectors*. This section contains many informative articles and presentations on topics such as prospecting methods, mineral deposits, field trip guides, maintaining mineral licenses and accessing government programs and services for



Department of Natural Resources

prospectors. Added to the section were some new features including digital versions of Prospector Short Courses from recent Mineral Resources Review conferences, and presentations prepared by department staff. Other new features are planned and will be added over time.

2015-16 Objective

By March 31, 2016 the Department of Natural Resources will have advanced planning, geoscience and promotion activities to support mineral and petroleum exploration activity in the province.

Measure: Advanced activities in support of exploration

Indicators:

- **Completed development of the Geological Survey's five-year plan and began implementation;**
- **Completed 2015 Geological Survey field projects;**
- **Completed planned efforts with respect to mineral and petroleum resource promotion and investment attraction;**
- **Advanced the evaluation of the Core Storage Program;**
- **Commissioned, collaborated and posted "Petroleum Potential and Exploration Framework of Western Newfoundland Sedimentary Basins";**
- **Collaborated with Nalcor Energy, through the Offshore Geoscience Data Program, to fund an independent resource assessment of the 11 parcels of land on offer in the 2015 offshore Call for Bids (NL15-01EN).**



Department of Natural Resources

Issue 2: Effective Management of Resource Development

It is the department's responsibility to provide management and oversight of mineral and energy resource development in the province to ensure that development is responsible, and sustainable and that it is conducted in a way that maximizes benefits to the people of the province. The department achieves effective management through a number of means, including the creation, maintenance and administration of legislative/regulatory frameworks and the monitoring of mineral and energy developments in the province. In some situations, the department can have a more direct impact on resource development, as in the case of mineral deposits for which the Provincial Government holds exclusive mining rights. Additionally, the department is able to co-operate with other departments and agencies toward better management of lands, better planning for communities and the advancement of resource-based developments that are non-industrial in nature, such as geoheritage sites.

Legislative / Regulatory Frameworks

The royalty arrangements in place for the province's operating oil projects are all different and, to a large extent, have been reached through contractual negotiations between the Provincial Government and project proponents. During the year, the department initiated an evaluation of potential options for a new, generic offshore oil royalty regime for the province. A more generic regime would provide greater certainty to potential operators as they assess the economics of proposed developments and would enable more efficient administration by the department.

The department continued its work with the Federal Government and other stakeholders in the modernization of the regulatory regime for the offshore petroleum industry, including a review of legislation and regulations. This includes development of occupational health and safety legislation and regulations and strengthening offshore liability requirements. Work also proceeded on issues related to articles of the United Nations Convention on the Law of Sea (UNCLOS) that address matter of jurisdiction for offshore development beyond the 200 mile limit into the extended continental shelf. From a mineral development perspective the department made progress toward the development of revised Mineral and Quarry Materials Exploration Guidelines.

Increased / Improved Oversight

While the department placed significant emphasis during the year on legislation, regulation and guidelines, it also progressed efforts to enhance the oversight applied to developments in light of these structures. These efforts were focused on enhancing the



Department of Natural Resources

department's internal capacity to meet increasing administration/management demands as a result of the growth in the number and complexity of royalty and benefits agreements. Specifically, the department in association with the Office of the Chief Information Officer (OCIO) advanced the development of the Royalties Monitoring System (RMS) and the Benefits Monitoring Database.

In addition, the department began participating in the Provincial Government's oversight committee for the construction phase of the Muskrat Falls Project. The committee, consisting of officials from the departments of Finance, Natural Resources, and Justice, and chaired by the Clerk of the Executive Council, reviewed project information, focusing on project costs, scheduling, and overall project performance. The committee met regularly with Nalcor Energy officials, reported directly to Cabinet and provided quarterly updates to the public beginning in July 2014.

Effective Management of Crown-Held Deposits

Over the last several years, the department has worked towards the development of the Julienne Lake iron ore deposit in western Labrador. The deposit is located approximately 25 kilometres from Wabush and Labrador City in "exempt mineral land", meaning land where all mineral rights are held by the Crown. Following a comprehensive evaluation of proposals from industry to develop the deposit, the Provincial Government began discussions with a prospective developer in 2013-14. During the year, the department continued its participation in these discussions with the objective to secure an agreement to develop the deposit in the best interest of the province.

Effective Application of Unique Expertise

While the department's primary focus is on fostering continued development in the natural resource sectors, its unique data sets and expertise are of vital importance in other areas of provincial interest. Department staff are frequently called upon by other government departments and agencies to share knowledge and provide advice on matters related to provincial mapping and land use planning, potential geohazards such as coastal erosion and landslides and geoheritage and geotourism initiatives. During the year, the department continued to share this knowledge and expertise with other departments and agencies, as well as the public.

The department's work during the year was in direct support of the Provincial Government's strategic direction toward *increased exploration and development of mining and energy resources*. In particular, the department made progress in the focus area of *competitive regulatory and policy structures that support resource development*.



Department of Natural Resources

This work also supported the strategic direction of *responsible resource development* and the associated focus areas of: *development of clean, renewable energy through the Lower Churchill Project; activities to support social license through adequate stakeholder consultation; and resource developments built on a culture of worker safety and environmental sustainability*. Finally, the work supported the strategic direction toward *maximum benefits to the province through the strategic development of our resources* and the associated focus areas: *supporting increased local industrial and employment benefits; and, increased participation of women and underrepresented groups in natural resource projects*.

Goal

By March 31, 2017 the Department of Natural Resources will have advanced management mechanisms, capacities and initiatives to help ensure resource developments are conducted responsibly and provide maximum benefit to the people of the province.

2014-15 Objective

By March 31, 2015 the Department of Natural Resources will have progressed the department's management mechanisms, capacities and initiatives related to resource development

Measure: Progressed management mechanisms, capacities and initiatives

Indicators:

1. Participated in the Muskrat Falls Oversight Committee

On July 31, 2014, the release of the Oversight Committee's first report on the Muskrat Falls Project was announced. The committee released two more reports during the year, for the periods ending September 2014 and December 2014 respectively and will continue reporting on a quarterly basis for the duration of the project. The department provides support to the committee as required, including review of reports/data and interacting with Nalcor on relevant issues.



Department of Natural Resources

2. Advanced the development of revised Mineral and Quarry Materials Exploration Guidelines

During the year the department completed drafting a revised set of mineral/quarry materials exploration guidelines and had the draft reviewed by Department of Justice and Public Safety. The resulting feedback was incorporated and an updated draft was provided to Mining Industry NL, the Newfoundland and Labrador Prospectors Association and Labrador aboriginal groups for consideration and comment. An information session for industry participants was held in March to review the draft and solicit additional feedback. During 2015-16 the draft will be updated, as appropriate, to reflect industry input and will be circulated for review by the Provincial Government's Interdepartmental Land Use Committee.

3. Progressed discussions in support of the development of the Julienne Lake iron ore deposit

The department, on behalf of government, began exclusive negotiations with Altius Minerals and its Chinese partners for development of the Julienne Lake iron ore deposit in Labrador West.

4. Initiated an evaluation of potential options for a new, generic offshore oil royalty regime for the province

The department commenced work to identify the strengths/weaknesses of the current royalty structure; review global trends for royalty/fiscal frameworks applicable in other peer jurisdictions; and recommend an appropriate generic royalty regime. Authority was provided for the department to develop the new generic royalty regime and to proceed with industry consultations. At year end, a consultation plan was under development.



Department of Natural Resources

5. In cooperation with the federal government and other stakeholders, advanced the province's regulatory framework for offshore petroleum operations, including:
- Finalization of amendments to occupational health and safety (OHS) legislation for the offshore
 - Commencement of development work on new OHS regulations
 - Development of regulations required by the federal government's new *Energy Safety and Security Act*, scheduled for introduction in 2014, which increased liability requirements for offshore operators
 - Review of existing offshore oil and gas regulations and advancement of efforts toward amalgamating these regulations into a single, modernized Framework Regulation

During 2014-15 the department worked with counterparts in the Government of Canada and the Government of Nova Scotia, as well as other officials within the Government of Newfoundland and Labrador, towards the completion of amendments to OHS legislation for the offshore. As a result of these joint efforts, the OHS legislation was proclaimed on December 31, 2014 in all three jurisdictions. Under the new legislation, provincial and federal ministers are responsible for the designation of operational safety and conservation officers and occupational and health and safety officers. To accompany the new designation responsibilities of ministers, the department and its various partners also finalized memorandums of understanding (MOUs) to provide guidance to the C-NLOPB and all parties on the new designation process and establish minimum qualifications required for officer designation. The MOUs were fully executed and all officers designated on December 31, 2014. A technical working group also made progress toward the development of regulations in support of the OHS legislation.

The department, along with other government officials, continued efforts toward the development of liability legislation for Newfoundland and Labrador, in line with the federal government's *Energy Safety and Security Act*. All three jurisdictions (Newfoundland and Labrador, Nova Scotia and the federal government) are working towards a February 26, 2016 proclamation date. The department also continued to participate in a technical working group dedicated to the amalgamation of existing petroleum operational regulations into a single, modernized Framework Regulation.



Department of Natural Resources

6. Advanced departmental capacity initiatives in support of effective management of resource developments including progress in the development of a new:

- **Benefits monitoring database**
- **Royalties monitoring system**

Benefits Monitoring Database

Development of the Benefits Monitoring Database was completed during the year and staff had begun populating the system with data related to benefits commitments and performance statistics. The database will assist the department in tracking the performance of major resource projects in terms of economic, employment and other benefits.

Royalties Monitoring System

The Royalties Monitoring System (RMS) is a web-based application being designed to streamline the royalty reporting/monitoring process, from initial reporting by an Interest Holder through to a completed audit reassessment by the department. RMS will offer Interest Holders a separate, secure portal for calculating and filing royalty returns electronically. The system will also automate many of the complex background royalty calculations now performed manually by the department and will provide staff with a reporting suite for use in auditing and analyzing royalty returns. RMS will be able to perform these calculations on demand and within seconds, allowing the department to carry out auditing and project monitoring functions more efficiently and effectively.

RMS is being developed using a phased approach as a series of modules, one for each of the province's offshore oil developments. During 2014-15, development of the Terra Nova module was completed and the module was implemented for internal use; external roll-out for Terra Nova project Interest Holders is expected in early 2015-16. In addition, at year end, user testing was underway on the Hebron and White Rose modules and development work had begun on the Hibernia Module.

7. Increased amount of information/data available related to geohazards, land use planning and geotourism initiatives.

Staffing issues restricted the amount of published data on geohazards in the first part of the fiscal year, although several specific requests for information from municipalities were addressed. Information from the department's coastal monitoring program was



Department of Natural Resources

released through Current Research articles and/or on the Geoscience Atlas. Rates of erosion will continually be refined as the period of data collection increases. Uptake is difficult to measure, although awareness is most certainly increasing as more data is released. The results of hazard mapping have shown their utility by being incorporated into municipal development regulations, as in the case of the town of Conception Bay South. The Geological Survey Division continued to respond to requests for advice on land-use planning decisions from the Department of Municipal and Intergovernmental Affairs, as well through written submissions to municipal plan review requests.

In addition, the department provided information and expertise during the year for a number of geotourism initiatives:

- Acted in an advisory capacity to the Aspiring Geopark on the Bonavista Peninsula, and to a group on the west coast of the Island;
- Developed a mobile device app - Building Stones of Newfoundland - that takes users on a walking tour of downtown St. John's⁹;
- Provided support for the nomination of Mistaken Point as a UNESCO World Heritage Site.

2015-16 Objective

By March 31, 2016 the Department of Natural Resources will have further progressed the department's management mechanisms, capacities and initiatives related to resource development

Measure: Further progressed management mechanisms, capacities and initiatives

Indicators:

- **Advanced efforts to revise the Mineral and Quarry Materials Exploration Guidelines;**
- **Continued to advance the Julianne Lake project;**
- **Implemented a system for annual review of mining and quarry leases;**
- **Continued efforts toward the development of a new, generic offshore oil royalty regime for the province;**
- **Continued regulatory development by participating in the Frontier and Offshore Regulatory Renewal Initiative (FORRI) to update our already-robust regulatory regime for offshore oil and gas activities;**
- **Completed further development of the Royalties Management System.**

⁹ <http://www.nr.gov.nl.ca/nr/mines/outreach/AppPoster-buildingstones.pdf>



Department of Natural Resources

Issue 3: Electricity Sector Advancement

The province's Interconnected Labrador, Interconnected Island, and remote diesel systems have operated in isolation from each other since their inception decades ago. With increasing demand, aging infrastructure, and the province's commitment to renewable and sustainable energy development, significant changes and improvements are necessary to these systems. To facilitate these changes, the Provincial Government has placed considerable emphasis in recent years on advancing the Lower Churchill hydro resource and developing and implementing related policies and industry structures.

With the completion of the Muskrat Falls phase of the Lower Churchill Project, the Isolated Island grid will be interconnected with Labrador through the Labrador-Island Link transmission line and with Nova Scotia and North America through the Maritime Link transmission line. These interconnections will provide a path to sell excess power, as well as a means of accessing additional power if or when it is needed. This change in the electricity system will require a broader regulatory framework which considers this interconnection to North America. During the year, the department continued to work with Nalcor Energy on the advancement of the Muskrat Falls Project as well as on related preparations for North American electricity market requirements (e.g., market rules, transmission access rules, reliability oversight, etc.).

While the Muskrat Falls Project is the main focus among renewable energy initiatives, the department also continues to explore opportunities in other renewable energy areas. In line with Energy Plan commitments, the department supported the development of a provincial net metering policy for renewable energy sources such as wind and solar. The department selected Navigant Consulting Limited to research jurisdictional best practices and make recommendations regarding the policy. At year-end, the department was in the process of drafting a policy in conjunction with Newfoundland Power and Hydro. In addition, the department worked with Hydro on a biogas initiative and in September, 2014 the department introduced a biogas electricity generation pilot program for the province which would be administered by Hydro.

The department's work during the year was in direct support of the Provincial Government's strategic direction toward *a stable and competitive energy supply for domestic use and export to market*. In particular, the department made progress in several of the focus areas associated with this strategic direction including: *the advancement of renewable energy projects and related infrastructure, the export of surplus energy, development of industrial electricity rates that support resource development and alternative energy research and development*. This work also



Department of Natural Resources

supported the strategic direction of *responsible resource development* and the associated focus area *development of clean, renewable energy through the Lower Churchill Project*.

Goal

By March 31, 2017 the Department of Natural Resources will have implemented measures toward enhanced reliability, sustainability and export readiness of the province's electricity system.

2014-15 Objective

By March 31, 2015 the Department of Natural Resources will have completed studies, developed/enhanced legislation and/or policy to improve reliability and sustainability and establish a clear path toward export readiness of the province's electricity system.

Measure: Completed steps toward enhanced reliability, sustainability and export readiness

Indicators:

1. Developed a net metering policy or program for the province

Policy development work began with the preparation of a Request for Proposals (RFP) seeking a consultant to perform a jurisdictional review of net metering industry practices. On September 2, 2014, the department selected Navigant Consulting Limited to conduct the review and on October 31, 2014 Navigant's report of findings was submitted¹⁰. The department provided briefings on the report to the Board of Commissioners of Public Utilities (PUB), Sierra Club, Consumer Advocate, Newfoundland and Labrador Environmental Industry Association, and the provincial chapter of the Canadian Homebuilders Association. These briefings provided an opportunity for the department to solicit feedback from these organizations to help inform policy development.

¹⁰ The report has been publically released and is available on the Department of Natural Resources website.



Department of Natural Resources

The department worked closely with Newfoundland Power (NP) and Newfoundland and Labrador Hydro through the remainder of the year and made significant progress toward the development of a provincial net metering policy framework. The framework was not completed by year-end as it took longer than expected to consult with the various stakeholders and to coordinate policy development work with NP and Hydro. Development will continue into 2015-16 and, once finalized, the framework will provide the utilities and the PUB with the policy parameters to inform the development and implementation of the utilities' net metering programs.

2. Developed a biogas policy or program for the province

In September, 2014 the department introduced a biogas electricity generation pilot program for the province, to be administered by Newfoundland and Labrador Hydro. In preparation for the pilot program, department officials collaborated with Hydro on the development of program parameters and in consultations with prospective proponents. During implementation, Hydro will work directly with two interested proponents: New World Dairy and the Robin Hood Bay Regional Waste Management Facility. The program will allow the proponents to sell biogas created in their operations (i.e., through the anaerobic decomposition of organic material) to Hydro through negotiated power purchase agreements.

3. Reviewed and initiated action, where appropriate, on findings from the external consultant's review of the electricity system

The contract for the review of the electricity system was awarded to Power Advisory which was fully engaged in review activities during the year. Review activities took longer than anticipated, however, and the review was not completed by year end.

4. Completed planned 2014-15 components necessary to advance Lower Churchill Project milestones

During 2014-15, the department worked with Nalcor to identify and implement various actions required to transition to an interconnected electricity system once Muskrat Falls power comes on-stream. More specifically, the department reviewed and assessed policy options, which would comply with best practices in the North American market, related to transmission access rules and reliability oversight.



Department of Natural Resources

As discussed under Goal 2 above, the department also played a key role during the year in the Muskrat Falls Project Oversight Committee. The committee monitored project progress with focus on costs, scheduling, and overall performance. As part of the committee, senior department officials were involved in reviewing information on project milestones, as provided by Nalcor, and evaluating any potential issues with relevant departments and with Nalcor officials.

In addition, as part of its role in monitoring the benefits accruing to the province from major resource projects, department staff tracked economic and employment benefits associated with the project.

5. Continued the implementation of the Labrador industrial electricity rates policy

To help ensure ongoing effectiveness the department continued to provide oversight on the Labrador industrial electricity rates policy, implemented by Newfoundland and Labrador Hydro. Through its monitoring efforts the department confirmed that the policy was continuing to meet its primary objective of providing Labrador industrial customers with electricity rates that are competitive with other Canadian jurisdictions. The policy, which was phased in, was considered fully implemented as of December, 2014.

2015-16 Objective

By March 31, 2016 the Department of Natural Resources will have advanced priorities related to hydro and electricity development and reliability in the province.

Measure: Advanced priorities

Indicators:

- **Completed the provincial net metering policy;**
- **Reviewed and initiated action, where appropriate, on findings from the external consultant's review of the electricity system;**
- **Completed planned 2015-16 components necessary to advance Lower Churchill Project milestones;**
- **Monitored the Biogas Electricity Generation Pilot Program in collaboration with Newfoundland and Labrador Hydro.**



Department of Natural Resources

Shared Commitments

As indicated throughout the report, the department works closely with a number of other public sector entities in the progression of its strategic goals and objectives. The department's collaboration with Nalcor Energy and its subsidiaries was particularly important in 2014-15, as reflected in accomplishments reported under all three strategic issue areas. Also significant was the department's ongoing cooperation with the Federal Government and the C-NLOPB in the joint management of offshore petroleum resources. These two entities, as well as the Government of Nova Scotia and the Canada-Nova Scotia Offshore Petroleum Board, were also integral to progress made a number of legislative/regulatory initiatives.

Additionally, the department works closely with the Department of Environment and Conservation on issues related to responsible resource development, the Department of Municipal and Intergovernmental Affairs on inter-jurisdictional matters as well as issues related to land use, the Department of Finance on matters related to the forecasting and monitoring of royalties and taxation from oil and mining developments, the Department of Justice and Public Safety on legislative and legal matters and other departments on numerous other issues and opportunities.



Department of Natural Resources

Additional Highlights and Accomplishments

1. Completion of Project Benefits Agreement for the Kami Project

The Kami Iron Ore Project is owned by Alderon (75 per cent) and Hebei Iron and Steel Group Company Limited (25 per cent) through the Kami Mine Limited Partnership. As proposed, the first phase of the project would produce eight million tonnes of concentrate annually and has the potential to expand to 16 million tonnes. The project would create direct employment for 800 workers at the peak of construction and at least 400 during the operations phase. In addition, the project would contribute at least \$18 billion to provincial GDP and \$2.6 billion in taxes and royalties to the Provincial Government over its possible 30-year life.

In May 2014, negotiation of the project benefits agreement was finalized between the Provincial Government and the Kami Mine Limited Partnership. Some of the highlights of the agreement include:

- Residents of Newfoundland and Labrador would be provided first consideration for employment during all phases of the project. A Labrador first hiring priority protocol has been established and these commitments must be taken into account in any collective agreements and apply to all contractors and sub-contractors.
- Suppliers in the province would be provided full and fair opportunity and first consideration for procurement opportunities during all phases of the project, reinforced through the establishment of a Labrador-first procurement priority protocol. Kami LP and its Engineering Procurement Construction Management contractor will maximize the use of provincial suppliers, on a competitive basis.
- For the first time in this province, the benefits agreement features firm commitments to hire a minimum number of apprentices for all phases of the project. The partnership commits to a minimum of 15 per cent of the skilled trades workforce to be apprentices for the construction phase of the project, and a minimum of 25 per cent of the skilled trades workforce to be apprentices during the operations phase.

The benefits agreement shows that the Provincial Government continues to be a leader in gender equity and diversity planning. Qualified women, persons with disabilities, Aboriginal persons and visible minorities will have equitable access to the many



Department of Natural Resources

employment and business opportunities associated with the project. One of the commitments in the agreement that will help achieve greater gender equity and diversity in the project workforce is the provision of an employee childcare centre.

2. Celebration of 150 Years for the Geological Survey

Under the leadership of Alexander Murray, the Geological Survey was inaugurated in 1864. The impressive collection of work by Murray, and his assistant James Howley, formed the basis for the first geological map of this province published in 1907. In the early 1930s, led by geologist Alfred Snelgrove, the work of the Geological Survey was incorporated within government.

Work conducted by the Geological Survey has a long record of encouraging resource exploration and discovery. The Geological Survey delivers a variety of web-based research tools, provides a wealth of information on its website including the online Geoscience Atlas, conducts research in the field through programs such as the annual geological mapping program, and also assists in land use planning and hazards assessment.

3. Provincial Government Supported Sale of North Atlantic Refining Limited

In September, 2014 the Provincial Government announced its support of an agreement between Harvest Operations Corp. and SilverRange Financial Partners LLC for the sale of North Atlantic Refining Limited (NARL). This included the oil refinery in Come By Chance as well as its North Atlantic-branded marketing, marine, and home heating businesses.

The Department of Natural Resources, in collaboration with other Provincial Government officials, worked closely with the parties to ensure employment and economic benefits contributed by NARL would be maintained. Government supported this agreement by providing assurances that SilverRange's acquiring entity would not be responsible for any pre-existing environmental liabilities at the refinery site relating to soil, sediment, groundwater and surface water. The site undergoes regular environmental monitoring by the Provincial Government.

SilverRange committed to investing capital and improving operations at the refinery to support continued operations, employment, and economic benefits in the province. More



Department of Natural Resources

specifically, SilverRange will reduce overall sulphur dioxide emissions at the refinery and undertake a capital investment program at the tank farm.

4. Launch of *Women in Mining Career Connections* Information Guide

The Women in Mining Career Connections information guide was launched by the Minister of Natural Resources in October, 2014. As the first publication of its kind in Newfoundland and Labrador, the guide is a unique educational tool designed for students and teachers at the intermediate, senior high and post-secondary levels. The information guide includes questions to consider when choosing a career in the province's mineral resource industry and profiles of female workers. The guide also provides a diverse list of career options and other resources to support women with career and employment goals. Through the assistance of the Department of Education and Early Childhood Development, the information guide has been distributed to intermediate and senior high schools throughout the province. It is also available on the Department of Natural Resources web site.¹¹ The development of the information guide was a partnership initiative between the Provincial Government, Mining Industry NL, and the provincial branch of the Canadian Institute of Mining, Metallurgy and Petroleum.

5. Hydraulic Fracturing Independent Review Panel Established

In October, 2014, the Minister of Natural Resources appointed an independent panel of five individuals to conduct a review of the socio-economic and environmental implications of hydraulic fracturing in western Newfoundland. Collectively, the panel members possess expertise in the fields of environment, engineering and geology, economics, and public health. Panel members included Dr. Ray Gosine (Chair), Dr. Graham Gagnon, Dr. Maurice Dusseault, Dr. Wade Locke, and Dr. Kevin Keough.

The panel was provided with a terms of reference, as well as research completed during the Provincial Government's internal review. These documents are available on the Department of Natural Resources web site.¹² At the end of the review, which will include public consultations, the panel will prepare a report which will be made available to the public.

¹¹ http://www.nr.gov.nl.ca/nr/publications/pdf/women_in_mining.pdf.

¹² <http://www.nr.gov.nl.ca/nr/energy/index.html#3>.



Department of Natural Resources

6. Official Ground Breaking for the Maritime Link Project

A ground-breaking ceremony was held on November 26, 2014 at the Bottom Brook construction site in western Newfoundland to recognize the start of construction of the Maritime Link which will transmit electricity from the Lower Churchill project at Muskrat Falls to Nova Scotia. Also taking place at the ceremony was the signing of an industrial and employment benefits agreement for the project. The event represented an important milestone for the Lower Churchill Project. The benefits agreement with Emera, the project operator, and the Government of Nova Scotia ensures significant opportunities for the people and businesses of Newfoundland and Labrador and the Atlantic region.

With a total estimated cost of \$1.577 billion, the Maritime Link Project is expected to create an average of 300 jobs per year between Newfoundland and Labrador and Nova Scotia during the construction period. Employment is expected to peak at 600 in 2016. At the time of the event, approximately 200 people were working on the project between provinces and local companies in Newfoundland and Labrador, and Nova Scotia were involved in a number of project elements.

7. Additional \$230 Million Investment Secured in Agreement with Vale

In February, 2015, the Provincial Government announced that a further amendment to the Voisey's Bay Development Agreement, originally signed in 2002, resulted in an additional \$230 million in investments for the province.

Vale is constructing the Long Harbour Processing Plant to process nickel concentrate from the Voisey's Bay mine into finished nickel products. The opportunity to make improvements to the Development Agreement arose because of the delayed construction schedule at the LHPP. Through the amended agreement, the Provincial Government granted Vale further permission to continue to export nickel concentrate from the Voisey's Bay mine for processing. This will ensure continuity of operations, as well as provide operational flexibility, until the processing plant reaches full capacity. In return, the Provincial Government was successful in negotiating an estimated \$200 million in compensation for the province as well as a \$30 million commitment by Vale for community initiatives.

More information on the Voisey's Bay Development Agreement and its amendments can be found on the Department of Natural Resources web site.¹³

¹³ <http://www.nr.gov.nl.ca/nr/royalties/mining.html>.



Department of Natural Resources

Opportunities and Challenges

Opportunities

Resource Potential

Newfoundland and Labrador's rich endowment of mineral and petroleum resources represents one of the province's greatest opportunities. As existing projects progress through their life cycles, new developments will need to come on stream in order to keep resource revenues flowing. For that to happen, new, economically viable resources must be found. Newfoundland and Labrador possesses significant undiscovered and underdeveloped petroleum resources in our offshore area. Similarly, the province's onshore geology is such that the likelihood of discovering new, profitable mineral deposits is high. Continuing with efforts to encourage both existing and new players to explore for new resource deposits remains one of the greatest priorities and focus areas for the department.

Challenges

Cyclic Nature of Global Industries

The natural resource industries are highly dependent on global commodity prices and related patterns of supply and demand. In 2014-15, both the mineral and petroleum sectors experienced commodity price drops, putting negative pressure on the relative profitability of ongoing and proposed developments, as well as on the oil royalties and corporate taxes paid to the Provincial Government. The challenge for the department is to continue to do what it can to support industry during downturns such that activity is maintained in the short term and that conditions are right to encourage new exploration and development when market factors improve.



Department of Natural Resources

Appendix I: Legislation

1. **Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act.** Sets out the mechanism for joint federal-provincial management of the Newfoundland offshore area through the Canada-Newfoundland Offshore Petroleum Board; defines the methods of obtaining exploration and production rights, the requirements for safety, resource conservation and environmental protection and the activities that may be regulated. The Act is mirrored in federal statutes.
2. **Churchill Falls (Labrador) Corporation Limited (Lease Act).** An act to authorize the Lieutenant-Governor in Council to execute and deliver an indenture leasing certain water powers in Labrador to Churchill Falls (Labrador) Corporation Limited and to make provisions respecting other matters connected therewith.
3. **Electrical Power Control Act.** Sets policy with regard to electric power rates and establishes provisions for the determination of such power rates by the Public Utilities Board.
4. **Energy Corporation Act.** Establishes the existence of, and sets out the mandate, powers and management structure of the Energy Corporation of Newfoundland and Labrador as a Crown agency.
5. **Energy Corporation of Newfoundland and Labrador Water Rights Act.** An act to enable the issuance of water rights to the Energy Corporation of Newfoundland and Labrador for the Lower Churchill River.
6. **Hydro Corporation Act.** Continues the existence of, and sets out the mandate, powers and management structure of the Newfoundland and Labrador Hydro-Electric Corporation as a Crown agency.
7. **Lower Churchill Development Act.** Authorizes the Minister of Mines and Energy to enter into an option agreement with the corporation guaranteeing the Lower Churchill Development Corporation (LCDC) executive water rights, rights to flood land and a sole option to purchase the Gull Island hydro assets.
8. **Mineral Act.** Defines the rights of explorers and developers of mineral properties, the methodology to be used in obtaining such rights, and the areas where government may regulate activity.



Department of Natural Resources

9. ***Mineral Holdings Impost Act.*** Designed, by imposition of a tax, to encourage holders of mineral properties that do not come under the terms of the Mineral Act to either explore their lands or to surrender them so that they become subject to the Mineral Act.
10. ***Mining Act.*** Regulates the development, operation and closure of mines in the province; and outlines requirements for development, operational and rehabilitation and closure plans, as well as milling licenses and financial assurance. This Act does not deal with Occupational Health and Safety matters.
11. ***Muskrat Falls Project Land Use and Expropriation Act.*** Provides the ability to create a statutory easement which could be granted, transferred, mortgaged, leased or otherwise dealt with as real property; establishes a process by which an expropriating authority may, where land is required for the Muskrat Falls Project, expropriate that land on behalf of a proponent in accordance with this Act and an expropriation protocol established in the regulations; confirms that a holder is liable for taxation in respect of the Muskrat Falls Project, except in prescribed circumstances; and approves the use of land by a proponent in the transmission corridor and with respect to the transmission lines for the Muskrat Falls Project, and require that existing and future land use plans and development regulations conform with the approved land use.
12. ***Petroleum and Natural Gas Act.*** Defines how the rights to explore for and develop oil and gas properties on land may be obtained and maintained; how areas may be assigned for exploration; the scope with which government may regulate activity; and the various royalties that may be due.
13. ***Quarry Materials Act, 1998.*** Defines the rights of explorers and developers of quarry materials; the methods by which such rights may be required, royalties payable; and areas where government may regulate activity.
14. ***Undeveloped Minerals Areas Act.*** Enables government to arrange for the exploration of private mineral properties (generally ones which are not covered by the Mineral Act) that in its opinion have not been adequately explored. Properties affected by the Act have been identified by various orders.



Department of Natural Resources

Appendix II: Statement of Revenues and Expenditures

Expenditure and revenue figures included in this document are drawn from the Report on the *Program Expenditures and Revenues of the Consolidated Revenue Fund for Fiscal Year Ended 31 March 2015*.

		Actual (\$)	Estimates	
			Amended (\$)	Original (\$)
Executive and Support Services¹⁴				
1.1.01	Minister's Office	420,048	425,100	410,100
1.2.01	Executive Support	2,331,051	2,440,300	2,440,300
1.2.02	Administrative Support	946,706	1,087,200	1,087,200
	Less: Revenue	(2,290)	(10,000)	(10,000)
1.2.03	Administrative Support (Cap)	838,562	874,000	625,000
Total		4,534,077	4,816,600	4,552,600
Mineral Resource Management				
4.1.01	Geological Survey	5,086,628	5,317,100	5,477,100
	Less: Revenue	-	(4,000)	(4,000)
4.1.02	Mineral Lands	2,019,796	2,034,700	2,004,700
	Less: Revenue	-	(610,000)	(610,000)
4.1.03	Mineral Development	3,428,539	5,408,400	5,358,400
Total		10,534,963	12,146,200	12,226,200

¹⁴ In 2014-15, Executive and Support Services were shared with the Forestry and Agrifoods Agency. A portion of these services – specifically the Financial Operations function – was further shared with the Department of Fisheries and Aquaculture.



Department of Natural Resources

		Estimates		
		Actual (\$)	Amended (\$)	Original (\$)
Energy Resources and Industrial Benefits Management				
5.1.01	Energy Policy	4,429,843	5,524,100	5,539,100
5.1.02	Petroleum Development	2,497,177	2,599,100	2,599,100
5.1.03	Canada/Newfoundland and Labrador Offshore Petroleum Board	8,835,000	8,850,800	8,850,800
	Less: Revenue	(4,920,499)	(6,638,200)	(6,638,200)
5.1.04	Royalties and Benefits	2,586,406	5,533,400	5,683,400
	Less: Revenue	(115,600)	(81,000)	(81,000)
5.1.06	Energy Initiatives - Capital	337,668,351	552,700,000	552,700,000
Total		350,980,678	568,488,200	568,653,200
Total Department				
		366,049,718	585,451,000	585,432,000



Department of Natural Resources

Appendix III: Inactive Entities Reporting to the Minister

The following category three public body that reports to the Minister of Natural Resources was inactive for the period April 1, 2014 to March 31, 2015. In the event that this public body becomes active, it will prepare, and table in the House of Assembly, an Annual Performance Report.

Mineral Rights Adjudication Board

Section 37 of the *Mineral Act* provides for the appointment of a Mineral Rights Adjudication Board. It is the function of the Board, and the Board has exclusive jurisdiction, to hear and determine a question, dispute or matter arising out of the application of the *Mineral Act* or the *Mining Act* and applicable regulations.

