

**Manitoba  
Innovation, Energy and Mines**

**Innovation, Énergie et Mines  
Manitoba**

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**Annual Report  
2010 - 2011**

**Rapport annuel  
2010 - 2011**

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His Honour the Honourable Philip S. Lee, C.M., O.M.  
Lieutenant Governor of Manitoba  
Room 235, Legislative Building  
Winnipeg, Manitoba  
R3C 0V8

May it Please Your Honour:

I am pleased to present the Annual Report for the Department of Innovation, Energy and Mines for the fiscal year ending March 31, 2011.

Respectfully submitted,

*Original Signed by*

Dave Chomiak  
Minister



Son Honneur l'honorable Philip S. Lee, C.M., O.M.  
Lieutenant-gouverneur du Manitoba  
Palais législatif, bureau 235  
Winnipeg (Manitoba) R3C 0V8

Monsieur le Lieutenant gouverneur,

J'ai le plaisir de présenter à Votre Honneur le rapport annuel du ministère des Innovation, Énergie et Mines pour l'exercice se terminant le 31 mars 2011.

Je vous prie d'agréer, Monsieur le Lieutenant-gouverneur, l'expression de mon profond respect.

Le ministre,

*Document original signé par :*

Dave Chomiak





**Innovation, Energy and Mines**

Deputy Minister  
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Honourable Dave Chomiak  
Minister of Innovation, Energy and Mines  
Room 343, Legislative Building  
Winnipeg MB R3C 0V8

Dear Minister Chomiak:

I have the honour of presenting the Annual Report for the Department of Innovation, Energy and Mines for the period April 1, 2010 to March 31, 2011.

The mission of the department is to help all Manitobans thrive by fostering innovation, enabling critical partnerships and networks, and continuously transforming service delivery.

The department has undertaken many activities in collaboration with our partners and stakeholders. I have profiled below, a few accomplishments that are a result of the activities:

- Pattern Energy Group completed construction of one of the largest wind farms in Canada, a 138 MW project located in southern Manitoba by the town of St. Joseph.
- In December 2010, through efforts led by the Department, the Government of Manitoba signed a Memorandum of Understanding (MOU) with Mitsubishi Heavy Industries (MHI) of Japan, covering eight major areas for collaboration on renewable energy. MHI is a major world-wide corporation with extensive involvement in clean energy technologies. A series of major follow-up actions and projects have proceeded from that MOU.
- A key Science and Technology International Collaboration project announced by the Province in 2010/11 will provide up to \$750,000 in matching funding over five years to the Canada-Israel International Fetal Alcohol Spectrum Disorder (FASD) Research Collaboration. This important partnership between the University of Manitoba and the Institute for Medical Research Israel-Canada (IMRIC) at Hebrew University in Jerusalem will extend and implement findings from basic research conducted primarily by IMRIC Professor Abraham Fainsod over the past twelve years. This research is expected to result in long term social, economic and health benefits for improved health outcomes and the ability to implement preventative approaches to reduce the incidence of FASD.
- Business Transformation and Technology's primary focus is to establish an environment that will help modernize government. A renewed and sustainable ICT infrastructure is central to this mission and many of BTT's major projects and initiatives are directed at infrastructure renewal and consolidation. These include:

- Desktop Refresh Project: The replacement or upgrade of approximately 14,000 workstations across all departments of government situated within a coordinated and modern managed environment where all equipment is now under a 4 year service plan. This renewed environment (Microsoft Windows version 7) takes advantage of current productivity, security, and stability enhancements and better supports modern business applications.
- Printer Refresh: BTT is also refreshing the government's fleet of print devices and is replacing the current stock of approximately 5,550 devices with 3,300 modern devices which will generate approximately \$230K annual savings.
- Server Consolidation Project: Manitoba is at the technology forefront of Canadian jurisdictions in this regard. The previous workload of 356 servers now runs on a total of 28 physical servers in one data centre. The project now creates a standardized data hosting infrastructure that is more secure, more flexible, and more reliable with standardized support management and monitoring capabilities. Industry benchmarks show potential savings of \$300.0 annually in electricity costs.
- Manitoba Network Initiative: The Manitoba Network is a secure, high-speed, high-capacity network linking provincial government offices, schools, health-care facilities and other public-sector organizations in 154 communities across Manitoba. The Manitoba Network will expand the government's existing Provincial Data Network to include the broader public sector and serve as a catalyst for future expansion of broadband infrastructure in the province.
- BTT's focus on modernizing government includes a strategy to rationalize, standardize and integrate the government's diverse application portfolio of more than 500 applications through the application PMI.
- Business Transformation and Technology has taken the lead with government departments to help coordinate a continuous effort to further advance the online services that government offers to the residents of Manitoba. This included the successful pilot of a Online Child-care Registry in the city of Brandon, updated the Government of Manitoba homepage to be more modern and easy to use, conducted a policy scan regarding social media and made recommendations regarding its use, launched two social media pilots (facebook and twitter) and a mobile friendly text report for highway conditions is now available.
- The renewal of the Mineral Exploration Assistance Program (MEAP) and Manitoba Prospectors Assistance Program (MPAP) for an additional three years.
- Record attendance at the 2010 Manitoba Mining and Minerals Convention in November, 2010.
- New geoscience information produced during the Far North Geomapping Initiative is providing exploration companies with new ideas for exploring this remote part of Manitoba. The initiative has been successful in bringing provincial and federal government, university and First Nation workers together to develop greater understanding of the geology and mineral deposits in northern Manitoba. More than 16,000 km<sup>2</sup> of northeast Manitoba was mapped in 2009 and 2010.



- Targeted Geoscience Initiative work partnered by the federal government, Manitoba and Saskatchewan universities and the mining industry has resulted in a better understanding of the setting of copper-zinc deposits at Flin Flon as well as prospectivity under limestone cover south of Snow Lake. These advances help established mining communities by identifying new targets for private industry exploration, potentially leading to new discoveries and mine development.
- Development and Implementation of Manitoba Electronic Well License Application (MEWLA) that enables submitting well license application by electronic means. This allows for more efficient and timely issuance of drilling licenses. In 2010, the petroleum industry spent \$894 million exploring for, developing and producing oil in Manitoba. Oil production grew 23% and reached a record 11.7 million barrels in 2010 with a total value of \$892 million.
- The Province has accomplished the following with regards to the orphaned and abandoned mines program:
  - a successful training program of over 35 First Nation people from Marcel Colomb/Mathias Colomb was completed.
  - the Sherridan and Lynn Lake projects
  - an agreement with BacTech to reprocess the Arsynophrite Pile at the New Britannia Mine in Snow Lake as part of the remediation of contaminated site. This will result in cost savings for remediation work and possible future development of a research centre.

The department will continue with implementing innovative initiatives and strategic planning that will contribute to Manitoba's success.

Respectfully submitted,

*Original Signed by*

John Clarkson  
Deputy Minister

Le sous-ministre  
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Monsieur Dave Chomiak  
Ministre de l'Innovation, de l'Énergie et des Mines  
Palais législatif, bureau 343  
Winnipeg (Manitoba) R3C 0V8

Monsieur le Ministre,

J'ai l'honneur de vous présenter le rapport annuel du ministère de l'Innovation, de l'Énergie et des Mines pour la période du 1<sup>er</sup> avril 2010 au 31 mars 2011.

La mission du ministère est d'aider la population manitobaine à prospérer en encourageant l'innovation, en permettant la mise en place de partenariats et de réseaux essentiels et en transformant continuellement la prestation de services.

Le ministère a mené de nombreuses activités en collaboration avec ses partenaires et les groupes intéressés. J'ai décrit ci-dessous quelques réalisations qui résultent de ces activités.

- La société Pattern Energy Group a terminé la construction d'un des plus grands parcs éoliens du Canada (138 MW), près du village de Saint-Joseph, dans le sud du Manitoba.
- En décembre 2010, grâce aux efforts déployés sous l'égide du ministère, le gouvernement du Manitoba a signé avec la société japonaise Mitsubishi Heavy Industries (MHI) un protocole d'entente qui englobe huit grands domaines de collaboration sur l'énergie renouvelable. MHI est une entreprise mondiale de grande envergure fortement engagée dans le secteur des technologies d'énergie propre. Ce protocole d'entente a donné lieu à toute une série de mesures et de projets de suivi importants.
- La Province a annoncé en 2010-2011 le lancement d'un projet majeur de coopération scientifique et technologique internationale dans le cadre duquel un financement quinquennal de contrepartie d'un montant maximal de 750 000 \$ sera consacré à des travaux de recherche canado-israéliens sur l'ensemble des troubles causés par l'alcoolisation fœtale. Cet important partenariat entre l'Université du Manitoba et l'Institute for Medical Research Israel-Canada (IMRIC), de l'université hébraïque de Jérusalem, amplifiera et mettra en œuvre les résultats de la recherche fondamentale essentiellement menée par le professeur Abraham Fainsod, de l'IMRIC, ces 12 dernières années. Ces travaux de recherche devraient apporter des avantages à long terme sur le plan social, économique et sanitaire afin d'améliorer les résultats dans le domaine de la santé et d'augmenter la capacité à mettre en œuvre des approches préventives pour réduire les incidences de l'ensemble des troubles causés par l'alcoolisation fœtale.
- L'objectif principal de Technologie et transformation opérationnelle est de mettre en place un environnement qui aidera le gouvernement à se moderniser. Une infrastructure des technologies de l'information et des communications renouvelée et durable est essentielle à la réalisation de cette mission. Nombre des projets et des initiatives majeurs de Technologie et transformation opérationnelle visent donc à renouveler et à consolider l'infrastructure, y compris les suivants :

- **Projet de renouvellement informatique** : il s'agit de remplacer ou de mettre à niveau, à l'échelle de tous les ministères, environ 14 000 postes de travail situés dans un environnement géré, coordonné et moderne dans lequel tout le matériel est désormais couvert par un plan de service de quatre ans. Cet environnement renouvelé (Microsoft Windows, version 7) bénéficie des améliorations actuelles en matière de productivité, de sécurité et de stabilité et soutient mieux les applications d'entreprise modernes.
- **Renouvellement des imprimantes** : Technologie et transformation opérationnelle renouvelle également son parc de dispositifs d'impression en remplaçant les quelque 5 550 imprimantes actuelles par 3 300 dispositifs d'impression modernes qui permettront d'économiser environ 230 000 \$ par an.
- **Projet de regroupement des serveurs** : le Manitoba est à l'avant-garde des administrations publiques au Canada dans ce domaine. Un total de 28 serveurs physiques situés dans un centre informatique traitent la charge de travail qui exigeait auparavant 356 serveurs. Le projet crée à présent une structure d'hébergement des données standardisée, plus sûre, plus souple et plus fiable, avec une gestion du soutien standardisée et des capacités de surveillance. Si l'on se fie aux références de l'industrie, les économies annuelles en frais d'électricité pourraient atteindre 300 000 \$.
- **L'initiative Réseau du Manitoba** : le Réseau du Manitoba est un réseau sécurisé à grande vitesse et à haute capacité qui relie les bureaux du gouvernement provincial, les écoles, les établissements de santé et d'autres organismes publics de 154 collectivités du Manitoba. Le Réseau du Manitoba élargira le champ du réseau informatique provincial actuel afin d'inclure le secteur public dans un sens plus large et de servir de catalyseur pour le développement futur de l'infrastructure à très large bande dans la province.
- Dans le cadre de ses efforts de modernisation du gouvernement, Technologie et transformation opérationnelle met en œuvre une stratégie de rationalisation, de standardisation et d'intégration du portefeuille d'applications diversifié du gouvernement (plus de 500 applications) à l'aide de l'application PMI.
- Technologie et transformation opérationnelle a joué un rôle moteur en contribuant à la coordination des efforts déployés continuellement par les ministères pour accroître les services en ligne que le gouvernement offre aux résidents du Manitoba. Mentionnons à ce chapitre : la réussite du projet pilote de registre en ligne des services de garde d'enfants à Brandon; la mise à jour de la page d'accueil du gouvernement du Manitoba afin de la rendre plus moderne et plus facile à utiliser; un tour d'horizon des politiques relatives aux médias sociaux et la formulation de recommandations concernant leur utilisation; et le lancement de deux projets pilotes axés sur les médias sociaux (Facebook et Twitter) ainsi que d'un rapport en format texte sur l'état des routes qui peut facilement être visualisé sur les téléphones portables.
- Le Programme d'aide à l'exploration minière et le Programme d'aide à la prospection ont été renouvelés pour trois ans.
- Le Congrès manitobain sur les mines et les minéraux de 2010 a attiré un nombre record de visiteurs en novembre 2010.
- L'Initiative de géocartographie du Grand Nord a permis de recueillir de nouveaux renseignements géoscientifiques qui donnent à l'industrie de nouvelles idées d'exploration dans cette région lointaine du Manitoba. Cette initiative a permis une collaboration réussie entre le gouvernement provincial, le gouvernement fédéral, le secteur universitaire et les travailleurs autochtones, dans le but de mieux comprendre la géologie et les dépôts minéraux dans le nord du Manitoba. On a cartographié plus de 16 000 km<sup>2</sup> dans le nord-est du Manitoba en 2009 et 2010.

- Les travaux que le gouvernement fédéral, des universités du Manitoba et de la Saskatchewan, et l'industrie minière ont réalisés en partenariat dans le cadre de l'Initiative géoscientifique ciblée ont permis de mieux comprendre le milieu des gisements de cuivre et de zinc à Flin Flon ainsi que la prospectivité du sol sous la couche de calcaire au sud de Snow Lake. Ces données aident les collectivités minières établies en répertoriant de nouvelles cibles d'exploration pour l'industrie privée et, par conséquent, en offrant la possibilité de nouvelles découvertes et mises en valeur de mines.

Le ministère a élaboré et mis en œuvre un dispositif de demande électronique de permis d'exploitation de puits au Manitoba qui permet de solliciter plus efficacement et plus rapidement des permis de forage. En 2010, l'industrie pétrolière a dépensé 894 millions de dollars pour l'exploration et la production pétrolières ainsi que pour le développement de ressources pétrolières au Manitoba. La production a augmenté de 23 % et a atteint le niveau record de 11,7 millions de barils en 2010, ce qui représente une valeur totale de 892 millions de dollars.

- Dans le cadre du programme des mines abandonnées, la Province a :
  - fait en sorte que plus de 35 membres des bandes autochtones de Marcel Colomb et de Mathias Colomb suivent et terminent un programme de formation;
  - mis en œuvre les projets de Sherridon et de Lynn Lake;
  - conclu avec BacTech une entente visant le retraitement de l'empilement d'arsénopyrite à la mine New Britannia de Snow Lake dans le cadre de la restauration du site contaminé. Outre les économies de frais de remise en état qu'elle représente, cette entente pourrait déboucher à terme sur la création d'un centre de recherche.

Le ministère continuera de promouvoir la planification stratégique et les initiatives innovatrices qui contribueront au succès du Manitoba.

Le tout respectueusement soumis.

*Document original signé par :*

Le sous-ministre,  
John Clarkson

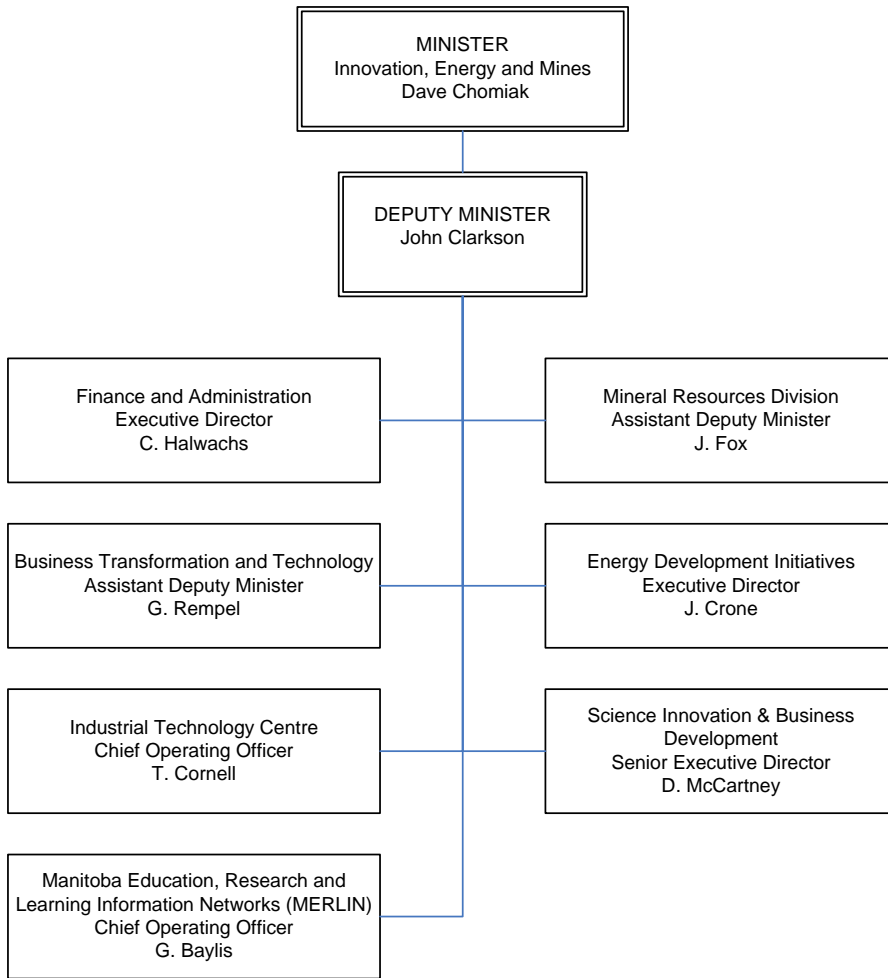
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**INNOVATION, ENERGY AND MINES  
ORGANIZATION CHART  
March 31, 2011**







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## **PREFACE**

### **REPORT STRUCTURE**

The Annual Report is organized in accordance with the department's appropriation structure and the Main Estimates of Expenditure for the Province. The Report includes financial performance and variance information at the main and sub-appropriation levels and information relating to the department's objectives and results at the sub-appropriation level. The Report also includes information about associated agencies, business assistance, revenue and expenditures, a five-year comparison of expenditures and a staffing analysis.

### **STATUTORY RESPONSIBILITIES**

The Minister of Innovation, Energy and Mines is responsible for the following:

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The Biofuels Act.....	B 40
The Economic Innovation and Technology Council Act.....	E 7
The Energy Act.....	E 112
The Gaming Control Act .....	G 5
The Gaming Control Local Option (VLT) Act.....	G 7
The Gas Pipe Line Act.....	G 50
The Gas Allocation Act .....	G 52
The Greater Winnipeg Gas Distribution Act (S.M. 1988-89, c. 40) .....	-
The Manitoba Health Research Council Act .....	H 28
The Income Tax Act (section 10.5) .....	I 10
The Mines and Minerals Act.....	M 162
The Mining and Metallurgy Compensation Act .....	M 190
The Oil and Gas Act .....	O 34
The Oil and Gas Production Tax Act.....	O 37
The Property Tax and Insulation Assistance Act [Part V, and section 1 and Part VI as they relate to subjects covered under Part V].....	P 143
The Surface Rights Act.....	S 235
The Winter Heating Cost Control Act.....	W 165

As per Order-In-Council 350/2009

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## **SUSTAINABLE DEVELOPMENT**

The department is committed to the Principles and Guidelines set out in The Sustainable Development Act and works to incorporate them in department activities, programs and business practices.

The Principles and Guidelines of Sustainable Development are:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding
4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global Responsibility
8. Efficient uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation.

The Sustainable Development Procurement Goals:

1. Education, Training and Awareness
2. Pollution Prevention and Human Health Protection
3. Reduction of Fossil Fuel Emissions
4. Resource Conservation
5. Community Economic Development

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## **ORGANIZATION**

The department's 2010/2011 organization structure is illustrated in the Organization Chart, page i. The roles, responsibilities and staffing are outlined in the following information.

## **ROLE AND RESPONSIBILITIES**

### **MINISTER**

HONOURABLE DAVE CHOMIAK

### **DEPUTY MINISTER**

JOHN CLARKSON

### **VISION STATEMENT**

*Manitoba is the place where innovation flourishes, ideas grow and people prosper.*

### **ROLE AND MISSION**

The department will build the capacity for Manitobans to prosper through innovation, by

- creating strategic partnerships;
- encouraging investment;
- enabling the right infrastructure, and access to it;
- promoting awareness and knowledge;
- championing critical policy development; and
- facilitating development of the province's energy and mineral resource and knowledge-based economy.

### **FOCUS**

The Department will:

- focus provincial innovation activities;
- assist in the growth and success of our science, research and technology assets;
- foster a positive environment to enable economic development opportunities related to energy initiatives;
- strengthen, develop, grow and attract knowledge-based industries;
- focus government's business transformation and information technology requirements;
- build community based partnerships through connectivity;
- strategically develop Manitoba's energy resources, in co-operation with public and private sectors;
- support innovation in communities and schools;
- link government's own IT activities with innovation and economic development;
- provide geoscientific information vital to address land-use and environmental issues facing Manitobans; and
- provide for and encourage the environmentally friendly sustainable economic development of the province's mineral and petroleum resources.

The Department will work collaboratively with business, individuals, government departments and communities to:

- strengthen their capacity to innovate;
- enhance the competencies they need to prosper;
- raise their profile locally, nationally and internationally; and
- foster an environment that supports sustainable economic growth.

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To achieve its mission, the department is organized in five divisions:

**ADMINISTRATION AND FINANCE DIVISION** provides for the executive management, planning and control of departmental policies and programs. Administrative support is provided through the Department of Entrepreneurship, Training and Trade in the areas of finance and administration and management information systems.

**ENERGY DEVELOPMENT INITIATIVES DIVISION** develops and implements energy development initiatives and economic development strategies involving hydro-electric resources and alternate energy development opportunities. This includes developing, monitoring and co-ordinating the implementation of energy-initiatives and related provincial programs.

**SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT DIVISION** (SIBD) functions as the government's primary focus for business development services to industry and communities in the areas of life sciences, information and communication technologies, and digital media, in support of economic and employment growth. Develops, analyzes and communicates policies related to innovation, research and development, technology and telecommunications. SIBD oversees the implementation of the Manitoba Research and Innovation Fund and the Manitoba Centres of Excellence Fund, provides a co-ordinating function for research, innovation, science and technology initiatives in government. Manitoba Health Research Council: Promotes and assists basic, clinical and applied research in the health sciences in Manitoba through grants and awards programs. Industrial Technology Centre: Facilitates economic development in Manitoba through the provision of industrial technology services. Manitoba Education, Research and Learning Information Networks: Facilitates and co-ordinates the delivery of technology services to the education community across Manitoba.

**BUSINESS TRANSFORMATION AND TECHNOLOGY DIVISION** provides leadership for service delivery activities, operational transformation activities and the SAP implementation across the Government of Manitoba ensuring the best possible use of the province's existing information and communications technology resources, systems, platforms, applications, and skills, while finding new ways to meet service challenges, plan for future needs, and respond to economic opportunities. Legislative Building Information Systems: Provides a secure technological environment with highly responsive support services and reliable systems that address business requirements of diverse users in the Legislative Building

**THE MINERAL RESOURCES DIVISION** promotes wise land management and environmentally sustainable economic development in the province based on Manitoba's mineral and petroleum resources; provides authoritative documentation of the province's mineral and petroleum endowment and development potential; delivers mineral incentive programs; administration of legislation governing the disposition of mineral and petroleum rights, exploration, development and production of Manitoba's mineral and petroleum resources and, the rehabilitation of mines, quarries and abandoned petroleum sites; provides for the resolution of disputes between surface and/or mineral rights holders with respect to accessing minerals including oil and gas.

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## ADMINISTRATION AND FINANCE

The Administration and Finance Division comprises the Executive Support Offices and the shared Financial and Administrative Services section of Entrepreneurship, Training and Trade.

### MINISTER'S SALARY AND EXECUTIVE SUPPORT

Executive Support includes the Offices of the Minister and Deputy Minister. The Minister provides leadership and direction to ensure the goals and objectives of the department are accomplished. The Office of the Deputy Minister provides the Minister with advice and information regarding issues and matters of concern to the department. Executive Support is responsible for providing the department with policy direction and the overall planning and co-ordination of departmental activities.

#### 18-1(a) Minister's Salary

Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 FTE	\$	Variance Over (Under)	Expl. No.
Minister's Salary	37	1.00	37	-	
<b>Total Expenditures</b>	<b>37</b>	<b>1.00</b>	<b>37</b>	<b>-</b>	

#### 18-1(b) Executive Support

Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	471	6.00	492	(21)	
Total Other Expenditures	66		73	(7)	
<b>Total Expenditures</b>	<b>537</b>	<b>6.00</b>	<b>565</b>	<b>(28)</b>	

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## ADMINISTRATION AND FINANCE

### FINANCIAL AND ADMINISTRATIVE SERVICES

Financial and Administrative Services is comprised of two primary components: Finance and Administration and Computer Services. The branch provides shared Financial, Administrative and Computer Services to the departments of Entrepreneurship, Training and Trade and Innovation, Energy and Mines.

#### Human Resource Management

Effective March 1, 2010 the Government of Manitoba realigned responsibility for the delivery of human resource services and the associated staff to the Civil Service Commission, with the goal to improve service delivery to all departments and employees. For additional information on this realignment, see the Civil Service Commission's 2010/11 Annual Report

#### OBJECTIVES

The objectives of Financial and Administrative Services are to: provide leadership, program direction and operational coordination to support department activities; to provide high quality, timely and customer responsive administrative, financial management and information technology, develop and administer appropriate administrative and financial standards, policies and procedures; and to develop and maintain appropriate reporting systems to provide timely and accurate decision-making information to senior management in the departments and in central agencies through a centralized support service.

#### ACTIVITIES/RESULTS

**Finance and Administration** supports the mission and goals of the Department by:

- Processing payments and receipts;
- Providing computer business application development and support services;
- Administering and coordinating the Department's parking and pool vehicle programs;
- Providing for physical accommodations;
- Providing advisory and specialized accounting and financial management services to departmental personnel and related entities;
- Coordinating French Language services;
- Coordinating the departmental administration of the *Freedom of Information and Protection of Privacy Act* and *The Public Sector Disclosure (Whistleblower Protection) Act*;
- Managing the department's records management program; and
- Providing timely, accurate and relevant information to departmental and central agency decision-makers including budgetary, cash flow and year end reporting.

#### 18-1(c) Financial and Administrative Services

Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 FTE \$	Variance Over (Under)	Expl. No.
Total Other Expenditures	149	150	(1)	
<b>Total Expenditures</b>	<b>149</b>	<b>150</b>	<b>(1)</b>	

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## ENERGY DEVELOPMENT INITIATIVES

The Energy Division's primary responsibilities are to facilitate clean, renewable energy development, develop broad provincial energy policy for both supply and demand side energy activities in Manitoba, and seek economic development opportunities related to energy development and energy efficiency activities.

Manitoba has become a "powerhouse" in terms of clean energy, utilizing renewable resources such as water, wind, solar and biomass to produce electricity to power our homes and industry, to fuel vehicles and to heat our houses and buildings. Renewable energy sources like hydroelectricity, wind energy, geothermal, biofuels and biomass cubes and pellets are commercial today, while Manitoba continues to gain experience in the clean energy technologies of tomorrow including electric vehicles and associated infrastructure, fuel cells, advanced energy storage devices, smart grid concepts and devices, advanced low temperature heat pumps and second generation biofuels. Manitoba is also recognized as a North American leader in terms of energy efficiency activities for both electricity and natural gas.

The activities of the division contribute to major capital investments in Manitoba, help Manitoba communities realize new economic opportunities, help reduce harmful greenhouse gas emissions, and contribute to Manitoba becoming more energy self-sufficient.

### OBJECTIVES

The primary objectives of the Energy Division include: developing and implementing provincial strategies and programs and providing business development support that facilitates the development of renewable energy sources; developing, analyzing and implementing provincial government's energy policies; providing oversight of existing programs and developing new programs to maximize energy efficiency activities in Manitoba; monitor and analyze global energy trends and promote Manitoba's clean energy trade opportunities in the US and Canada.

### ACTIVITIES/RESULTS

The following provides a summary of activities:

**Hydro-Electric Developments:** Highlights of major hydroelectric developments in Manitoba include the ongoing construction of Manitoba Hydro's 200 MW Wuskwatim dam and Manitoba Hydro's ongoing work to finalize terms and conditions related to the term sheets for a potential 500 MW power sale to Wisconsin Public Service and a potential sale of 250 MW to Minnesota Power.

The Energy Division continued to participate in the inter-departmental Major Hydro Projects Working Group tasked with ensuring major hydroelectric development related permitting processes are coordinated and streamlined. The division also participated on the steering committee for Crown Consultations with First Nations and Metis Communities related to the proposed Keeyask infrastructure project.

The Energy Division continued to help profile Manitoba's hydroelectric resources as a clean renewable electricity source for potential power sales into the US and Canada. Staff participated in US/Canada Clean Energy Dialogue meetings promoting hydroelectricity as a suitable clean energy source to help meet US state renewable energy portfolio standards. Staff provided strategic advice and briefing material to help senior government officials, ministers and the Premier advance discussions regarding renewable hydroelectricity at events like the Western Governors Association, Council of Energy Ministers, Midwest Legislators Forum, Western Premiers meetings, Council of Federation, Saskatchewan/Manitoba energy discussions, etc.

**Business Development:** In December 2010, through efforts led by the Energy Division, the Government of Manitoba signed a Memorandum of Understanding (MOU) with Mitsubishi Heavy Industries (MHI) of Japan, covering eight major areas for collaboration on renewable energy. MHI is a major world-wide corporation with extensive involvement in clean energy technologies. A series of major follow-up actions and projects have proceeded from that MOU.

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**Wind Power:** Adding to the 99 megawatt (MW) St. Leon project owned and operated by Algonquin Power, Pattern Energy Group constructed the 138 MW 60-turbine St. Joseph wind farm – one of the largest wind farms in Canada, ultimately generating enough power to serve the needs of 50,000 homes. This \$345 million dollar project was actively facilitated by the Energy Division, primarily through business development support provided to Pattern Energy and participation on the St. Joseph Wind Energy Project Crown-Aboriginal Consultation Committee.

The Department continues to provide support to Manitoba communities, First Nations and wind energy companies interested in developing or attracting wind energy projects.

**Geothermal (Ground Source Heat Pumps):** Manitoba remains a Canadian leader in geothermal through an innovative and responsive geothermal industry where, on a per capita basis, Manitoba continues to install geothermal at more than three times the Canadian average.

The Energy Division continued to offer province-wide geothermal incentives under the Manitoba Geothermal Energy Incentive Program for home and building owners where the consumer directs the decision whether to select geothermal. For eligible new homes, approximately \$3400 of geothermal incentives is now available, including a refundable Green Energy Equipment Tax Credit of \$2400 and an incentive grant of \$1,000. For eligible existing homes, a refundable Green Energy Equipment Tax Credit of approximately \$2400 is typically available. Commercial building owners are eligible to receive up to 15% of the value of their installed geothermal systems and building owners who install district/community geothermal service systems are eligible for a grant up to \$150,000.

A district geothermal system in Winkler that will serve over 50 homes was awarded a district geothermal grant payment by the department. The development, known as Willow Ridge Place, consists of semi-detached homes that will be heated and cooled by one central geothermal system.

The Energy Division continues to support heat pump industry infrastructure through regulatory support of Manitoba Geothermal Energy Alliance (MGEA) installers under the Manitoba Green Energy Equipment Tax Credit.

**Low Temperature Air-Source Heat Pumps:** The Energy Division extended a field study of low temperature air-source heat pumps to assess the energy performance of this technology under real Manitoba winter climate conditions. The study is expected to be completed by the end of 2011.

**Biodiesel:** Energy Division staff completed amendments to The Biofuels Act which included the establishment by regulation of a grant program for local biodiesel production to replace an existing tax exemption. The Biodiesel Grant Fund Regulation came into force in July 2010 and provides a 14 cent/litre incentive for five years. The province has three licensed commercial biodiesel plants with an annual production capacity of over 30 million litres.

**Ethanol:** In order to develop additional ethanol production capacity, Energy Division staff worked with proponents of cellulosic ethanol which utilize agricultural waste such as wheat straw as a feedstock. Manitoba's fuel suppliers currently provide a regular gasoline blend of 10% ethanol and Husky Energy's Minnedosa ethanol plant continues to operate at capacity to supply this market.

**Hydrogen:** The Energy Division completed the transition of the Hydrogen Centre of Expertise Inc. to the Centre for Emerging Renewable Energy Inc., including moving this organization to becoming a fully independent non-profit organization in September 2010. The new Centre has a broadened mandate to include a range of emerging renewable energies and associated technologies.

**Electricity Reliability:** In June of 2009, the Government passed the Manitoba Hydro Amendment and Public Utilities Board Amendment Act (Electrical Reliability). This Act effectively provides the statutory authority to regulate electrical reliability standards in the Province of Manitoba. The Energy Division is developing regulations under the Act that will make standards mandatory and designate a compliance body to monitor compliance with reliability standards.



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**Energy Efficiency:** The Province of Manitoba's Lower Income Residential Efficiency Program continued to build on a successful track record of retrofitting homes to reduce energy and water consumption, lower utility costs, and help revitalize neighbourhoods. Support provided to community-based organizations in Winnipeg (BUILD) and Brandon (BEEP) enabled the retrofit of approximately 400 Manitoba Housing units. Numerous trainees benefited from participation in the skills-training portion of the retrofit programs, helping position them to overcome challenges related to finding and retaining meaningful employment. This initiative has leveraged over \$400,000 in federal funding from Natural Resources Canada's ecoENERGY program for reinvestment into additional efficiency retrofits. Key partners on these programs are Entrepreneurship, Training and Trade (ETT), Manitoba Hydro, Housing and Community Development, and Water Stewardship.

**Plug-in Hybrid Electric Vehicles (PHEVs):** The Energy Division continued project management of the Manitoba PHEV Demonstration into the second year of operation, including public release of the first year operational report for the demonstration (released in July 2010), and a major presentation in conjunction with Red River College at the EV 2011 Conference in September 2010 regarding the progress and results of the demonstration. A report of the second year operations was also completed, but not yet publicly released. This demonstration has been one of the largest of its kind so far in Canada. The Energy Division also on behalf of Manitoba has been managing Manitoba's involvement with the joint partnership with Toyota Canada, Manitoba Hydro and the University of Manitoba to demonstrate for one year under Manitoba-conditions Toyota's new factory-built plug-in hybrid vehicle (PHV) Prius. (Each of the three local partners uses the vehicle 1/3<sup>rd</sup> of the time).

**Electric Vehicles:** The Energy Division also was responsible for conducting extensive background work on all-electric vehicles for Manitoba. This included discussions on partnership arrangements with Mitsubishi Motor Sales of Canada, regarding their all-electric iMiEV, and Nissan Canada, regarding their all-electric Leaf. The Division has been developing an *Electric Vehicle Road Map* for Manitoba, although this not yet publicly released. The Division was also responsible for the development of a major Memorandum of Understanding (MOU) with Mitsubishi Heavy Industries (MHI) of Japan. The MOU covers a broad range of renewable energy activities, but importantly includes electric-vehicles, particularly for heavy duty vehicles, as a major component.

**Biomass for Heat:** The Energy Division continued to work closely with department of Manitoba Agriculture, Food and Rural Initiatives on biomass fuel for heating applications. Energy staff primarily provided business support in discussions with a variety of interested biomass processors and biomass technology developers, with individual industries in continuing to explore the use of biomass to displace fossil fuels, and in discussions on possible appropriate incentive options for biomass fuels.

**Midwestern Energy Security and Climate Stewardship:** The Province of Manitoba along with several states across the Midwestern US signed an agreement to pursue new initiatives aimed at reducing carbon emissions and promoting clean energy production and use. Manitoba's involvement in this agreement included working groups on renewable energy, energy efficiency and a cap and trade mechanism for greenhouse gas emission reductions.

**HD Petroleum:** The Energy Division was responsible for assisting HD Petroleum, a producer of diesel fuel from recycled lube oil, in obtaining provincial support to complete the construction of its processing plant located south of Winnipeg. The company also has plans to market its processing and equipment technology to other countries.

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**18-2(a) Energy Development Initiatives**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	855	10.00	901	(46)	
Total Other Expenditures	2,857		2,824	33	
<b>Total Expenditures</b>	<b>3,712</b>	<b>10.00</b>	<b>3,725</b>	<b>(13)</b>	

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# SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

## SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

### OBJECTIVES

The main focus of Science, Innovation and Business Development (SIBD) is to provide Manitoba with a comprehensive, integrated and coordinated approach to innovation, research and technology initiatives including:

- research, innovation and technology policy development and coordination;
- coordinating investments to support research and innovation in Manitoba;
- knowledge based industry development and growth;
- building Manitoba's life sciences, ICT and digital media presence;
- smart community development; and
- extending broadband access across Manitoba.

SIBD's mission is *to promote and enhance a climate of research, innovation and technology development that spurs responsible economic development for the benefit of all Manitobans*. Its objectives are to:

- develop public policy initiatives in support of research, innovation and technology development;
- develop a provincial innovation infrastructure;
- build and strengthen the research and innovation capacity within the province;
- build community capacity for sustained economic development in the new economy;
- build the capacity for new company formation, attraction and growth; and
- coordinate the implementation of public policy initiatives in the areas of research, information technologies, and investments.

### PROGRAM AREAS

#### Research and Innovation Policy

The Research and Innovation Policy Branch of SIBD is responsible for the development, analysis and communication of policies related to research, innovation, science and technology. The Branch oversees the implementation of the Manitoba Research and Innovation Fund, Health Research Initiative, Manitoba Centres of Excellence Fund, Manitoba Network for Science and Technology (MindSet) and funding provided to the Manitoba Health Research Council. The Branch also provides a key co-ordinating function across government for research, innovation, science and technology initiatives.

#### Business Development

The Business Development Branch of SIBD works with companies and industry supporting organizations in the knowledge-based sectors of Information and Communications Technologies (ICT), Life Sciences and Digital Media. Working with a variety of stakeholders, the Business Development Branch support activities aimed at creating an environment that fosters business development in all three of these knowledge based sectors. The Branch also supports the business development needs of existing Manitoba businesses as well as companies considering investment in Manitoba.

#### Broadband Initiative

The Broadband Initiative works with the private sector and community based organizations to provide high-speed connectivity and Broadband capacity to areas of the province where such services do not currently exist.

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## **ACTIVITIES/RESULTS**

### **RESEARCH AND INNOVATION POLICY**

#### **Manitoba Research and Innovation Fund (MRIF)**

With a core allocation of \$11.0 million in 2010/11, the Manitoba Research and Innovation Fund (MRIF) is the primary vehicle for funding provincial research and innovation in the Department of Innovation, Energy and Mines (IEM). Established in 2003/04, the MRIF has three primary support elements: the Research Fund; the Health Research Initiative (HRI); and the Innovation Fund. Additional resources of \$750,000 were provided to the Research Fund and Innovation Fund from the Urban Development Initiative (UDI).

The objectives of the MRIF are:

- to increase the capacity of Manitoba's universities, colleges, hospitals and other not-for-profit institutions to carry out important world-class scientific research and technology development through the funding of research projects identified as a priority by the Province;
- to increase Manitoba's capacity for innovation through the support of science and technology awareness, technology commercialization and other strategic initiatives;
- to enhance job creation, economic growth, productivity and competitiveness;
- to encourage collaboration between and within the private sector and research institutions;
- to enhance Manitoba research institutions' abilities to attract and keep world-class researchers and skilled technicians, and to conduct state-of-the-art research; and
- to develop improvements for Manitobans' health, environment, and quality of life.

#### **Research Fund**

This program element had a \$7.8 million allocation for 2010/11 which included a \$7.55 million base allocation and \$250,000 Urban Development Initiative recoverable support. Its focus is on expanding Manitoba's research capacity, enhancing research infrastructure, enabling research programs, and providing key support to emerging programs in such areas as genomics, proteomics and bioinformatics research.

#### **Projects Funded**

In 2010/11, projects approved for funding included the following: an Endowed Research Chair in Immunobiology in Infectious Diseases at the University of Manitoba, the Concordia Hip and Knee Institute, shared funding for the Canadian Institutes of Health Research (CIHR) International Infectious Disease and Global Health Training Program, North American Conditional Mouse Mutagenesis 2 (NorCOMM 2) project based at the University of Manitoba, two projects led by the International Centre for Infectious Diseases; various Canada Foundation for Innovation (CFI) projects at the Universities of Manitoba, Brandon, and Winnipeg; and support for the Science and Technology International Collaboration (STIC) Fund.

#### **Health Research Initiative (HRI)**

HRI funding, totalling \$2.0 million was provided to five Manitoba health research centres in 2010/11 to assist in supporting research overhead costs. The program funds were apportioned to each centre according to a formula that has been used consistently since the program's inception in 1996/97. Payments to each HRI participant in 2010/11 were as follows:

CancerCare Manitoba	\$ 180,000
Manitoba Institute of Child Health	\$ 100,000
Health Sciences Centre	\$ 385,000
St. Boniface Hospital Research Centre	\$ 270,000
University of Manitoba	<u>\$ 1,065,000</u>
Total	\$ 2,000,000

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## **Innovation Fund**

The Innovation Fund component of MRIF had a funding allocation of \$1.9 million in 2010/11 which included recoverable support of \$500,000 from the Urban Development Initiative. The Innovation Fund assists in the implementation of identified strategic Manitoba Government innovation priorities. Funding in this stream is catalytic, supports the broader industry in developing their innovation structures, and promotes economic development by leveraging and expanding research capacity and assisting with technology commercialization.

In 2010/11, Innovation Fund support of \$1.9 million was provided to various projects including the following:

- Banff Venture Forum
- Biomedical Commercialization Canada
- The Eureka Project – Smartpark Incubator
- Genome Prairie
- Information and Communications Technologies Association of Manitoba (ICTAM)
- Life Sciences Association of Manitoba (LSAM)
- Manitoba Innovation Council
- MindSet
- MITACS
- New Media Manitoba
- Richardson Centre for Functional Foods and Nutraceuticals
- TRILabs

In 2010/11, the Innovation Fund also supported the Broadband Connectivity initiative with funding of \$100,000.

## **Manitoba Centres of Excellence Fund (MCEF)**

The Manitoba Centres of Excellence Fund (MCEF) is the Manitoba Government's research and development support mechanism for Manitoba based researchers who have been successful under the Federal Government's Networks of Centres of Excellence (NCE) initiative. The national headquarters for the Intelligent Sensing for Innovative Structures (ISIS) network that conducts research and development on advanced composite materials and electronic sensors for construction engineering projects such as bridges and earthquake resistant buildings is located at the University of Manitoba, and has received major MCEF support over the past decade. Since its inception in 1989/90, MCEF has provided some \$9.1 million of matching support for projects.

During 2010/11, MCEF support of \$720,000 leveraged a total of \$3,057,487 in federal funds from the NCE program. The following University of Manitoba projects were supported by the funds:

- Intelligent Sensing for Innovative Structures (ISIS)
- Allergy, Genes and Environment Network (AllerGen)
- Canadian Arthritis Network (CAN)
- Canadian Water Network (CWN)
- The Automobile of the 21st Century (AUTO21)
- ArcticNet
- Advanced Foods and Materials Network (AFMNet)
- Canadian Stroke Network (CSN)
- PrioNet Canada
- Geomatics for Informed Decisions Network (GEOIDE)

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## **Science and Technology International Collaboration Fund (STIC)**

In 2007/08, the STIC Fund was launched to support international collaborative research projects with the potential to generate commercial activity and economic benefit for the Province of Manitoba. Each year, \$1.0 million has been set aside from the Research component of MRIF to support research and development initiatives with researchers beyond Canada's borders.

New collaborative research projects funded through the STIC Fund in 2010/11 included:

- Dr. Digvir Jayas – Development of Technologies and Capacity Building for Primary Processing, Drying and On-farm Storage of Pulses in India (\$100,000 collaborative project with researchers in Thanjavur, India)
- Dr. Jeff Leiter – Clinical validation, implementation, application and continued technical development of EchoSoft ultrasound image analysis technology for the quantitative assessment of pathological soft tissue (\$150,000 collaborative project with researchers in Wisconsin, USA)
- Dr. Simon Potter – Ecocycle Prototype Development Project (\$78,875 collaborative project with researchers in Minnesota, USA)
- Dr. Simon Potter – Plant Fibre Biocomposites (\$10,000 collaborative project with researchers in Victoria, Australia)

The remaining 2010/11 STIC funding was used to support multi-year research projects approved in previous years, and STIC-related business development activities.

A key STIC project announced by the Province in 2010/11 will provide up to \$750,000 in matching funding over five years to the Canada-Israel International Fetal Alcohol Spectrum Disorder (FASD) Research Collaboration. This important partnership between the University of Manitoba and the Institute for Medical Research Israel-Canada (IMRIC) at Hebrew University in Jerusalem will extend and implement findings from basic research conducted primarily by IMRIC Professor Abraham Fainsod over the past twelve years. This research is expected to result in long term social, economic and health benefits for improved health outcomes and the ability to implement preventative approaches to reduce the incidence of FASD.

## **Manitoba Network for Science and Technology (MindSet)**

MindSet is an IEM sponsored initiative led by a full-time Program Coordinator that supports the development, co-ordination and implementation of year-round science and technology awareness activities in Manitoba. MindSet encourages and promotes:

- scientific and technological awareness, knowledge, ability and skills;
- improved school-to-work transition in science and technology areas; and
- innovation in science and technology.

In particular, MindSet's role is one of facilitating, networking, communicating and implementing activities, especially in areas important to the provincial economy. These areas include information technology, biotechnology, aerospace, advanced manufacturing, composites and new materials and digital media. SIBD provided \$250,000 in 2010/11 in support of MindSet's key activities.

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MindSet's key activities in 2010/11 included:

- Girls in Gaming: Developing Video Games
- Green Mining Camp
- Microsoft Partners in Learning
  - Microsoft Teacher Training
  - Peer Coaching
  - 21<sup>st</sup> Century Leadership Skills
  - Innovative Teachers Awards
  - Microsoft Summer Institute
  - Canadian Kodu Cup
- National Biotechnology Week
- Sanofi-Aventis BioTalent Challenge
  - Manitoba
  - Northern Manitoba
  - Biotech Alive!
- Science Fairs
- Serious Games/Mobile Learning Educators Conference ✓
- Summer Institutes
- Teacher Professional Development Workshops
- TEDx Manitoba Conference
- Virtual Robotic Games
- Win-Cube Satellite Project
  - Canadian Satellite Design Challenge
  - Manitoba Space Adventure
  - Amateur Radio Course (for communicating with satellites)
- Youth Biomedical Program

MindSet continues to play a critical role in creating awareness and interest in science and technology careers among Manitoba educators and students.

### **Manitoba Health Research Council (MHRC)**

In 2010/11, the Department provided \$6,002,600 in funding to the Manitoba Health Research Council to support research grants and personnel awards which MHRC provides to the research community and for the administration of the Council. This funding also helped in the implementation of the *Envisioning the Future* strategic plan developed by the Council.

The MHRC's new strategic direction is based upon four action areas which will increase the strength and capacity of the health research community in Manitoba:

- Establish MHRC as the coordinating body for health research in Manitoba;
- Develop, recruit and retain the best research faculty;
- Facilitate research networks, linkages and communication; and
- Move research evidence into practice.

In 2010/11, the Council approved funding of two Manitoba Research Chairs, 12 Establishment Grants, 10 Operating Grants, 10 Postdoctoral Fellowships and 35 Graduate Studentships, one MMSF/MHRC Clinical Professorship, two Opportunities Grants in Respirator Research and many second and third year awards from previous competitions.

Manitoba Research Chairs are funded for five years, Establishment Grants provide funding for three years, and the Operating Grants, Fellowships and Studentships provide funding for two years.

MHRC funding in 2010/11 was provided by the Government of Manitoba through the Department of Innovation, Energy and Mines, along with the MHRC's 2010 Coordinated Studentship Funding Partners. These partners include: CancerCare Manitoba, Crohn's and Colitis Foundation of Canada, Health Sciences Centre Foundation, Manitoba Lung Association, Manitoba Institute of Child Health, Manitoba Medical College Foundation, the St. Boniface Hospital Research Centre and University of Manitoba

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Graduate Fellowships. MHRC also partnered with the Canadian Institutes of Health Research on the Regional Partnership Program. MHRC's partnership programs leveraged in excess of \$1,984,687 in external funding.

The following list shows the members of the MHRC Board of Directors in 2010/11:

**Dr. Brian Postl**, Professor and Dean, Faculty of Medicine, University of Manitoba (Chair)  
**Dr. Arnold Naimark**, Director, Centre for the Advancement of Medicine (Vice-Chair)  
**Dr. Judith Bartlett**, Associate Professor/Health Director, Department of Community Health Sciences, Faculty of Medicine, University of Manitoba/Manitoba Métis Federation  
**Mr. F. Lynn Bishop**, Immediate Past Chair, Health Sciences Centre Foundation, and General Manger, Cargo Jet  
**Dr. Henry Friesen**, Distinguished Professor Emeritus, Faculty of Medicine, University of Manitoba  
**Dr. Albert D. Friesen**, President and CEO, Medicare Inc.  
**Mr. Robert Gannon**, Immediate Past Chair, St. Boniface General Hospital Board (Secretary Treasurer)  
**Mr. Ray Hoemsen**, Director, Applied Research and Commercialization, Red River College  
**Dr. Digvir Jayas**, Vice-President, Research, University of Manitoba  
**Ms. Cathy Nieroda**, Vice-President, HP Enterprise Services  
**Dr. Ian Smith**, Director General, National Research Council Institute for Biodiagnostics  
**Ms. Arlene Wilgosh**, President and CEO, Manitoba Regional Health Authority

*Ex officio:*

**Mr. John Clarkson**, Deputy Minister, Department of Innovation, Energy and Mines  
**Mr. Milton Sussman**, Deputy Minister, Department of Health

Additional information is available in the MHRC Annual Report.

## **BUSINESS DEVELOPMENT**

### **Information and Communications Technologies (ICT) and Digital Media**

Business Development activities for the ICT and Digital Media sectors for 2010/11 were focused in the following five areas:

1. Creating an Environment Fostering ICT and Digital Media Business Development
2. Increasing ICT and Digital Media Research and Technology Commercialization
3. Ensuring a skilled and Available Labour Force
4. Enhancing The Capacity Of Manitoba Communities To Participate In The Knowledge Economy

#### **1. Creating An Environment Fostering ICT and Digital Media Business Development**

##### **Industry and Professional Associations**

SIBD worked closely with relevant industry and professional associations to promote competitiveness within Manitoba's knowledge based businesses; nurture the growth of an advanced technological infrastructure; and ensure the recruitment and retention of a skilled labour force. Such organizations include the Information and Communications Technologies Association (ICTAM), New Media Manitoba, The International Game Developers Association (Manitoba Chapter), and the Manitoba Customer Contact Association.



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## Business Incubation

SIBD continued to be actively involved with two technology business incubation projects - The Eureka Project at Smartpark and Biomedical Commercialization Canada (BCC).

- **The Eureka Project** is a technology incubator focused on the priority sectors of information technology and wireless communication, advanced manufacturing and materials, functional foods and nutraceuticals and ag-biotech. Located at the University of Manitoba Smartpark, the incubator's objective is to provide the space, management expertise and resources for the successful development of high technology start-up companies in Manitoba. SIBD continues to work with the program in an advisory capacity and provided a \$250,000 contribution under the Manitoba Research and Innovation Fund to support the continued operation of the incubator.
- **BCC** is a private sector, not-for-profit organization located at the Centre for Commercialization of BioMedical Technology. It provides a host of resources and people to help early-stage science and technology companies enter the market, secure investment and/or pursue their acquisition strategy. BCC assists its clients in the areas of: Facilities and Infrastructure, Mentoring, Coaching and Participation, and Finance and Investment. SIBD continues to work closely with the program and provided a \$250,000 contribution under the Manitoba Research and Innovation Fund to support the continued operation of the incubator.

## Information and Communications Technology Association of Manitoba (ICTAM)

ICTAM is an industry-focused association whose goal is to accelerate the growth, prosperity and sustainability of the ICT industry through relevant programming, advocacy and collaboration. As a not-for-profit, membership based association; ICTAM's constituency is broadly based, encompassing vendors, consumers, government, education, chambers of commerce and sector councils. As information and communication technologies are enabling every facet and type of business, ICTAM assists member companies in achieving greater success through human capital development programs, networking events, conferences, cost-saving benefits and promotional marketing opportunities

SIBD provided \$25,000 in 2010/11 to support the development of a business plan for the Western Canadian and International expansion of the successfully piloted Market Access Program (MAP). MAP was a \$1.8 million project designed to create and disseminate, in an accessible way, a domain of knowledge to assist Manitoba companies in raising their level of readiness to enter into trade, technology partnering, and export activities in the United States. This unique approach integrates more fully with company planning processes through pre-programming diagnostic services and optimizes returns associated with global competitiveness through training and hands-on mentoring. Twelve companies and 25 executives have participated in the program to date. The program has built a large collection of learning assets and conducted more than 80 learning sessions including assessments, workshops, consultant-led training for market development and 132 downloads of online learning. The business plan for the expansion of MAP is expected in 2011/12.

## New Media Manitoba (NMM)

NMM is a non-profit association of professionals that advocate and provide focused training, support and guidance to the new media business and development community. Comprised of over 900 members, NMM is a common ground for people seeking to make connections and collaborate on interactive digital projects. In 2010/11 New Media Manitoba received \$10,000 from SIBD for an Industry Profile and Economic Impact Analysis. This analysis is part of a larger 3 year industry development project which will generate new economic development activities in the interactive digital media sector. This initiative will enable New Media Manitoba to enhance awareness and knowledge of this industry and develop strategic partnerships to support the growth of Manitoba companies.

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Similar to the film/television industry, the scale and scope of Manitoba's local digital media industry is limited by available resources, such that outside work is an important factor in increasing the volume of activity and supporting infrastructure in the province. In 2010/11, SIBD continued its collaboration with a consortium of Manitoba stakeholders and private sector companies in the "Game on Manitoba" initiative. To develop these linkages, SIBD participated with various Manitoba companies in the Game Developers Conference (GDC) in San Francisco (6 companies).

### **Manitoba Interactive Digital Media Tax Credit (MIDMTC)**

The MIDMTC was introduced in 2008/09 to stimulate investment in Manitoba's digital media industry and is a refundable tax credit for companies that develop and produce interactive digital media products in Manitoba. This is a 40% tax credit (maximum of \$500,000) to qualifying corporations for eligible Manitoba labour expenditures that are directly attributable to the development of an eligible interactive Digital Media Product. In 2010/11, eight Tax Credit Certificates in the amount of \$137,779 and six Certificates of Eligibility were issued. The MIDMTC is one of the most generous in Canada on a percentage of labour basis in comparison to other provinces offering digital media tax credits.

### **ICT and Digital Media Trade and Export**

SIBD in partnership with Manitoba Trade, provided support for ICTAM to lead a small Manitoba delegation to participate with other Canadian representatives in the World Congress On Information Technology (WCIT) in Amsterdam in May 2010. Objectives of the mission were to promote awareness of the Manitoba ICT industry both within the Canadian Delegation and internationally; to research prospective partners, clients, investors and business leads/relationships for ICT and its sub-sectors; to meet with partner organizations and determine if collaboration opportunities exist for ICTAM to encourage private sector participation at WCIT 2012 in Montreal; to capitalize on opportunities for ICT investment in Manitoba; and to maximize networking opportunities with the international ICT community.

## **2. Increasing ICT and Digital Media Research and Technology Commercialization**

### **TRLabs**

Fiscal year 2010/11 represented the fifth and final year of a five year, \$2.4 million funding agreement between TRLabs and Manitoba. SIBD continued to work actively with TRLabs in Manitoba to explore ways of increasing the number of applied research and commercialization projects undertaken with local Manitoba companies and to make preparations for a follow-on five year agreement. During 2010/11 TRLabs Winnipeg had 18 SME partners, 6 major industry partners, and 2 industry affiliates, and produced 56 technologies in areas such as eHealth and digital media. IEM provided support for the annual TRLabs Community Dinner under the theme "Celebrating Information and Communication Technologies Research and Development and Innovation in Manitoba" which was co-organized with ICTAM, as well as the annual CollaboraIT symposium that highlighted various areas of ICT development in Manitoba. TRLabs continued efforts in eHealth development with projects such as a sleep apnea measurement system and the Collaborative Healthcare Team Platform project aimed at improving healthcare delivery for residents in remote and northern communities in Manitoba. TRLabs worked towards developing a new five year strategic plan that emphasized a shift from technology push to market pull activities under the framework of a Six Step Market Pull Commercialization Model.

In February 2011, IEM secured approval to enter into a new 5 year \$2.6 million funding agreement with TRLabs that will last until 2015/16.

### **Financial Assistance Programs Supporting Commercialization**

In concert with Manitoba Entrepreneurship, Training and Trade, SIBD continues to work with a number of technology-based companies to provide support for technological assessments and marketing evaluations in support of commercialization and business development. In 2010/11, fourteen ICT/Digital Media companies and organizations received support through the Business Development Fund, which includes the Technology Commercialization Program, the Feasibility Studies Program and Special Projects Fund.

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### **3. Ensuring a Skilled and Available Labour Force**

In addition to its support of the MAP program, SIBD provided \$15,000 in support of an Aboriginal Liaison Officer (ALO) with ICTAM. The ALO's mandate is to act as liaison between ICTAM, industry, government representatives and the Aboriginal community to facilitate and promote the attraction, recruitment, training and retention of Aboriginal employees within the ICT sector. Paired with contributions from the departments of Aboriginal and Northern Affairs and Entrepreneurship, Training and Trade, staffing of this position is assisting to foster a knowledgeable and growing workforce for the ICT sector and ensuring that the Aboriginal community in Manitoba plays a meaningful role in the sector through employment.

Through the ALO position, SIBD was able to support innovative program such as the Aboriginal Youth ICT Challenge which engages Aboriginal youth in ICT project work, raising awareness of the opportunities within the ICT industry and creating pathways for Aboriginal youth to follow toward a successful ICT career. The program offers technical and non-technical skill development, including business knowledge (sales and marketing). Students design and develop a website under the guidance of a number of professional instructors from the University of Winnipeg during 10 comprehensive workshops throughout the year. The 2010/11 school year saw the participation of 4 schools and 31 students.

SIBD also supported ICTAM in the delivery of the Women in Technology Speed Mentoring event where female ICT C-Level executives connected with women and girls who are considering careers in the ICT sector.

In addition SIBD supported ICTAM's delivery of a series of events designed to gather perspectives and recommendations for action that will ultimately form the basis for guiding Manitoba's role in shaping the national digital economy.

### **4. Enhancing Capacity of Manitoba Communities to Participate in the Knowledge Economy**

#### **E-Index**

SIBD worked closely with government and community stakeholders to advance "E-Readiness" in Manitoba communities as defined by the assessment of community, organizational and individual capacity to fully participate in the knowledge based economy through the utilization of appropriate skills and infrastructure. This assessment is enabled by a made-in-Manitoba tool called the E-Index. The E-Index provides information on four elements; a community's level of technological infrastructure, the population's skill level, the utilization of technology as well as the community's capacity to afford technology. A community's capacity across these four elements can be directly correlated to their ability to achieve and maintain competitiveness as communities evolve from traditional to knowledge based economies.

In 2010/11, IEM supported the assessment of 5 Manitoba communities - Flin Flon, Snow Lake, Cranberry Portage, Moose Lake and St. Laurent. Final reports and a strategic plan based on the outcomes of the assessment in each community are expected in 2011/12.

#### **Life Sciences**

In the life sciences sector, SIBD worked with key stakeholders on initiatives in the biomedical, health biotech, and agricultural biotech sectors that led to increased economic activity in the province.

Activities in 2010/11 were primarily focused on three priorities:

1. Working With Key Stakeholders on Economic Development Initiatives;
2. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally; and
3. Establishing Formalized Linkages.

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## **1. Working with Key Stakeholders on Economic Development Initiatives**

### **Mid-Continent Knowledge Corridor**

The purpose of the Mid-Continent Knowledge Corridor is to capitalize on established relationships through the North America Super Corridor Coalition (NASCO), develop a network of researchers, industry representatives, and government officials that will work collaboratively to strengthen the life sciences cluster along the central corridor of North America. It is anticipated that this knowledge corridor will also attract investment and research partners from the east and west coasts.

SIBD is working cooperatively with Economic Development Winnipeg and partners in the USA and Mexico to develop a preventative food product that addresses the diabetes burden in all three jurisdictions.

In addition, SIBD is actively working with partners in Minnesota, Wisconsin and North Dakota to develop linkages between the jurisdictions. Research institutes and industry partners in the areas of health biotechnology, medical devices, agri-health products, industrial biotechnology and bioenergy have been actively engaged.

### **Manitoba Agri-Health Research Network (MAHRN)**

Since 2007 MAHRN has been a portal to the Province's nationally and internationally recognized centres involved in the commercialization of agricultural products for improved health. Manitoba's agri-health sector is home to three leading edge facilities that work closely with industry to research and develop functional foods and nutraceuticals: Canadian Centre for Agri-food Research in Health and Medicine, Richardson Centre for Functional Foods and Nutraceuticals, and the Food Development Centre. MAHRN has been integral in the development of key industry and research linkages with partners in the European Union, Chile, Australia and Minnesota. In 2010/11, IEM provided MAHRN with \$125,000 in support of international projects and priorities.

### **Life Science Association of Manitoba (LSAM)**

LSAM represents Manitoba's growing life sciences sector. The Association's objectives are to coordinate activities to address member needs and concerns and to inform members of changes in the global biotech industry. The current LSAM mandate focuses on four pillars:

- 1) Facilitate synergies in the life science industry through connecting people, information and ideas;
- 2) Support the development of Manitoba's human resource capacity;
- 3) Strengthen the business environment for members; and
- 4) Provide a voice for the life science industry in Manitoba.

LSAM is working closely with SIBD staff and key Manitoba stakeholders on sector specific outreach and coordination activities. In 2010/11 SIBD provided LSAM with \$100,000 to support the Association's strategic sector development activities.

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## **2. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally**

### **AusBiotech 2010 Conference**

The annual AusBiotech Conference and Exhibition was held in Melbourne, Victoria, Australia in October 2010. The theme for the 2010 conference was “Creating Global Solutions”. SIBD staff and stakeholders from Manitoba’s life sciences community attended the conference and participated in partnering meetings to showcase and promote Manitoba’s life sciences sector and to identify opportunities to increase collaboration between the two jurisdictions. Approximately 1,503 participants from Australia and the international community were in attendance. Manitoba was once again well represented at the event with twelve industry stakeholders participating. In conjunction with AusBiotech, meetings were held with government and life science industry representatives in Melbourne, Victoria, Brisbane, Queensland, and Adelaide, South Australia. Opportunities for inward investment, partnerships and research collaborations were identified at these meetings.

### **BIO 2010 International Biotechnology Convention and Exhibition**

Each year, the Biotechnology Industry Organization (BIO) hosts the world’s premier biotechnology conference, bringing together scientists, entrepreneurs and innovators from around the world. Held in Chicago, Illinois, BIO 2010 brought together nearly 15,000 industry leaders to discuss and share the latest developments and most pressing issues facing the biotech industry.

In 2010/11 SIBD led a Manitoba life sciences industry delegation to the BIO Convention and promoted the Province’s life science capabilities via a Manitoba pavilion on the Exhibit Floor. Within the Manitoba pavilion, organizations showcased included: Apotex Fermentation Inc.; Composites Innovation Centre; Industrial Technology Centre; University of Manitoba; GVI Clinical Diagnostic Solutions; Life Sciences Association of Manitoba; Manitoba Agri-Health Research Network; St. Boniface General Hospital Research Center ; Public Health Agency – National Microbiology Lab and Innoventures Canada.

In total, approximately 40 Manitobans participated in BIO 2010. Premier Selinger also attended to support the Manitoba delegates and showcase the province’s life science industry capabilities at a number of key events—including a joint Manitoba-Minnesota-Wisconsin business partnering reception and a Manitoba BIO Breakfast.

### **Life Science Alley (LSA) Conference 2010**

The LSA Conference & Exhibition is an annual event hosted by Minnesota’s life sciences industry association. This event was held on December 8, 2010 in Minneapolis, MN and attracted approximately 1,600 delegates from 30 states and a dozen countries. The Province of Manitoba was one of two premiere sponsors of the conference. Manitoba’s sponsorship of this event builds upon the ongoing commitment by Manitoba and Minnesota to establish a life sciences corridor between the two jurisdictions, as articulated within a 2004 MOU for biosciences and life sciences collaboration.

In addition to Manitoba’s sponsorship of the LSA Conference, a delegation of thirty Manitobans representing 9 companies, 2 research institutes and 2 industry organizations attended the conference and participated in business partnering meetings.

Through participation at the conference, Manitoba continued to develop strategic linkages with partners in Minnesota and gained visibility as a leader in the mid continent knowledge corridor.

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### **3. Establishing Formalized Linkages**

#### **Memorandum of Understanding (MOU) with Wisconsin**

In October 2009, Premier Doer and Governor Doyle signed a MOU to advance cooperation between the Province of Manitoba and State of Wisconsin.

The MOU served, in part, to formalize a burgeoning relationship between the jurisdictions in the areas of renewable energy and life sciences/biotech. The MOU itself established five key industry sectors for ongoing cooperation:

1. Biosciences and Life Sciences;
2. Agricultural and Human Health Research and Development;
3. Renewable Energy and Environmental Industries and Research;
4. Water Treatment and Management; and
5. Transportation.

SIBD is currently leading the development of cooperative initiatives with Wisconsin under the MOU agreement—including a series of regional climate workshops and a joint research project in medical imaging.

#### **Pharmaceutical Liaison Committee (PLC)**

In June 2006, the PLC co-chaired by the departments of IEM and Health, was established to provide a central point of contact between government and the pharmaceutical and biotechnology industries. The Committee provides a discussion forum between industry and key government departments: Innovation, Energy and Mines, Manitoba Health (MH), and the Community Economic Development Committee of Cabinet (CEDC). The Committee also facilitates internal discussion, which ensures consistent application of decisions within the life sciences sectors in Manitoba.

IEM, CEDC and MH's active cooperation in the work of this committee is viewed very positively by industry members as it represents a unique forum for open discussion of issues and investment opportunities as well as the planning of collaborative activities between the province and the private sector.

### **BROADBAND INITIATIVE**

Since its creation in September 2001, the Broadband Initiative has been active in promoting partnerships with community based organizations and the private sector to provide broadband or high-speed Internet access to communities where that service did not exist. The Province's vision is to utilize high speed Internet connectivity to secure economic and social benefits available through the use of information and communications technologies for the benefit of Manitobans.

The Initiative has supported activities undertaken by Industry Canada's Broadband for Rural and Northern Development (BRAND) Program. This \$150 million National initiative announced in September 2002, has provided 118 Manitoba communities with a total of \$6.6 million in matching funds to enable the creation of broadband networks throughout the province.

In July of 2004 the province's new Broadband Strategy entitled "Connecting Manitobans" was approved. The strategy's main objective is to ensure that all communities in Manitoba have access to broadband or high speed network services by 2010. In order to help attain this goal, the Municipal Rural Infrastructure Fund (MRIF) has, since June 2005, allocated \$7.5 million to community based telecommunications infrastructure construction, thereby allowing a further 67 Manitoba communities to benefit from accessing Broadband networks.

In 2009/10 the Initiative worked directly with community champions to help develop viable community-based Internet Service Providers (ISPs) in aboriginal communities. The focus was on four associated communities including Lynn Lake and Leaf Rapids. Also in 2009/10, the Manitoba Network Task Force

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and the Initiative worked with ISPs in Manitoba to secure funding from the Federal government's \$225 million Infrastructure Fund; funding to support network infrastructure in unserved areas of Canada, and leverage funding from the First Nations Infrastructure Fund (FNIF) towards assisting in the build of "last mile" infrastructure in unserved First Nations communities in Canada.

The Community Information Enhancement Project (CIEP) is an initiative undertaken by IEM. It was originally developed in 2009 as a "Pilot Project" in order to enable 30 communities in northern Manitoba as a technology enhancement and community education initiative. Impacts of this program include promotion of local Community Economic Development (CED) initiatives that communities undertake under their own volition. The program has allowed communities to individually and/or regionally enter or enhance their presence in the digital arena by creating new websites and/or revisions of older websites. In 2010/11 IEM offered the program to a subsequent 20 rural and northern communities.

In 2010/11 IEM also piloted the Adoption of Technology for Economic Change (A-TEC) in Waywayseecappo First Nation to integrate broadband & other technologies into the local social & economic environment. The A-TEC is a complement to the CIEP and will be offered in further communities in the coming years. The original community was selected through an assessment process which identified broadband capacity, knowledge, sufficient community resources and space availability for the youth.

The project included working directly with partners such as: Waywayseecappo First Nation and Manitoba E-Association in order to initiate a multi-tiered project that ensured immediate and long term economic development impacts. It was accomplished by integrating broadband & other technologies into the local social & economic environment. It was done without hindering local cultural values.

As a result of the success of A-TEC in WWFN, IEM will offer the same program for the 2011-2012 fiscal year in Pelican Rapids and Sapotaweyak Cree Nation but with some beneficial modifications. Using the same principles as the previous A-TEC project, communities have been selected based on infrastructure, resources, willingness and need for such an important program.

Resources are in place in order to integrate technology in order to enhance the social and economic environments. Partnerships have also been developed to work with the community on proposal development and planning for important issues such as language preservation, education, et cetera. This project will be completed on March 31, 2012.

## **COMMUNITY CONNECTIONS / MERLIN**

On March 7<sup>th</sup>, 2000 the Governments of Canada and Manitoba announced a cost-sharing Memorandum of Agreement (MOA) for the Community Access Program (CAP) of up to \$11.1 million to increase the number of public Internet access sites in Manitoba from 146 to 586. The MOA with Industry Canada was extended providing a further \$2.48 million for the 2002/03 and 2003/04 fiscal years. In 2008/09 and 2009/10 there was \$583,784 in funding support provided to Community Connections. These funds were used to; support the existing access sites, further develop the Community Resource Networks (CRN's) and the content of their websites, provide Help Desk support and, to support the Community Access Program Youth Initiative (CAPYI). In 2010/11 Community Connections continued as part of the programs delivered by MERLIN. MERLIN contracts with the Manitoba E-Association (MB E) for management of the Community Connections/MERLIN program.

In Winnipeg, 201 sites were established and in rural Manitoba 338 sites were established. Of note, 61 sites were established in Northern Manitoba, and approximately 50 access sites in bilingual Manitoba municipalities. Sites were established in a variety of community organizations. The capacity of all public libraries was significantly increased. Funding support available to the access sites included funds for connectivity, assistive technology and/or upgrades to equipment or software. In 2009/10, 294 sites requested funds. It is estimated that about 96 sites continue to provide services without requesting funding. Community access sites are organized into CRN's that jointly develop and host local websites. Approximately 25 CRN's were developed.

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Out of the work done through the Community Connections Initiative, the youth development team from Brandon University developed into a small Manitoba software development company Function Four, Inc. This group with the support of Community Connections, and Industry Canada developed the CIMNet applications used for the community websites and the E-Index. The websites referenced above as well as 83 other community websites are managed by the MB E for Community Connections/MERLIN.

Technical and application support was originally provided to access sites by a Help Desk established by the Swan Valley Resource Network with support from Community Connections. This developed into a small Manitoba company (83 North, Inc.). A similar Francophone helpdesk was developed in partnership with Réseau de Ressources Communautaires Franco-Manitobain. The Help Desk was expanded in 2003/04 to provide service to Saskatchewan, Alberta, Nunavut and the North West Territories. Toward the end of 2003/04 the two separate services merged to form a not-for-profit organization known as HelpCan. In 2004/05 help desk services were migrated to the MB E for delivery in Manitoba and some locations in Saskatchewan, Alberta, Nunavut and the North West Territories. This continued from 2005-2010/11. The data base maintained by the help desk has become a valuable resource and is often used to answer survey question sent out by Industry Canada for all Manitoba access sites.

The CAP Youth Employment Initiative (CAPYI) employs approximately 50-60 Youth (age 16 to age 30) annually. Youth employees are funded through a partnership which includes; Community Connections, Industry Canada, MB Education, and Microsoft. Youth support the operation of access sites and the CRN web sites. In 2003/04, the MB E, was established as the delivery agent for the CAPYI program. In 2004/05 MB E expanded to deliver help desk services. Throughout 2005 to 2010/11 in addition to delivering Help Desk services and CAPYI, the MB E also coordinated communication for the Canada Access Program in the Prairie Northern Region (PNR), and published a newsletter. In previous years it delivered project management services for the Parkland Region Wireless Broadband Rollout, and the Central Region Wireless Broadband Rollout with funding from the Manitoba Canada Infrastructure Program for a high speed wireless projects. It delivers Mobile Technology Workshops and developed a community learning network in Canupawakpa First Nations community through the federal Office of Learning Technologies. In 2008/09 the Manitoba E-Association took on the project management of the Community Connections/MERLIN program and has continued to do so through 2010/11. In addition for the past two fiscal years Industry Canada's Small Business Internship Program (SBIP) was delivered by the MB E. In 2010/11 MB E in conjunction with Function Four delivered the E-Index Enhanced Strategic Planning project in Flin Flon, Cranberry Portage and Snow Lake. In addition MB E delivered the A-Tech (Aboriginal Technology) project in Waywayseecapo First Nation.

### **Broadband Initiative/Community Development**

As part of Manitoba's ongoing Broadband Strategy, which was approved by the Community Economic Development Committee of Cabinet in June 2004, the second phase of *Connecting Manitobans* is now being implemented by the department's Broadband Initiatives group. The strategy's main objective is to ensure that all communities in Manitoba have access to broadband or high speed network services by 2010. This second component's emphasis focuses mainly on the promotion and use of broadband technologies particularly in those remote and northern communities within the province of Manitoba.

It is this Province's vision to utilize high speed Internet connectivity to secure all of those economic and social benefits available through the use of information and communications technologies for the benefit of all Manitobans. The successful implementation of the second phase of Manitoba's Broadband Strategy, that is to say, the use of technology, continues to bring about innovative, community driven projects to the forefront.

The department continues to lend support to unique Broadband based activities such as the Waywayseecappo First Nations Adoption of Technology for Economic Change (A-TEC) pilot project: a partnership that involved departmental officials working directly with the community to integrate technology in order to enhance the social and economic environments thereby allowing the First Nation to utilize technology in planning for important issues such as language preservation, education and economic development.



On another front operational and financial support continues for the highly successful Community Information Education Program. Under this most recent initiative, to date, 50 of Manitoba's isolated and Northern communities now have created their own websites and portals with local content establishing a framework for employment, business and education forums.

Since its creation in September 2001, the Broadband Initiatives Unit has been active on several fronts in terms of partnership development with the private sector and community based organizations in order to provide high speed internet/Broadband solutions to various regions of the Province where that service does not currently exist.

### **18-3(a) Science, Innovation and Business Development**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	1,656	19.00	1,627	29	
Total Other Expenditures	613		613	-	
Total Manitoba Research and Innovation Fund	11,925		11,964	(39)	
Total Manitoba Centres of Excellence Fund	720		720	-	
Less: Recoverable from Urban Development Initiatives	(750)		(750)	-	
<b>Total Expenditures</b>	<b>14,164</b>	<b>19.00</b>	<b>14,174</b>	<b>(10)</b>	

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## MANITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

### 18-3(b) Manitoba Health Research Council

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Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 \$	Variance Over (Under)	Expl. No.
Total Expenditures	6,003	6,003	-	

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## **INDUSTRIAL TECHNOLOGY CENTRE**

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Innovation, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

### **18-3(c) Industrial Technology Centre**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
<b>Total Expenditures</b>	<b>900</b>	<b>900</b>	<b>-</b>	

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## **MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS**

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Innovation, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

### **18-3(d) Manitoba Education, Research and Learning Information Networks (MERLIN)**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
<b>Total Expenditures</b>	<b>396</b>	<b>396</b>	<b>-</b>	

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# **BUSINESS TRANSFORMATION AND TECHNOLOGY**

## **OBJECTIVES**

Provides strategic leadership to continuously improve the way the Manitoba Government operates and delivers services to residents through modernization, innovation and often with Information Communications Technologies.

## **ACTIVITIES/RESULTS**

- Improve service delivery by modernizing government through achieving simplicity, developing partnerships, engaging technology, organizational innovation, streamlining and improving business interactions, and performance reporting.
- Provide leadership for improvement of service quality, citizen-centered service delivery and on-line service initiatives.
- Maximize the potential of the SAP enterprise resource planning tool.
- Facilitate operational transformation through operational reviews, change management, user transition, development of communication plans, training support and end-user role definition and readiness.
- Serve as a link to inter-jurisdictional committees and forums where information and knowledge on service delivery and operational transformation are exchanged.
- Provide support for Committees driving service delivery and operational transformation.
- Develop and continually improve ICT strategic plans, policies, and measurement protocols.
- Work with stakeholders to optimize and align the ICT investment portfolio.
- Research and design new ICT products and services to help build new effective solutions.
- Establish flexible and adaptable information, application and technology foundations.
- Establish and monitor security standards and architecture.
- Provide ICT Goods and Services procurement and contract negotiation services to government programs.
- Ensure an adequate level of ICT Governance is in place to manage ICT resources.
- Provide ICT Risk Management capabilities to ensure adequate mitigation strategies are in place, including appropriate levels of Business Continuity capabilities and Disaster Recovery strategies.
- Proactively participate in strategies to enhance the ICT Sector within Manitoba.
- Exercise comptrollership responsibilities and provide overall financial leadership for ICT.
- Coordinate and manage the use of ICT resources across the ICT program portfolio.
- Proactively manage ICT contracts and license agreements.
- Plan, recruit, allocate, evaluate, train and develop resources for Business Transformation and Technology work.
- Manage the process of implementing major changes in ICT to reduce the risks and costs of change, and to optimize its benefits.
- Manage the relationship between BTT and clients to ensure needs are addressed.
- Provide client support in the day-to-day delivery of services.
- Improve the efficiency and effectiveness of project delivery through application of standard project management practices.
- Develop, deploy and support critical ICT infrastructure services.
- Develop and integrate applications to create functional systems responsive to the requirements of clients' program delivery needs.
- Work with the private sector and community based organizations in order to provide High-Speed connectivity and Broadband capacity to those areas in the province where such services do not currently exist.
- Maintain and operate existing applications that support the delivery of government program services.

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BUSINESS TRANSFORMATION AND TECHNOLOGY reports the following results in 2010/11:

- Provided an ongoing government-wide information security awareness program. Continued to work with the Office of the Auditor General to improve practices and policies around systems which support Public Accounts.
- Implemented an Employee Network Usage Policy.
- Promoted and utilized the Organizational Change Management Program to assist departments with service transformation activities.
- Supported Service Quality Partners through various activities such as the Manitoba Service Excellence Awards (MSEA), networking and learning opportunities through the Brown Bag Lunch Program and through learning seminars related to service quality.
- Conducted employee and departmental surveys for various stakeholders.
- Upgraded the government's seven-year-old provincial data network with the new Manitoba Network to link provincial government offices, schools, health-care facilities and other public-sector organizations in 155 communities across Manitoba and serve as a catalyst for the future expansion of broadband and high-speed Internet access services to rural and northern Manitoba communities.
- Refreshed desktop computers with upgraded operating systems and productivity software. This included an assessment of 7,185 desktop applications of which 6,330 applications, (including multiple versions and releases) were retired or consolidated.
- Deployed over 1,500 new imaging devices through device consolidation and consumables reduction using new multi-function imaging technologies resulting in annual cost savings of \$220.0 and a reduction of 1,308 devices.
- Successfully completed the server consolidation program on time and within budget. The initiative greatly reduces application outages for systems that provide important services to Manitobans. The number of servers reduced from 356 to 28 reducing electrical costs by an estimated \$300.0 annually. Other benefits include:
  - standardize support, management and monitoring capabilities
  - rationalization of servers
  - implementation of enhanced security
  - the release of over 7,000 square feet of former data centre space to departments for re-use.
- Implemented numerous technology projects with client government departments including:
  - Biz Pal – further enhancements to Business Permits and Licensing program
  - Online Traffic Violation Payments – Capability to pay traffic violations online
  - Access Manitoba – Apprentices to interact with government and business on line
  - Student Financial Assistance Information System (SFAIS) – Phase I – replacement of the Financial Management System
  - Online Child Care Registry – an online service to parents searching for Daycare Services
  - Solution Provider Reporting System – used by the Department of Entrepreneurship, Training and Trade to manage the work of agencies that provide training under provincial employment training programs
  - Disaster Relief – used by Family Services and Consumer Affairs to provide short term living expenses to people dislocated due to disasters.
  - Contract Management upgrade used by Manitoba Infrastructure and Transportation
  - Clinicians Assessment System – used to collect and manage assessment information resulting from special services being provided through the school system.
  - Aquarius Water Level Monitoring System used to collect and manage river level data
  - Digital Audio Recording – used by Justice for recording court sessions.
  - SAP Governance Risk and Compliance to enable departments to access SAP and ensure that segregation of duties conflicts have the appropriate mitigating controls assigned.
  - Integrated Mining and Reporting system – delivery of phase 1 the minerals division components.
  - Premise ID – delivery of a system to track agricultural locations across the province. A foundational component food traceability.
- Provided ongoing problem resolution and system enhancement activities for all managed business applications.
- Developed an Application Portfolio Management Initiative to evaluate all applications in government and develop a long range strategy.

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**18-4(a) Business Transformation and Technology**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>FTE</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	19,211	205.72	18,372	839	
Total Other Expenditures	75,988		74,844	1,144	
<b>Total Expenditures</b>	<b>95,199</b>	<b>205.72</b>	<b>93,216</b>	<b>1,983</b>	<b>1</b>

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1. Desktop Refresh expenditures, MTS contract and HP lease costs

**18-4(b) Business Transformation and Technology Recovery**

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<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>FTE</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Recoverable from other Appropriations	(64,832)		(64,834)	2	
<b>Total Expenditures</b>	<b>(64,832)</b>		<b>(64,834)</b>	<b>2</b>	

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## **LEGISLATIVE BUILDING INFORMATION SYSTEMS**

### **OBJECTIVES**

To provide a secure technological environment with highly responsive support services and reliable systems that address business requirements of diverse users in the Legislative Building.

The user community encompasses both government and non-government staff. Government staff includes Executive Council, Ministers' and Deputy Ministers' offices, Treasury Division, and departmental staff that work in the building. Non-government staff includes the Legislative Assembly offices of the Speaker and the Clerk, the Leaders of the Opposition, and Caucus offices.

### **ACTIVITIES/RESULTS**

Activities undertaken in 2010/11:

- To direct and plan Information Technology initiatives in the Legislative Building;
- To develop and implement strong security strategies to protect electronic information;
- To provide desktop management services including help desk support, requirements analysis, purchasing and asset management;
- To implement and manage all computing services such as e-mail, document storage, printing, remote access, etc.;
- To manage the communications infrastructure for the building network, access to the Internet, and access to the Government-wide network;
- To analyse, develop, implement and support business applications; and
- To provide consulting and project management services on outsource initiatives.

Legislative Building Information Systems reports the following results in 2010/11:

- Provided Caucus groups with consulting and technical support. Completed a Blackberry Enterprise Server and Antivirus upgrade for each of the Caucus groups.
- Provided Legislative Assembly with consulting, technical, and project management services in support of various specialty applications. Investigate replacement system for Hansard transcription services.
- Continued re-engineering and migration of custom applications to thin client technology;
- Investigate video streaming technologies for News Media Services.
- Provided Treasury Division with consulting, technical, and project management services in support of various specialty applications. Virtualized the Financial Modeling application (FINCAD) used for modeling Derivative cash flows. Completed first year of a multi year project to migrate to a web-based service, Treasura.
- Implemented upgrades and enhancements to the corporate web-based Activity & Issues Management System (AIMS); Investigate upgrade to latest operating system and database platform.
- Created a virtualization strategy for custom desktop applications, based on thin client model.
- Upgraded environment to latest Active Directory platform, Windows 2008R2.
- Implemented a high quality Video Conferencing service within the Leg Boardroom allowing senior executives ability to communicate in real time.
- Upgraded the Blackberry Enterprise server.
- Upgraded all Antivirus\Anti-Spam software at desktop, server and gateway levels;
- Completed the migration of desktops to newer hardware with the most current operating system and office automation software as part of an on-going refresh cycle;
- Upgraded backup strategy utilizing newer technologies thereby reducing backup and recovery timelines.
- Completed 95% of the project to upgrade network infrastructure. This project is designed to upgrade the building communications infrastructure to increase security and accommodate growing bandwidth needs;



- Provided setup and on-site support for Internet Café, registration desk and delegate lounge for the Premier's Council of Federation Conference.
- Investigated solutions for collaboration services between government organizations.

**18-4(c) Legislative Building Information Systems**

Expenditures by Sub-Appropriation	Actual 2010/11 \$	FTE	Estimate 2010/11 \$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,032	12.00	1,010	22	
Total Other Expenditures	278		310	(32)	
<b>Total Expenditures</b>	<b>1,310</b>	<b>12.00</b>	<b>1,320</b>	<b>(10)</b>	

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# **MINERAL RESOURCES**

## **MANITOBA GEOLOGICAL SURVEY**

### **OBJECTIVES**

The **Manitoba Geological Survey (MGS)** provides authoritative geoscience information to support and facilitate mineral and petroleum exploration in the province, and also conducts a broad range of geoscience activities that address land-use and environmental issues facing Manitobans.

The **Minerals Policy and Business Development** section of MGS is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities, administration of Manitoba's mineral exploration incentive programs and organizing and staging of the annual Mining and Minerals Convention. The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Innovation, Energy and Mines, as well as all affected government departments.

### **ACTIVITIES/RESULTS**

#### ***GEOSCIENCE PROGRAM***

In 2010, the MGS continued a major field effort in Manitoba's far north, supported in part by the Geological Survey of Canada (GSC) Geo-mapping for Energy and Minerals (GEM) program. Manitoba's Far North Geomapping Initiative included work in the Seal River region of northeastern Manitoba and the Misty Lake area of northwestern Manitoba, and Phanerozoic studies in the Hudson Bay Basin. Fieldwork continued in the Snow Lake area and the Thompson Nickel Belt (TNB), building on work started in 2008 and continued in 2009. New reconnaissance work was started on the east side of Lake Winnipeg, in the Family-Fishing lakes area.

Phanerozoic investigations focused on evaluation of the potential for shallow unconventional Cretaceous shale gas in southwestern Manitoba, three-dimensional geological modelling in southern Manitoba and collaborative work with the GSC in the Hudson Bay Basin.

The program is reviewed annually by the Mineral Exploration Liaison Committee (MELC), composed of members of the Mining Association of Manitoba, the Manitoba Prospectors and Developers Association and the Manitoba-Saskatchewan Prospectors and Developers Association, as well as representatives from the universities of Manitoba and Brandon, and the Geological Survey of Canada.

#### **Collaborative programs with the Geological Survey of Canada**

The Targeted Geoscience Initiative (TGI) is a federally funded program that is co-planned and jointly delivered with provinces and territories, which provide their own funding for their activities under TGI. Targeted Geoscience Initiative 3 (TGI-3) started April 1, 2005 and ended March 31, 2010, and provided a vehicle to partner with the GSC on priority projects aimed at improving the economic sustainability of mining towns in north-central Manitoba. Products related to TGI-3 have been published, or are in preparation and will be released in the coming months. Targeted Geoscience Initiative 4, announced in the February 2010 federal budget, is the fourth such initiative since 2000 and focuses on deep exploration. Projects to be conducted under TGI-4 are in the planning stage.

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The Geo-mapping for Energy and Minerals (GEM) initiative announced by the Government of Canada in 2008 is a five-year program designed to provide the geoscience information necessary to guide investment decisions leading to the discovery and development of new energy and mineral resources. The GEM-Minerals initiative in Manitoba is represented by a 2008 GSC-funded airborne radiometric and magnetic survey in the Great Island area; these data were used to support the subsequent geological mapping at Great Island by the MGS in 2009. The GEM initiative also provides support for surficial mapping and geochronology in projects of Manitoba's Far North Geomapping Initiative. A GEM-Energy project is focused on the Phanerozoic stratigraphy of the Hudson Bay and Foxe basins.

**Activities and results for 2010/11 are listed below as they pertain to MGS Program Objectives.**

## **1. Increasing Manitoba's minerals geoscience knowledge base**

### ***Far North***

The MGS's three-year study of the Hearne craton margin in Manitoba (Far North Geomapping Initiative, 2008–2011) is being undertaken in conjunction with the GSC's GEM program. This mapping, supported by sensitive high-resolution ion microprobe (SHRIMP) and isotope dilution–thermal ionization mass spectrometry (ID-TIMS) U-Pb geochronology, has fundamentally advanced our understanding of the complex nature, protracted evolution and diverse mineral potential of the southeastern Hearne craton margin. By the completion of the project in 2010, more than 16,000 km<sup>2</sup> of northeast Manitoba has been geologically mapped. Of particular importance for regional tectonic correlations and mineral exploration is a new chronology of four sedimentary sequences, including a conglomerate with uranium–gold–rare earth element mineralization now recognized as a Neoproterozoic sedimentary sequence. The revised stratigraphy and map provide a solid framework for mineral exploration and are key to resolving fundamental questions pertaining to the Precambrian geology and mineral potential of Manitoba's underexplored far northeast.

An MGS collaboration with the GSC and University of Waterloo to investigate the surficial geology in northern Manitoba is another component of the Far North Geomapping Initiative. These surficial geological studies aim to provide a detailed framework for the directions, timing and nature of major and minor ice-flow events in the region; dispersal-train patterns as measures for ice transport distances and directions; and guidelines for the best sampling media for geochemical analysis. The outcomes of these studies are geared toward providing mineral-exploration geologists with an up-to-date surficial-geology knowledge base and the tools to more accurately locate exploration targets in Manitoba's far north. In 2010, this study was conducted throughout an 8100 km<sup>2</sup> area that extends from south of the Seal River in the Great Island area to Kellas Lake in the north. Additionally, Rogen moraine and streamlined terrain regions were mapped and sampled throughout the study area. Shallow shear-wave seismic-reflection surveys were used to investigate the internal structure of the Rogen moraine ridges.

Also in the far north, bedrock geological mapping was undertaken in the Misty Lake area north of Lac Brochet to examine the southwestern margin of the Hearne craton and its Paleoproterozoic cover sequence(s). Archean and Paleoproterozoic basement rocks underlying the Athabasca Basin in Saskatchewan, which locally host basement uranium deposits, are exposed at surface in the Misty Lake area. Areas of moderate to intense alkali metasomatism occur in metasedimentary rocks and granitic rocks, in association with a variety of intrusion-hosted and metasomatic U, rare earth element (REE) and rare element mineral deposits.

The second part of a two-year community mapping program in 2010 continued to build on an information-sharing relationship between First Nation communities and the MGS. The project in Tadoule Lake provides the participants with basic skills needed to work in a mineral-exploration camp and fosters awareness of geology and land-use opportunities in Manitoba's far north. Two MGS staff geologists and four members of the Sayisi Dene First Nation partnered to map and assess the quarry potential of a marble occurrence in the Ryan Lake area. The 'Dene-Tzi marble' represents an opportunity for the Sayisi Dene First Nation to develop and promote a part of their traditional land and fill a commercial niche.

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### ***Flin Flon Belt***

In 2010, work continued on compiling the bedrock geology for the sub-Phanerozoic portion of the Flin Flon Belt. Recent exploration activity has focused on the southern extension of the Flin Flon Belt under the Phanerozoic cover. Although all volcanogenic massive sulphide (VMS) deposits found to date in the exposed portion of the Flin Flon Belt are solely located within the juvenile, 1.90–1.89 Ga arc-volcanic rocks, this new work provides evidence for a younger, prospective, ca. 1.87 Ga back-arc basin of ‘successor-arc’ age in the eastern portion of the belt, as well as prospective tholeiitic to transitional oceanic-arc environments farther west. Results of this ongoing study provide integrated and modern exploration models for the hidden VMS deposits in covered portions of the belt.

During the summer of 2010, additional geological mapping was conducted in the northern portion of the Snow Lake–Squall Lake–Herblet Lake area. The resulting map, at 1:20 000 scale, includes new geological mapping and integrates results from 2008 and 2009 mapping programs. A new and updated geological map of this area will help to establish more precisely the geometry of the various lithological units and the location of major structures, which will in turn provide important constraints for gold-exploration models. Improved knowledge of the volcanic stratigraphy will also assist when testing the various structural models to explain the internal geometry of the McLeod Road thrust panel. Finally, the results of this detailed structural analysis will help constrain the timing of gold emplacement and the deposit-scale controls on gold mineralization.

The results of geological mapping in the northern part of the Flin Flon Belt are in preparation for publication. A new 1:30 000 scale map will be accompanied by notes containing descriptions of the geology and geochemistry of the various tectonostratigraphic components.

Researchers from Laurentian University initiated a study of superbly exposed regolith occurrences at Flin Flon that formed during subaerial weathering ca. 1.85 Ga. One of the best preserved regolith exposures was mapped and sampled in the summer of 2010 to guide sampling for high-precision geochemical analysis. This study will contribute to our understanding of the timing at which the atmospheric oxygen fugacity reached sufficiently high levels to result in, for example, wholesale uranium mobility during oxidative weathering.

A researcher from Mount Royal University continued work begun in 2009 on the past-producing Schist Lake and Mandy deposits, approximately 4 km southeast of the town of Flin Flon. Detailed mapping of the strata that structurally overlie the hostrocks of the Schist Lake and Mandy deposits was the focus of fieldwork during the summer of 2010. The various volcanic facies and their lateral and vertical distributions suggest that a synvolcanic structure is present in the rocks structurally overlying the Schist and Mandy deposits, raising the possibility that these overlying rocks may also be prospective for volcanic-hosted Cu-Zn mineralization.

### ***Thompson Nickel Belt***

Geological mapping of the Paint Lake area was completed in June 2010 with mapping at the north end of the lake. The area is largely underlain by multicomponent gneiss, but trace-element and Sm-Nd isotope geochemistry of local metapsammite and metagreywacke suggests these supracrustal rocks are not correlative with the Ni-hosting Paleoproterozoic Ospwagan Group. A zone of previously recognized carbonatite magmatism and associated metasomatism was extended in 2010 northward into the Grass River area and now has a strike length of 23 km. Post-orogenic-type carbonatite bodies, similar to those at Paint Lake, are associated with some of the largest rare earth element deposits in the world; however, no zones of rare earth element mineralization have been identified to date.

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## **Superior Province**

Fieldwork conducted during the summer of 2010 was designed to take advantage of a well-exposed corridor in the Family–Fishing lakes area, including the Horseshoe Lake greenstone belt. The goals of the program were to re-examine the rock types described in previous reports dating to the late 1960s and early 1970s, and to determine their geochemical, geochronological and isotopic characteristics. The new dataset will provide a consistent legend of rock types in the Berens River Domain for use in the 1:250 000 scale digital map of Manitoba. The region has economic significance because the Horseshoe Lake greenstone belt remains the only sizeable greenstone belt in the province that has never been systematically mapped.

University of Manitoba researchers conducted mineralogical, geochemical and petrographic work on samples from the Cinder Lake alkaline intrusive complex, just west of Knee Lake. This work indicates that the various rock types found in the complex form a continuous petrographic series that likely represents metasomatic reworking of a feldspathoid rock. Rare earth enrichment in some samples appears to be related to metasomatism associated with emplacement of calcite veins, possibly related to the intrusion of a carbonatite body at Cinder Lake.

## **2. Increasing Manitoba's hydrocarbon geoscience knowledge base**

The economic potential for shale gas production from the Cretaceous shale sequences in southwestern Manitoba is considerable. To date, the MGS has provided some of the basic information needed to evaluate Manitoba's shale gas prospect. To further quantify characteristics of shale sequences in southwestern Manitoba and their potential to host shallow unconventional shale gas resources, samples were collected in 2009 and sent for organic and inorganic geochemical analysis, and bulk mineralogical analysis. In addition, the microporosity and mineralogy of the Babcock beds, a 2 m thick siltstone interval in the Boyne Member of the Carlile Formation, were evaluated using scanning electron microscopy and petrography. Pore characteristics and porosity values are comparable to those of other shale gas reservoirs, such as the Barnett Shale in Texas.

The Hudson Bay and Foxe basins project is in its second year. This project is part of the GSC's Geo-mapping for Energy and Minerals (GEM) program, whose energy side aims to study the hydrocarbon potential of Phanerozoic sedimentary basins. A modern synthesis and understanding of the architecture and nature of potential hydrocarbon systems of the Hudson Bay and Foxe basins aims to promote hydrocarbon exploration in this region. In Manitoba, the Hudson Bay Basin is represented by the Paleozoic carbonate succession of the Hudson Bay Lowland in the northeastern corner of the province. An improved understanding of the stratigraphy of the Hudson Bay Lowland and how it correlates and changes across the basin is critical in understanding the geological evolution and, in turn, the economic potential of the Hudson Bay Basin.

A new collaborative study by the Canadian Fossil Discovery Centre (in Morden, Manitoba) and the MGS aims to use fossil pollen and spores to correlate the bentonite horizons within the Pembina Member of the Pierre Shale over a long geographic distance along the Manitoba Escarpment. These data will be used as a control to study vertebrate fossils within their respective stratigraphic horizons, and could also be used to locate the thickest bentonite seam with the highest economic value within a 5 m thick assemblage of interbedded black shale and bentonite.

Geochemical analysis of the Gammon Ferruginous Member of the Cretaceous Pierre Shale shows that this member has relatively anomalous concentrations of rare earth elements, as well as Pt, Pd, Cu, Ni, V and Zn, compared with other Cretaceous shale horizons. Additional inorganic chemical and heavy-mineral analyses of outcrop and oilwell chip samples from the Gammon Ferruginous Member may lead to the discovery of a new, economic sedimentary deposit-type in Manitoba.

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### **3. Promoting effective land use and resource management**

The MGS participated in the Protected Areas Mining Sector Consultation, reviewing protected areas proposals currently in consideration by government.

### **4. Evaluation of environmental impacts and geohazards**

Manitoba plays an active and leading role as a contributor to local, national and international three-dimensional (3-D) modelling projects. Completion of a 3-D geological model of the Phanerozoic succession in southern Manitoba, south of latitude 55°N and west of longitude 95°W, is progressing (numerous cross-sections have been printed and interpreted). Increasing demands for groundwater and hydrocarbons have been the two main drivers for the 3-D mapping in Manitoba. The 3-D models unite disparate datasets and put them into a single standardized nomenclature, contributing to a variety of geoscience knowledge bases relevant to Phanerozoic stratigraphy; hydrocarbon, groundwater and industrial-mineral resource development; and geological education. Programs such as the cross-border 3-D geological mapping of the Red River Valley assist in groundwater management at large scales on both sides of the Canada–United States border.

### **5. Development of products that respond to clients' increasing needs for digital information**

Geoscience Information Services support is a critical component of the sub-Phanerozoic Precambrian geology project because of the large number of drillhole descriptions and chemical analyses that need to be compiled. The MGS has undertaken design and production of a database system to be used in both Manitoba and Saskatchewan for compiling drill logs and assay data. This database will feed data to 3-D drillhole-mapping software.

The Far North Geomapping Initiative has required substantial support in terms of analysis, compilation and map production. Digital field-data collection systems required technical support from Geoscience Information Services staff, both before and after the field-mapping programs.

The geophysical dataset compilation project involves geophysical data in the nonconfidential assessment files. This ongoing project focuses on expanding the number of datasets and converting the data presentations to standard format, with particular emphasis on converting data to standard projection and datum. The compilation now contains 162 airborne geophysical surveys. These data presentations are available for free download from the GIS Map Gallery.

Production of digital geological compilation maps continued through the year with the majority of the work focused on refinement of the seamless 1:250 000 scale 'Geology of Manitoba' map compilation that was first displayed in 2009.

The digital mineral deposits and occurrence database for Manitoba has been available on the GIS Map Gallery website since November 2008. The database summarizes all of the information contained in the reports of the Mineral Deposit Series. Work is continuing on the second phase of data entry, the incorporation of recently released work in assessment files. In addition, mineral occurrences not covered in the original Mineral Deposit Series are being added to the database. The process of adding both new occurrences and updating existing occurrences with files that become non-confidential will be a continuing process.

New online content published by MGS in 2009-2010 includes the following:

- Geological Survey Activity Tracker: provides quick and easy access to information on survey projects conducted throughout the province, with an interactive map being used to ascertain project details and results
- TGI-3 Flin Flon project site: provides an overview of the project and its products, free PDF downloads of workshop talks and abstracts, a bibliography of related publications, and links to relevant federal and provincial data sources
- Manitoba Precambrian Drillcore Libraries: provides an overview of MGS drillcore facilities, with access and usage information

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## **6. Collaboration with industry, Federal, university and other provincial agencies**

The MGS is engaged in many partnered initiatives, including contributions from the federal government, the mineral industry and several Canadian universities. These partnerships provide MGS access to expertise and technologies that enhance our ability to provide a state-of-the-art geoscience database for Manitoba. These programs facilitate the training of future geoscience professionals, which in 2010–2011 included one Post-Doctoral Fellow, two Ph.D. candidates, two M.Sc. candidates and one Honours B.Sc. thesis project.

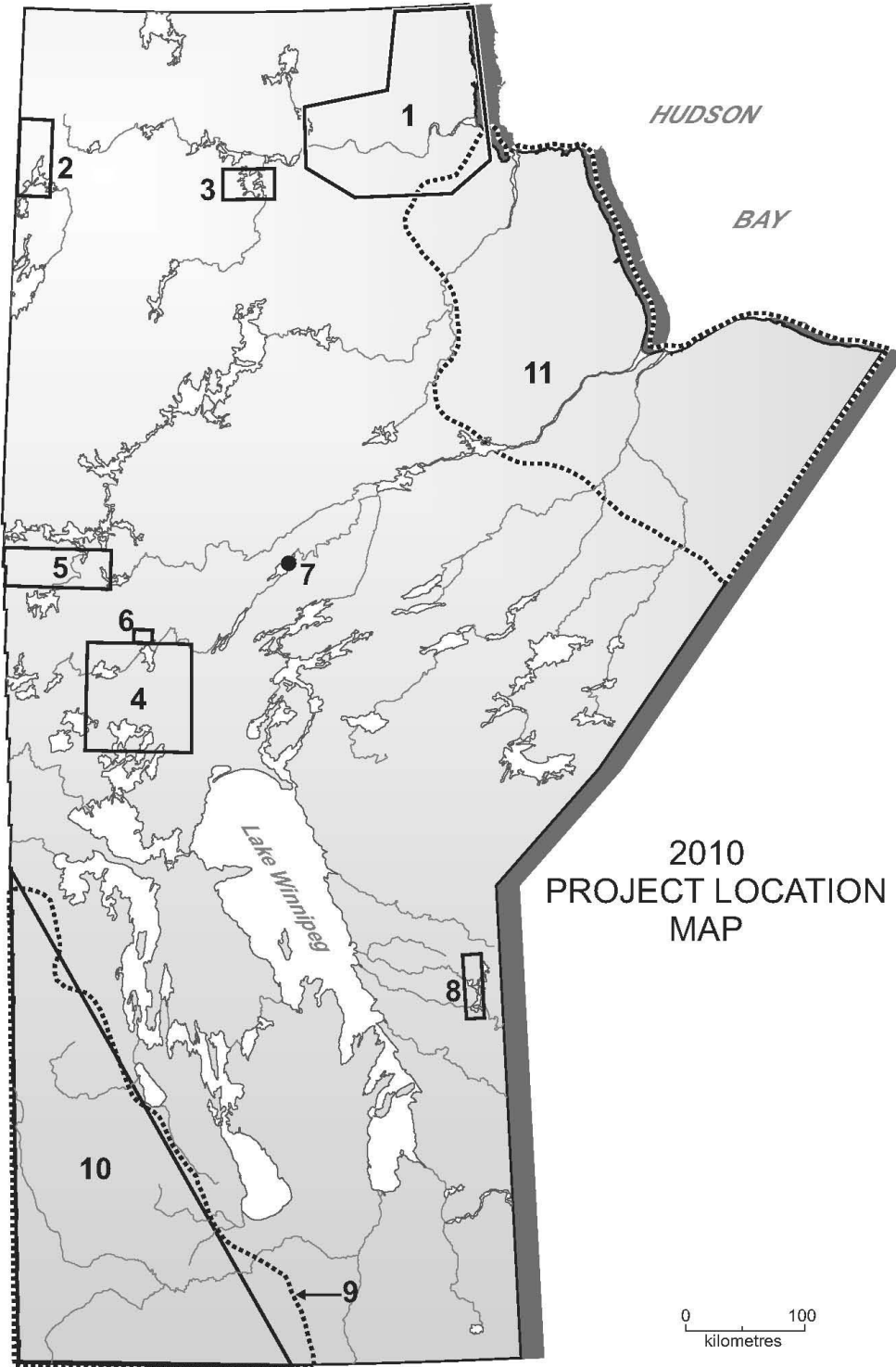
## **7. Providing minerals industry information through outreach activities**

In the summer of 2010, the MGS conducted a two-week geological mapping course with the Sayisi Dene First Nation at Tadoule Lake. The goals of the program were to help increase awareness of the region's geology and mineral resources, provide the basic skills needed to work in a mineral exploration camp, and foster information sharing between First Nation communities and the MGS.

Manitoba Geological Survey mineral-education outreach initiatives included the 'Manitoba Rocks!' program, which was delivered at the Manitoba Mining and Minerals Convention, at the Children's Hospital and during Provincial Mining Week, which drew more than 2100 visitors. 'Manitoba Rocks!' offers free hands-on activities developed to complement the Earth-sciences curriculum and increase public awareness of the importance of Manitoba's mineral resources and mining industry.

Other MGS outreach programs included the following:

- PDAC Mining Matters program: The MGS helped adapt the program's curriculum-based teacher resource kits for Manitoba's geology and mineral resources, and provided the venue during Provincial Mining Week to announce the launch of the program in Manitoba.
- Provincial Engineering and Geoscience Week: Staff of the MGS co-ordinated interactive mineral-education displays for this annual event.
- The second year of the Geological Mapping Course at Tadoule Lake was discussed above.
- Canadian Aboriginal Minerals Association 18th Annual Conference: The MGS outreach co-ordinator assisted organizers of the 2010 conference, which was held for the first time in Manitoba, on November 7-9.





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**Map Legend****Location of Projects 2010/2011**

- 1 Far North Geomapping Initiative: bedrock geological investigations in the Seal River region, northeastern Manitoba
- 2 Far North Geomapping Initiative: geological mapping in the Misty Lake area, Manitoba
- 3 Community Mapping Program with the Sayisi Dene First Nation, Tadoule Lake, north central Manitoba, stromatolitic marble occurrence in the Ryan Lake area
- 4 New geological mapping, geochemical, Sm-Nd isotopic and U-Pb age data for the eastern sub-Phanerozoic Flin Flon Belt, west central Manitoba
- 5 Northern Flin Flon Belt compilation, Manitoba
- 6 Update on geological investigations in the Snow Lake-Squall Lake-Herblet Lake area, west central Manitoba
- 7 Completion of geological mapping at Paint Lake, central Manitoba
- 8 Revaluation of the geology of the Berens River Domain, east central Manitoba
- 9 Shallow unconventional Cretaceous shale gas in southwestern Manitoba: an update
- 10 Gammon Ferruginous Member of the Cretaceous Pierre Shale in southwestern Manitoba: distribution and mineral potential
- 11 Hudson Bay and Foxe Basins Project: update on a Geo-mapping for Energy and Minerals program (GEM) initiative, northeastern Manitoba

**18-5(a) Manitoba Geological Survey**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	3,966	55.10	3,948	18	
Total Other Expenditures	2,087		1,582	505	
<b>Total Expenditures</b>	<b>6,053</b>	<b>55.10</b>	<b>5,530</b>	<b>523</b>	<b>1</b>

1. *Aboriginal Consultations*

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## **MINES**

### **OBJECTIVES**

The Mines Branch administers legislation governing the disposition of mineral rights (permits, claims and leases), exploration, development, production of the province's non-fuel mineral resources and rehabilitation of mines and quarries. The branch comprises three sections; Mining Recording, Mining Engineering and Inspection, and Assessment.

### **ACTIVITIES/RESULTS**

Other activities performed by the Mines Branch staff included the continuing compilation of an inventory of the provinces aggregate resources and administration of provincial land-use policies that deal with the conservation of mineral resources. The Branch continues it's representation on the sub-committee of IGWG on Mine Environment Neutral Drainage (MEND) Committee, the Regulatory Improvement Working Group (RPIWG), the Green Mining Initiative (GMI), the Federal/Provincial Technical Committee on Mineral Statistics, the Provincial/Territorial Mining Rights Committee and National Orphaned and Abandoned Mines Initiative (NOAMI). Branch staff participated in a number of technical seminars, conferences and mine rescue competition. Staff are also involved in supporting Aboriginal Consultation for issuance of mineral dispositions and work permits.

Under the Orphan and Abandoned Mine Site Program, the total expenditure for FY 2010/11 was \$29.3 million. The rehabilitation work was focussed on large projects in Sherridon, Lynn Lake and God's Lake. Detail engineering plans were advanced, to date 14 high hazard sites are completed.

#### **Mining Recording Section**

Mining Recording offices are located in Winnipeg and Flin Flon.

Mining Recording Offices maintain up-to-date records of mineral dispositions and leases and all legal transactions that relate to mineral dispositions and leases as required by legislation. The general public can access the computer data base on mining claims and permits, quarry leases, quarry surface leases, quarry exploration permits and potash dispositions through terminals located in each of the offices. The Mines Branch is currently in the process of determining the feasibility of online submissions and map staking.

The Mining Recording Section processes applications for mineral dispositions, leases, monitors and inspects the activities of disposition and lease holders for compliance with requirements of The Mines and Minerals Act and Regulations, and collects fees, rentals, royalties, rehabilitation levies, taxes and cash security deposits payable under the Regulations. The total revenue collected by the Section during the fiscal year 2010/11 was \$4,286,559 and the rehabilitation levy collected on the removal of aggregate material was \$2,029,218 for the same period.

During the calendar year 2010, 341 mining claims and 4 mineral exploration licenses were recorded covering a total of 154,259 hectares. Concurrently, 146 quarry mineral leases, 789 casual quarry permits and 768 registration certificates for private pits and quarries were also issued during the same period. Details of the types of mineral dispositions and leases issued and in good standing in 2010 are shown on the following page.

The Mines Branch is developing a system called iMaQs (Integrated Mining and Quarrying System) to enable clients to submit applications and manage their dispositions online. Until the Mines Act is changed, online staking will not be available. iMaQs allows registered users to submit and pay for their transactions either online or through the regular channels of mail, fax or in person. Registered users will be able to access their information from any computer in the world. iMaQs is expected to be available to external clients by mid-November 2011.

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## Aboriginal Consultation

The issuance of Work Permits for mineral exploration activities has been affected by the need to carryout consultation with First Nations people. This process has required considerable time which has resulted in some delays in issuing permits.

The Branch is also responsible for consultation on work permits which are issued by Manitoba Conservation. A process has been established to conduct First Nations consultation as required by Section 35 of the Constitution. The majority of work permits are approved for issue by Conservation within 60 days.

### Work Permit Applications Processed by Mines Branch

Number of Work Permit Applications Processed	159
Number of First Nations Bands Consulted	16
Average number of days between receiving a Work Permit Application and giving Conservation the okay to issue the permit	21
Applications withdrawn by Company/Individual	0

**MINERAL DISPOSITIONS ISSUED EACH CALENDAR YEAR 2007 – 2010**

	2007		2008		2009		2010	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
<b>Mining</b>								
Mining Claims	963	209,197	353	78,172	185	45,103	341	73,574
Mineral Exploration Licences	58	837,967	29	554,103	20	332,589	4	80,685
Mineral Leases	-	-	-	-	-	-	-	-
<b>Quarrying</b>								
Leases	44	7,172	61	2,556	88	5,029	146	7,326
Exploration Permits	9	54,514	38	47,729	2	1,230	10	56,884
Casual Quarry Permits	763		777	-	789	-	852	-
<b>Peat</b>								
Leases	4	556	-	-	12	2,544	14	1,995
Exploration Permits			-	-	-	-	0	0
<b>Coal – Exploration Permits</b>			3	30,135	22	39,380	10	56,884
<b>Private Aggregate Registration Certificates</b>								
	934	-	753	-	754	-		-

**MINERAL DISPOSITIONS IN GOOD STANDING AT CALENDAR YEAR END 2007 - 2010**

	2007		2008		2009		2010	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
<b>Mining</b>								
Mining Claims	6,005	971,439	6,243	1,622,770	5,953	976,011	6,142	989,444
Order-In-Council Leases	3,653	120,562	3,653	120,562	3,653	120,562	3,653	120,562
Mineral Exploration Licenses	156	2,646,058	107	2,104,812	97	1,797,707	75	1,395,011
Mineral leases	253	23,416	253	23,416	253	23,416	253	23,416
<b>Potash</b>								
Leases	1	5,787	1	5,787	1	5,787	1	5,787
Exploration Permits	2	54,514	4	148,726	3	127,431	3	127,431
<b>Quarrying</b>								
Leases	866	46,760	913	49,129	987	54,061	1,131	63,503
Exploration Permits	12	102,447	12	101,210	9	2,438	33	178,804
<b>Peat</b>								
Leases	150	23,238	150	23,238	163	25,842	173	27,663
Exploration Permits	1	1,018	1	1,018	-	-	-	-
<b>Coal – Exploration Permits</b>			3	30,135	26	88,758	19	74,280
<b>TOTAL</b>	11,099	3,995,239	11,340	4,280,803	11,145	3,222,013	11,483	3,005,901

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## **Mining Engineering and Inspection**

The primary purpose of the Mining Engineering and Inspection Section is to facilitate and encourage sound exploration, mining and rehabilitation practices in the province consistent with the principles of sustainable development and in compliance with The Mines and Minerals Act. It also provides land management and advisory services in support of provincial legislative and regulatory land use and resource management initiatives.

Staff monitor mining activity in Manitoba to ensure compliance with requirements under The Mines and Minerals Act including licenses, registrations, permits, leases, closure plan submissions, royalty/levy charges on production, and environmental operation standards. In 2010/11 inspection staff conducted field inspections to ensure mining compliance at quarry lease and casual quarry permit locations, private pit/quarry operations and site rehabilitation projects.

Three new projects were granted “new mine status” and one advanced exploration project was awarded permission to proceed.

Several mine closure plans for operating metal mines, inactive mines and for industrial mineral quarries were reviewed by Mines Branch staff and the closure plans were approved by the Director of Mines.

The Mines and Minerals Act, proclaimed in 1992, introduced a program to address the rehabilitation of pits and aggregate quarries in the province. Aggregate producers pay an annual levy based on the tonnes that they've produced and this money is set aside in a fund to be used for pit and quarry rehabilitation. On the basis of aggregate production from private and Crown lands in fiscal year 2010/11 approximately \$2.0 million was contributed to this Quarry Rehabilitation Fund, while 117 rehabilitation projects were completed at a cost of \$2.3 million. The total number of projects completed since 1992 comprise approximately 8,370 hectares of land rehabilitated. All the work has been undertaken through private equipment rental agreements or tendered contracts with private operators, administered and monitored by branch inspection staff.

## **Orphan and Abandoned Mine Site Program**

The program continued to make significant progress in 2010/11. Some of the highlights are outlined below:

- At the Farley Mine site in Lynn Lake, a new mobile water treatment plant has been commissioned and used last summer.
- Rehabilitation work continued on the ETMA in Lynn Lake with 50% partner Viridian. Tailings were consolidated in a smaller footprint in order to reduce cover costs. All dikes have been inspected as per Canadian Dam Association Guidelines in order to ensure long term stability. However there are deficiencies that will need to be addressed on a monthly basis.
- The decommissioning of the old garbage dump located on the tailings in Lynn Lake was completed. Final inspection to evaluate performance of vegetation will take place in the summer of 2011.
- Closure Plan and detailed engineering were developed for the El Mine Site Remediation. Project was tendered and contract was awarded. Work to be completed by October, 2011. A three year monitoring program will be needed, and the consultant will be developing details for performance measures.
- Site investigation of the Gods Lake Mine site on Elk Island was completed. In May 2010, the Screening Level Risk Assessment for the site was completed. As a continuation of the remediation efforts, a partial shoreline debris removal and powerline final clean-up was awarded in September, 2010. The major contract for the Elk Island/Jowsey Island site was awarded and mobilization started. Work will be taking place over the summer of 2011 and completed by March 31, 2012. Part of this site is the tailings area that has been used for years as an airstrip. Challenges in developing a technical solution have delayed the remediation work for the airstrip. A separate package will be developed for the area.

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- Sherridon tailings neutralization and relocation contract was awarded in August, 2009. Work started immediately and the water treatment plant was commissioned March 1, 2010. Camp Lake has been divided and prepared for the earthworks that have started. The project continues, water treatment challenges have delayed relocation of tailings, but substantial completion is expected in 2012.
  - In Snow Lake, tailings rehabilitation work has commenced with the detailed engineering design. A contract was completed to prepare the tailings for an engineered cover and work will take place in the summer of 2011. An agreement between Manitoba and BacTech is in place to initiate further study of the Arsenopyrite Residue Pile to determine the economics of reprocessing the material and potential gold recovery.
  - A surface and groundwater study was conducted at the Ruttan Mine site. It was identified that mine water treatment would be required. Contract was awarded in September 2010 for engineering services, and site investigation work commenced immediately.
  - All remaining high hazards sites are either under site investigation or are at an advanced stage of closure design. A consultant was retained to address site investigation, detail design and contract administration of the remediation work at all the remaining sites. Two site contracts were tendered and work will commence in the spring at sites near Island Lake and Bernic Lake areas.

### **Sustainable Land Planning Services**

Manitoba has enacted several resource management acts to manage land and natural resources as well as improve the economy and protect the environment. The mineral resource/land management program facilitates mineral resource and land stewardship in the various provincial and municipal land and resource use management planning processes. Program objectives for resource stewardship are to help facilitate the provincial interest in natural resources, manage land, and accommodate environmental management. Program goals are directed at facilitating responsible mining and resource development, protecting the environment and the province's ecosystems, minimizing land and resource use conflicts and providing high quality land and resource management planning and advisory services to planning authorities, industry and other land management stakeholders.

Program goals also include providing secretarial support to the Surface Rights Board and assisting Manitoba in the transition to sustainability. The implementation of the program is as follows:

#### Crown Land Planning

The management, classifying and policy development for Crown land in Agro-Manitoba is the responsibility of the Bloc Panning Committees. Major activities of the Crown land management process include developing and implementing Crown land plans, developing Crown land use codes and policy and supervising land use on Crown lands through an integrated management process. Other significant land management activities include evaluating Crown land sale and use proposals, providing technical advice and information on resource management activities and facilitating land designation under various resource management acts. Land management provides planning services related to:

- Crown land sales
- Crown land exchanges
- Crown land planning and development
- allocation of use
- integration of use
- protection, conservation and sustainability of provincial natural resources.

All land sales, exchanges, land use codes and other administrative requirements for Crown land planning and management are reviewed and commented on by Land Management.

In addition to the above, Manitoba has initiated a new process for provincial Crown land management which includes the Assistant Deputy Ministers and Deputy Ministers land use committees. Land Management also provides technical and policy support to these new land management processes.

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## Municipal Planning

The Planning Act governs land use planning and development in Manitoba. The legislation provides municipalities and planning districts with the authority to create and adopt a Development Plan and Zoning By-law. Land management is actively involved in providing the legislatively based land planning processes and stakeholders with technical products, advice and technical positions on land planning matters. Support services include reviewing policy and development proposals and ensuring that the province's non-renewable mineral resources are not sterilized by development, preparing mineral resource management technical reports and maps that help facilitate mineral resource management, and providing professional planning advisory assistance to the subdivision review and conditional use processes. Other significant planning services include policy reviews of plans and zoning by-laws, public consultation and supporting planning appeal Boards. Land Management is responsible for the interpretation and application of Provincial Land Use Policy #9, MR 184/94. The Provincial Land Use Policy for minerals is currently being revised to strengthen its intent and provide clarity concerning protecting mineral resources. The regulation has recently been vetted through Interdepartmental Review Committee and is currently undergoing a public stakeholder consultation process and has been approved by Manitoba. Aggregate resources are becoming increasingly scarce in the Capital Region and special emphasis has been placed on designating critical resources for future mining activity, and ensuring that the resources are viable for infrastructure renewal. Lands containing moderate to high quality mineral deposits are designated for mining activity and protective for future extraction.

## Sustainable Land Planning Services

	<b>2008</b>	<b>2009</b>	<b>2010</b>
Reviews of new Development Plans and by-law amendments to ensure that mineral resources are not sterilized	100	121	135
Municipal Boundary reviews including annexation or expansion	2	3	3
Review of new zoning by-laws and amendments	201	192	142
Review of closure of roads and public reserves	48	45	54
Review of conditional use applications for the establishment of mining operations	8	16	22
Review of proposed live stock operations	12	8	9
Provide land planning services to 46 planning districts and 144 municipalities			

## Land Use Assessment

Land Management provides technical support and advice to many and use review and assessment processes. Land use proposals are assessed to ensure that the province's mineral resources are not sterilized by development and to ensure that land use conflicts are identified and mitigated. Land use proposals that are assessed are subdivision applications, Crown land sales, zoning and policy memorandum as well as Crown surface encumbrances with the view of documenting land use, tenure and environmental conflicts. This activity directly supports interdepartmental and intergovernmental planning and resource management activities. A total of 1584 land use proposals were assessed for potential land use conflicts to ensure that the Province's mineral resources were not sterilized by surface development. A new policy and procedure and related process was created and implemented for mineral access rights. In addition, Land Management has partnered with development proponents in large complex surface, mineral and sand and gravel rights ownership to document and interpret various tenures and to help resolve ownership concerns including potash and northern mining communities.

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## Sustainability

The Sustainable Development Act was proclaimed on July 1, 1998. The Act creates a legal framework through which sustainable development will be implemented in the public sector and encouraged in private industry and society. An implementation process has been recently initiated and approved by Manitoba, and land management is currently providing technical support to many different provincial working groups and processes. Technical support is provided to COSDI, Codes of Practice, sustainability reporting, and financial management. Other important initiatives include sector based strategies under the provincial land and water initiative. Land Management also provides technical support to the Sustainable Development Innovations Fund by reviewing technical reports and participating in the approving committee. The principles of sustainable development are being codified into Municipal Plans, Crown Land plans and Zoning By-laws. The sustainability indicators report for mining areas prepared in the calendar year. Technical support for the Green Mining Initiative and provincial sustainability strategy has also been initiated.

## Protected Areas Initiative

Manitoba has initiated a program to protect representative landscapes and ecosystems from logging, mining and hydro development. Mines Branch plays an important technical role in the process by legally withdrawing Crown mining rights from mineral exploration, development and extraction to protect critical habitat from mining activities. It also provides land tenure information and other support to the stakeholder approval process. A new policy and process for protecting Rank 1 Crown mineral rights from exploration and development was implemented. The intent is to provide comprehensive legal security to the protected lands and ensure that they are protected until the stakeholder consultation process is completed.

## Treaty Land Entitlement

Progress was made towards meeting provincial obligations for Treaty Land Entitlement, Northern Flood Agreement and Grand Rapids Forebay Agreement in accordance with these legal agreement requirements. Land selections containing valid mineral dispositions in good standing were documented and technical support to the selection process was provided. Staff participated in resolving tenure conflicts associated with land selections and also provided procedural and policy advice. Twenty-eight selection sites were ratified covering a total of 1401.29 acres.

## Public Outreach

Land Management also provide educational and outreach services facilitating sustainability, mineral resource management to various land management boards, municipal councils, industry and the public. Public outreach services include presentations, workshops, and internet access to land management issues, policies, practices to ensure that there is an opportunity for public involvement and discussion regarding resource management issues. Activities include oral and poster presentations at conferences, workshops, public meetings and direct stakeholder consultations concerning mineral resource management. This activity helps facilitate informed decision making by land management boards, industry, and the public. Highlights for 2010 include providing public outreach to Manitoba's cottage lot program, assisting Manitoba prospectors and First Nation groups in land tenure issues, and providing technical support to Watershed Management Boards. This year special emphasis has been placed on conducting workshops on land planning and mineral tenure with stakeholders at the Manitoba Planning Conference and Rockwood Secondary Plan.



## Assessment Section

The Section receives and evaluates reports of required work submitted under The Mines and Minerals Act to ensure compliance with legislation and acceptable industry standards. At first confidential, these reports are eventually transferred to the non-confidential assessment library open to the public. These reports are indexed, microfilmed and scanned. Clients can view reports in our office or on the website.

Copies can be obtained by printing them directly from the website or ordering them from the Assessment Library. These reports are available on line, on paper, microfilm or compact disc.

The Section also provides advice to the Review Panel and Administrator of the Mineral Exploration Assistance Program on the merits and validity of the projects, acceptance of final reports and recommendations on payment or non-payment of grants.

The Section monitors mining exploration activities in the province and contributes to the preparation of reports on industry activity. It also acts as liaison between Natural Resources Canada and the mining industry for the gathering of statistics on exploration and production.

At the request of the Manitoba Securities Commission, the section reviews technical submissions on mining projects to ensure that they conform with the reporting standards set out in National Instrument 43-101 - Standards of Disclosure for Mineral Projects. Four projects were reviewed during the past year.

	2007	2008	2009	2010
Reports of work added to assessment library	99	150	109	125
Reports transferred to non-confidential status	106	124	106	99
<b>PRIVATE SECTOR:</b>				
Visits	139	42	47	41
Reports examined	635	240	111	50
Reports duplicated for clients	310	181	32	8
CD'S duplicated for clients	45	23	2	1
<b>DEPARTMENTAL STAFF:</b>				
Reports examined	147	133	14	13
Microfiche created/duplicated for Winnipeg and Northern Offices	469	379	46	100

Note: The decline in office visits and other activities in the private sector is due to the fact that all information is now available on-line.

### 18-5(b) Mines

Expenditures by Sub-Appropriation	Actual 2010/11	Estimate 2010/11		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries and Employee Benefits	1,290	26.00	1,312	(22)	
Total Other Expenditures	629		625	4	
<b>Total Expenditures</b>	<b>1,919</b>	<b>26.00</b>	<b>1,937</b>	<b>(18)</b>	

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## **PETROLEUM**

### **OBJECTIVE**

To provide for and encourage the safe and efficient development of Manitoba's oil and gas resources in accordance with the principles of sustainable development.

### **ACTIVITIES/RESULTS**

Manitoba's oil and gas sector, though small by national or international standards, is a significant component of the provincial economy particularly in the southwestern part of the province.

In 2010, Manitoba produced 11.7 million barrels of oil having a total value of approximately \$892 million breaking all previous investment, drilling, and production records. Since there are no refineries in Manitoba, all of the province's production is exported through the Enbridge pipeline system to refiners in Ontario and the US.

In 2010, the petroleum industry spent \$894 million in Manitoba to explore for and develop Manitoba's oil and gas resources, while operating over 3158 wells and transport crude oil and refined petroleum products within the province.

The Daly-Sinclair Field located southwest of Virden, continued to be expanded. As of December 31, 2010, the field had over 1536 producing oil wells. In 2010, Daly-Sinclair contributed 50.4% of the total provincial production.

The Waskada Oil Field enjoyed resurgence in drilling during 2010. Originally developed in the early 1980's using vertical technology, this field is now being redeveloped and expanded using new horizontal technology. Since 2008, oil production has risen by 340% to over 8400 barrels of oil per day. EOG received Ministerial approval to construct an 8" pipeline from Waskada to Cromer to handle the extra oil production. The line which became operational in January 2011 is currently handling 7,000 barrels of oil per day and has a maximum capacity of 40,000 barrels of oil per day

It is estimated that the petroleum industry in Manitoba provides direct and indirect employment for approximately 1,550 Manitobans.

In 2010/11, royalties, production taxes and revenue from the administration of Crown owned oil and gas rights, fees and sundry added \$30.4 million to the Provincial Treasury. Significant revenues were also collected by the province through income taxes, retail sales tax, corporation capital tax, payroll tax and fuel taxes. In addition, the industry paid approximately \$5 million in property taxes to the various municipalities where oil wells and facilities are located.

The Petroleum Branch administers The Oil and Gas Act and related regulations governing the exploration, development, production, transportation and storage of crude oil and natural gas. The branch is also responsible for The Oil and Gas Production Tax Act. Additionally, officers and inspectors of the branch are designated as Workplace Safety and Health Officers under The Workplace Safety and Health Act with respect to oilfield operations. The inspectors also act as industry's first point of contact with regard to oil field related environmental issues. .

The branch continued maintenance of its GIS Web-enabled Petroleum Resources map. The map covers southwestern Manitoba including Townships 1-22; Ranges 19-29 W1 and shows provincial Crown oil and gas rights mineral ownership, Crown oil and gas dispositions, wells, oil and gas facilities, field boundaries, topography orthophotos and allows for download of the branch's technical well files. The map is available on the Petroleum website at [www.gov.mb.ca/petroleum](http://www.gov.mb.ca/petroleum).

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Tundra Oil & Gas Partnership received approval in August of 2008 to initiate a CO2 enhanced oil recovery project in the Sinclair Oil Field. A first for Manitoba, the project is designed to investigate the use of CO2 sequestration in Manitoba's oil fields to increase oil production. The pilot project expired on December 31, 2010. A request to continue the re-engineered project is before the Branch.

The branch participated in the following consultation and outreach activities during 2010/11:

- The 18<sup>th</sup> International Williston Basin Petroleum Conference (May 2-4, 2010) in Bismarck, ND. The Mineral Resources Division presented an update of Manitoba oil and gas exploration and development activity at this forum and met with industry clients.
- The Canadian Association of Petroleum Geologists Annual Convention (May 13 -17, 2010) in Calgary, Alberta.

The following Informational Notices were issued by the Petroleum Branch in 2010:

- Informational Notice 10-1: Schedule of Public Offering of Manitoba Crown Oil and Gas Rights - February 26, 2010;
- Informational Notice 10-2: Core Lab Changes – August 12, 2010;
- Informational Notice 10-3: Manitoba Electronic Well Licence Application – March 14, 2010;
- Informational Notice 10-4: Annual Report Abandonment Reserve Fund

## **Administration and Geology Section**

### **Administration**

Administration is responsible for collection of petroleum revenues and administration of Crown owned oil and gas rights. The section collects annual lease rentals, Crown oil royalties and freehold oil taxes, conducts sales of Crown oil and gas leases and exploration reservations and processes lease renewals and extensions. The section is responsible for administering provisions of the Crown Disposition Regulation, the Crown Royalty and Incentives Regulation, the Oil and Gas Lease Agents Regulation and portions of the Drilling and Production Regulation under The Oil and Gas Act. The section also administers The Oil and Gas Production Tax Act and Regulation.

*Crown Oil and Gas Rights* - Four Crown oil and gas lease sales were held in 2010/2011. One hundred and eighty seven Crown Leases covering 21,532 hectares and 4 Exploration Reservations covering 3904 hectares were sold for a total of revenue of \$12,576,831.99. Revenue collected from Crown oil and gas lease sales was up from the 2009/2010 revenue by \$6,550,089.24.

Since 1979, the province has collected over \$65.7 million from the disposition of Crown Oil and Gas Rights. As of December 31, 2010, 111,082 hectares of Crown Oil and Gas Rights were under disposition. Compared to 2009, the total area under disposition has decreased by 23.1%.

In 2010, the section processed 49 lease renewals and 66 lease extensions, 219 lease surrenders, 71 transfers of dispositions and 25 oil and gas lease agent renewals and registrations. The section also issued 140 new leases and conducted 8 private sales.

*Data Collection* - The section collects monthly oil production data and data on the disposal and injection of salt water for all active wells in the province. As of December 31, 2010, there were 4,060 non-abandoned wells in Manitoba. Digital production, logs, technical information and injection histories are available for all wells.

During 2010/11, the section collected \$30.4 million from the petroleum industry. This revenue comprised \$8.3 million in Crown oil royalties, \$8.7 million in freehold oil taxes and \$13.4 million from administration of Crown Oil and Gas Rights, fees for well licences, battery operating permits, geophysical licences and oil and gas lease agent registration and publication sales. The revenue collected in 2009/10 was \$19.8 million.

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*Manitoba Drilling Incentive Program, (1992-2013)* - The Manitoba Drilling Incentive Program provides licensees of wells drilled after January 1, 1992 and before January 1, 2014, a holiday oil volume of production that is exempt from Crown royalties or freehold production taxes. The holiday volume earned is a function of oil price and location of the new well with respect to other wells.

Holiday oil volumes of up to 20,000 cubic metres can be earned by a new well.

In 2010, 504 wells earned an average holiday oil volume of 8112 cubic metres, bringing the total number of wells with a holiday oil volume in the program to 2841 as of December 2010.

Any horizontal well drilled prior to January 1, 2014 receives a holiday oil volume of 10,000 cubic metres. Two hundred and seven horizontal wells were drilled in 2009 and 436 in 2010.

Effective November 11, 1995, a marginal well where a workover is completed prior to January 1, 2014 earns a 500 cubic metre holiday oil volume. A marginal well is defined as a well that, over the previous 12 months, has been shut-in or has an average production rate of less than 3 cubic metres per operating day. Major workovers include the re-entry of abandoned wells, deepening or recompletion of existing wells from one pool to another and the repair of the casing in a well. One well earned a holiday oil volume under the program in 2010.

The Manitoba Drilling Incentive Program provides for a portion of the oil produced from a new waterflood or other enhanced oil recovery (EOR) project implemented after April 1, 1999, which is attributed to an increase in reserves, to qualify as third tier oil for royalty/tax purposes. A portion of production from 12 approved EOR projects have qualified as third tier oil.

Newly drilled injection wells, or wells converted to injection within an approved EOR project, qualify for an "injection well incentive" and a one-year royalty/tax exemption. As of December 31, 2010, a total of 103 wells had qualified for an "injection well incentive" since the inception of the program. A total of 82 wells have completed the injection incentive period.

*Performance Deposits and the Abandonment Fund Reserve Account* – The section administers trust accounts for performance deposits and the Abandonment Fund Reserve Account. Applicants for licences or permits issued under The Oil and Gas Act are required to submit a performance deposit to ensure operations comply with the Act and regulations. These deposits are held in trust until required rehabilitation work has been completed. In 2010/11, approximately \$2.8 million in cash, term deposits and letters of credit were administered.

The Abandonment Fund Reserve Account is established under The Oil and Gas Act. Non-refundable levies on geophysical and well licenses, transfer of well licenses, battery operating permits and inactive wells are deposited in the account. The account is used as a source of funds to operate or abandon a well or facility that is in non-compliance with the Act, where the licensee of the well or facility fails to do so. The account can also be used to rehabilitate the site of an abandoned well or facility or to address any adverse effect on property caused by a well or facility. Any expenditure from the account on behalf of a licensee automatically creates a debt of the licensee to the Crown, recoverable in court.

An annual report of activities relating to the account to March 31, 2011 is available on the Petroleum Branch website.

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### ***Abandonment Fund Reserve Account Activity***

<b>Opening Balance (April 1, 2010)</b>		<b>832,738.35</b>
<b>Deposits</b>		<b>327,460.98</b>
Levies and Penalties	318,812.50	
Interest	8,648.48	
Penalty of Inactive Well Levy	0	
Recovery of Expenditures	0	
<b>Total Deposits</b>		<b>327,460.98</b>
<b>Expenditures and Refunds</b>		<b>0</b>
<b>Closing Balance (March 31, 2011)</b>		<b>1, 160,199.33</b>

### **Geology:**

Geology prepares reports on Manitoba's petroleum geology and hydrocarbon potential to encourage and assist in the exploration and development of the provinces oil and gas resources. A system for the designation of field and pool boundaries is maintained and updated annually. As of January 1, 2010, Manitoba had 13 designated oil fields and 174 designated active oil pools.

In addition, Geology provides consultation and assistance to the public and the petroleum industry.

Accomplishments in 20010/2011 include:

- Continued enhancement of the geological formation tops database as part of the Manitoba Oil and Gas Well Information System (MOGWIS). In 2010, a total of 206 new wells were added to this database.
- 300 new field and pool codes were designated in 2010.
- Assigned HOV to 404 wells in 2010.
- Completed Manitoba's Oil Reserves to Dec 31<sup>st</sup> 2009.
- Prepared multiple geological assessments for protected areas.
- Presented Manitoba's petroleum geology to companies and the public.
- Assessed pipeline and unit applications.
- Prepared a petroleum display for the Mines and Minerals Convention and Provincial Mining week.
- Maintained and updated the digital geophysical logs database.
- Updated the petroleum literature handout and crown map for conferences.
- Represented the Petroleum Branch in departmental Workplace Safety and Health meetings.

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## **Engineering and Inspection Section**

### **Engineering:**

Under the authority of the Drilling and Production Regulation and the Geophysical Regulation, Engineering processes drilling licenses, geophysical licenses and applications to re-complete, suspend, or abandon wells. It also issues permits for all oil and gas facilities. In 2010/11, a total of 659 drilling licenses and 24 geophysical licenses were issued. In addition, 85 technical well operations applications were processed.

The Petroleum Branch processed and approved 2 waterflood enhanced oil recovery projects in 2010/11. Tundra Oil & Gas created Sinclair Unit No. 5. Canadian Natural Resources Ltd (CNRL) created South Pierson No. 2.

Information and advice are provided to the petroleum industry and the public at the Winnipeg, Virden and Waskada offices.

### **Inspection:**

Inspection enforces regulations under The Oil and Gas Act related to geophysical, drilling, production, and pipeline operations. Specifically, the inspectors license and inspect field facilities, investigate complaints, witness specific operations, and interpret and communicate departmental or regulatory requirements to industry personnel. Inspectors are also responsible for carrying out safety and health inspections of petroleum industry operations under The Workplace Safety and Health Act. District offices are located in Virden and Waskada.

More than 1,200 wells and oil and gas facilities in the province were inspected at least once during the year. A total of 91 non-compliance orders were issued in 2010/11 for wells and oil and gas facilities not in compliance with the Act. A total of 745 flow line applications were processed and 304 excavation permits issued.

Inspectors visit all abandoned well sites to ensure that the abandonment and clean up have been conducted properly and that plant growth has been established. During 2010/11, 45 old abandoned sites were visited and 34 Certificates of Abandonment were issued, allowing for the release of wells from performance deposit requirements. The unit also manages a program of environmental protection involving the rehabilitation of all oil or salt water spill sites. During 2010/11, 80 new spills and 24 old spill sites were inspected. 11 spill sites were fully rehabilitated and released from the branch's rehabilitation program.

More information on spills is presented in the Petroleum Industry 2010 Spill Statistics and Report available from the branch

### **Digital Information Services Section**

Digital Information Services is responsible for development and maintenance of computer systems within the branch. These systems include a diverse collection of activities such as web services, database maintenance, GIS, distribution of data to brokers, application development, document images and mapping services.

In 2010/11, the section continued to expand the offering of information available on the internet. The section provided ongoing support and development for GIS map products, Petroleum website enhancements and the Manitoba Oil and Gas Well Information System (MOGWIS).

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Accomplishments in 2010/11 include:

- Development and Implementation of Manitoba Electronic Well Licence Application (MEWLA) that enables submitting well licence application by electronic means.
- Development of digital document management structure.
- New well licence approvals report now on website. This provides contractors the information required to contact licencees for work sooner than before.
- Continued research into data standardization with other jurisdictions through the investigation of the use of the Alberta Registry;
- Improvements and automation in the providing quicker outputs and accuracy for plotted wells and production allocations
- Continued support for the Petroleum Branch Manitoba Oil and Gas Well Information System
- Ongoing support for GIS functions
- Continued updating of Petroleum datasets for outside use

### **Minister's and Director's Approvals**

Under The Oil and Gas Act, the Minister and the Director of Petroleum have authority to issue orders relating to drilling, production, storage and transportation of oil and gas. The Minister has authority to make orders relating to well spacing, enhanced recovery, maximum production rates, seizure of wells and facilities and to enter into Unit Agreements on behalf of the Crown. The Lieutenant Governor in Council has delegated parts of this authority, under Order in Council 384/2001, to the Director where the circumstances are considered routine. The Director has authority to issue orders relating to salt water disposal, designation of field and pools, designation of new oil status and to affect the seizure of wells and facilities of a non-compliant operator pursuant to a Ministerial Seizure Order.

#### **In 2010/11 the Minister made the following orders:**

Unit Agreement (Sinclair Unit No. 5)	Sept 30, 2010	Tundra Oil & Gas Partnership
Waterflood Order No. 21	Sept 30, 2010	Tundra Oil & Gas Partnership
Unit Agreement (Sinclair Unit No. 5)	Oct 30, 2010	Canadian Natural Resources Ltd
Waterflood Order No. 21	Oct 30, 2010	Canadian Natural Resources Ltd
Waterflood Order No. 16A	Mar. 9, 2011	Tundra Oil & Gas Partnership
Pipeline Construction Permit No. 2011-1	Jan 18, 2011	Enbridge Pipeline (Virden) Inc.
Pipeline Construction Licence No. 2010-1	Aug 10, 2010	EOG Resources Canada Inc.
Pipeline Operating Licence No. 2011-1	Jan 18, 2011	EOG Resources Canada Inc.

#### **In 2010/11, the Director of Petroleum made the following orders:**

Salt Water Disposal No. 202	Jan. 8, 2010	Black Gold Energy Ltd.
Salt Water Disposal No. 203	Jan. 8, 2010	Canadian Natural Resources Limited
Salt Water Disposal No. 204	Jan. 14, 2010	Tundra Oil & Gas Partnership
Salt Water Disposal No. 205	Feb. 8, 2010	Petrobakken Development Ltd.
Salt Water Disposal No. 206	Feb. 8, 2010	Magellan Resources Ltd.
Salt Water Disposal No. 207	March 17, 2010	ARC Resources Ltd.
Salt Water Disposal No. 208	April 7, 2010	EOG Resources Canada Inc.
Salt Water Disposal No. 209	June 1, 2010	Paradise Petroleums Ltd.
Salt Water Disposal No. 210	June 29, 2010	Penn West Petroleum Ltd.

Salt Water Disposal No. 211	Sept. 1, 2010	Penn West Petroleum Ltd.
Salt Water Disposal No. 212	Sept. 14, 2010	Reliable Energy Ltd.
Salt Water Disposal No. 213	Nov. 10, 2010	White North Energy Corp.
Salt Water Disposal No. 214	Nov. 30, 2010	Tundra Oil & Gas Partnership
Salt Water Disposal No. 215	Feb. 24, 2011	Tundra Oil & Gas Partnership
Salt Water Disposal No. 216	Feb. 28, 2011	Tundra Oil & Gas Partnership
Salt Water Disposal No. 217	Mar. 7, 2011	Molopo Energy Canada Ltd.
Salt Water Disposal No. 218	Mar. 15, 2011	EOG Resources Canada Inc.
Salt Water Disposal No. 219	Mar. 15, 2011	EOG Resources Canada Inc.
Salt Water Disposal No. 220	Mar. 15, 2011	EOG Resources Canada Inc.
Salt Water Disposal No. 221	Mar. 16, 2011	EOG Resources Canada Inc.
Salt Water Disposal No. 222	Mar. 16, 2011	EOG Resources Canada Inc.
Salt Water Disposal No. 223	Mar. 17, 2011	EOG Resources Canada Inc.

**Petroleum Industry Overview :**

	<b><u>2009</u></b>	<b><u>2010</u></b>
New wells drilled	260	510
Oil production	1,518,930.4m <sup>3</sup> (9.56 million bbls)	1,844,892.7 m <sup>3</sup> (11.6 million bbls)
Value of oil sales (\$ million)	\$632	\$879
Average selling price	\$419.03/m <sup>3</sup> (\$66.58/bbl)	\$476.66/m <sup>3</sup> (\$75.74/bbl)
Wells producing - December	2,726	2,915
Estimated Industry Expenditures (\$ million)	\$485	\$894

More comprehensive information and historical statistics on Manitoba's petroleum industry are presented in the Oil Activity Review available from the Petroleum Branch.

**18-5(c) Petroleum**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE</b>	<b>Estimate 2010/11 \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Total Salaries & Employee Benefits	1,301	20.50	1,321	(20)	
Total Other Expenditures	343		335	8	
<b>Total Expenditures</b>	<b>1,644</b>	<b>20.50</b>	<b>1,656</b>	<b>(12)</b>	



## BOARDS AND COMMISSIONS

### OBJECTIVES

To provide for the resolution of disputes between surface rights holders, mineral rights, and oil and gas rights holders with respect to accessing minerals, oil and gas.

#### Mining Board

The Mining Board is established under the Mines and Minerals Act. The primary function of the Board is the arbitration of disputes between surface rights holders and mineral rights holders with respect to accessing of minerals other than oil and gas. The Board can also hear and resolve disputes between holders of mineral dispositions and between holders and officers of the Department.

No Board Orders were issued in 2010.

#### Surface Rights Board

The Surface Rights Act establishes a quasi-judicial process for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Act also establishes a Board to arbitrate and mediate disputes and establishes appropriate compensation for petroleum development activities. Land Management provides administrative support to the process and the Board.

Highlights for 2010 include preparing and printing of the guide for land owners in both official languages, and initiating a legislative review process targeted at modernizing The Surface Rights Act. Other significant activities for the fiscal year include improving the administrative process and procedures for the Board activities, including public consultation and written comments from stakeholders.

	2007	2008	2009	2010
Signed Agreements for Surface Leases (fiscal year)	351	404	332	415
Total Number of Recorded Surface Leases	3411	3815	4147	4562
Review of Right of Way Applications	0	0	0	28
Review of Compensation Applications	0	0	0	0
Termination of Board Orders	0	0	0	0
Application for Abandonment Orders	0	1	0	0
Board Orders Issued	0	0	0	0
Mediation Reports	0	0	0	0

#### 18-5(d) Boards and Commissions

Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	9		30	(21)	1
Total Other Expenditures	7		16	(9)	1
<b>Total Expenditures</b>	<b>16</b>		<b>46</b>	<b>(30)</b>	

1. Decrease in Board activities.

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## **MINERAL INDUSTRY SUPPORT PROGRAMS**

The Mineral Industry Support Programs are delivered under Manitoba Geological Survey.

### **Mineral Exploration Assistance Program**

The Mineral Exploration Assistance Program (MEAP) provides financial assistance to eligible companies or individuals who undertake mineral exploration in Manitoba. Established in the fall of 1995, MEAP was renewed for an additional three years starting with the April 2008 offering and was to provide \$2.5 million of assistance annually. In April 2010, the program was changed to a single April offering and provided \$1.0 million for the fiscal year. The program was designed to increase exploration and stimulate activities that may lead to the development of new mines. Companies/individuals may qualify for 25% - 35% of eligible exploration expenditures up to a maximum of \$200,000.00 per recipient, per fiscal year; depending on the area of exploration. A higher percentage of assistance is offered for projects undertaken in the Northern Superior region of the province, due to remoteness and limited infrastructure. In response to difficult times brought on by the downturn in the mineral industry, MEAP has extended the higher percentage of assistance on eligible expenditures to include the Lynn Lake/Leaf Rapids areas.

MEAP was recently approved for an additional 3 years, for \$1.5 million per year, which will begin with a April, 2011 offering and will expire in 2013/2014.

Companies with approved projects under the April 2010 offering had until March 31, 2011 to complete their work. Twenty-three of the original 23 approved projects were completed.

### ***Reviews, Audits and Inspections***

To ensure accountability and integrity of the Program, the Department continued to conduct audits and site inspections following guidelines developed with the Provincial Internal Audit office. In the 2010/2011 fiscal year, Innovation, Energy & Mines and the Provincial Internal Audit Office decided to forego internal audits of the program for the year due to other priorities within Internal Audit and past history of administration of the program. Six site inspections for projects representing \$301,600 or 26% of the allocated assistance have been completed.

### ***Program Highlights from October 1995 to March 31, 2011***

- 176 companies have participated under MEAP of which:
  - 134 companies are considered new to Manitoba.
  - 16 are major exploration companies, and
  - 160 are junior companies (note: a company is considered a major exploration company if its market capitalization is greater than \$100 million).
- \$27.9 million of assistance has been issued to 741 completed projects.
- \$231.1 million in exploration expenses have been reported.
- Reported exploration expenditures under the Program indicate every \$1 million in assistance paid generates \$8.2 million in exploration expenditures.
- For every dollar of MEAP assistance, the Manitoba Bureau of Statistics estimates that there is \$1.85 in taxes collected in Manitoba.

## Mineral Exploration Assistance Program 2010 Status

<i>Offering</i>	<i>Applications Received</i>	<i>Approved Applications</i>	<i>Proposed Exploration \$ in 000's</i>	<i>Assistance \$ Allocated in 000's</i>	<i>Projects Completed</i>	<i>Actual Exploration \$ in 000's</i>	<i>Assistance \$ Paid</i>
10-04-01	23	23	13,213.7	1,000.0	23	10,982.1	984.6
<b>TOTAL</b>	<b>23</b>	<b>23</b>	<b>13,213.7</b>	<b>1,000.0</b>	<b>23</b>	<b>10,982.1</b>	<b>984.6</b>

**Note:** Projects approved under the April, 2010 offering have until June 15, 2011 to file final reports and make application for final payment

## Results of Assistance by General Region of Exploration for 2010/2011

	<b>Projects</b>	<b>Exploration \$ in 000's</b>	<b>Assistance \$ in 000's</b>
Far North	0 (0.0%)	\$ 0.0 (0.0%)	\$0.0 (0.0%)
Flin Flon/Snow Lake	7 (30.4%)	\$5,628.3 (51.2%)	\$365.9 (37.2%)
Hudson Bay Lowland	1 (4.3%)	\$638.9 (5.8%)	\$59.9 (6.1%)
Lynn Lake/Leaf Rapids	5 (21.7%)	\$2,521.5 (23.0%)	\$254.5 (25.8%)
Northern Superior	2 (8.7%)	\$ 763.9 (7.0%)	\$77.5 (7.9%)
SE Trans-Hudson Orogen	0 (0.0%)	\$ 0.0 (0.0%)	\$0.0 (0.0%)
Southeastern Manitoba	7 (30.4%)	\$1,143.9 (10.4%)	\$166.9 (17.0%)
South Central Manitoba	0 (0.0%)	\$0.0 (0.0%)	\$0.0 (0.0%)
Thompson Nickel Belt - Superior Boundary Zone	1 (4.3%)	\$285.6 (2.6%)	\$59.9 (6.1%)

## Manitoba Prospectors Assistance Program

The Manitoba Prospectors Assistance Program (MPAP) offers grants to prospectors conducting exploration on either their own Manitoba properties or open Crown land. The Program is targeted at increasing mineral exploration in Manitoba to help replenish declining ore reserves. The Program is funded at \$23,000 per year and allows individual prospectors to qualify for up to 50% of their prospecting expenditures incurred up to a maximum of \$7,500 per prospector per year. The program also provides 80% of the cost of one return charter flight or \$1,500.00 per year, whichever is less, for projects undertaken in more remote areas of the Province. The maximum assistance of \$9,000.00 is available per applicant, per year.

In 2010/11 the program received 9 applications for grants; 9 prospecting projects were approved under the program and 5 were completed. The total amount of Program funds dispersed for 2010/2011 was \$17,526.41.

Ruth Bezys	4,824.95
Bill Hood	670.30
Ken Klyne	2,441.10
Garry Thorne	4,326.64
Harold Westdal	5,263.42
<b>Total Funds Dispersed:</b>	<b><u>\$17,526.41</u></b>

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## Manitoba Potash Project

The Manitoba Potash Corporation (MPC) holds the development rights to known potash reserves in the Russell-Binscarth area of southwest Manitoba. MPC was created in 1986 as a joint venture between the province of Manitoba (49 per cent) and Canamax Resources Inc. (51 per cent). In 1990, Canamax sold its 51% interest in the potash project, to Potamine Potash Mining of Canada Inc. (Potamine), a subsidiary of Enterprise Miniere et Chimique (EMC) Group of France, In November 2006 BHP Billiton, one of the largest diversified mining companies in the world, purchased Potamine's share in the MPC.

BHP Billiton has completed an internal scoping study in 2010 on mine development of their Russell property in 2010. Their assessment indicates that a nominal 2 million tonne per year mine is technically feasible, but it faces significant technical and economic challenges. BHP Billiton is committed to ongoing evaluation of market conditions and opportunities as they arise that could improve the project economics. BHP continues to maintain the project and cover all carrying costs. Until the investment can demonstrate a positive return, there are no plans to progress the development of the project.

### 18-5(e) Mineral Industry Support Programs

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE</b>	<b>\$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
Mineral Industry Support Programs					
- Mineral Exploration Assistance Program	985	1,000		(15)	
- Prospectors Assistance Program	18	23		(5)	
- Manitoba Potash Project	78	197		(119)	
<b>Total Expenditures</b>	<b>1,081</b>	<b>1,220</b>		<b>(139)</b>	

## COSTS RELATED TO CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates.

Consistent with this policy, the department records amortization of:

- the Enterprise System allocated to departments based on projected use;
- the amortization of other departmental and government assets; and
- the interest related to the assets.

### 18-6 Amortization and Other Costs Related to Capital Assets

Expenditures by Sub-Appropriation	Actual 2010/11 \$	Estimate 2010/11 FTE \$	Variance Over (Under)	Expl. No.
(a) ENTERPRISE SYSTEM				
Amortization Expense	3,458	3,448	10	
Less: Recoverable from other appropriations	(3,458)	(3,448)	(10)	
(b) Amortization Expense	5,173	6,175	(1,002)	
(c) Interest Expense	2,484	3,271	(787)	
<b>Total Expenditures</b>	<b>7,657</b>	<b>9,446</b>	<b>(1,789)</b>	<b>1</b>

1. Delay in Capital Projects.

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## **INNOVATION, ENERGY AND MINES**

### **Reconciliation Statement**

<b>EXPENDITURE DETAILS</b>	
<b>2010/11 MAIN ESTIMATES</b>	72,784
<b>MAIN ESTIMATES AUTHORITY TRANSFERRED FROM:</b> <ul style="list-style-type: none"><li>• <b>Enabling Appropriations</b><ul style="list-style-type: none"><li>- ecoTrust Fund</li><li>- Internal Services Adjustment</li></ul></li></ul>	2,030 673
<b>2010/11 ESTIMATE</b>	75,487

## Innovation, Energy and Mines

### Expenditure Summary

For Fiscal Year Ended March 31, 2011 (with comparative figures for the previous year)

Estimate 2010/11 \$		Appropriation	Actual 2010/11 \$	Actual 2009/10 \$	Increase (Decrease) \$	Explanation Number
	<b>18-1</b>	<b>Administration and Finance</b>				
37	(a)	Minister's Salary	37	46	(9)	
	(b)	Executive Support				
492	(1)	Salaries and Employee Benefits	471	486	(15)	
73	(2)	Other Expenditures	66	64	2	
150	(c)	Administration and Finance	149	149	0	
752		Total 18-1	723	745	(22)	
	<b>18-2</b>	<b>Energy Development Initiatives</b>				
	(a)	Energy Development Initiatives				
901	(1)	Salaries and Employee Benefits	855	764	91	
2,824	(2)	Other Expenditures	2,857	1,859	998	1
3,725		Total 18-2	3,712	2,623	1,089	
	<b>18-3</b>	<b>Science, Innovation and Business Development</b>				
	(a)	Science, Innovation and Business Development				
1,627	(1)	Salaries and Employee Benefits	1,656	1,571	85	
613	(2)	Other Expenditures	613	610	3	
11,964	(3)	Manitoba Research and Innovation Fund	11,925	12,600	(675)	
720	(4)	Manitoba Centres of Excellence Fund	720	720	0	
(750)	(5)	Less: Recoverable from Urban Development Initiatives	(750)	(750)	0	
6,003	(b)	Manitoba Health Research Council	6,003	6,003	0	
900	(c)	Industrial Technology Centre	900	700	200	
396	(d)	Manitoba Education, Research and Learning Information Networks	396	396	0	
21,473		Total 18-3	21,463	21,850	(387)	

## Expenditure Summary

Estimate 2010/11 \$	Appropriation	Actual 2010/11 \$	Actual 2009/10 \$	Increase (Decrease) \$	Explanation Number
	<b>18-4 MB Information and Communication Technologies</b>				
18,372	(a) Business Transformation and Technology				
	(1) Salaries and Employee Benefits	19,211	19,568	(357)	
74,844	(2) Other Expenditures	75,988	71,437	4,551	2
(64,834)	(b) ICT Services Manitoba Recovery	(64,832)	(59,640)	(5,192)	3
	(c) Legislative Building Information Systems				
1,010	(1) Salaries and Employee Benefits	1,032	1,017	15	
310	(2) Other Expenditures	278	189	89	
29,702	Total 18-4	31,677	32,571	(894)	
	<b>18-5 Mineral Resources</b>				
	(a) Manitoba Geological Survey				
3,948	(1) Salaries and Employee Benefits	3,966	3,875	91	
1,582	(2) Other Expenditures	2,087	1,703	384	
	(b) Mines				
1,312	(1) Salaries and Employee Benefits	1,290	1,357	67	
625	(2) Other Expenditures	629	478	(151)	
	(c) Petroleum				
1,321	(1) Salaries and Employee Benefits	1,301	1,316	(15)	
335	(2) Other Expenditures	343	360	(17)	
	(d) Boards and Commissions				
30	(1) Salaries and Employee Benefits	9	6	3	
16	(2) Other Expenditures	7	8	(1)	
	(e) Mineral Industry Support Programs				
1000	(1) Mineral Exploration Assistance Program	985	2,134	(1,149)	4
23	(2) Prospectors' Assistance Program	18	37	(19)	
197	(3) Manitoba Potash Project	78	58	20	
10,389	Total 18-5	10,713	11,332	(619)	



## Expenditure Summary

Estimate 2010/11 \$	Appropriation	Actual 2010/11 \$	Actual 2009/10 \$	Increase (Decrease) \$	Explanation Number
	<b>18-6 Amortization and Other Costs Related to Capital Assets</b>				
3,448	(a) Enterprise System				
(3,448)	(1) Amortization	3,458	3,448	10	
6,175	(2) Less: Recoverable from other appropriations	(3,458)	(3,448)	(10)	
3,271	(b) Amortization Expense	5,173	3,898	1,275	5
	(c) Interest Expense	2,484	2,919	(435)	
9,446	Total 18-6	7,657	6,817	840	
75,487	<b>TOTAL INNOVATION, ENERGY AND MINES</b>	75,945	75,938	7	

1. *Increased Budgeting for Outcomes expenditures.*
2. *Increased 2010/11 Expenditure Authority, Desktop Refresh expenditures, MTS contract and HP lease costs.*
3. *Increased Recovery Authority.*
4. *Decrease in funding.*
5. *Increase in completed Capital Projects.*

**Innovation, Energy and Mines  
Revenue Summary by Source  
For Fiscal Year Ended March 31, 2011 (with comparative figures for the previous year)**

<b>Actual 2009/10 \$</b>	<b>Actual 2010/11 \$</b>	<b>Increase (Decrease) \$</b>	<b>Source</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 \$</b>	<b>Variance \$</b>	<b>Explanation Number</b>
<b>Current Operating Programs:</b>							
<b>Taxation</b>							
8,088	10,172	2,084	Oil and Natural Gas Tax	10,172	7,676	2,496	1
8,088	10,172	2,084	Sub-Total	10,172	7,676	2,496	
<b>Other Revenue</b>							
12,649	21,395	8,746	Petroleum Royalties and Fees	21,395	8,210	13,185	2
4,712	4,287	(425)	Minerals Royalties and Fees	4,287	4,051	236	
365	675	310	Sundry	675	504	171	
17,726	26,357	8,631	Sub-Total	26,357	12,765	13,592	
<b>25,814</b>	<b>36,529</b>	<b>10,715</b>	<b>Total</b>	<b>36,529</b>	<b>20,441</b>	<b>16,088</b>	

**Explanations:**

**Comparison to Previous Year**

1. *Increased 2010/11 daily production.*
2. *Increased 2010/11 daily production and land sales.*

**Comparison Actual to Estimate**

1. *Increased 2010/11 daily productions.*
2. *Increased 2010/11 daily production and land sales.*

**FIVE YEAR HISTORY**

**Innovation, Energy and Mines**

**Five-Year Expenditure and Staffing Summary by  
Appropriation (\$000s)**

**For Five Years Ended March 31, 2011**

	Actual/*Adjusted Expenditures									
	2006-2007		2007-2008		2008-2009		2009-2010		2010-2011	
	FTE	\$	FTE	\$	FTE	\$	FTE	\$	FTE	\$
<b>Administration and Finance</b>	7.00	671	7.00	692	7.00	718	7.00	745	7.00	723
<b>Energy Development Initiatives</b>	11.00	1,987	11.00	2,790	11.00	3,396	10.00	2,623	10.00	3,712
<b>Science, Innovation and Business Development</b>	20.00	18,952	19.00	20,705	19.00	21,224	19.00	21,850	19.00	21,463
<b>Business Transformation and Technology</b>	217.72	28,164	221.72	30,701	221.72	31,509	218.72	32,571	217.72	31,677
<b>Mineral Resources</b>	101.60	10,600	101.60	10,893	101.60	11,198	101.60	11,332	101.60	10,713
<b>Amortization and Other Costs Related to Capital Assets</b>		7,362		19,932		6,969		6,817		7,657
<b>TOTAL OPERATING</b>	<b>357.32</b>	<b>67,736</b>	<b>360.32</b>	<b>85,713</b>	<b>360.32</b>	<b>75,018</b>	<b>356.32</b>	<b>75,938</b>	<b>355.32</b>	<b>75,945</b>
<b>Expenditures Related to Capital Investment</b>		9,368		8,735		8,099		8,618		4,766
<b>TOTAL</b>	<b>357.32</b>	<b>77,104</b>	<b>360.32</b>	<b>94,448</b>	<b>360.32</b>	<b>83,113</b>	<b>356.32</b>	<b>84,555</b>	<b>355.32</b>	<b>80,711</b>

\* - Adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganizations during the five years

## **INNOVATION, ENERGY AND MINES**

### **2010/11 Annual Report Performance Measurements**

The following section provides information on key performance measures for the department for the 2010-11 reporting year. This is the sixth year in which all Government of Manitoba departments have included a Performance Measurement section, in a standardized format, in their Annual Reports.

Performance indicators in departmental Annual Reports are intended to complement financial results and provide Manitobans with meaningful and useful information about government activities, and their impact on the province and its citizens.

For more information on performance reporting and the Manitoba government, visit [www.manitoba.ca/performance](http://www.manitoba.ca/performance).

Your comments on performance measures are valuable to us. You can send comments or questions to [mbperformance@gov.mb.ca](mailto:mbperformance@gov.mb.ca).

## Innovation, Energy and Mines 2010/11 Performance Measures Document for inclusion in the 2010/11 Annual Report

**Priority:** Create an environment conducive to the development of clean energy technologies and capitalize on energy opportunities for Manitobans.

(A)	(B)	(C)	(D)	(E)	(F)
What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2010/2011 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Developing alternative energy sources for Manitoba by measuring Wind Energy Production and the level of investment it is attracting in Manitoba.	Measuring alternative energy resources not only demonstrates the importance of diversifying the province's reliance on a single energy source, but it also recognizes the importance of developing clean, renewable and sustainable energy resources.	<p>Wind production prior to 2005 was zero megawatts.</p> <p>In April 2005, St. Leon had the first Wind farm in Manitoba, which was built with a \$210 million private capital investment.<sup>1</sup></p>	<p>99.9MW of wind generation was available at St. Leon with power being sold to Manitoba Hydro.</p> <p>Pattern Energy completed construction on the 138 MW St. Joseph Wind Project. Total capital cost was \$345 million and the company will pay local landholders ~\$38 million over the life of the project.</p>	<p>By the end of 2012, ~250MW of wind generation will be operational in Manitoba. This total anticipates an expansion of the St. Leon wind farm</p>	<p>Approximately 7 additional sites will be monitored in the next 1 to 2 years to support the development of a Manitoba wind atlas. Note this initiative was discontinued part way through the program due to BFO funding constraints.</p> <p>For more information, please see the press releases and reports below.</p> <p>MB Hydro progresses in evaluation of wind energy proposals.  <a href="http://www.hydro.mb.ca/news/releases/news_08_03_31.html">http://www.hydro.mb.ca/news/releases/news_08_03_31.html</a></p> <p>Province, Manitoba Hydro Unveil Expression of Interest To Develop 1,000 Megawatts of Wind Over the Next Decade – November 2005  <a href="http://www.gov.mb.ca/chc/press/top/2005/11/2005-11-21-01.html">http://www.gov.mb.ca/chc/press/top/2005/11/2005-11-21-01.html</a></p> <p>Southern Manitoba Farmers Set To Harvest Province's First Wind Crop – April 2005  <a href="http://www.gov.mb.ca/chc/press/top/2005/04/2005-04-28-04.html">http://www.gov.mb.ca/chc/press/top/2005/04/2005-04-28-04.html</a></p> <p>For more information about Wind Energy visit the Canadian Wind Energy Association website  <a href="http://www.canwea.ca/">http://www.canwea.ca/</a></p>

<sup>1</sup>The St. Leon turbine is the first of 12 test wind turbines operational as of April 28, 2005, under the federal government's Canadian Renewable and Conservation Expense program which will be used to verify wind resources. Following a successful test phase, AirSource Power Fund will oversee the construction of a total of 63 wind-turbine generators, making up the 99-megawatt (MW) project covering two municipalities in southern Manitoba

					Province of Manitoba Climate Change Action Plan 2002 <a href="http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf">http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf</a>
Measuring the total amount of biodiesel consumption in Manitoba		2009/10 – 100,000 litres	2010/11 – 20 million litres	Current biodiesel mandate requirements in Manitoba would see consumption levels stay the same. If the mandate is increased from 2% to 5%, consumption would be ~ 50 million litres. An increased mandate would be dependent on changes to national biodiesel standards and engine manufacturers' warranties.	

**Priority:** Improve public services by engaging Departmental service providers in the pursuit of continuous improvement through the examination of their business processes to develop and deliver more effective and efficient services while maximizing Manitoba's benefits from Information and Communication Technology investments.

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2010/2011 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
<p>Cost to operate and maintain solutions is measured by the cost of delivery per solution.</p>	<p>Lower operating costs enables lower government program delivery costs and increases financial capacity for new solution delivery in support of modernizing government.</p>	<p>Base-line year is 2009/2010 for Imaging Services.</p> <p>Base-line year for Server Consolidation is 2010/2011.</p>	<p>2010/2011: Printer Refresh project reduced the number of devices in the enterprise by 1308 with annual cost savings of \$220.0.</p> <p>2010/2011: The Server Consolidation project – number of servers reduced from 356 to 28 in Data Centre 3.</p>	<p>Reductions in the number of imaging devices in the enterprise that utilize consumable items (paper, toner, etc) are expected to continue.</p> <p>The consolidation of servers facilitates the maturation of application deployment and server virtualization.</p>	<p>When including savings from energy and paper costs, the Printer Refresh is saving \$332,000 annually.</p> <p>The Server Consolidation Project will reduce operations costs, service launch costs, and reduce the time period for the launch of new services and applications.</p>
<p>Incremental number of communities with access to broadband or high-speed network services and the change in those communities.</p> <p>Number of public sector organizations, including federal that subscribe to Manitoba Network Services.</p>	<p>To ensure IEM is fulfilling its mandate to improve access to internet and other Broadband Services throughout Manitoba.</p>	<p>Access to Broadband was limited in Manitoba and did not exist in rural and northern communities prior to September 2001.</p>	<p>In 2010/11 360 of 465 communities have or are in the process of acquiring access to broadband services.</p> <p>2010/11 showed an increase of 1.1% or 5 additional communities from the previous year of 356 communities.</p>	<p>A steady increase in connectivity will continue as service providers expand their service areas. This increase will enable those service providers that are successful in accessing the Broadband Canada fund to provide rural and northern communities with High Speed Internet.</p>	<p><b>Note: Approximately 66 new communities will be connected by December 31, 2011 from the 360 communities currently connected in Manitoba through Industry Canada's Broadband Canada Program.</b></p> <p>For more information, please see the documents below.</p> <p>This measure was reported on page 46 of <i>Reporting to Manitobans on Performance 2005 Discussion Document</i>, which is available at <a href="http://www.gov.mb.ca/finance/pdf/performance.pdf">http://www.gov.mb.ca/finance/pdf/performance.pdf</a></p> <p>Industry Canada Broadband Program: <a href="http://www.ic.gc.ca/eic/site/719.nsf/eng/home">http://www.ic.gc.ca/eic/site/719.nsf/eng/home</a></p>

**Priority:** Significantly improve Manitoba's scientific research capacity and create an atmosphere of innovation to drive economic growth.

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2010/2011 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
<p>Research Competitiveness as measured by success in national competitions.</p> <p>1) Manitoba expenditures on matching federal R&amp;D programs (i.e. CFI, GC, NCE and RPP)</p> <p>2) Manitoba provincial ranking re: CFI awards (% of Canadian total);</p> <p>and by the indication of the capacity and competitiveness of Manitoba as a location to undertake leading research in areas of strength.</p>	<p>A key determinant of the province's ability to attract investment and highly qualified personnel for research-based businesses and research institutions</p>	<p>1) <u>MB Expenditures</u> 2003/04 - \$6,941,000</p> <p>2) <u>MB Provincial Ranking</u> (Cumulative 98/99 – 2010/11)</p> <p>1.65% - Rank 7th</p>	<p>2010/11 - \$6,509,000</p> <p>There were 17 successful 2010/11 research projects in Manitoba under the federal Canada Foundation for Innovation (CFI) Leaders' Opportunity Fund (LOF) initiative. These projects, bring an investment of up to \$3,061,306 to Manitoba's universities for equipment and research infrastructure, and help to recruit and retain the best faculty at these institutions.</p>	<p>The level of funding has been steady over time with year to year variations.</p>	<p>Manitoba Innovation Framework  <a href="http://www.gov.mb.ca/est/innovation/index.html">http://www.gov.mb.ca/est/innovation/index.html</a></p> <p>The Framework is a long-term strategic plan, initiated by the Manitoba Government in 2002.03, that supports knowledge based economic development through research, innovation and technology development. The document sets out a target of doubling Manitoba Government research investments to \$40 million annually by 2010.</p> <p>The MRIF also works with national funding organizations that provide matching funds to Manitoba. For more information, please view the websites below</p> <p>Canadian Foundation for Innovation (CFI)  <a href="http://www.innovation.ca/index.cfm">http://www.innovation.ca/index.cfm</a></p> <p>Genome Canada  <a href="http://www.genomecanada.ca/">http://www.genomecanada.ca/</a></p> <p>Canada and Canadian Institutes for Health Research (Regional Partnership Program.)  <a href="http://www.cihr-irsc.gc.ca/">http://www.cihr-irsc.gc.ca/</a></p>



**Priority:** Increase Manitoba's geological knowledge base; expand Manitoba's mineral investment opportunities and realize Manitoba's oil and gas exploration and development potential

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2010/2011 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
<p>Annual exploration expenditures by the minerals and petroleum exploration industries are the most direct indicator<sup>2</sup> of the level of mineral and petroleum exploration activity in the Province..</p>	<p>One of the primary roles of the Mineral Resources Division is to promote exploration investment in Manitoba.</p>	<p>2002 Mineral exploration (dollar value millions) of exploration in Manitoba (annual expenditure change): \$29.8 (up 3.8%)</p> <p>2002 Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba and millions and annual expenditure change: \$56.5 (0.38%).</p>	<p>Mineral exploration and deposit appraisal (millions)</p> <p>2011: \$76.8 (spending intentions)</p> <p>2010 Petroleum exploration and development costs of \$444.0 on total expenditures of \$895 million (IEM)</p>	<p>Mineral exploration and deposit appraisal for 2011 is down 3.15% from previous year.</p> <p>Petroleum exploration and development capital expenditures is up by 66.3%</p> <p>Continuing high oil prices, ongoing development of Sinclair oil field and the continuing success of new horizontal well completion technology in the Waskada area has resulted in an increase in exploration and development expenditures in 2010. 2011 estimates not available.</p>	<p>Natural Resources Canada (NRCan) reports mineral exploration and deposit appraisal statistics for all provinces and territories at <a href="http://mmsd.mms.nrcan.gc.ca/stat-stat/expl-expl/sta-sta-eng.aspx">http://mmsd.mms.nrcan.gc.ca/stat-stat/expl-expl/sta-sta-eng.aspx</a></p> <p>High base metal prices led to a record \$152.1 million in exploration expenditures in Manitoba in 2008. Exploration dropped during the global economic turnaround and exploration expenditure increases in Manitoba in 2009 and 2010 have not kept pace with overall increases in Canadian exploration expenditures. As a result Manitoba's share of Canadian mineral exploration which increased to 5.0% in 2008 and has dropped over the past two years to 3.0% in 2010.</p> <p>Canadian Association of Petroleum Producers (CAPP) captures and compiles oil industry WCSB exploration and development expenditures by province. The expenditures exclude oil sands projects.</p> <p>Over the past 5 years, CAPP exploration and development expenditures have averaged 49.6% of total oil industry expenditures in Manitoba as estimated by the Department. Projections for 2010 are not available from CAPP. For 2010, the Department estimates total oil industry expenditures of \$895 million and exploration and development expenditures are estimated at \$444 million (49.6% of Dept estimate).</p>

<sup>2</sup> Mineral exploration expenditure statistics are public (compiled by Natural Resources Canada and Canadian Association of Petroleum Producers), unbiased, accurate, and available going back many years. They can be translated into jobs and tax revenue using information supplied by the Manitoba Bureau of Statistics. These numbers are a roll-up type indicator that reflects not only the impacts of government policy and programs, but also external factors. They are strongly influenced by commodity prices, projected worldwide supply and demand, and even weather (e.g., warm winters—and poor ice conditions—such as those in 2005-06 do not allow companies to conduct a full winter exploration program). Accordingly, such indicators cannot be viewed in isolation of worldwide trends or local developments. They are not influenced solely by government policy.





## ***The Public Interest Disclosure (Whistleblower Protection) Act***

*The Public Interest Disclosure (Whistleblower Protection) Act* came into effect in April 2007. This law gives employees a clear process for disclosing concerns about significant and serious matters (wrongdoing) in the Manitoba public service, and strengthens protection from reprisal. The Act builds on protections already in place under other statutes, as well as collective bargaining rights, policies, practices and processes in the Manitoba public service.

Wrongdoing under the Act may be: contravention of federal or provincial legislation; an act or omission that endangers public safety, public health or the environment; gross mismanagement; or, knowingly directing or counselling a person to commit a wrongdoing. The Act is not intended to deal with routine operational or administrative matters.

A disclosure made by an employee in good faith, in accordance with the Act, and with a reasonable belief that wrongdoing has been or is about to be committed is considered to be a disclosure under the Act, whether or not the subject matter constitutes wrongdoing. All disclosures receive careful and thorough review to determine if action is required under the Act, and must be reported in a department's annual report in accordance with Section 18 of the Act.

<b>Information Required Annually (per Section 18 of The Act)</b>	<b>Fiscal Year 2010 – 2011</b>
The number of disclosures received, and the number acted on and not acted on. <i>Subsection 18(2)(a)</i>	<b>NIL</b>
The number of investigations commenced as a result of a disclosure. <i>Subsection 18(2)(b)</i>	<b>NIL</b>
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. <i>Subsection 18(2)(c)</i>	<b>NIL</b>

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## **PART B - CAPITAL INVESTMENT**

Capital Investment is provided in the Estimates of Expenditures under Part B. For the year ended March 31, 2011, the department's capital authority provided for the acquisition, development and enhancement of government's information communication and technology. Support for internal reform initiatives involving the use of information technology in the delivery of government's services are reported separately.

### **Part B - CAPITAL INVESTMENT**

<b>Expenditures by Sub-Appropriation</b>	<b>Actual 2010/11 \$</b>	<b>Estimate 2010/11 FTE \$</b>	<b>Variance Over (Under)</b>	<b>Expl. No.</b>
B.6(a)(1) – Enterprise System	389	627	(238)	
B.6(a) (2) – Other Information Technology	2,024	1,821	203	
B.6(a) (3) – Corporate Information Technology Projects	2,353	2,338	15	
<b>Total Capital Investment</b>	<b>4,766</b>	<b>4,786</b>	<b>(20)</b>	

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## **APPENDIX A**

### **ASSOCIATED AGENCIES, BOARDS, COMMISSIONS and COUNCILS**

#### **ECONOMIC INNOVATION TECHNOLOGY COUNCIL**

The Economic Innovation and Technology Council (EITC) acts as a catalyst in establishing partnerships and alliances for increased economic development through innovation. EITC tables its annual report under separate cover with the Manitoba Legislature.

#### **INDUSTRIAL TECHNOLOGY CENTRE**

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Innovation, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

#### **MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS**

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Innovation, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

#### **MANITOBA GAMING CONTROL COMMISSION**

The Manitoba Gaming Control Commission is the primary regulatory body responsible to ensure that gaming activities are conducted with honesty, integrity and in the public interest. The Manitoba Gaming Control Commission tables its annual report under separate cover with the Manitoba Legislature.

#### **MANITOBA HEALTH RESEARCH COUNCIL**

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

#### **MINING BOARD**

The board arbitrates disputes with respect to accessing of minerals other than oil and gas. The board can hear and resolve dispute between holders of mineral dispositions and between holders and officers of the Departments. The board can also advise on matters relating to the pooling of mineral operations and to the designation of land as limited use land.

#### **SURFACE RIGHTS BOARD**

The Surface Rights Act establishes a Quasi-judicial board to administer and enforce the Surface Rights Act. Responsible for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Board also arbitrates and mediates disputes and establishes appropriate compensation for petroleum activities.

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## **APPENDIX B**

### **FINANCIAL INFORMATION**

Innovation, Energy and Mines  
**Summary of Business Assistance**  
2010/2011 Fiscal Year

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<b>MANITOBA CENTRES OF EXCELLENCE FUND</b>	<b>720,000</b>
<b>MANITOBA RESEARCH AND INNOVATION FUND</b>	<b>11,925,000</b>
<b>LESS: RECOVERABLE FROM URBAN DEVELOPMENT</b>	<b>(750,000)</b>
<b>TRANSFER PAYMENTS</b>	<b>7,298,400</b>
<b>MINERAL INDUSTRY SUPPORT PROGRAMS:</b>	
<b>Mineral Exploration Assistance Program</b>	<b>984,637</b>
<b>Manitoba Prospectors' Assistance Program</b>	<b><u>17,526</u></b>
	<b><u>\$20,195,593</u></b>

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## APPENDIX C

### FINANCIAL INFORMATION

Innovation, Energy & Mines  
**List of Business Assistance**  
2010-2011 Fiscal Year

#### MANITOBA PROSPECTORS' ASSISTANCE PROGRAM

Ruth Bezys	4,825
Bill Hood	670
Ken Klyne	2,441
Garry Thorne	4,327
Harold Westdal	5,263
Total Funds Dispersed:	<u>\$17,526</u>

#### MINERAL EXPLORATION ASSISTANCE PROGRAM

5918139 Manitoba Inc.	59,901
5918147 Manitoba Inc.	59,901
Alexis Minerals Corporation	59,901
Bison Gold Resources Inc.	59,901
Callinan Mines Limited	59,901
Canadian International Minerals Inc.	17,630
Canadian Star Minerals	22,803
Copper Reef Mining Corporation	40,218
Cougar Minerals Corp.	34,833
Eagleridge Minerals Corp.	5,375
First Lithium Resources Inc.	59,901
Halo Resources Ltd.	50,235
Harley Davy	13,094
Hudson Bay Exploration and Development Company Limited	59,901
Jiminex Inc.	55,406
Marathon PGM Corporation	19,327
Medallion Resources Ltd.	58,674
Prophecy Resources Corp	59,901
Rockcliff Resources Inc.	59,901
StrikePoint Gold Inc.	59,756
Sypher Resources Ltd.	16,078
VMS Ventures Inc.(now HudBay)	40,342
Wildcat Exploration Ltd.	11,757
	<u>\$ 984,637</u>