

**Manitoba
Science, Technology, Energy and Mines**

**Sciences, Technologie, Énergie et Mines
Manitoba**

**Annual Report
2006 - 2007**

**Rapport annuel
2006 - 2007**



His Honour the Honourable John Harvard, P.C., 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 Science, Technology, Energy and Mines for the fiscal year ending March 31, 2007.

Respectfully submitted,

Jim Rondeau
Minister

Son Honneur l'honorable John Harvard, C.P., 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 Sciences, de la Technologie, d l'Énergie et des Mines pour l'exercice se terminant le 31 mars 2007.

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

Le ministre,

Jim Rondeau



Science, Technology, Energy and Mines

Deputy Minister
Winnipeg, Manitoba R3C 0V8

Honourable Jim Rondeau
Minister of Science, Technology, Energy and Mines
Room 333, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister Rondeau:

I have the honour of presenting the Annual Report for the Department of Science, Technology, Energy and Mines for the period April 1, 2006 to March 31, 2007.

The mission of the department is to 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 and championing critical policy development.

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:

- Provided business development support to AirSource Power as they completed construction of the \$210 million / 99 mega watt St. Leon Wind Farm. In conjunction with Manitoba Hydro, issued an Expression of Interest for 1000MW of wind development over a 10 year period.
- Launched a 10-point action plan to promote biodiesel including tax reductions and a grant program.
- First place ranking in Energy Efficiency in Canada.
- Manitoba received recognition for its Climate Change Actions being rated as having the best plan in Canada by the David Suzuki Foundation and having the best plan of all regional governments by Business Week.
- The Manitoba Research & Innovation Fund (MRIF) provided to research institutions \$8.9 million in research grants as well as a further \$2 million specifically for health research, to expand Manitoba's research capacity and to influence improvements in the health, environment and quality of life of Manitobans. An additional \$1.9 million in innovation funds was provided to support various innovative projects.
- The department contributed \$300,000 to the International Centre for Infectious Diseases (ICID) in support of the Centre's emerging role as a world leader in addressing the threat and impact of infectious diseases through research, training, commercialization and innovation.
- In September 2005 Mines Branch staff issued a Potash Exploration Permit in Western Manitoba covering an area in excess of 45,000 hectares. The Potash Exploration Permit issued to Agrium Inc. of Calgary is for a term of 5 years and grants the exclusive rights to the permittee to conduct exploration activities on Crown mineral lands. This permit is the first significant interest shown in Manitoba's potash sector in over 20 years.
- Under the Manitoba Orphan and Abandoned Mine Site Program (OAMSP), expenditures for 2005/06 totalled \$1,355,282. The work carried out included a shaft capping in Bissett; the fencing of open holes and engineering services to develop a rehabilitation plan for the Sherridon mine site; 50% of the costs incurred by Viridian for rehabilitation work carried out at Lynn Lake as per the Memorandum of Understanding; inspection of Crown-owned orphan and abandoned mine sites in the Bissett area; and reimbursement of Hudson Bay Mining & Smelting for additional rehabilitation work and Metal Mining Effluent Regulation (MMER) monitoring at the Ruttan mine site.

- Under the Pits and Quarries Rehabilitation Program, over 88 projects were completed at a cost of \$1.4 million. This is a highly successful program that contributes significantly to the economy of small rural communities by providing employment opportunities to local people.
- The first phase of the Mines Branch business enhancement project to integrate all Branch computer applications, implement map staking, develop a web interface for mineral title administration and enhance client service was completed in March 2005. In 2006/07 the next phase will begin involving systems analysis and development and further client consultation.
- New geological mapping in the Superior Boundary Zone and Thompson Nickel Belt has provided important information on the potential for nickel and gold deposits in the Thompson region. Geoscience studies in the Bissett and Lynn Lake areas provided data on gold and platinum group metal deposits near those communities, while collaborative initiatives with the Geological Survey of Canada involved a range of studies in the Thompson and Flin Flon regions. In addition, new geological mapping began in Manitoba's Far North to provide basic geoscience knowledge in an area with high mineral potential.
- The Geological Survey of Canada's second Targeted Geoscience Initiative (TGI 2) ended in March 2005, but wrap-up work continued in the Williston Basin project and follow-up investigations continued in the Trans-Hudson-Superior Margin Metallotect project. A third, five-year TGI was announced in the February 2005 federal budget. Planning and initial activities for a major TGI 3 project in the Flin Flon-Snow Lake-Leaf Rapids-Lynn Lake-La Ronge-Creighton area are in progress. One of the first products, an aeromagnetic survey of the western Thompson Nickel Belt, was funded by the GSC and completed in early 2006.
- Partnerships and collaborative projects continue to expand the ability of the Manitoba Geological Survey (MGS) to provide a wide range of geoscience programs in Manitoba. In 2005/06, MGS was involved in approximately 50 individual partnered programs, involving the federal government, other provincial governments, the mineral industry and several universities. These projects generated approximately \$1.5 million toward geoscience funding in the province and mentored the next generation of geoscientists, including three Post-doctoral Fellows, four Ph.D. students, five M.Sc. students and two B.Sc. Honours students.
- The annual Manitoba Mining and Minerals Convention hosted 800 industry participants, reflecting the mining sector's vibrant presence in Manitoba. The Convention provided a venue for participants to learn the latest government geological information releases, exploration and mining services and business opportunities.
- Under the Mineral Exploration Assistance Program (MEAP), 82 applications were approved that proposed over \$48 million in exploration expenditures. Under the Manitoba Prospectors Assistance Program (MPAP), 7 prospecting programs were completed that generated prospecting expenditures of close to \$87,000.
- The department proactively promoted Manitoba's mineral investment advantages at a number of industry meetings including the Prospectors and Developers Association of Canada Convention in Toronto, the Mineral Exploration Roundup in Vancouver and the San Francisco Gold Conference.
- Major outreach activities were undertaken with the mineral education initiatives such as the Manitoba Mining and Minerals Convention Schools Program, National Engineering and Geoscience Week at St. Vital Mall, and Provincial Mining Week. The free activities drew more than 3,742 visitors from the public and the school tours program.
- The Prospector Training program, conducted through the University College of the North (UCN), was a joint initiative in 2005 between the department, the University College of the North, Assembly of Manitoba Chiefs, Mining Association of Manitoba, Manitoba Prospectors and Developer Association and Indian and Northern Affairs Canada. In November 2005, 11 students graduated from the Prospector Training and Business of Prospecting sessions.
- In 2005, petroleum industry spending in Manitoba increased by 108% to \$243 million. A total of 70 exploratory and 215 development wells were drilled with a drilling success rate of 96%. Provincial revenue from taxes, royalties, and administration of Crown owned oil and gas rights and fees added \$16 million to the Provincial Treasury for 2005/06.
- Bill 21, the Oil and Gas Amendment and Oil and Gas Production Tax Amendment Act received first reading in March 2005 and is awaiting proclamation. The bill addresses a number of issues that have

arisen since the Acts were introduced in 1994 and includes provisions that enhance environmental protection, strengthen enforcement, streamline administration and encourage oil and gas exploration and development. Regulations needed to implement the provisions of Bill 21 are under development with consultation planned for the fall of 2006 and proclamation before year end.

- The Sinclair Field located 35 km southwest of Virden, continued to contribute to the largest portion of Manitoba's drilling activity with 203 wells during 2005. Sinclair's 2005 production of 184,027.6 m³ contributed 22.7% to Manitoba's total oil production. Development of the Sinclair Field has resulted in significant benefits to landowners, oil and gas rights owners and all levels of government.

The department is committed to the Principles and Guidelines set out in the Sustainable Development Act. Departmental initiatives support sustainable development by minimizing waste through the efficient use of office supplies and recycling, increased utilization of the internet to communicate and disseminate information to internal and external clients, delivery of a variety of seminars and implementing audio conferencing.

The Petroleum Branch has implemented an internal policy that gasohol should be utilized as the fuel of choice for inspection vehicles, where available. During 2005/06, 41.7% of the fuel used by the Branch was gasohol.

The department participates on various Sustainable Development Committees and Working Groups such as the Steering Committee, the Code of Practice, Financial Management Guidelines, Sustainability Reporting and the Regulation Sustainable Development working teams.

The department has incorporated a new section on performance reporting in the Annual Report which will provide readers with an understanding of how the department defines success, the challenges faced by the department in pursuing that success and identifies indicators that illustrate how the department measures achieving their goals.

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

Respectfully submitted,

John Clarkson
Deputy Minister



Deputy Minister
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Monsieur Jim Rondeau
Ministre des Sciences, de la Technologie, de l'Énergie et des Mines
Room 333, Legislative Building
Winnipeg MB R3C 0V8

Monsieur le Ministre,

J'ai l'honneur de vous présenter le rapport annuel du ministère des Sciences, de la Technologie, de l'Énergie et des Mines pour la période du 1^{er} avril 2006 au 31 mars 2007.

Le ministère a pour mission de donner aux Manitobains et Manitobaines la possibilité de prospérer au moyen de l'innovation en établissant des partenariats stratégiques, en encourageant les investissements, en créant l'infrastructure nécessaire et en y fournissant l'accès, en favorisant l'information et le savoir et en prônant l'élaboration de politiques essentielles.

Le ministère a entrepris plusieurs activités en collaboration avec nos partenaires et les groupes intéressés. J'ai décrit ci-dessous quelques réalisations qui résultent de ces activités :

- Le ministère a soutenu l'expansion commerciale de l'entreprise AirSource Power lorsque celle-ci achevait la construction de la centrale éolienne de 99 mégawatts à Saint-Léon, un projet de 210 millions de dollars. En collaboration avec Hydro-Manitoba, le ministère a aussi présenté une déclaration d'intérêt favorisant le développement de 1 000 MW d'énergie éolienne sur une période de dix ans.
- Le ministère a lancé un plan d'action en 10 points pour favoriser l'utilisation du biodiésel, y compris des allègements fiscaux et un programme de subventions.
- Préparation en vue du mandat lié à l'éthanol prévu pour la fin de 2007 et 2008.
- Lancement d'un projet pilote visant à réduire le fardeau énergétique des ménages à faible revenu dans le quartier Centennial de Winnipeg.
- Mise en œuvre d'un plan d'action en 10 points portant sur les possibilités de développement de biodiésel.
- Soutien à l'industrie géothermique florissante au Manitoba.
- Obtention de financement fédéral pour aider Manitoba Hydro à se lancer dans l'efficacité énergétique avec le gaz naturel.
- Soutien à Manitoba Hydro qui a émis une demande de propositions portant sur 300 mégawatts d'énergie éolienne.
- Le Manitoba s'est classé au premier rang au Canada en matière d'efficacité énergétique.
- Le Manitoba a été reconnu pour ses mesures sur le changement climatique. Son Plan d'action a été qualifié de meilleur au Canada par la David Suzuki Foundation et de meilleur parmi tous les gouvernements régionaux par le magazine *Business Week*.
- Le Fonds pour la recherche et l'innovation du Manitoba a versé aux établissements de recherche 8,9 millions de dollars en subventions de recherches, ainsi qu'une somme supplémentaire de 2 millions de dollars destinée plus particulièrement à la recherche sur la santé, et ce, dans le but d'accroître la capacité de recherche du Manitoba et d'améliorer la santé, l'environnement et la

qualité de vie des Manitobains et des Manitobaines. Des fonds d'innovation supplémentaires totalisant 1,9 million de dollars ont été fournis pour soutenir divers projets innovateurs.

- La Commission géologique du Manitoba (CGM) a participé à 34 initiatives en 2006-07 en partenariat avec le gouvernement fédéral, l'industrie des minéraux et plusieurs universités canadiennes. Ces partenaires ont injecté en 2006–2007 quelque 1,4 million de dollars dans la programmation géoscientifique au Manitoba, ce qui augmente considérablement le budget géoscientifique provincial. Ces projets ont favorisé la formation des professionnels géoscientifiques futurs, notamment en 2006 deux détenteurs d'une bourse de perfectionnement post-doctoral, quatre aspirants au doctorat, cinq étudiants à la maîtrise en science et trois étudiants au baccalauréat en sciences reçus avec mention. En 2006, des partenariats ont permis de réaliser les projets IGC 3 de Flin Flon et la série de projets de Bird River.
- Le projet IGC 3 de Flin Flon est en fait une étude géoscientifique intégrée pour aider à la découverte de nouvelles réserves de métaux communs dans les collectivités minières établies du Manitoba et de la Saskatchewan. Le but des travaux à Flin Flon est d'intégrer des résultats sismiques bi et tridimensionnels à la représentation cartographique de surface très détaillée afin de produire un « cube 3D de données » pour cette zone minière. Entre temps, dans la région du lac Wuskwatim à l'ouest de Thompson, on a procédé à un levé aérien financé par la CGM, les cartes aéromagnétiques haute résolution qui ont été produites et ont servi au personnel de la Commission géologique du Manitoba et de la Commission géologique du Canada qui ont réinterprété la géologie du domaine de Kisseynew à l'ouest de la zone de nickel de Thompson. Ces travaux ont surtout permis de comprendre que les roches de type Thompson et la minéralisation de nickel sont présentes bien à l'ouest de la zone de nickel « connue ».
- La deuxième année du partenariat géoscientifique gouvernement-industrie-université dans la zone de Bird River dans le sud-est du Manitoba a été complétée en 2006. Les partenaires de l'initiative sont la Commission géologique du Manitoba, des chercheurs et des étudiants de troisième cycle de l'université de Waterloo (financé en partie par trois sociétés d'exploitation et le Conseil de recherches en sciences naturelles et en génie). Le groupe a entrepris des travaux de cartographie, d'analyse structurelle et géochronologiques afin de mieux comprendre l'évolution de la zone de Bird River et la disposition des éléments du groupe du platine, des gisements de nickel-cuivre et de pegmatite minéralisée enrichie d'ÉTR.
- Dans le cadre d'une initiative de la CGM visant à mettre à jour la base de données géologiques de la région du Grand Nord manitobain, des travaux de reconnaissances ont été effectués en 2006 dans le secteur des lacs Kasmere et Putahow. Des études pluridisciplinaires ont été effectuées notamment cartographie de la roche de fond, géochronologie, reconnaissance des gisements minéraux et carte géologique des dépôts meubles afin d'améliorer la compréhension actuelle limitée de la nature et de l'évolution de cette partie du bouclier précambrien du Manitoba et pour soutenir l'exploration d'uranium et d'or en cours dans la région.
- Les mesures de diffusion des services éducationnels relatifs à l'exploitation minière de la Commission géologique du Manitoba ont porté notamment sur le programme scolaire de la convention sur l'industrie minière et les minéraux du Manitoba, la semaine nationale du génie et la semaine provinciale de l'exploitation minière. Au cours du dernier événement, on proposait des activités gratuites conçues pour compléter le programme scolaire des sciences de la Terre et pour sensibiliser le public au sujet des ressources minérales et de l'industrie minière du Manitoba. L'événement a attiré plus de 4 000 visiteurs. Les troisièmes ateliers sur l'exploitation minière à l'intention des Autochtones ont été organisés dans le cadre de la convention annuelle sur l'industrie minière et les minéraux du Manitoba du 26 novembre. L'atelier décrivait comment les collectivités peuvent profiter de l'activité minière dans leur région.
- En 2006-07, selon un sondage de l'Institut Fraser auprès des sociétés d'exploration et d'exploitation minière, le Manitoba se classait au premier rang mondial pour le « *Policy Potential Index* » (indice de potentiel politique), indice composé qui mesure la situation politique en général. Le rapport de l'Institut Fraser affirme que le *Policy Potential Index* sert de bulletin de notes pour les gouvernements leur indiquant à quel point leurs politiques favorisent l'investissement du point de vue d'un directeur d'exploration.
- Le Ministère a dépensé 2,2 millions de dollars en 2006-07 aux termes du programme de restauration des mines orphelines/abandonnées du Manitoba afin de procéder à des travaux de restauration à Lynn Lake, à Ruttan, à Sherridon et à Snow Lake notamment la surveillance environnementale, la réparation, la démolition et le nettoyage des digues, la végétalisation des sites

et la préparation de plans de restauration à long terme. Le Ministère a également effectué l'inspection de toutes les mines orphelines et abandonnées afin de cibler les dangers environnementaux et sécuritaires et de prioriser les travaux de restauration qui devront être entrepris. Le but du programme est de remédier aux risques environnementaux, à la santé et à la sécurité et de remettre le plus possible le site dans son état premier.

- Le Ministère a organisé l'atelier sur les pratiques exemplaires concernant l'initiative nationale sur les mines orphelines/abandonnées (NOAMI). À cette occasion, les représentants des paliers provincial, territorial et fédéral du gouvernement, d'organisations non gouvernementales, de collectivités autochtones, de l'industrie minière et d'autres ont fait part de leurs pratiques exemplaires de gestion des mines orphelines et abandonnées.
- Plus de 97 projets ont été réalisés en vertu du programme de remise en état des puits et des carrières, au coût de 1,48 million de dollars. Ce programme, qui a remporté un grand succès, contribue énormément à l'économie des petites collectivités rurales, puisqu'il offre des possibilités d'emploi aux résidents de celles-ci.
- La direction des mines a poursuivi ses consultations concernant le jalonnement sur carte dans le cadre de son initiative visant à rationaliser et à améliorer la prestation des services grâce à la mise sur pied d'un nouveau système intégré d'enregistrement des activités minières.
- Plus de 800 délégués ont assisté au 38^e congrès annuel sur les minéraux et les mines du Manitoba, qui s'est tenu à Winnipeg du 20 au 22 novembre.
- Le nouveau partenaire du Manitoba dans la Manitoba Potash Corporation, la société de ressources internationale BHP Billiton, investira 15 millions de dollars pour explorer le potentiel présenté par un vaste gisement de potasse dans la région de Russell-Binscarth au sud-ouest du Manitoba.
- Conformément au Programme d'aide à l'exploration minière (MEAP), les autorités ont approuvé 81 demandes proposant pour plus de 56,8 millions de dollars en dépenses d'exploration. Quant au Programme d'aide aux prospecteurs du Manitoba Prospectors Assistance Program (MPAP), il a permis de mener 13 programmes de prospection qui ont produit des revenus de prospection approchant les 95 000 \$.
- En 2006, les dépenses de l'industrie pétrolière ont augmenté de 64 % au Manitoba, passant à 400 millions de dollars. Au total, 97 forages d'exploration et 379 forages de développement ont été effectués, atteignant un taux de 95 % sur un total de 476 puits. Il s'agit du nombre annuel de forages le plus élevé jamais effectué au Manitoba : il surpasse le record précédent de 354 puits qui date de 1955. Les recettes provinciales engendrées par les taxes, les redevances et l'administration de droits et de frais pétroliers et gaziers sur des propriétés de la Couronne représentent un apport de 20 millions de dollars pour le Trésor provincial en 2006-2007.
- La mise en valeur du champ pétrolifère de Sinclair, à 35 km au sud-ouest de Virden, s'est poursuivie en 2006, puisque Tundra Oil and Gas a réalisé 307 forages et construit 21 km de pipeline pour raccorder le champ au terminal interprovincial d'Enbridge à Cromer. En 2006, le champ pétrolifère de Sinclair représentant 43 % de la production de pétrole totale du Manitoba.
- Le Manitoba s'est joint aux autres organismes de réglementation canadiens des gaz de torche pour mettre ses pratiques exemplaires en commun et promouvoir la réduction du torchage dans l'industrie pétrolière et gazière en amont en vertu de l'initiative mondiale de réduction du torchage de la Banque mondiale. Le premier projet de réduction du torchage du Manitoba, un partenariat entre Canadian Natural Resources Ltd. Et ATCO Midstream, nécessite la construction d'une conduite d'amenée pour recueillir le gaz de torche dans une installation pétrolière et l'expédier à une centrale au gaz en Saskatchewan. Le projet entraînera la réduction des émissions de gaz de serre de l'ordre de 28 kt d'équivalent de CO₂ par année.
- La direction du pétrole, la direction de la sécurité et de la santé du travail, le ministère du travail et le ministère de l'immigration ont renouvelé un protocole d'entente autorisant les inspecteurs pétroliers à mettre en application la *Loi sur la sécurité et l'hygiène du travail* dans les installations pétrolières et gazières.
- Le Ministère a lancé une stratégie de récupération assistée des hydrocarbures (RAH), qui comprend des modifications au programme d'encouragement au forage du Manitoba afin de soutenir l'injection d'eau en vue d'améliorer la récupération d'hydrocarbures dans les gisements de pétrole du Manitoba. D'après cette stratégie, le Ministère doit également passer en revue la faisabilité technique et économique de l'injection de CO₂. En plus d'accroître la production de pétrole, cette activité de récupération des hydrocarbures, réduira les émissions grâce à l'entreposage des CO₂ dans les réservoirs de pétrole qui seraient autrement dégagés dans l'atmosphère.

Le Ministère est engagé à respecter les principes et directives énoncées dans la *Loi sur le développement durable*. Les initiatives de celui-ci favorisent le développement durable en minimisant le gaspillage grâce à l'utilisation économique des fournitures de bureau ainsi que le recyclage, l'utilisation accrue d'Internet pour communiquer et diffuser l'information aux clients internes et externes, l'organisation de différents séminaires et l'utilisation de conférences téléphoniques.

La Direction des ressources pétrolières a mis en œuvre une politique interne d'utilisation du gazohol comme carburant privilégié pour les véhicules d'inspection, dans la mesure du possible. En 2006-2007, 45 % du carburant consommé par la Direction était du gazohol.

Le Ministère participe à différents comités et groupes de travail sur le développement durable tels que le comité de direction et les équipes de travail sur le code de pratique, les directives de gestion financière, les déclarations de développement durable et l'élaboration de règlements sur le développement durable.

Le Ministère continuera à mettre en œuvre des initiatives et des activités de planification stratégiques qui contribueront au succès du Manitoba.

Veuillez accepter, Monsieur le Ministre, l'expression de mes sentiments les plus respectueux.

Le sous-ministre,

A handwritten signature in black ink, appearing to read 'John Clarkson', with a large, stylized initial 'J'.

John Clarkson

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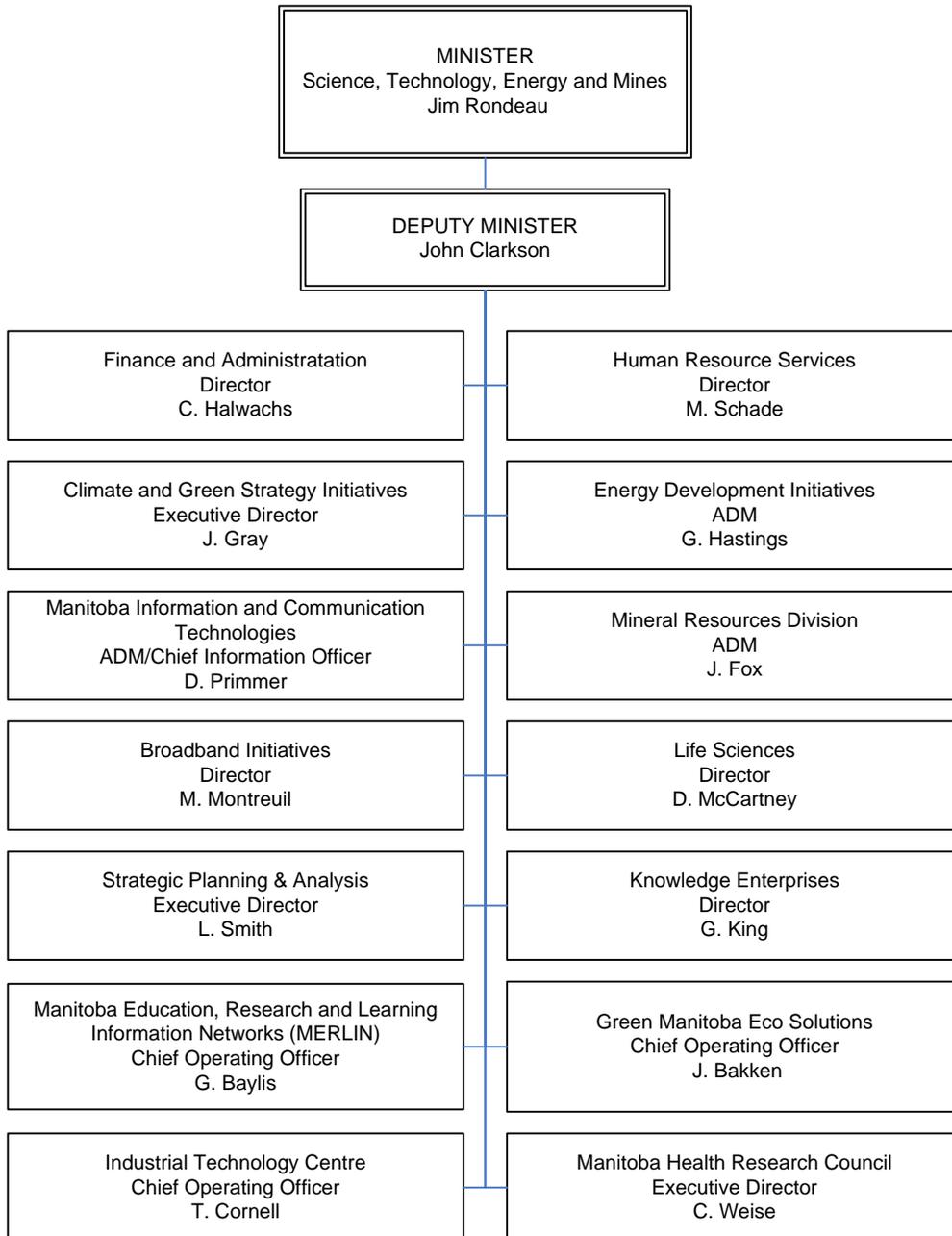
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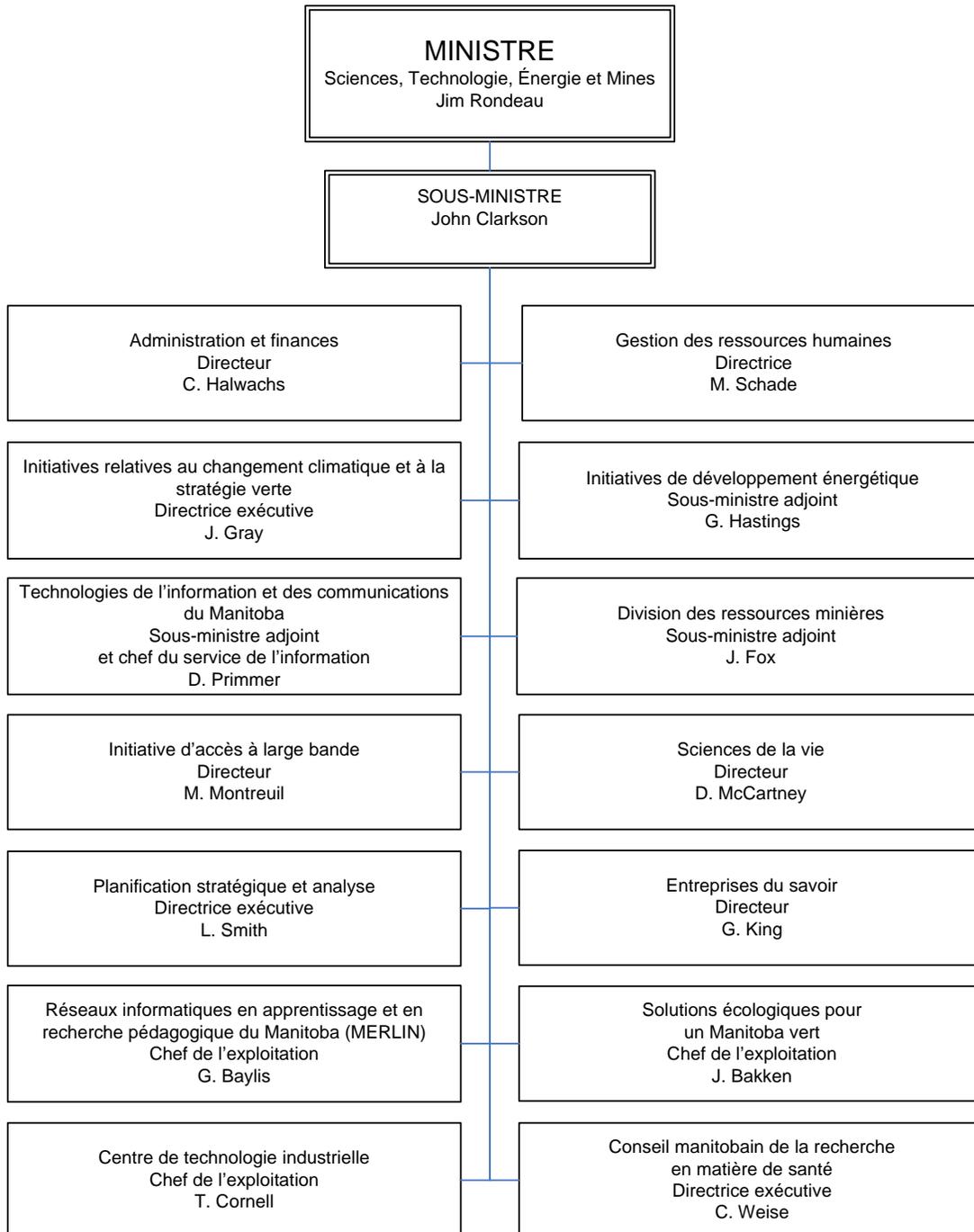
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**SCIENCE, TECHNOLOGY, ENERGY AND MINES
ORGANIZATIONAL CHART
EFFECTIVE MARCH 31, 2007**



**SCIENCES, TECHNOLOGIE, ÉNERGIE ET MINES
ORGANIGRAMME
EN VIGUEUR À PARTIR DU 31 MARS 2007**



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 Science, Technology, Energy and Mines is responsible for the following:

The Biofuels Act.....	B 40
The Economic Innovation and Technology Council Act.....	E 7
The Energy Act.....	E 112
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).....	-
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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
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As per Schedule "P", Order-In-Council 418/2006

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:

14. Education, Training and Awareness
15. Pollution Prevention and Human Health Protection
16. Reduction of Fossil Fuel Emissions
17. Resource Conservation
18. Community Economic Development

ORGANIZATION

The department's 2006/2007 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 JIM RONDEAU

DEPUTY MINISTER

JOHN CLARKSON

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; and
- championing critical policy development.

FOCUS

The Department was established in recognition of the following:

- **Innovation** is key to future economic development and **capacity to deliver** government initiatives;
- **Energy, science and technology** are critical to the further development of the Manitoba economy;
- Government's need to **focus** economic development priorities; and
- **Strengthen** the approach to economic development.

The Department will:

- focus provincial innovation activities;
- assist in the growth and success of our science, research and technology assets;
- strengthen, develop, grow and attract knowledge-based industries;
- focus government information technology requirements;
- build community based partnerships through connectivity;
- focus government climate change implementation plans;
- strategically develop Manitoba's energy resources, in co-operation with public and private sectors;
- support innovation in communities and schools;
- link response to climate change with innovation and economic success; and
- link government's own IT activities with innovation and economic development.

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

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

Some of the immediate and short-term priorities for the Department are:

- create an environment conducive to the development of renewable energy technologies;
- lead coordinated development and action on the provincial implementation of Canada's Kyoto Protocol plan;
- optimize community participation and benefits from upcoming Manitoba Hydro development projects;
- optimize value for sale of hydro power to other jurisdictions;
- seek federal program cost sharing for Climate Change activities;
- ensure Manitoba's interests (economic and emissions targets) are represented in Federal Kyoto negotiations;
- maximize spin-off opportunities related to new renewable energy;
- facilitate early development of critical infrastructure centres in which the province has invested;
- create an environment which ensures Manitoba's life sciences cluster in the health, agri-food and environmental sectors remains globally competitive;
- facilitate development and growth of industry associations, particularly in the information communication and technology (ICT) and life sciences sectors;
- create an environment conducive to investment in Manitoba's technology businesses;
- help Manitobans maximize opportunities from connectivity by: expanding the number of communities with access to networks, increasing bandwidth, increasing the number of computers available to communities and enhancing the development of local content;
- seek improved Federal-Provincial research partnering support;
- continue to facilitate increased capacity at Manitoba research institutions;
- leverage and co-ordinate the government's investment in ICT to ensure best value from investment and maximum economic and community development opportunities;
- continue to develop strategies to safeguard information;
- provide ICT planning, development and operational activities that support the major strategic directions of government as identified through departmental plans;
- strive to collaborate and share assets and approaches between departments and jurisdictions, in order to reduce duplication, improve service levels, obtain best value from assets and ultimately reduce expenditures; and
- seek strategies to improve the ease and quality of Manitobans' access to government information, programs and services.

To achieve its mission, the department is organized in four 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 Competitiveness, Training and Trade in the areas of human resource services, finance and administration and management information systems.

ENERGY, CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES develops and implements energy development initiatives, climate change initiatives and economic development strategies involving hydro-electric resources and alternate energy development opportunities; includes developing, monitoring and coordinating the implementation of energy and climate change policies and initiatives and related provincial programs.

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT functions as the government's primary focus for business development services to industry and communities in the areas of life sciences, knowledge enterprises, technology and infrastructure to support economic growth and stimulate employment; develops strategic plans, business plans and provides research, analysis and evaluation services; develops, analyzes and communicates policies related to innovation, research, and development, technology and telecommunications; oversees the implementation of the Manitoba Centres of Excellence Fund and the Manitoba Research and Innovation Fund; provides a coordinating function for all research, innovation, science and technology initiatives in government; facilitates economic development in Manitoba through the provision of industrial technology services; provides funding for health research initiatives and; provides distance education technology services for the provincial education systems.

MANITOBA INFORMATION AND COMMUNICATION TECHNOLOGIES is responsible for positioning information & communications technologies to support program delivery within the Government of Manitoba and broader public sector; develops key information and communication technology (ICT) strategies, policies, standards and business processes to optimize the delivery of core ICT functions in support of service delivery goals; provides an information and communication technology environment within government where appropriate technologies are fully integrated with service delivery requirements; provides analytical framework for review and approval of all ICT plans, projects and expenditures; and develops a service relationship with stakeholders to ensure that service strategies are aligned with government's program and service priorities.

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.

AVANT-PROPOS

STRUCTURE DU RAPPORT

La présentation du rapport annuel reflète la structure des crédits du ministère et le Budget des dépenses de la Province. Le rapport contient des renseignements sur les postes principaux et secondaires du budget en ce qui concerne le rendement financier et les écarts par rapport aux prévisions, ainsi que des renseignements sur les postes secondaires en ce qui concerne les objectifs du ministère et les résultats obtenus. Il présente en outre des renseignements sur les organismes associés, le soutien aux entreprises, les recettes et les dépenses, ainsi qu'une récapitulation quinquennale des dépenses et de la dotation en effectif.

RESPONSABILITÉS LÉGISLATIVES

Le ministère des Sciences, de la Technologie, de l'Énergie et des Mines veille à l'application des lois suivantes :

Loi sur les biocarburants.....	B 40
Loi sur le Conseil de l'innovation économique et de la technologie.....	E 7
Loi sur l'énergie.....	E 112
Loi sur les gazoducs.....	G 50
Loi sur la répartition du gaz.....	G 52
Loi sur la distribution du gaz dans la conurbation de Winnipeg (L.M. 1988-89, c. 40).....	-
Loi sur le Conseil manitobain de la recherche en matière de santé.....	H 28
Loi sur les mines et les minéraux.....	M 162
Loi sur l'indemnisation consécutive à l'exploration minière ou métallurgique.....	M 190
Loi sur le pétrole et le gaz naturel.....	O 34
Loi de la taxe sur la production de pétrole et de gaz.....	O 37
Loi sur l'aide en matière de taxes foncières et d'isolation thermique des résidences [partie V, et article 1 et partie VI en ce qui concerne les sujets traités dans la partie V].....	P 143
Loi sur les droits de surface.....	S 235
Loi sur le développement durable.....	S 270
(en fonction de sa relation avec le Fonds d'action sur le changement climatique du Manitoba du Fonds des innovations de développement durable)	
Loi sur la limitation des frais de chauffage en hiver.....	W 165

Selon l'annexe « P » du décret 418/2006

DÉVELOPPEMENT DURABLE

Le ministère veille à se conformer aux principes et aux directives énoncés dans la *Loi sur le développement durable* et s'efforce de les intégrer dans ses activités, ses programmes et ses pratiques.

Principes et directives de développement durable :

1. Intégration des décisions économiques et environnementales
2. Supervision de la gestion de l'environnement
3. Responsabilité partagée et compréhension
4. Prévention
5. Conservation et promotion
6. Récupération et remise en état
7. Responsabilité planétaire
8. Utilisation efficace des ressources
9. Participation du public
10. Accès à l'information
11. Prise de décision et planification intégrées
12. Réduction et remplacement des déchets
13. Recherche et innovation

Objectifs de développement durable en matière d'approvisionnement :

14. Éducation, formation et sensibilisation
15. Prévention de la pollution et protection de la santé humaine
16. Réduction des émissions de combustibles fossiles
17. Conservation des ressources
18. Développement économique communautaire

ORGANISATION

L'organigramme, qui se trouve à la page i, reflète la structure organisationnelle du ministère pendant l'exercice 2005/2006. L'information qui suit porte sur le rôle et les responsabilités de ce ministère ainsi que sur la dotation en personnel.

RÔLE ET RESPONSABILITÉS

MINISTRE

JIM RONDEAU

SOUS-MINISTRE

JOHN CLARKSON

RÔLE ET MANDAT

Le ministère donnera aux Manitobains et Manitobaines la possibilité de prospérer au moyen de l'innovation, en :

- créant des partenariats stratégiques;
- encourageant des investissements;
- créant l'infrastructure nécessaire et en y fournissant l'accès;
- encourageant l'éducation et le savoir;
- favorisant l'élaboration de politiques essentielles.

INTÉRÊT

Le ministère a été créé en reconnaissance de ce qui suit :

- ***l'innovation*** est la clé du développement économique futur et de ***la capacité de mener à bien*** les initiatives gouvernementales;
- les secteurs ***de l'énergie, des sciences et de la technologie*** sont essentiels à la prospérité économique du Manitoba;
- le gouvernement doit ***faire converger*** ses priorités en matière de développement économique;
- le gouvernement doit ***renforcer*** l'approche au développement économique.

Le ministère :

- polarisera les activités provinciales liées à l'innovation;
- contribuera à la croissance et au succès de nos atouts dans les secteurs de la science, de la recherche et de la technologie;
- renforcera, développera, fera croître et attirera des entreprises fondées sur le savoir;
- fera converger les besoins du gouvernement en matière de technologie de l'information;
- créera des partenariats dans la collectivité grâce à la connectivité;
- dirigera les plans de mise en œuvre du gouvernement liés au changement climatique;
- mettra en valeur, de manière stratégique, les ressources énergétiques du Manitoba en collaboration avec les secteurs public et privé;
- soutiendra l'innovation dans les collectivités et les écoles;
- fera le lien entre la réponse au changement climatique d'une part et l'innovation et le succès économique, d'autre part;
- fera le lien entre les activités de TI du gouvernement d'une part et l'innovation et le développement économique, d'autre part.

Le ministère collaborera avec les entreprises, les particuliers, les autres ministères et les collectivités aux fins suivantes :

- renforcer leur capacité de réussite;
- rehausser les compétences nécessaires à leur prospérité;
- améliorer leur image aux plans local, national et international;
- favoriser l'établissement d'un milieu propice à la croissance durable de l'économie.

Parmi les priorités immédiates et à court terme du ministère, notons :

- créer un environnement propice au développement de technologies d'énergies renouvelables;
- diriger des plans d'action et de développement coordonnés relativement à la mise en œuvre du Protocole de Kyoto du Canada à l'échelle du Manitoba;
- optimiser la participation communautaire et les bienfaits découlant des prochains projets de développement de Manitoba Hydro;
- optimiser la valeur de l'hydroélectricité en vue de sa vente à d'autres provinces et états;
- chercher l'appui du gouvernement fédéral pour partager les coûts des activités et des programmes liés au changement climatique;
- s'assurer que les intérêts du Manitoba (cibles économiques et en matière d'émissions) sont représentés lors des négociations sur le Protocole du Kyoto;
- maximiser les possibilités découlant de l'utilisation de nouvelles énergies renouvelables;
- faciliter le développement précoce de centres d'infrastructures essentielles dans lesquels la province a fait un investissement;
- faciliter le développement et la croissance d'associations de l'industrie, tout particulièrement dans les secteurs des TIC et des sciences de la vie;
- créer un environnement propice aux investissements dans les entreprises manitobaines œuvrant dans le domaine de la technologie;
- aider les Manitobains et Manitobaines à maximiser les bienfaits qui découlent de la connectivité en faisant en sorte que plus de collectivités aient accès aux réseaux; en agrandissant la largeur de bande, en augmentant le nombre d'ordinateurs disponibles aux collectivités et en favorisant le développement de contenus locaux;
- chercher un meilleur soutien en ce qui a trait aux partenariats de recherche fédéraux-provinciaux;
- continuer à faciliter une capacité accrue au sein des établissements de recherche manitobains;
- mettre en œuvre et coordonner les investissements du gouvernement dans le secteur des technologies de l'information et des communications (TIC) afin de s'assurer qu'on en tire le meilleur profit et obtient le plus d'occasions de développement économique et communautaire possible;
- continuer à élaborer des stratégies pour sauvegarder l'information;
- offrir des activités opérationnelles, de planification et de développement en matière de TIC qui appuient les objectifs stratégiques principaux du gouvernement tels qu'ils sont définis dans les plans d'action ministériels;
- s'efforcer de collaborer avec les autres ministères et administrations et de partager avec eux des ressources et des approches, afin de réduire le chevauchement d'activités, d'améliorer le niveau de service, de tirer le meilleur profit possible des ressources et, en fin de compte, de réduire les dépenses;
- chercher à formuler des stratégies pour que les Manitobains et Manitobaines aient un meilleur accès aux renseignements, aux programmes et aux services du gouvernement.

Pour mener à bien sa mission, le ministère est organisé en cinq divisions :

La DIVISION DE L'ADMINISTRATION ET DES FINANCES offre des services de haute direction, de planification et de contrôle des politiques et des programmes du ministère. Le soutien administratif dans les domaines des ressources humaines, des finances et de l'administration et de la gestion des systèmes d'information est fourni par le ministère de la Compétitivité, de la Formation professionnelle et du Commerce.

La DIVISION DES INITIATIVES RELATIVES À L'ÉNERGIE, AU CHANGEMENT CLIMATIQUE ET À LA STRATÉGIE VERTE élabore et met en œuvre des initiatives se rapportant au développement énergétique et au changement climatique ainsi que des stratégies de développement économique touchant les ressources hydroélectriques et les possibilités de mise en valeur d'énergies de rechange; cela inclut l'élaboration de politiques, d'initiatives et d'autres programmes provinciaux ayant trait à l'énergie et au changement climatique, ainsi que les activités de surveillance et de coordination nécessaires à leur mise en œuvre.

La DIVISION DES SCIENCES, DE L'INNOVATION ET DU DÉVELOPPEMENT DES ENTREPRISES agit comme organe central du gouvernement quant à l'offre de services de développement des entreprises à l'industrie et aux collectivités dans les domaines des sciences de la vie, des entreprises du savoir, des technologies et de l'infrastructure, afin de favoriser la croissance économique et de stimuler l'emploi; élabore des plans stratégiques et des plans d'entreprise; fournit des services de recherche, d'analyse et d'évaluation; établit, analyse et communique des politiques relatives à l'innovation, à la recherche et au développement, ainsi qu'à la technologie et aux télécommunications; veille à la mise en œuvre du Fonds pour les centres d'excellence du Manitoba et du Fonds pour la recherche et l'innovation du Manitoba; coordonne à l'échelle du gouvernement la réalisation de tous les projets dans le domaine de la recherche, de l'innovation, des sciences et de la technologie; facilite le développement économique au Manitoba en offrant des services de technologie industrielle; finance des initiatives de recherche dans le domaine de la santé; fournit des services de technologie pour l'enseignement à distance dans la province.

La DIVISION DES TECHNOLOGIES DE L'INFORMATION ET DES COMMUNICATIONS DU MANITOBA veille à la mise en place des technologies de l'information et des communications pour soutenir la prestation de programmes au sein du gouvernement du Manitoba et du secteur public élargi; élabore des stratégies, des politiques, des normes et des procédés administratifs clés relatifs aux technologies de l'information et des communications (TIC) afin d'optimiser l'offre de fonctions TIC de base, en vue d'atteindre les objectifs relatifs à la prestation de services; fournit un environnement au sein du gouvernement où les technologies appropriées font partie intégrante des critères de prestation de services; offre un cadre analytique pour examiner et approuver l'ensemble des plans, des projets et des dépenses se rapportant aux TIC; établit une relation de services avec les parties intéressées pour veiller à ce que les stratégies de services sont conformes aux priorités du gouvernement en ce qui a trait aux programmes et aux services.

La DIVISION DES RESSOURCES MINIÈRES favorise une gestion judicieuse des terres et un développement économique respectueux de l'environnement en fonction des ressources minières et pétrolières du Manitoba; fournit de la documentation faisant autorité sur les richesses minières et pétrolières de la province et sur les possibilités de développement de celles-ci; offre des programmes miniers incitatifs; administre des lois régissant la disposition des droits miniers et pétroliers, l'exploration, le développement et la production des ressources minières et pétrolières de la province, ainsi que la restauration des mines, des carrières et des installations pétrolières abandonnées; règle des différends entre les détenteurs des droits de surface et les détenteurs des droits miniers en ce qui concerne l'accès aux minéraux, au pétrole et au gaz naturel.

ADMINISTRATION AND FINANCE

The Administration and Finance Division comprises the Executive Support Offices and the shared Financial and Administrative Services section of Competitiveness, 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 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Minister's Salary	30.3	1.00	30.4	(0.1)	
Total Expenditures	30.3	1.00	30.4	(0.1)	

18-1(b) Executive Support

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	415.4	6.00	422.1	(6.7)	
Total Other Expenditures	75.3		81.2	(5.9)	
Total Expenditures	490.7	6.00	503.3	(12.6)	

ADMINISTRATION AND FINANCE

FINANCIAL AND ADMINISTRATIVE SERVICES

The Financial and Administrative Services Branch provides services to the departments of Science, Technology, Energy and Mines (STEM) and Competitiveness, Training and Trade (CTT) and related agencies. The Branch provides financial management, administrative, information technology and human resource services to both departments.

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, information technology and human resource service; 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;
- Supervising the Freedom of Information and Protection of Privacy 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.

Human Resource Services staff that support Science, Technology, Energy and Mines and its Special Operating Agencies (SOAs) are part of the consolidated HR unit that also services the Departments of Culture, Heritage and Tourism, Finance and its SOAs, and the Office of the Auditor General.

Human Resource activities are carried out in accordance with The Civil Service Act, the Government Employees Master Agreement, Manitoba Labour Laws, and Workplace Health and Safety Legislation.

Specific activities of Human Resource Services during 2006-2007 included:

- The branch continues to co-ordinate the implementation of government-wide policies and initiatives.
- Provided consultation services related to position classification, employee placement strategies, and chaired various boards related to the ICT restructuring initiative.
- Fifteen regular and 2 term positions were filled through formal competition processes for STEM. Two positions were filled through various direct appointments. Thirteen term appointments were made. Seventeen lateral transfers of staff due to ICT restructuring were processed.
- Prepared detailed classification analysis under delegated and non-delegated authority for 12 reclassification requests. Assisted in the preparation of evidence for 1 Classification Appeal.
- Consulted with management/supervisory personnel, employees and the M.G.E.U. in the resolution of various labour and employee relations issues. One formal grievance was filed.
- Maintained payroll records for 281 employees.

- Provided benefit information on 18 employee appointments and 12 retirements to STEM employees.
- Processed 1 WCB accident/injury claims that resulted in time loss of 2 days.
- Science, Technology Energy and Mines participated in the various Internship programs offered through the Civil Service Commission.
- Organizational consulting services included Renewal, ICT Restructuring and Workforce Diversity strategies. Provided 18 days of facilitated learning for 17 STEM employees.

Employment Equity Statistics as at Fiscal Year End

	2003-2004 Actual (%)	2004-2005 Actual (%)	2005-2006 Actual (%)	2006-2007 Actual (%)
Aboriginal	1.5	0.8	0.7	4.8
Women	47.0	49.2	48.9	39.1
Persons with Disability	1.5	1.6	1.4	4.0
Visible Minority	3.0	6.6	7.2	6.5

Computer Services provides the department with information technology support services including: computer systems design and implementation; equipment evaluation and acquisition (outside the Desktop Refresh); user education and assistance (outside the standard suite); and implementation of government wide initiatives adherence to guidelines and standards.

Computer Services activities undertaken for CTT/STEM during the year included:

- BizPal
 - A new eService for business and residents of MB
 - Enables easy access to all licenses and permits whether Federal/ Provincial or municipal in 4 jurisdictions and across 100 business types.
 - Was identified within the govt throne speech as an important NEW service to Manitobans and was nominated for a Govt of MB Quality Service Excellence Award
 - Implementation team included groups from Service Transformation and IT resources from the department
 - The implementation of BizPal continues in FY 2007/08 with the inclusion of Brandon and Winnipeg as key partners in this exercise to reduce red tape.
 - Coverage will be expanded over the next few years to include more provincial licenses and permits, more communities and more business types.
- Online submittable forms thru a central govt of MB eForms gateway
 - Another new eService for business of MB
 - The service and gateway enables business to print and submit a few selected forms online
 - The service will be expanded in FY 2007/08 to include more forms and more functionality
- Synchronization of employee info between several key government databases to
 - Improve internal efficiencies
 - Reduce administrative costs
- Developed the RFP for the second phase of the Mines Branch Information System for Business Requirements and System Development. Due to Government's SAP First Policy, the Mines Branch RFP went through an SAP scoping and review process. The Mines Branch staff participated in a workshop with SAP consultants to confirm requirements. A SAP Mines Branch Solution Map and a Mines Branch SAP Scoping documents were produced.
- Migrated the following Database Systems hosted internally to servers maintained by Advanced Education and Training as part of the Server Consolidation Project.
 - Mining Recording Information System
 - Work Commitment System
 - Stratigraphic Database System
- The Computer Services section was involved with activities of ICT Restructuring and Transitioning Project, such as development of the new IT organization, identification of departmental application systems and transition readiness.
- Implemented mobile GIS strategy by acquiring the necessary GIS software and Palm PDAs.

- Developed a partnership with Water Stewardship on the Watershed project to work collaboratively to setup a GIS infrastructure for both departments.

18-1(c) Financial and Administrative Services

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE \$	Variance Over (Under)	Expl. No.
Total Other Expenditures	150.0	150.0	-	
Total Expenditures	150.0	150.0	-	

ENERGY, CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES

ENERGY DEVELOPMENT INITIATIVES

Energy Development Initiatives (EDI) is a key strategic element of the department. Two branches make up EDI; Energy Policy and Energy Economic Development.

Energy Policy is responsible for developing broad energy policies that support energy economic development. Energy Economic Development is responsible for promoting existing energy resources and helping to develop emerging renewable energy sources for sustainable and environmentally responsible economic growth in Manitoba.

EDI focuses its efforts on promoting and developing clean renewable energy in the province.

OBJECTIVES

The primary objectives of the Energy Development Initiatives include: developing and implementing government-wide economic development strategies encompassing Manitoba hydroelectric resources and other emerging renewable energy development opportunities; developing, analyzing and implementing provincial government's energy policies.

ACTIVITIES/RESULTS

The following provides a summary of activities:

Hydro-Electric Power Sale: Co-managed studies with Ontario Energy, Hydro One and Manitoba Hydro to evaluate the feasibility of a large, long-term Manitoba hydro-electric power sale to Ontario and all the associated infrastructure developments. This work is being done under the auspices of the Manitoba/Ontario Clean Energy Transfer Initiative (CETI). Memorandum of Understanding (MOU) was signed on June 20, 2003. Manitoba Hydro secured a long term power sale with Xcel Energy in the United States. Work continues towards evaluating the possibility of selling power to other Canadian provinces.

Biodiesel: Manitoba offers amongst the most generous biofuels incentives in the country. Work continues to advance market development and fuel quality to support production. A commitment from the Federal Government to provide funding support for biodiesel production in Manitoba was secured. A biodiesel production program was subsequently developed for interested proponents in Manitoba, with several groups expressing interest.

Wind Power: Manitoba Hydro and Manitoba announced that a request for proposals for a further 300 MW's would be issued in 2007. Target dates for another 600 MW's were also established. Manitoba also hosted the annual conference of the Canadian Wind Energy Association (CANWEA); more than 1200 delegates attended, the largest ever. Algonquin Power/Airsource Power completed construction of Manitoba's first 99 MW wind farm in St. Leon. The \$210 million project was commissioned in the summer of 2006. EDI worked closely with Manitoba Hydro in the development of the next phases of wind development in Manitoba. Manitoba Hydro announced a 300 MW RFP that will close in July 2007 and targeted another 600 MW commencing in 2012/2013. EDI has also worked closely with wind turbine manufacturers exploring investment opportunities in Manitoba.

Geothermal (Ground Source Heat Pumps): Manitobans installed over 750 geothermal units in 2006 with growth rates expected to continue. Geothermal will be a major presence in the new Waverley West subdivision, expected to begin construction in 2007. EDI worked with key players of the local industry in the development of a local heat pump association and facilitated a strategic partnership between this provincial association and a national body, a first in Canada.

East-West Grid: Continued efforts to raise the national profile and support for an east-west power grid. Such an initiative would potentially result in enabling the transfer of clean energy from Manitoba to other Canadian provinces.

Reliability Legislation: Working cooperatively with stakeholders, drafted Reliability Legislation which was introduced in the December 2006 sitting of the Legislature. These amendments will help protect Manitoba Hydro's export markets.

The Winter Cost Control Heating Act: Programs helping Manitoba's low income households become more energy efficient and expanding existing Power Smart programming to sectors where there is below average participation.

Anaerobic Digesters: Worked with Manitoba Agriculture and Food Rural Initiatives to develop a strategy to support 3 pilot projects on Manitoba Hog operations.

Ethanol: Worked closely with Husky Energy as they continued construction of a new \$145 million, 130 million litre, ethanol plant that is expected to be completed in late 2007 and continued to work with other proponents interested in building a second Manitoba plant to service potential export markets.

Hydrogen: The Branch continued to coordinate and chair the activities of the Manitoba Hydrogen Steering Committee, and at the same time to liaise with various representatives of the Federal government, particularly given significant changes that have been underway with Federal funding programs. The Hydrogen Centre of Expertise Inc. was created as a non-profit corporation to pursue opportunities in hydrogen technology commercialization, as well as in education and training. The urban-centre demonstration of the Hybrid Fuel Cell Bus was successfully completed in Winnipeg. This state-of-the-art fuel cell vehicle was also showcased as part of the First Iceland/Manitoba Joint Seminar on Hydrogen. The seminar, involving speakers from both jurisdictions, was the first concrete action to be completed under the MOU on Hydrogen Development that had been signed by Manitoba and Iceland in 2003. Progress continues on a number of other key projects that had been identified within the Preliminary Hydrogen Opportunities Report.

ESAM (Energy Services Alliance Manitoba): Worked with the Alliance to strengthen the organization's ability to export its services and products in international markets and facilitated a process for growing the Alliance's business scope, in co-operation with Western Diversification.

Demand Side Management:

- Received report from Energy Code Advisory Committee.
- Conducted consultations on the new Green Buildings Policy.
- Supported the development of the Centennial Project – the retrofit of 120 homes in Winnipeg's Inner City.

18-2(a) Energy Development Initiatives

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
a) Salaries & Employee Benefits	1,127.3	14.00	1,121.0	6.3	
b) Other Expenditures	1,046.2		1,137.1	(90.9)	
Total Expenditures	2,173.5	14.00	2,258.1	(84.6)	

CLIMATE CHANGE AND GREEN STRATEGY INITIATIVES

In June, 2006, the Climate and Green initiatives Branch (CGI) was established to enhance the provincial government's climate change policy and programming effort and to coordinate Climate and Green Initiatives across government through a newly established Green Initiatives Deputies Committee.

OBJECTIVES

- To continue in the promotion of community-based climate change action through multi-year programs focused on alternative transportation, sustainable agriculture practices, northern initiatives and public awareness and outreach.
- To continue to develop, coordinate and partner in the implementation of government wide climate change initiatives. Priority will be placed on completing an updated Climate Change Plan for Manitoba and accompanying programs and legislation. This includes the development of greenhouse gas reduction strategies in the transportation, agriculture and municipal sectors that promote both economic development and environmental protection.
- To continue to coordinate and partner in the implementation of priority green initiatives together with lead departments as outlined in the Government's *Green and Growing Strategy* in addition to new programs to engage youth in green initiatives.
- To promote cooperative partnerships with the federal government on climate change programs and green policy initiatives in Manitoba, including programs identified under the eco-Trust partnership.
- To promote and facilitate climate change and green economic development in the private sector together with other departments and agencies of government, including the establishment of a Green Business Advisory Committee and development of a Manitoba Climate Change Registry.
- To promote best practices in climate change action and green policy at the sub-national level both nationally and internationally.
- To advance climate change mitigation and adaptation research.

ACTIVITIES/RESULTS

Manitoba Community Climate Change Programs: Following a discontinuation of the federal One-Tonne Challenge in April 2006, the Branch facilitated a transition period for community-based climate programming based on securing a greater share of provincial support. The Branch worked with community groups to develop longer-term three year programs in key areas including transportation, agriculture and northern initiatives along with a continuation of support for public awareness and special projects. Programs approved for funding to March 31, 2007, included the first phase of a program to encourage the use of alternative transportation methods, the development of a Climate and Agriculture Guide, a perennial cropping trial, a northern airship trial and a waste management project through Green Manitoba.

The Hybrid Vehicle Rebate Program was announced in the November 2006 Throne Speech ("To keep Manitoba green and growing, the speech pledged to provide a \$2,000 rebate on the purchase of hybrid vehicles"). The program was up and running as of March 1, 2007, in partnership with Manitoba Public Insurance.

Manitoba Climate Change Registry: In the period between January – March 31, 2007, the CGI Branch worked in partnership with the Canadian Standards Association and the Winnipeg Commodity Exchange on a proposal for a "web-portal" that will be the first phase of a Climate Registry in Manitoba. The Registry will profile actions / projects in Manitoba that reduce emissions as well as provide other "green" benefits. In the future it is anticipated that this will become a "meeting place" for buyers and sellers of carbon credits creating new opportunities for Manitoba entities to participate in the emerging carbon market.

Memorandum of Understanding with California: In December 2006, the Branch supported the development and signing of an MOU with California to build on the Climate Leaders Declaration signed in Montreal in 2005. The MOU includes commitments for Manitoba to adopt climate change legislation, to work with the California Climate Action Registry and to enhance best practices in renewable energy, energy efficiency, low emitting vehicle technology and sustainable agriculture. In the period between December 2006 - March 31, 2007, work has been underway on all aspects of the Manitoba-California MOU.

Cross- Departmental Initiatives: Through the Green Initiatives Deputies Committee the CGI Branch supports lead departments in the advancement of actions arising out of the government's Green and Growing Strategy.

18-2(b) Climate Change and Green Strategy Initiatives

Expenditures by Sub-Appropriation	Actual	Estimate		Variance Over (Under)	Expl. No.
	2006/07	FTE	2006/07		
	\$		\$		
Total Salaries & Employee Benefits	367.5	6.00	480.4	(112.9)	
Total Other Expenditures	354.9		188.0	166.9	1
Total Grant Assistance	14.3		14.3	-	
Total Expenditures	736.7	6.00	682.7	54.0	

1. Expenditures higher than budgeted due to the introduction of the Hybrid Vehicle Rebate Program in the fall of 2006.

GREEN MANITOBA ECO SOLUTIONS

Green Manitoba Eco Solutions is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports Green Manitoba Eco Solutions' objective to implement a proactive and integrated community-based model of program and service delivery focused on advancing Manitoba's strategic priorities in environmental protection and sustainable resource management. Green Manitoba tables its annual report under separate cover with the Manitoba Legislature.

18-2(c) Green Manitoba Eco Solutions

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Total Expenditures	1,160.2	1,160.2		-	

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;
- knowledge based industry development and growth;
- building Manitoba's life sciences presence
- smart community development; and
- extending broadband access to all of 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

Strategic Planning and Analysis

Strategic Planning and Analysis provides a central role for the Department in areas of strategic and operational planning and organizational development. Strategic Planning and Analysis also provides policy and research support to the Department and is the lead across government on the development and implementation of policy, strategies and initiatives on innovation, science and research issues.

Knowledge Enterprises

Knowledge Enterprises works in partnership with key stakeholders to develop an innovation environment in which the Information Communications and Technology (ICT), digital media, customer contact centre and nanotechnology sectors can thrive.

Life Sciences

Life Sciences works with multiple public and private stakeholders to strengthen Manitoba's globally competitive life sciences cluster in the health, agri-food, nutraceuticals and environment sectors, leading to positive social and economic outcomes for all Manitobans.

Broadband Initiative

Broadband Initiative works 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.

ACTIVITIES/RESULTS

Strategic Planning & Analysis

Manitoba Research and Innovation Fund (MRIF)

With a 2006/07 allocation of \$12.95 million, the Manitoba Research and Innovation Fund (MRIF) is the main vehicle for provincial research and innovation funding. Established in 2003/04 the MRIF has three main components: the Research Fund element; the Health Research Initiative; and the Innovation Fund element. 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

From 2003/04 to 2006/07, the Province has approved over \$35 million for Research Fund projects. The Research Fund provided \$9.05 million of support in 2006/07 to expand Manitoba's research capacity. In 2006/07, projects approved for funding include: the Manitoba Centre for Health Policy Child Health Chair, the NCARM/Ag-Canada Clinical Research Infrastructure project, the Richardson Centre for Functional Foods and Nutraceuticals, the Manitoba Centre for Proteomics, various Regional Partnerships Program projects under the Canadian Institutes of Health Research, the Designing Oilseeds project at the University of Manitoba, various Canada Foundation for Innovation (CFI) projects including the Life and Environmental Sciences Research Lab at Brandon University, the MITACS Internship Program, and the new Clinical Skills Training and Surgical Simulation Centre.

Health Research Initiative

HRI funding, totaling \$2.0 million was provided to the five research centres in 2006/07. 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 were as follows:

CancerCare Manitoba	\$ 149,600
Manitoba Institute of Child Health	\$ 144,400
Health Sciences Centre	\$ 389,200
St. Boniface General Hospital Research Centre	\$ 381,200
University of Manitoba	<u>\$ 935,600</u>
Total	\$2,000,000

Innovation Fund

This program element is used to assist 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 2006/07, a total of \$1,861,221 of Innovation fund support was provided to various projects including the following:

Project Name	2006/07 Funding
E-Index	\$25,000
Green Manitoba	\$30,000
Fortune Cat Games Incubator	\$80,000
TRLabs	\$480,000
MindSet	\$250,000
Westlink	\$35,000
Manitoba Visual Network	\$64,000
International Centre for Infectious Diseases	\$300,000
International Academy of Cardiovascular Sciences	\$25,000
Advanced Manufacturing Initiative	\$68,352
Virtual Classroom	\$50,204
Canadian Virtual Hospice	\$275,000
Rat River II (Hytek)	\$35,000

Manitoba Centres of Excellence Fund (MCEF)

The Manitoba Centres of Excellence fund (MCEF) is the Manitoba Government's research and development support mechanism for those 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 MCEF was formed in 1989/90 it has provided some \$6.3 million of matching support for all projects.

During 2006/07, MCEF support totaling some \$655,000 was provided to the following Manitoba projects and leveraged federal Networks of Centres of Excellence (NCE) research funding at the 5:1 ratio:

- Intelligent Sensing for Innovative Structures
- Sustainable Forest Management Network
- Canadian Arthritis Network
- Canadian Stroke Network
- Canadian Water Network
- The Automobile of the 21st Century
- ArcticNet
- Advanced Foods and Materials Network
- Mathematics of Information Technology and Complex Systems
- Allergy, Genes and Environment Network

Manitoba Network for Science and Technology (MindSet)

The Manitoba Network for Science and Technology (MindSet) is an STEM sponsored initiative led by a full-time Program Facilitator 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 primarily 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. MindSet's key activities in 2006/07 included:

- Bio-Aware Educators Conference
- Digitized Student Technology Conferences
- Girls in Gaming Program
- Manitoba Science and Technology Achievement Luncheon

- Microsoft Partnership Programs
 - Partners in Learning (PiL) Program
 - Peer Coaching
 - 21st Century Leadership Program
 - Innovative Teachers Awards
- MindSet Summer Institutes
- National Biotechnology Week
- New Media Workshops
- Sanofi-Aventis Biotechnology Challenge
- Science Fairs
- Win-Cube Student Satellite Program

Manitoba Health Research Council (MHRC)

In 2006/07, the Department provided \$1.95 million in funding to the Manitoba Health Research Council to support the administration of the Council and its personnel awards and research grants. MHRC was established to “promote and assist basic, clinical and applied research in the health sciences in Manitoba and to advise the Minister on health research matters referred to Council”. Over its 20-year history, the Council has performed its role primarily through financial support (grants and awards) to newly appointed investigators, postdoctoral fellows and graduate students.

Knowledge Enterprises

The Knowledge Enterprises Branch activities for 2006/07 were focused mainly in the following four areas:

1. Creating an Environment Fostering ICT and Digital Media Business Development
2. Increasing ICT and Digital Media Research and Technology Commercialization
3. Marketing Manitoba’s ICT and Digital Media Sectors and Attracting ICT and Digital Media Investment
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

The branch 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), the Canadian Information Processing Society, the Manitoba Interactive Digital Media Association, New Media Manitoba, The International Game Developers Association (Manitoba Chapter) and the Manitoba Customer Contact Association.

ICTAM has adopted an advisory role to the Minister on matters related to corporate ICT strategy as well as ICT economic and community development initiatives. The Province is in its 4th year of a 5-year \$130,000 commitment to operational funding to support ICTAM.

Business Incubation

The Knowledge Enterprises Branch has been actively involved with the development of two new incubation projects; The Eureka Project; Smartpark’s Incubator and the Fortune Cat Games Studio.

- **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; from the university and the community at large. The Branch facilitated the commitment of \$283,000 under the Winnipeg Partnership Agreement to support the development of the new incubation program and continues to work with the program in an advisory capacity.

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- **Fortune Cat Games Studio** is a not-for-profit organization that is building on Manitoba's expertise and competitive advantages in the global video games industry. The incubator studio houses video game project teams of three to five people where each team is to produce a video game prototype that will be marketed to video game publishers. Each team is expected to form a video games company. Fortune Cat Games Studio incubator is a collaboration of various strategic partners in Manitoba and around the world, including the Winnipeg Partnership Agreement, Telefilm Canada, International Games Developers Association (IGDA) - Winnipeg Chapter, Red River College, Province of Manitoba, Industry Canada, Destination Winnipeg, The Manitoba Interactive Digital Media Association, MindSet, Autodesk, and Sherpa Games.

Manitoba Interactive Digital Media Fund (MIDMF)

In fiscal year 2006/2007, \$300,000 was allocated to the MIDMF. The objectives of the MIDMF are: to provide recoupable financial support to Manitoba companies for the development, production, and marketing of high quality, original, Interactive Digital Media products that are intended for the general public; to raise the profile and presence of Manitoba's Interactive Digital Media creators in both domestic and international markets while providing opportunities for professional development; and, to assist in the growth and development of a Manitoba Interactive Digital Media production and distribution industry that is competitive in international markets.

- **Market Research and Prototyping:**
During the 2006/2007 fiscal year, 5 applications were approved for a total contribution of \$80,000.
- **Production Development/Marketing:**
During the 2006/2007 fiscal year, 3 applications were approved for a total contribution of \$140,000.
- **Access to Markets:**
During the 2006/2007 fiscal year, 17 applications were approved for a total contribution of \$41,316.
- **Industry Support**
During the 2006/2007 fiscal year, 7 proposals were approved for a total contribution of \$25,649.

Manitoba Interactive Digital Media Association (MIDMA)

An active, representative industry association is needed to facilitate the digital media industry's growth and support its development initiatives. MIDMA has been operating on a volunteer basis since 2003, and STEM, through the Manitoba Interactive Digital Media Fund, committed to seed funding of \$55,000 per year for 2 years starting in 2005 to assist in stabilizing the organization.

Interactive Digital Media New Media Business Model Exploration Study

A 2006 study was commissioned by MIDMA to explore, in detail, current new media property business models and determine those business model elements best suited for future success within the Canadian new media industry. STEM is working with industry and government stakeholders to address the findings of the study.

ICT and Digital Media Trade and Export

Manitoba has also been engaged in discussions with the State of Jalisco, Mexico on ICT and digital media trade and export opportunities. A business video conference series between Manitoba and Jalisco companies' interested in bilateral trade and business development has been underway since 2005. In February of 2007, a video conference roundtable on ICT R&D Cooperation was held. The objective of this roundtable was to explore R&D, business and general partnership opportunities between the two jurisdictions. There were 21 participants including representatives from the private sector, state/provincial/federal officials, local Chambers and Universities. Several collaborative opportunities were identified and activities continue on this front.

Increasing ICT and Digital Media Research and Technology Commercialization

TRLabs

Fiscal year 2006/07 represented the first year of a renewed 5-year, \$2.4 million agreement with TRLabs. The Knowledge Enterprises Branch continues to work actively with TRLabs to explore ways to grow the number of applied research and commercialization projects undertaken with local Manitoba companies. Improvements to the Lab's Industry Membership structure and other modifications have resulted in increases of both the level of industry participation and the number of applied research and commercialization projects undertaken in Manitoba. STEM co-hosted the annual TRLabs Community Dinner and also provided support for the TRLabs ICT Symposium "Trains, Planes and Automobiles; Buses, Tractors and Earthmovers too."

Financial Assistance Programs

In concert with Manitoba Competitiveness, Training and Trade, the Knowledge Enterprises Branch continues to work with a number of technology-based companies to provide support for technological assessments and marketing evaluations for business expansion purposes. In 2006/07, three ICT companies and one Digital Media company received support through the Feasibility Studies Program (FSP) and the Technology Commercialization Program (TCP).

2. Marketing Manitoba's ICT and Digital Media Sector and Attracting ICT and Interactive Digital Media Investment

Manitoba ICT Research Guide

In 2006/07 the Knowledge Enterprises Branch embarked upon a significant data gathering project that will serve as the foundation for the development of an ICT Research Guide. The guide will showcase the research and innovation capabilities of the Information and Communications Technology (ICT) network of researchers, professors, scientists and students in Manitoba's research institutions. This publication will be available in summer of 2007 and will be distributed to local, national and international targets. The guide will be developed into an online format and will be posted on the branch website.

Manitoba Digital Media Guide

The Knowledge Enterprises Branch collaborated with MIDMA and other government offices to create a sector directory which highlights Manitoba Digital Media firms and their capabilities with the intention of marketing local capabilities both here and abroad.

Manitoba Digital Media Market Development/Investment Attraction

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 will be an important factor in increasing the volume of activity and supporting infrastructure in the province. In 2006/07, STEM, in collaboration with stakeholders, began identifying areas of opportunity and building relationships with target companies in an effort to attract project work to Manitoba.

In addition to attending international festivals such as the Montreal Game Summit and the Electronic Entertainment Expo (E3) in Los Angeles, STEM participated in a Digital Media Mission to California. In December 2006, STEM staff joined Premier Gary Doer and approximately 30 businesses on this trade mission for an announcement of the Manitoba Media Centre.

Manitoba New Media Production Grant (MNMG)

Introduced on July 4th, 2006, this is a critical tool in stimulating project work in Manitoba. The grant will be very attractive to outside companies in an industry that is just beginning to realize the benefits of outsourcing work. In an environment where outsourcing is still relatively new and Manitoba has no industry profile, the grant will be a vital tool to attract this activity to the province. During the 2006/2007 fiscal year, five applications were approved for a total contribution of \$180,463.

3. Enhancing Capacity of Manitoba communities to participate in the Knowledge Economy

E-Index

The Knowledge Enterprises Branch worked closely with government and community stakeholders to enable a pilot in three of Manitoba's Aboriginal communities to measure their capacity in the ICT sector. 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 the technology. A community's capacity across these four elements can be directly correlated their ability to achieve and maintain competitiveness as communities evolve from traditional to knowledge economies. This project is expected to conclude in the 2007/08 period.

The Knowledge Enterprises Branch also provided \$25,000 in support to the Economic Development Council for Manitoba Bilingual Municipalities (CDEM) for the implementation of an E-Index project in all 15 of Manitoba's rural francophone and bilingual municipalities. The assessment will enable CDEM to provide community stakeholders with indicators that will allow them to make informed decisions when investing in ICT infrastructure and skills, allowing for better allocation of funding, resources and programs. The project will also provide a foundation for the development of modern and effective community profiles for use in investment attraction and immigration efforts.

Life Sciences

Life Sciences worked with key stakeholders on initiatives in the health biotech, agricultural biotech and environment sectors that lead to increased investments and the creation of high quality jobs in the province.

The efforts of Life Sciences in 2006/07 were primarily focused on four activities:

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

1. Working With Key Stakeholders on Economic Development Initiatives

Mid-Continent Knowledge Corridor

The Life Sciences Branch is working cooperatively with Destination Winnipeg and partners in the USA and Mexico to establish a Mid-Continent Knowledge Corridor. The purpose of the Mid-Continent Knowledge Corridor is to capitalize on established relationships through the North America SuperCorridor 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.

Manitoba Agri-Health Research Network

Manitoba Agri-Health Research Network (MAHRN) has been established as 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.

Manitoba Health Research Council

During the fall of 2005, the Province instructed the Manitoba Health Research Council (MHRC) to lead the community in the development of a provincial strategy for health research. In May 2006 stakeholders from academia, health services, non-governmental organizations, industry and government presented a strategic plan on which to grow the province's health research enterprise through increased R&D investments to Manitoba and the attraction and retention of highly qualified research personnel. The Life Sciences Branch is active in facilitating the implementation of the goals set out in the strategic plan.

International Academy of Cardiovascular Sciences

The International Academy of Cardiovascular Sciences was established in 1996 to promote cardiovascular information to professionals and the community. Through the Winnipeg Partnership Agreement, the Life Sciences branch supported, in the amount of \$200 000, the IACS Global Symposium on the Future of Heart Health and Disease held in October 2006.

The Life Sciences branch also worked with IACS in developing a strategic plan, which was completed in January 2007. IACS is working with the Life Science branch to implement recommendations set out in the strategic plan.

Biotechnology Training Programs

As a member of Red River College's Life Sciences Advisory Committee, the Life Sciences Branch is working with the College and representatives of Manitoba's biopharmaceutical manufacturing industry to ensure the success of the biopharmaceutical manufacturing programs created in 2006. These programs contribute to the growth of the knowledge economy and will assist in meeting the accelerating human resource needs of the province's life sciences industry.

Health Care Products Association of Manitoba (HCPAM)

The Life Sciences Branch has been working with the Health Care Products Association of Manitoba (HCPAM) to assist and encourage discussions around expanding their role as an association that represents the interests of the broader life sciences community in Manitoba. As part of this process HCPAM has undertaken a re-branding exercise.

2. Supporting Research

In October 2006 the Composites Innovation Centre (CIC) received \$750,000 from Agriculture and Agri-Food Canada to support a National Biofibres Initiative for the development and commercialization of bio-materials for advanced composite applications. The project will investigate how naturally occurring fibres in plants, such as hemp and flax, can be turned into reinforcement materials that replace the man made glass and carbon fibres in products like parts for buses, recreational vehicles, sporting goods and aircraft. The work being undertaken within these two initiatives is highly relevant to the emergence of Manitoba's and Canada's bioeconomy and will lead to the commercialization of a range of new industrial products.

3. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally

AusBiotech 2006 Conference

AusBiotech 2006 conference and exhibition was held in Sydney, New South Wales, Australia in November 2006. Life Sciences Branch 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 1,000 participants from Australia and the international community were in attendance. In addition, meetings were held with government and life science industry representatives in Sydney, New South Wales; Melbourne, Victoria; and Adelaide, South Australia. Opportunities for inward investment, partnerships and research collaborations were identified at the meetings.

NZBio Conference 2007

The NZBio Conference 2007 was held in Auckland New Zealand on 12-14 March 2007. Life Sciences Branch staff and stakeholders from Manitoba's life sciences community attended the conference and participated in the conference program and partnering meetings to showcase and promote Manitoba's life sciences sector and to identify opportunities to increase collaboration between the two jurisdictions. The event included in excess of 700 delegates from a wide range of organizations, including core biotechnology companies, research organisations, suppliers, multinationals, industry service providers, educators and investors from New Zealand, Australia and other Asia-Pacific countries. In addition, meetings were held with government and life science industry representatives in Auckland and Rotorua. One-on-one business meetings held at the event and during out-call meetings identified opportunities for inward investment, partnerships and research collaborations.

BIO 2006 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 2006 welcomed over 20,000 attendees and 1,800 exhibitors from nearly 60 nations. In response to interest from Manitoba biotechnology companies and research centres, 1000 square feet of exhibit space was purchased for a Manitoba pavilion at BIO 2006. Within the pavilion, Manitoba exhibitors included: Cangene Corporation; NRC Institute for Biodiagnostics; University of Manitoba; Red River College; MINDSet; Medicure Inc.; Industrial Technology Centre; National Microbiology Laboratory; and Manitoba Science, Technology, Energy and Mines. In total, 65 Manitobans participated in BIO 2006, including Premier Doer. The companies indicated their appreciation for the leadership shown by the Province at BIO 2006 and have requested both continued and enhanced provincial participation at BIO 2007 in Boston. A strong Manitoba team approach and novel concepts being undertaken to support exhibitors for 2007 will give the participating companies and research institutions even higher profile and greater impact at the convention.

Business of Science Symposium 2006

The Business of Science Symposium is a two-day conference designed to highlight Manitoba's growing life science industry, and in so doing, educate stakeholders on industry capabilities, celebrate local accomplishments, and promote both business and career opportunities. The Symposium serves to strengthen the province's primary life sciences sectors, agriculture, health and environment, by demonstrating Manitoba's notable proficiencies and facilitating the development of partnerships. The fifth annual Symposium was held in Winnipeg on October 25 and 26, 2006.

A new element of the 2006 event organization was the Health Care Products Association of Manitoba (HCPAM) assuming responsibility for the overall delivery of the Symposium. The Branch remained active in the event as a member of the Symposium's Steering Committee. The Life Sciences Branch was also responsible for the organization of the post-secondary student component of the conference, aimed at making university and college students from the major post-secondary institutions aware of life science career opportunities at home in Manitoba.

The event was an opportunity for over 500 people to come together, over the course of the two days, to focus on the bright future of Manitoba life sciences. Those in attendance included business leaders, researchers, science and technology innovators, life sciences students and educators, capital providers, and government officials who support the life sciences sectors. Ultimately, the Business of Science Symposium was a success in showcasing existing possibilities for collaboration with local companies, and in capturing the momentum of Manitoba's dynamic life science industry.

4. Establishing Formalized Linkages

Wellness West

Wellness West, established in 2003, is a western Canadian collaboration dedicated to the development of an economically viable functional foods and natural health products industry in western Canada. The partner organizations include: Agriculture and Agri-Food Canada; Alberta Agriculture, Food and Rural Development; British Columbia Ministry of Agriculture, Food and Fish; Canadian Technology Network; Manitoba Agriculture Food and Rural Initiatives; Manitoba Energy, Science and Technology; National Research Council's Industrial Research Assistance Program; Saskatchewan Agriculture Food and Rural Revitalization; Saskatchewan Industry and Resource; and Western Economic Diversification. A number of initiatives were undertaken in 2006/07 on behalf of the partner organizations including: updating of technology infrastructure data base; revisions to the technology commercialization road map document; continuation of technology commercialization roadmap training; and actively participated in the Nutri-Net Canada Project to help expand market opportunities for the Canadian functional foods and natural health products industry.

Agricultural Policy Frame Work

Canada's Agricultural Policy Framework (APF) provides a robust and forward-looking orientation for agriculture and agri-food industries in Canada. The objective of APF is to secure profitability of the agriculture and agri-food sector over the long term by making Canada a world leader in food safety, innovation and environmentally responsible production. Staff within the Life Sciences Branch will continue to participate as one of Manitoba's representatives on the Agricultural Policy Framework Federal/Provincial/Territorial Science and Innovation Working Group.

Global Connect

The Province of Manitoba understands the increasingly competitive and demanding global environment that Manitoba high tech firms operate within. To enhance the visibility of Manitoba's high tech activities with innovators in other parts of the world, the Manitoba Government has attained membership in Global CONNECT, a network of leading innovation regions that seeks to work with other regions around the world to understand and further develop their innovation systems.

Pharmaceutical Liaison Committee

In June 2006, the Pharmaceutical Liaison Committee, co-chaired by the departments of STEM - Life Sciences Branch 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 including, Science Technology Energy and Mines, Health, and the Community Economic Development Committee of Cabinet. The Committee also facilitates internal discussion, which ensures consistent application of decisions within the life sciences sectors in Manitoba.

Broadband Initiative

Since its creation in September 2001, the Broadband Initiative 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.

It is the Province's vision 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 continues to lend support to the 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 by the Community Economic Development Committee of Cabinet. 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.

Community Connections

On March 7, 2000 the Governments of Canada and Manitoba announced a cost-sharing Memorandum of Agreement (MOA) 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 both 2004/05 and in 2005/06 there was \$666,500. In 2006/07 there was \$498,980 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, develop enhancements to the CIMNet application used by the CRN's for their websites, provide Help Desk support and, to support the Canada Access Program Youth Initiative (CAPYI).

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 small grants for local communities' broadband initiatives. In 2006/07, 342 sites requested funds. It is estimated that about 58 sites continue to provide services without requesting funding.

Community access sites are organized into Community Resource Networks (CRN's) that jointly develop and host local websites. The Seniors Resource Network, for example, has developed a website (<http://seniors.cimnet.ca>) that presents the best of senior's related information. This is the default homepage for the access sites in the 30 senior's resource centres throughout Manitoba. Sites in the St. Boniface Resource Network are linked to community information through <http://stboniface.cimnet.ca>. Approximately 25 CRN's were developed. Many Northern communities are beginning to use public access and CIMNet applications to create virtual communities. The Hudson Bay Neighbors (<http://hbn.cimnet.ca>) and the Bayline Regional Roundtable (<http://baylinertr.cimnet.ca>) are examples.

Out of the work done through the Community Connections Initiative, the youth development team from Brandon University has developed into a small Manitoba software development company Function Four, Inc. This group with the support of CIMNet, Community Connections, and Industry Canada has developed the CIMNet applications and is working on the development of an E-Index.

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 (CDEM) 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 Manitoba E-Association for delivery in Manitoba and some locations in Saskatchewan, Alberta, Nunavut and the North West Territories. This continued through 2005/06 and 2006/07.

The CAP Youth Employment Initiative (CAPYI) employs approximately 100-160 Youth (age 16 to age 29) annually. Youth employees are funded through a partnership with funding of approximately \$1.0 million from various partners including; Community Connections, Industry Canada, MB Education, and Microsoft. Youth support the operation of access sites and the CRN web sites. Toward the end of 2003/04 The Manitoba E-Association, a not-for-profit organization, was established to serve as the delivery agent for the CAPYI program. In 2004/05 this organization expanded to deliver help desk services. Throughout 2005/06 and 2006/07 in addition to delivering Help Desk services and CAPYI, the Manitoba E-Association also coordinated communication for the Canada Access Program in the Prairie Northern Region (PNR), published a newsletter, delivered project management services for the Parkland Region Wireless Broadband Rollout, worked with the Central Region in their application to Manitoba Canada Infrastructure Program for a high speed wireless project, delivered Mobile Technology Workshops for Industry Canada's B.R.A.N.D. program, and continued in developing a community learning network in Canupawakpa and Sioux Valley First Nations communities through the federal Office of Learning Technologies. In May of 2006 Manitoba E-Association was also invited to participate in Microsoft's Global Community Affairs Summit where it was presented with an award for outstanding contribution to the Unlimited Potential Program.

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

Expenditures by Sub-Appropriation	Actual 2006/07	Estimate 2006/07		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries & Employee Benefits	1,298.5	19.00	1,484.4	(185.9)	
Total Other Expenditures	859.3		781.8	77.5	
Total Manitoba Research and Innovation Fund	13,547.6		13,557.8	(10.2)	
Total Manitoba Centres of Excellence Fund	655.8		655.8	-	
Total Less: Recoverable from Urban Development Initiatives	(750.0)		(750.0)	-	
Total Expenditures	15,611.2	19.00	15,729.8	(118.6)	

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

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	Variance Over (Under)	Expl. No.
Total Expenditures	1,952.6	1,952.6	-	

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Science, Technology, 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

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	Variance Over (Under)	Expl. No.
Total Expenditures	750.0	750.0	-	

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 Science, Technology, 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)

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Total Expenditures	445.8	445.8		-	

MANITOBA INFORMATION AND COMMUNICATION TECHNOLOGIES

MANITOBA INFORMATION AND COMMUNICATION TECHNOLOGIES (MICT)

OBJECTIVES:

Ensure the best possible use of the province's existing information and communication technology (ICT) resources, systems, platforms, applications, and skills, while finding new ways to meet service challenges, plan for future needs, and respond to economic opportunities.

ACTIVITIES/RESULTS

- 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.
- 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 ICT 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 ICT and clients to ensure needs are addressed.
- Provide client support in the day-to-day delivery of ICT services.
- Proactively monitor service and process outcomes in relation to service contract conditions and performance goals.
- 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.
- Maintain and operate existing applications that support the delivery of government program services.

MICT reports the following results in 2006/07:

- Established a priority setting framework for all government ICT projects and initiatives.
- Alignment of ICT investments with Government's overall strategic direction is on-going.
- Developed a government wide Business Continuity Plan for ICT services.
- The project to consolidate servers is continuing. This project will enable government to manage ICT services more cost effectively.
- Government procurement services for desktop, laptop computers and peripheral devices have been extended to the health sector enabling health authorities to procure equipment at a significantly reduced cost.
- Assumed responsibility and centralized the management of all major corporate ICT contracts and billing processes.
- Finalized the organizational design and established the management structure for the new central ICT organization.

-
- Provided Wide Area network services (i.e. PDN services) to the health sector. Services are being augmented as necessary to support new Health IT initiatives.
 - MICT worked closely with the health sector on strategies and plans to introduce additional managed ICT services into the health sector including but not limited to security, desktop and hosting services. MICT and Health are exploring opportunities for leveraging managed services from government into health where appropriate.
 - Refresh of the Local Area Network switch infrastructure is underway and will be complete at the end of the 2007/08 fiscal year. This refresh will position Manitoba to take advantage of emerging applications such as Voice over IP (VoIP).
 - New ICT services including but not limited to wireless access and Virtual Private network (VPN) access services have been introduced to facilitate remote access to information for mobile overnment employees.
 - Government contracts for telephone, cellular and long distance services have been extended to public sector organizations enabling those organizations, which choose to participate, to benefit from significant reductions in the cost of these services.
 - Implemented an information security risk assessment program for government
 - MICT provided a government-wide information security awareness program designed to educate staff on their responsibilities to protect the information entrusted to them.
 - A Project Management Office was established and resourced to implement project management processes and standards.
 - A Customer Relationship Management function was established and resourced to manage the relationship between the Departments and the central ICT organization.

COORDINATED SERVICES UNIT

OBJECTIVES

The Coordinated Services Unit (CSU) provides support to the Coordinated Services Committee. The Committee is comprised of Deputy Ministers and provides support to government activities in the area of innovation in service delivery and technology. The CSU connects the Coordinated Services Committee with executive government and serves as an interface between government and stakeholders from business, industry, institutions and academia.

ACTIVITIES/RESULTS

Activities undertaken in 2006/07

- Leading the Business Transformation initiative which is the development and implementation of the Enterprise Resource Planning system utilizing the SAP platform.
- Developing a Service Delivery Strategy for the efficient delivery of effective government services; over the phone, over the counter and over the Internet.
- Leading initiatives such as "At Your Service Manitoba" that approaches the electronic, telephone and in-person channels of government-citizen in a unified approach on a government-wide basis.
- Taking a leadership role in providing input to the new Corporate Information Communications Technologies (ICT) organization, government-wide technology and innovation efforts, and service improvement and transformation.
- Leading development and implementation of a government-wide Information Management Strategy.
- Building upon the foundation built to date by the Coordinated Services Committee and the Coordinated Services Unit.

Results of activities:

Business Transformation

- Developed an assessment methodology to apply the SAP 1st Policy to new Information Technology projects across the government.
- Projects are underway using SAP in the following areas:
 - eCommerce for all government reporting entities
 - Integrated System for Accommodations Services
 - Finance and Human Resources Continuous Improvement.

Leading the Development of a Service Delivery Strategy for the province, this will create a government-wide perspective on service delivery capacities and responsibilities. This is done by considering and understanding community needs and by building on investments made in personnel, ICT and other infrastructure. Work on the strategy will continue through 2007/08.

Leading the “At Your Service Manitoba” (AYSM) initiative approaches the electronic, telephone and in-person channels of government/citizen in a unified approach on a government-wide basis. The following activities identify our progress for 2006/07.

Westman Service Centre Pilot Project:

- Averaged more than 1,500 clients per month in 2006/07.
- The service delivery agents perform a variety of duties. In brief, some of the duties include redirecting documents and people to the appropriate departments/agencies both on and off site, receiving deliveries, booking board and conference rooms, providing fax and copy service to off site government departments, downloading information from government’s web sites, providing Commissioner for Oath services, distributing various government and non government forms and brochures and assisting clients with completing various government forms.

Corporate Service Improvement and Service Transformation Activities:

- Continued support and work on government decision-making processes that are aligned with provincial strategic goals.
- The CSU is an active participant on the Regional Services Program Review team and the Single Window Service to Business Implementation Team which were brought together as a result of the annual government wide Program Strategies and Opportunities (PSO) exercise.
- Providing input to the new corporate ICT organization.

Service Standards:

- A key component of AYSM is the development of government wide service standards.
- Work continues with Service Manitoba (Civil Service Commission) on the training and protocol around the service standards.

Information Management Manitoba (IM Program for the Government of Manitoba):

- Guidelines for managing Email and Info @ Work were developed to provide practical advice to individuals and work groups.
- The corporate IM Office was established in August 2006 to provide central leadership and effective horizontal coordination to drive and lead the practical implementation of the IM Framework.
- The organizational and governance structure has been established for the IM Program.

The Co-ordinated Services Unit and Service Manitoba (Civil Service Commission) merged in December 2006.

18-4(a) Manitoba Information and Communication Technologies

Expenditures by Sub-Appropriation	Actual	Estimate		Variance Over (Under)	Expl. No.
	2006/07	FTE	2006/07		
	\$		\$		
Total Salaries & Employee Benefits	16,186.5	205.7	16,464.5	(278.0)	
Total Other Expenditures	50,936.1		50,728.8	207.3	
Total Less: Recoverable from other Appropriations	(40,519.2)		(39,863.2)	(656.0)	
Total Expenditures	26,603.4	205.7	27,330.1	(726.7)	

LEGISLATIVE BUILDING INFORMATION SYSTEMS

OBJECTIVES

To provide highly responsive ICT support services that address the business requirements of clients in the Legislative Building; Government, Legislative Assembly and Caucuses, by deploying and maintaining reliable systems in a secure technological environment.

ACTIVITIES/RESULTS

2006/07 Activities include:

- Direction and planning for information technology initiatives in the Legislative Building; Including providing consultation to Caucus groups and Legislative Assembly.
- Development and implementation of security strategies that monitor intrusions, detect viruses and enable recovery from disasters;
- Provision of desktop management services including help desk support, requirements analysis, purchasing and asset management;
- Management of server and communications infrastructure;
- Analysis, implementation and support of business applications; and
- Provision of consultative and project management services on in-house or outsourced requests.

In addition to provision of operational services major accomplishments for 2006/07 include:

- Upgrade services to provide enhanced Media Streaming of live broadcast of Legislative Proceedings and Live Audio for Committee Rooms;
- Provide Treasury Division with consulting, technical, and project management services in support of various specialty applications. Upgraded the main Treasury Manager application (TMan V8.0) including all reporting components. Upgraded Market services tools, software included are; Reuters, Bloomberg and Candeal. Investigated a new web-based product, Treasura, which will provide market to market financial credit exposure and manage Debt Investments, Derivatives and Foreign Exchange. Implemented software and infrastructure upgrades to accommodate communications with financial institutions.
- Implementation of upgrades and enhancements to the corporate web-based Activity & Issues Management System (AIMS); ongoing performance tuning of the application; consolidation of web services. Upgraded new hardware & software to accommodate new Oracle database server. Expanded client base to include several additional departments.
- Enhancements to various custom applications, included are; Witness application; Orders in Council, Members Allowance System, Health Intake System and Event Management System.
- Implemented new service which provides an alternative method of software deployment to desktops.
- Installed and configured new security Firewall;
- Procure and setup new Bluecoat Proxy service;
- Migration of desktops to newer hardware with the most current operating system and office automation software as part of a four year refreshment cycle;
- Initiated four year server refresh cycle with emphasis on consolidation of services. This included a refresh of all server hardware and a migration to the latest server and network operating systems;
- Upgraded Blackberry Enterprise software, including implementation of new Blackberry service for each Caucus environment;
- Upgraded all Antivirus software at desktop, server and gateway levels;
- Implemented a system to capture spam mail;
- Completed first year of a four year project to upgrade network infrastructure. This project is designed to upgrade the building communications infrastructure to increase security and accommodate growing bandwidth needs; Project is anticipated to span over a four year period.
- Implemented a new service to allow Legislative Building clients remote network access from within the Managed Environment.
- Implemented new government standard email naming policy.
- Implemented new patch management system to allow automation of software upgrades for desktops;
- Continued re-engineering and migration of custom applications to thin client technology;
- Implementation of applications for the Legislative Assembly to assist in the categorizing and search of documents;

18-4(b) Legislative Building Information Systems

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	899.5	13.00	958.3	(58.8)	
Total Other Expenditures	178.2		234.3	(56.1)	
Total Expenditures	1,077.7	13.00	1,192.6	(114.9)	

MINERAL RESOURCES

MANITOBA GEOLOGICAL SURVEY

OBJECTIVES

The primary roles of the **Manitoba Geological Survey (MGS)** are to provide geoscience information to support and facilitate mineral exploration in the province, and to conduct a broad range of geoscience activities that address land-use and environmental issues facing Manitobans.

Program objectives are:

1. To increase the geoscientific knowledge base of the Province, primarily by conducting field studies and systematic bedrock and surficial mapping
2. To increase the effectiveness of mineral exploration activities in both established mining areas and in frontier areas through relevant geoscientific projects
3. To promote effective land use and resource management
4. To evaluate environmental impacts and geohazards
5. To develop products that respond to clients' increasing needs for digital information
6. To maximize the range and impact of geoscience investigations through collaboration with industry, Federal, university and other provincial agencies
7. To provide minerals industry information to communities, aboriginal people, and the public at large, through outreach activities

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 Science, Technology, Energy and Mines, as well as all affected government departments.

ACTIVITIES/RESULTS

GEOSCIENCE PROGRAM

In 2006, the MGS continued significant in-depth investigations in the Superior Boundary Zone and Thompson Nickel Belt (TNB), the Paleoproterozoic Flin Flon Belt, and the Bissett and Bird River regions of southeastern Manitoba. Phanerozoic investigations focused on completing the surficial geology compilation for the province and the inception of a multi-agency Phanerozoic lineament study. New field projects were initiated in the northern Superior Province, the Kasmere Lake area of Manitoba's far north, and the Wuskwatim Lake and Flin Flon areas, as contributions to the Targeted Geoscience Initiative.

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 (GSC).

Activities and results for 2006-07 are listed below as they pertain to overall Program objectives.

1. Increasing Manitoba's geoscience knowledge base

Staff from the Manitoba, Saskatchewan and Canadian geological surveys joined researchers from Laurentian University in a group of interrelated mapping projects spanning the Manitoba-Saskatchewan border, as part of the Flin Flon Targeted Geoscience Initiative (TGI-3) project. MGS and Saskatchewan staff continued work to produce a cross-border 1:10 000 bedrock geological map for Flin Flon. Researchers from Laurentian University continued work in hangingwall and footwall rocks of the

volcanogenic massive sulphide deposits at Flin Flon. This work, including that of one Ph.D. candidate, one M.Sc. candidate and two Laurentian faculty members, is aimed at mapping in detail the volcanic stratigraphy of the Flin Flon, Callinan, and 777 deposits. In October 2006, GSC staff and researchers from the University of Alberta conducted field tests in preparation for a seismic survey to be completed in 2007. The goal of the Flin Flon projects is to integrate seismic results with surface mapping to produce a "3D knowledge cube" for this important mining area. HudBay Minerals staff have provided active support for the project.

As part of the Flin Flon TGI-3 project, an airborne survey funded by the GSC was flown in the Wuskwatim Lake area west of Thompson. Resulting high-resolution aeromagnetic maps were used by MGS and GSC staff in new mapping and collection of isotopic data, to reinterpret the geology of the Kisseynew Domain west of the TNB. A major outcome of this work is the understanding that Thompson-type nickel mineralization may exist within the Ospwagan-like rocks in a 60 km wide zone west of the "known" TNB. Meanwhile, a Ph.D. study of the Hudsonian metamorphism of supracrustal rocks in the TNB will greatly increase the ability to recognize Ospwagan Group rocks throughout the region.

New bedrock mapping work was initiated at Bear Lake in the northern Superior Province. Together with planned mapping in the nearby Atik Lake area, this study will provide an improved geological context and regional framework for base and precious metal exploration in this part of the northern Superior Province.

As part of the MGS initiative to update the geological knowledge base of Manitoba's far north, field investigations in 2006 were conducted at Kasmere and Putahow lakes. Multidisciplinary studies including bedrock mapping, geochronology, mineral deposit investigations and surficial mapping were undertaken to improve the currently limited understanding of the nature and evolution of this portion of Manitoba's Precambrian shield, and to support ongoing uranium and gold exploration in the area.

In southern Manitoba, the 'Williston Basin Architecture and Hydrocarbon Potential' TGI project, which ended in March 2005, continued to complete and publish project products. Cross-border correlations of the Bakken Formation, Three Forks Group stratigraphic interval coincided with the discovery of the Sinclair field, which is being explored for conventional oil. Co-operative maps and discussions between Manitoba and Saskatchewan have helped in the understanding of the dynamics of this new play. The compilation of all oil and gas shows throughout the Phanerozoic section has also been a useful exploration tool for the industry. The recently constructed, detailed and accurate basin-wide model of the geohydrological dynamics of the Williston Basin system will be valuable for understanding oil-water migration pathways through the Phanerozoic section.

Two stratigraphic coreholes were drilled west of Lake Winnipegosis under the 2006 Corehole Drilling Program to resolve stratigraphic problems and provide a further understanding of metal migration and emplacement in an area where anomalous rock sequences exist. This work is important to place anomalous lead-zinc mineralization in context and to investigate the potential for Mississippi Valley-type mineralization in west-central Manitoba.

A study to compile Phanerozoic structural information for the Western Canada Sedimentary Basin was begun, in collaboration with the Alberta and Saskatchewan geological surveys. The joint prototype structural database has been designed to document structures that may have localized hydrocarbon and metal-bearing fluids in traps within the Phanerozoic stratigraphy.

In 2006, thirty-seven 1:250 000 scale surficial geology maps, four 1:500 000 scale maps, and a prototype of the 1:1 000 000 scale surficial geology map were produced by MGS, completing surficial map coverage of the entire province. The new maps are in digital formats in addition to traditional hardcopy versions and will be an important tool for mineral exploration and land-use planning.

The petrography, mineralogy and geochemistry of two drillcore samples of 'kimberlitic' rock from the southern Wekusko Lake area were examined in detail by researchers from the University of Manitoba and MGS. Further studies of the Wekusko Lake magnesiocarbonatite and its constituent minerals by isotope-analytical techniques will be required to constrain the source and evolutionary history of these rocks.

2. Increasing the effectiveness of mineral exploration activities

A multiyear program of bedrock mapping, structural analysis, lithogeochemistry, isotopic studies and geochronology was continued in the Garner–Gem lakes area, 45 km southeast of Bissett. This work has resulted in a better understanding of the rock types, stratigraphy, structure and deformation history of the various supracrustal assemblages in the area, provides an improved context for gold mineralization, and further suggests potential for volcanogenic massive sulphide deposits in the area.

The second year of a government-industry-university geoscience partnership in the Bird River Belt of southeastern Manitoba was completed in 2006. Partners in the initiative include MGS, researchers and graduate students at the University of Waterloo (partially funded by Gossan Resources Limited, Mustang Minerals Corp., Tantalum Mining Corporation of Canada Limited (Tanco), the university and the Natural Sciences and Engineering Research Council of Canada). The group is undertaking mapping, structural analysis and geochronological investigations in order to better understand both the evolution of the Bird River Belt and the setting of the various deposit types, and will aid in supporting the exploration programs that are currently underway in the area.

A metallogenic and metamorphic study of selected gold-bearing deposits from Snow Lake and the southern flank of the Kisseynew Domain by a Ph.D. candidate is supported by MGS and GSC. Examination of the sulphide-gold mineralization in these deposits will provide new constraints on the timing of mineralization and will provide useful guidelines for explorationists to help in the selection of exploration targets in medium- to high-grade metamorphic terranes.

3. Promoting effective land use and resource management

The Rural Municipality of Ste. Rose was mapped this year as part of an ongoing project to update aggregate information in the province.

MGS also continued to provide technical material for the Protected Areas Initiative (Mining Sector Consultation), including mineral potential analyses, aggregate and industrial mineral potential analyses, and GIS mapping support.

4. Evaluation of environmental impacts and geohazards

The Winnipeg River in northwestern Ontario provides nearly half of the total flow into Lake Winnipeg and the Nelson River, and is the most important component of the hydroelectric system that generates power for Manitoba. A continuing study by a Ph.D. candidate in part supported by MGS uses a network of long-term discharge gauges to examine the frequency, severity and causes of drought in the basin during the last one hundred years. Understanding the dynamics of the Winnipeg River basin is critical to developing accurate estimates of future hydroelectric power production in Manitoba.

University of Manitoba researchers continued with an MGS-supported program investigating revegetation of mine tailings at the past-producing Gunnar Mine in southeast Manitoba. Research oriented towards using readily available amendments, such as paper-mill sludge, to increase revegetation success on such sites would benefit the paper-mill industry and the mining industry, as well as the government and future land users.

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

In 2006–2007, MGS published 5 geoscientific reports (including the annual Report of Activities), 2 Data Repository Items, 1 database, 10 Preliminary maps and 5 final maps (or map compilations on CD-ROM). In response to client needs, the majority of the publications were released in hard copy for purchase through Publication Sales and in electronic format for free download via the Web.

Three-dimensional geological mapping of the Phanerozoic succession in southern Manitoba, south of latitude 55°N and west of longitude 95°W, is being completed as a successor activity to the Prairie component of the National Geoscience Mapping Program (NATMAP). The Lake Winnipeg basin has been completed and, in combination with the already completed southern Prairie NATMAP area of southeastern Manitoba, has enhanced the understanding of the eastern edge of Phanerozoic rocks. The next phase has been started in support of the Williston Basin Architecture and Hydrocarbon Potential

(TGI-2). Surficial and 3-D geological mapping are required for effective land-use planning, and hydrocarbon, groundwater and industrial-mineral development.

In 2006, the considerable time was devoted to a number of digital projects, including: 1) Williston Basin Hydrocarbon Potential project, where more than 200 isopach and structure contour maps have been produced using a standardized database combining Manitoba and Saskatchewan data; 2) Manitoba Geochronology Database, re-released in November 2006 after verification of all data currently entered and standardization of geological and bibliographic information; 3) Bedrock Geology Compilation Map program: recompilation and updating of existing maps to produce a seamless 1:250 000 scale digital geological base for Manitoba has been completed for approximately half the province; and 4) Compilation of the Thompson Nickel Belt, where more than a million hectares of the TNB have been compiled into a seamless geodatabase that includes an upgraded topographic base incorporating detailed infrastructure, geology and several thousand structural measurements.

The Mineral Deposits Database currently used to support the Map Gallery presentation is being redesigned as an Oracle database. The newly designed database will centralize all mineral deposit data currently available and provide users with a search engine to customize queries. The database design is complete and porting of data from the old system to the new database is underway.

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

The Manitoba Geological Survey was engaged in 34 partnered initiatives in 2006-07, with the federal government, the mineral industry, and several Canadian universities. These partners brought approximately \$1.4 million to geoscience programming in Manitoba for 2006–2007, representing significant leverage of the provincial geoscience budget. The projects facilitated the training of future geoscience professionals, including in 2006 two postdoctoral fellows, four Ph.D. candidates, five M.Sc. candidates and three Honours B.Sc. students. Principle partnerships in 2006 were the Flin Flon TGI-3 project and the Bird River suite of projects.

The Flin Flon TGI-3 project is an integrated, multidisciplinary geoscience study to aid in the discovery of new reserves of base metals in vulnerable, established mining communities of Manitoba and Saskatchewan (Flin Flon, Snow Lake, Leaf Rapids, Thompson–Wabowden, Lynn Lake, La Ronge and Creighton). The objective is to develop and test new geoscientific models, methods and approaches that will guide exploration in this highly prospective area of the Canadian Shield. The project has been developed through joint provincial-federal-industry consultation and will be delivered as a fully integrated tripartite partnership including the minerals industry, researchers from Laurentian and McGill universities, and geologists from MGS, the Saskatchewan Geological Survey and the GSC.

In 2006-07 MGS participated actively in a number of interdepartmental initiatives, including:

1. Protected Areas Initiative (Conservation), as a partner in the Mining Sector Consultation, through the provision of geological and geophysical maps and assessments of mineral, aggregate and industrial mineral potential.
2. Watershed planning initiatives (Water Stewardship), through the provision of surficial geology and aggregate data and interpretation, for the Icelandic, Assiniboine and Seine river watersheds.
3. Groundwater initiatives (Water Stewardship), in a joint project in the Sandilands aquifer.
4. Aggregate resource assessments (Transportation), for aggregate resource assessments in Manitoba rural municipalities.
5. Aboriginal Consultation Interdepartmental Working Group, assisting in the development of a Consultation policy for the Province.
6. WNO Interdepartmental Working Group, providing mineral exploration and mining information for the east side of Lake Winnipeg.

7. Providing minerals industry information through outreach activities

Manitoba Geological Survey mineral-education outreach initiatives included the Manitoba Mining and Minerals Convention Schools Program, National Engineering and Geoscience Week, and Provincial Mining Week. The latter offered free, hands-on activities developed to complement the earth sciences curriculum and help increase public awareness of Manitoba's mineral resources and mining industry. The event drew more than 4000 visitors from the general public and the school tours program.

The 3rd annual Aboriginal Mining Workshop was held as part of the November 2006 Manitoba Mining and Minerals Convention. The workshop focused on how communities can benefit from mineral exploration activity in their regions.

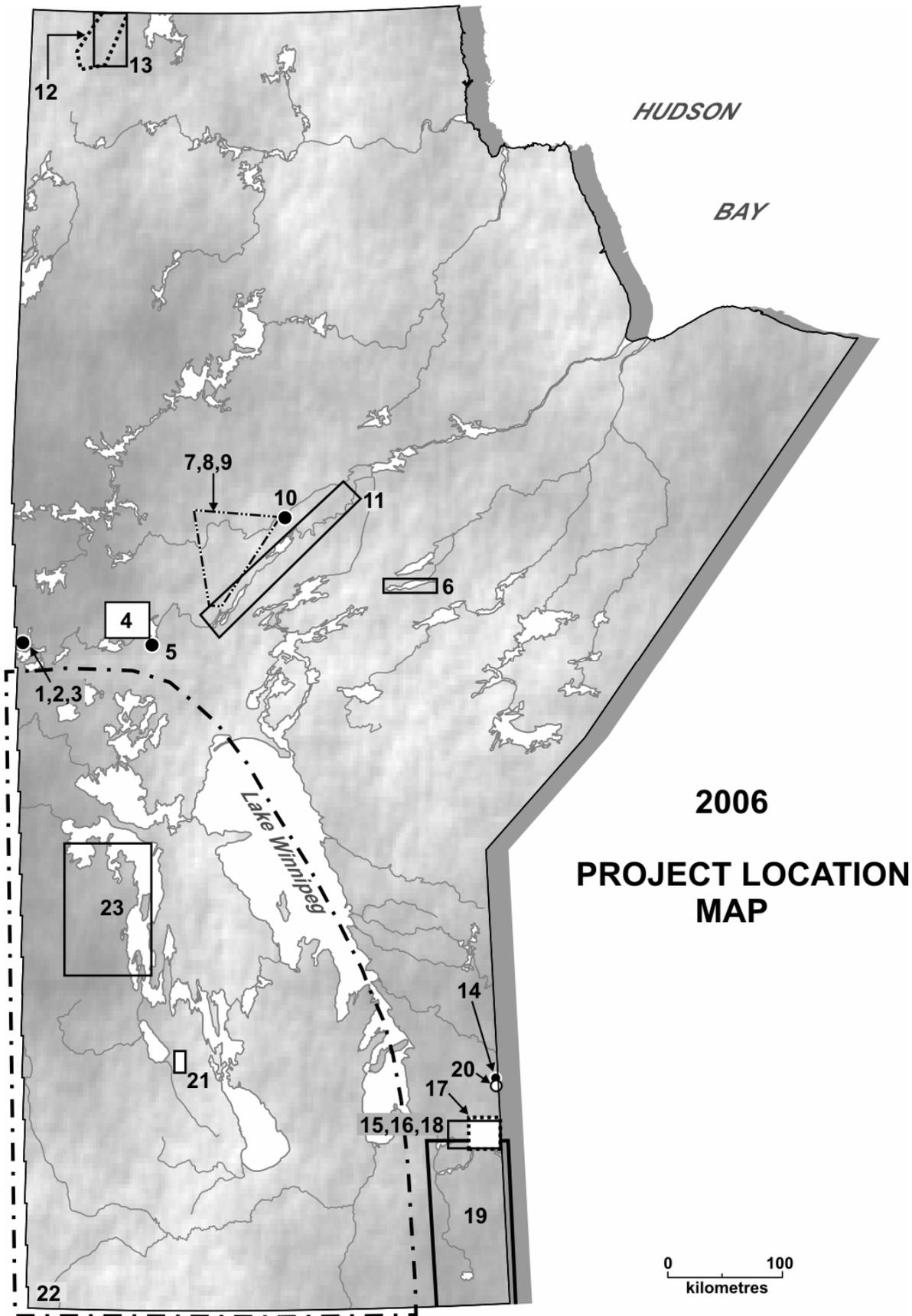
Survey staff delivered mining and geology presentations to Aboriginal communities and schools in Oxford House and Hollow Water, as well as at the Assembly of Manitoba Chiefs Youth Gathering and St. John's Ravenscourt. In addition, staff attended Aboriginal conferences, such as Vision Quest, the Northern Association of Community Councils and the Canadian Aboriginal Minerals Association.

An article on mineral exploration in northern Manitoba was published in the Community Contact newsletter distributed by Manitoba Aboriginal and Northern Affairs. The article describes the mining cycle, potential job and business opportunities, the location of exploration projects and how communities and individuals can learn more and participate.

Regional Offices

The Flin Flon office continued to provide technical and regulatory assistance to the mining and mineral-exploration communities in northwestern Manitoba. These activities included recording new mineral claims and accepting applications and submissions required under The Mines and Minerals Act, answering claim-status and other Act-related inquiries, and maintaining a collection of current claim and land-status maps for the Province of Manitoba.

Mineral Resources Division drillcore storage facilities are located in Winnipeg (Midland and Brady Road), The Pas, Flin Flon, Thompson and Lynn Lake. Clients can access drillcore for viewing and study at these locations. Six of the core libraries have lighted, heated inspection rooms with benches, and most have core splitters. It is estimated that the Manitoba Geological Survey's Precambrian drillcore libraries currently contain more than 260 000 m of core.



Map Legend**Location of Projects 2006/2007**

- 1 Geology of the Schist Lake-Mandy mines area, Flin Flon
- 2 Stratigraphic subdivision of the Hidden and Louis formations, Flin Flon
- 3 Wonderland gabbro: U-Pb age and geological implications
- 4 Metallogenic and metamorphic study of selected deposits from the Snow Lake area and southern flank of the Kisseynew Domain
- 5 Igneous carbonate-rich rocks from the south Wekusko Lake area: a kimberlite-carbonatite dilemma
- 6 Preliminary results from geological mapping of the Bear Lake greenstone belt
- 7 New tectonostratigraphic framework for the northeastern Kisseynew Domain
- 8 Thompson Nickel Belt-type units in the northeastern Kisseynew Domain
- 9 Regional granulite-facies metamorphism in the northeastern Kisseynew Domain
- 10 Detrital zircon provenance of the Pipe Formation, Ospwagan Group, Thompson Nickel Belt
- 11 Preliminary field observations of regional metamorphism in the Thompson Nickel Belt
- 12 Preliminary results from geological bedrock mapping of the Kasmere and Putahow lakes areas, northwestern Manitoba
- 13 Surficial geological investigations in the Kasmere-Putahow lakes area, northwestern Manitoba
- 14 Update and economic significance of geological mapping in the Garner-Gem lakes area, Rice Lake greenstone belt
- 15 Geology and structure of the Bird River Belt, southeastern Manitoba
- 16 Geological investigations in the Bird River area, southeastern Manitoba
- 17 Structural geology of the Bernic Lake area, Bird River greenstone belt, southeastern Manitoba: implications for rare element pegmatite emplacement
- 18 Geological investigations in the Bird River Sill, southeastern Manitoba: geology and preliminary geochemical results
- 19 Hydrological dynamics in the Winnipeg River basin
- 20 Revegetation of tailings at the Gunnar minesite: preliminary observations on plant growth in tailings amended with paper-mill sludge
- 21 Aggregate resources in the Rural Municipality of Ste. Rose
- 22 Summary of investigations for the Sedimentary and Industrial Minerals Section
- 23 Stratigraphic Corehole Drilling Program

MINERALS POLICY AND BUSINESS DEVELOPMENT

The Minerals Policy and Business Development section is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities organizing and staging of the annual Mines and Minerals Convention and administering the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP) and the Manitoba Mineral Exploration Tax Credit (MMETC). 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 Science, Technology, Energy and Mines and all affected government departments.

On a global scale, the mining industry has continued its momentum established in 2004 due to increased commodity prices coupled with the ability for junior explorers to raise exploration funds. Exploration levels in the province continue to increase and Manitoba continues to generate positive news. After gaining international recognition in the 1999 Fraser Institute survey of mining companies as 'one of the best places in the world to invest in exploration and mining', frontier exploration, particularly for gold, nickel and diamonds, has dramatically expanded. Natural Resources Canada reports that off-site mineral exploration expenditures have increased from under \$20 million in 1999 to an estimated \$46+ million in 2006. The search for diamonds continues to generate exploration activity in northeast Manitoba.

In addition, Hudson Bay Mining and Smelting and CVRD Inco Limited continue major investments to ensure their operations remain in Manitoba until at least 2016.

The section continued to build relationships with exploration and mining companies by promoting the advantages of investing in Manitoba. The benefits of these relationships are not always realized immediately. Mineral exploration and mine development are long-term endeavours with inherent risks. Over the years, however, all Manitobans have benefited from a healthy minerals sector that has grown to be the second largest primary resource industry in Manitoba, with a value of over \$2 billion in 2006.

The responsibilities of the Minerals Policy and Business Development section are implemented on a wide variety of fronts that include strategic business development including minerals policy, focussed client service, mining community development and administration of the minerals incentives programs.

Strategic Business Development - To effectively promote Manitoba's mineral investment advantages, it is important to understand industry trends and needs. Where possible, it is also necessary to contribute to the policies and initiatives that can impact mineral investment in a positive and sustainable way. Section representatives participated on various committees such as the Manitoba Mining Tax Committee, Intergovernmental Working Group subcommittees on exploration tax credits, resource tax reform and aboriginal participation in mining, and the Protected Areas Mineral Liaison Committee.

Competition for the exploration dollar has become international in scope and if we are to maintain a healthy and sustainable mining industry in the province it is critical to elevate the profile of Manitoba's mineral endowment and positive business environment. Section personnel conducted focused marketing initiatives and attended major industry conferences to attract exploration dollars to the province. The impact of Manitoba's policy climate in attracting mineral investment was recognized again in the 2006 Fraser Institute survey of mining companies, in which the province placed first in the world as the best policy environment in the world for mining investment amongst mining jurisdictions. Survey results represent the opinions of exploration managers in mining companies operating around the world.

In addition, the Department worked collaboratively with local prospectors groups and Manitoba's mining communities to promote mineral and business opportunities in and around those communities through a Team Manitoba approach.

Conventions and Trade Shows - Investment opportunities were promoted through trade show displays and direct marketing efforts at the following major mining and exploration events:

- Prospectors and Developers Association of Canada (PDAC) - Toronto (17,600 in attendance)
- Mineral Exploration Roundup - Vancouver (6,200 in attendance)
- San Francisco Gold Conference, San Francisco, California

Team Manitoba - a collaborative effort between Manitoba's mining communities, mineral property holders and staff from Science, Technology, Energy and Mines, was also successful in promoting mineral investment. Working together, the Team, including mayors from Manitoba's mining communities, provided a unified front to potential investors at the Prospectors and Developers Association of Canada Conference and at the Manitoba Mining and Minerals Convention.

Client Service - Minerals Policy and Business Development, in co-operation with other Branches and government departments, provided advice and direction to help new mining and exploration companies adjust to operating in a new jurisdiction or existing companies embarking on new ventures. This client assistance was provided in both an interdepartmental team approach and through issue driven individual service.

Community Development - activities undertaken by the section include participating in and co-ordinating various initiatives related to mine closure, including facilitating community adjustment and community economic development. The purpose of these activities is to help ameliorate the effects of mine closure on, and contribute to, the long-term viability of mining communities.

The department, with Intergovernmental Affairs and Labour and Immigration took the lead in organizing an interdepartmental working group to deal with mine closure at Lynn Lake and Leaf Rapids. This core group grew into a government Steering Committee that is presently addressing both local and regional issues in the Lynn Lake – Leaf Rapids area and impacts of mine closure in Snow Lake. In addition to increased government geological programming in this region, the government is providing funding assistance from the Mining Community Reserve to help each community deal with the effects of mine closure and plan for future economic development.

Manitoba Mining and Minerals Convention - the annual Manitoba Mining and Minerals Convention hosted over 800 industry participants. The convention provided a venue for stakeholders to acquire the latest government geological information releases, interact with the exploration and mining services sector and discover new business opportunities. The convention theme, "Your Exploration Advantage" reflected the mining sector's vibrant presence in Manitoba as well as Manitoba's enormous untapped mineral potential, and the many opportunities that exist for further exploration in our geologically diverse province. In 2006, the convention hosted a total of 66 trade show booths and 23 presentations. In addition, 31 mineral property booths and 37 geological posters were featured. The Manitoba Mining and Minerals Convention 2007 will be held November 15, 16 and 17 at the Winnipeg Convention Centre.

Exploration Incentives - The continuation of mineral incentive programs such as the Mineral Exploration Assistance Program (MEAP), Manitoba Prospectors Assistance Program (MPAP) and the Manitoba Mineral Exploration Tax Credit (MMETC) sends a positive message to industry that Manitoba is serious about attracting investment and supporting industry in times of heightened competition for the global exploration dollar. All programs were administered by the Minerals Policy and Business Development section and reported under 18-5(e).

10-5(a) Manitoba Geological Survey

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	\$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	3,473.7	57.10	3,559.2	(85.5)	
Total Other Expenditures	1,605.3		1,811.6	(206.3)	
Total Expenditures	5,079.0	57.10	5,370.8	(291.8)	

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 and the Federal/Provincial Technical Committee on Mineral Statistics. Branch staff participated in a number of technical seminars, conferences and mine rescue competition.

In 2006/07 the branch entered the 15th year of a substantial program for the rehabilitation of aggregate pits and quarries throughout the province. Under the Orphan and Abandoned Mine Site Program, the total expenditure for FY 2006/07 was \$2,241,370. The rehab work addressed some of the critical safety and environmental issues at the Bissett, Sherridon, Lynn Lake and Ruttan mine sites. In accordance with the Mine Closure Regulation, owners/operators of the province's operating and inactive mines submitted closure plans and proposals for review and comments.

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 through terminals located in each of the offices.

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 2006/07 was \$3,612,794 and the rehabilitation levy collected, including interest, on the removal of aggregate material was \$1,954,353 for the same period.

During the calendar year 2006, 738 mining claims and 26 mineral exploration licenses were recorded covering a total of 1,002,251 hectares. Concurrently, 65 quarry mineral leases, 758 casual quarry permits and 769 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 2006 are shown on the following page.

On November 30, 2006 BHP Billiton acquired 51% share of a 21 year potash lease in partnership with the Province of Manitoba. The agreement provides BHP Billiton the opportunity to explore for and develop Manitoba's untapped potash deposits in the Russell area. The company is planning a \$15 million exploration program in the coming years. Potash lease 1-87 is situated north of Potash Exploration Permit which was issued to Agrium Inc. in September, 2005.

The initial phase of the Mine Recording upgrade project was completed and will form the basis for the integration of processes within the branch and the eventual implementation of map staking.

MINERAL DISPOSITIONS ISSUED EACH CALENDAR YEAR 2003 - 2006

	2003		2004		2005		2006	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	941	203,542	821	177,402	458	83,524	738	163,283
Mineral Exploration Licences	35	668,450	72	1,436,123	68	2,658,314	26	838,968
Mineral Leases			1	61	-	-	-	-
Quarrying								
Leases	38	1,110	55	2,072	37	1,376	65	2,693
Exploration Permits	-	-	-	-	4	845	2	225
Casual Quarry Permits	758	-	706	-	758	-	758	-
Peat								
Leases	1	264	5	287	3	477	2	402
Exploration Permits							1	1,243
Private Aggregate Registration Certificates	792		785	-	774	-	769	-

MINERAL DISPOSITIONS IN GOOD STANDING AT CALENDAR YEAR END 2003- 2006

	2003		2004		2005		2006	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	5,130	795,228	5,470	875,135	5,056	769,800	5,248	802,269
Order-In-Council Leases	3,653	120,562	3,653	120,562	3,653	120,562	3,653	120,562
Mineral Exploration Licenses/Special Permits	60	1,588,678	113	2,497,144	152	4,613,743	132	3,810,142
Special Permits	3	37,222	1	25,765	--	--	--	--
Mineral leases	262	30,637	257	25,765	254	23,424	253	23,416
Potash								
Leases	1	5,787	1	5,787	1	5,787	1	5,787
Exploration Permits	-	-	-	-	1	45,212	1	45,212
Quarrying								
Leases	845	39,082	830	38,145	824	38,586	856	40,726
Exploration Permits	5	709	2	79	4	846	1	525
Peat								
Leases	141	21,824	141	21,763	145	22,243	146	22,683
Exploration Permits			-	-	-	-	1	1,018
TOTAL	10,100	2,639,729	36,233	3,595,296	10,090	5,640,203	10,292	4,872,340

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.

Staffs 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 2006/07 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.

Orphan Mines Site Rehabilitation Program Mines Branch Expenditures 2006/07

Mine Site	Approved Budget (\$)	Expenditure (\$)
Sherridon	525,000	381,244
Snow Lake	200,000	13,879
Gods Lake		
Lynn Lake	1,725,000	1,018,963
Inspection	249,000	204,879
Other	85,000	42,186
Subtotal	2,784,000	1,661,187
Ruttan	670,000	580,183
Total	3,454,000	2,241,370

Expenditures 2006/07

Sherridon: Work on safety fencing was completed and an implementation plan for rehabilitation of the mine site developed.

Lynn Lake: Work was carried on at Lynn Lake to review alternatives for implementing rehabilitation of the East Tailings Management Area (ETMA). Work carried out: Ground Water Modeling, Permeable Reactive Barrier installation, revegetation, test plots, drainage ditch and miscellaneous dam repairs.

Ruttan: As of January 2005 the environmental liability was transferred to the Province. Hazco commenced work on the first phase of the revegetation of the mine site with scheduled completion in August 2008.

General

Mines Branch staff participated on various interdepartmental technical review committees. Staff took part in judging the Provincial Mine Rescue Competition in Thompson.

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 2006/07 approximately \$1.9 million was contributed to this Quarry Rehabilitation Fund, with over 97 rehabilitation

projects being completed at a cost of \$1.8 million. The total number of projects completed since 1992 comprise approximately 6,985 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.

Sustainable Land Planning Services

Manitoba has enacted several resource management acts to manage land and 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, 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 Planning Committees. Major activities of the Crown land management process include developing and implementing Crown land plans, developing Crown land 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.

Municipal Planning

The Planning Act governs land use planning and development in Manitoba. The legislation provides municipalities and planning districts with the authority to 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 products 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.

Land Use Assessment

Land Management provides technical support and advice to many provincial legislative land 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 1312 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.

G.I.S. services are provided to industry to assist in the resolution of environmental and land use conflicts, dissemination of non-confidential assessment reports, land use and tenure information.

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 sectoral 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. Highlights for 2006 include the creation of sustainability indicators for mining activity in the Sustainability Report for Manitoba. The principles of sustainable development are being codified into Municipal Plans, Crown Land plans and Zoning By-laws.

Protected Areas Initiative

Manitoba has initiated a program to protect representative landscapes and ecosystems from logging, mining and hydro development. Currently, 8.3% of Manitoba is legally protected from mining development with an additional 5.7% supported for protection by the mining sector. 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. Seven land selections covering approximately 21,368.54 acres were assessed and approved. 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.

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 2006 include providing public outreach to Manitoba's cottage lot program, assisting Manitoba prospectors in land tenure issues, and providing technical support to Watershed Management Boards. A special technical session for land access issues was facilitated at last year's Mining and Minerals Convention.

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.

	2003	2004	2005	2006
Reports of work added to assessment library	76	124	133	110
Reports transferred to non-confidential status	185	107	2755	67
PRIVATE SECTOR:				
Website Visits	6026	6621	2728	7922
Visits	252	173	130	108
Reports examined	1264	1048	652	552
Reports duplicated for clients	458	323	282	268
CD'S duplicated for clients	5	3	43	30
DEPARTMENTAL STAFF:				
Reports examined	248	893	258	301
Reports duplicated for staff	10	33	14	28
Microfiche duplicated for Winnipeg and Northern Offices	2752	2711	2157	879

10-5(b) Mines

Expenditures by Sub-Appropriation	Actual 2006/07	Estimate 2006/07		Variance Over (Under)	Expl. No.
	\$	FTE	\$		
Total Salaries and Employee Benefits	1,219.4	26.00	1,298.4	(79.0)	
Total Other Expenditures	489.9		710.3	(220.4)	
Total Expenditures	1,709.3	26.00	2,008.7	(299.4)	

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 South Western part of the province.

In 2006, Manitoba produced 1,239,157 cubic metres of oil (7.79 million barrels) having a total value of approximately \$530 million. This is equivalent to about 37 percent of the province's refined petroleum products needs. 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 2006, the petroleum industry spent \$400 million in Manitoba to explore for and develop Manitoba's oil and gas resources, to operate over 2800 wells and transport crude oil and refined petroleum products within the province.

The Sinclair Field located 35 km Southwest of Virden continued to be the hot spot for oil exploration. As of March 31, 2007 the field has 553 producing oil wells. In 2006, Sinclair contributed 43% of the total provincial production. The Department estimates that the current proven developed and probable oil reserves of the field to be 42 million barrels.

It is estimated that the petroleum industry in Manitoba provides direct employment for approximately 330-390 Manitobans and indirect employment for at least that many people.

In 2006/07, royalties, production taxes and revenue from the administration of Crown owned oil and gas rights and fees added \$20.1 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 \$2.0 million in property taxes to the various municipalities where oil wells and facilities are located.

The 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.

Bill 21 – The Oil and Gas Amendment and Oil and Gas Production Tax Amendment Act received first reading in March 2005 and is awaiting proclamation. The bill addresses a number of issues that have arisen since the Acts were introduced in 1994 and includes provisions that enhance environmental protection, strengthen enforcement, streamline administration and encourage oil and gas exploration and development.

In 2006, companies took advantage of the following enhancements to the Manitoba Drilling Incentive Program which became effective January 1, 2004:

- For new vertical wells, a minimum of 500 cubic metres of holiday oil can now be produced before crown royalty or production tax is paid – 435 wells qualified
- An increase in the volume of holiday oil that can be assigned from a company's holiday oil volume account to a newly drilled well. The holiday oil volume earned by a new well can now be "topped up" to 3,000 cubic metres - 414 wells qualified
- A new incentive for drilling new horizontal legs from existing horizontal wells. New horizontal legs qualify for a holiday oil volume of 3,000 cubic metres - 1 well qualified
- A daily production increase of two cubic metres (from one to three) for marginal wells to qualify for the casing repair incentive, effective January 1, 2005 was not utilized in 2006.

-
- In February 2007 changes were made to the Water Injection Incentive which allows better use of holiday volumes by removing the production ceilings for eligibility for the incentive and providing for a maximum royalty and tax period of 12 to 18 months.

In 2006, oil companies reported 43 spills. More information on spills is presented in the Petroleum Industry 2005 Spill Statistics and Report available on the Petroleum website.

The Branch continued enhancement of its GIS web-enabled petroleum resources map. The map covers South Western 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 and topography orthophotos. The map is available on the Petroleum website (www.gov.mb.ca/itm/petroleum).

The Branch participated in the following consultation and outreach activities during 2006/07:

1. The 14th International Williston Basin Horizontal Well and Petroleum Conference, May 7-9, 2007 in Minot, North Dakota. The Branch presented an update of Manitoba oil and gas exploration and development activity at this forum and met with industry clients.
2. The Petroleum Branch held an educational session on March 17, 2006 at Brandon University regarding Manitoba's oil patch.
3. Presentation to Manitoba Environmental Industries Association on November 23, 2006 regarding Upstream issues and opportunities.

The following informational notices were issued by the Branch in 2005/06:

- Informational Notice 06-1 – Schedule of Public Offering of Manitoba Crown Oil and Gas Rights – July 21, 2006
- Informational Notice 06-2 – Mandatory Electronic Data Submission Requirements – October 12, 2006
- Informational Notice 06-3 – Abandonment Fund Reserve Account for Fiscal Year ending March 31, 2006

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 2006/07. Ninety Five leases covering 10,199 hectares were sold for a total of revenue of \$ 1.4 million. Revenue collected from Crown oil and gas lease sales was down substantially from the 2005/06 revenue of \$6.4 million.

Since 1979, the province has collected over \$41.4 million from the disposition of Crown oil and gas rights. As of December 31, 2006, 114,297 hectares of Crown oil and gas rights were under disposition. Of this total, Crown leases accounted for 98% and, exploration reservations 2%. Compared to 2005, the total area under disposition increased by 5.3%

In 2006, the section processed 43 lease renewals and 7 lease extensions, 59 lease surrenders, 261 transfers of dispositions and 3 oil and gas lease agent renewals and registrations. It also issued 119 new leases.

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, 2006, there were 2774 non-abandoned wells in Manitoba. Digital production and injection histories are available for all wells.

During 2006/07, the section collected \$ 20.1 million from the petroleum industry. This revenue comprised \$ 4.3 million in Crown oil royalties, \$ 13.9 million in freehold oil taxes and \$ 1.9 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 2005/06 was \$ 16.0 million.

Manitoba Drilling Incentive Program, (1992-2009) - The Manitoba Drilling Incentive Program provides licensees of wells drilled after January 1, 1992 and before January 1, 2009 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 the fourteenth year of this program, 503 wells earned an average holiday oil volume of 2,188 cubic metres, bringing the total number of wells with a holiday oil volume in the program to 1405, as of December 2006.

Any horizontal well drilled prior to January 1, 2009 receives a holiday oil volume of 10,000 cubic metres. Forty-five horizontal wells were drilled in 2006.

Effective November 11, 1995, a marginal well where a workover is completed prior to January 1, 2009 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. Five wells earned a holiday oil volume under the program in 2005 and none in 2006.

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 nine 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, 2006, a total of 41 wells had qualified for an "injection well incentive" under the program. All of the wells have completed their injection incentive period with the exception of the five wells in Sinclair Unit No. 1.

The *Manitoba Petroleum Fiscal Regime* booklet which provides detailed information on the drilling incentive program, provincial Crown royalties and provincial freehold oil production taxes was updated in 2004 to reflect the changes to the incentive program. The booklet is available on the Petroleum website.

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 2006/07, approximately \$ 1.6 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. An 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, 2006 is available from the Branch and is posted on the Petroleum website.

Abandonment Fund Reserve Account Activity

Opening Balance (April 1, 2006)		355,623.48
Deposits		272,597.32
Levies and Penalties	228,525.00	
Interest	3,071.22	
Recovery of Expenditures	42,001.10	
Expenditures and Refunds		121,816.28
Closing Balance (March 31, 2007)		507,404.52

Geology

Geology prepares reports on Manitoba's petroleum geology and hydrocarbon potential to encourage and assist in the exploration and development of the province's oil and gas resources. A system for the designation of field and pool boundaries is maintained. As of January 1, 2007 Manitoba had 14 designated oil fields and 190 designated active oil pools. A total of 488 new field and pool codes were assigned in 2006.

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

Accomplishments in 2006/07 include:

- Continued enhancement of geological formation tops data base as part of the Manitoba Oil and Gas Well Information System. In 2006, a total of 476 new wells were added to this database, a 74 per cent increase over the previous record set in 1955.
- Continuation of the Targeted Geoscience Initiative II: Williston Basin Architecture and Hydrocarbon Potential. This project is in partnership with the Geological Survey of Canada, Saskatchewan Industry and Resources, and the Manitoba Geological Survey and the Petroleum Branch. The objective of the 2 year project is to produce a geological model of Phanerozoic rocks over a significant portion of Saskatchewan and Manitoba to enhance our understanding of the hydrocarbon and mineral potential. This model will incorporate geophysical and hydro-geological data to enhance our understanding of hydrocarbon migration paths and traps, within and beyond, traditional geographic areas of hydrocarbon production through subsurface geological mapping, geophysical mapping, hydro-geological mapping and remotely sensed imagery analysis.
- The Petroleum Working Committee reviewed Ducks Unlimited Canada and Nature Conservancy of Canada lands that were proposed for protection. Of the 3,296 hectares of land identified by Protected Areas Initiative as candidate sites for that review, 1,920 hectares (58%) were recommended for "protected status" by the Petroleum Working Committee. (Note: The Petroleum Working Committee is a committee of Petroleum Geologists with representatives from industry, Government and academia who have experience, or whose companies are stakeholders in Manitoba. The Committee is charged with reviewing the petroleum potential of candidate sites for the Protected Areas Initiative on a systematic, site by site basis and to formulate recommendations related to their possible designation).
- Conducted a study on the petroleum geology of the Devonian Three Forks Formation of the Sinclair Field and surrounding area. Published a paper on this topic and presented at a core workshop and poster at the Saskatchewan and Northern Plains Oil and Gas Symposium in Regina, SK in October 2006.
- Assigned Holiday Oil Volume allocations to all new well drilled.

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 2006/07, a total of 450 drilling licenses and 6 geophysical licenses were issued. In addition, 57 technical well operations applications were processed.

Technical studies are undertaken of oil and gas reserves and enhanced recovery potential. As of December 31, 2003, total and remaining proved developed oil reserves in Manitoba were 40.5 million cubic metres and 4.3 million cubic metres, respectively. Reserve additions for 2003 totalled 0.4 million cubic metres, 56% of oil production over the same period. The 2003 reserve life index is 6.8 years. One enhanced oil recovery (EOR) project was approved in 2006/07.

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 1,400 wells and oil and gas facilities in the province were inspected at least once during the year. A total of 165 non-compliance orders were issued in 2006/07 for wells and oil and gas facilities not in compliance with the Act. A total of 36 flow line applications were processed and 148 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 2006/07, 141 old abandoned sites were visited and 25 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 2006/07, 49 new spills and 89 old spill sites were inspected. 25 spill sites were fully rehabilitated and released from the Branch's rehabilitation program.

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, application development and document images and drafting services.

In 2006/07 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).

Accomplishments in 2006/07 include:

- Flow line information now being processed and distributed by Geomatics Data Management Inc.
- Create several applications in order that oilfield production and selling prices can be submitted via the internet, or by submitting a digital file. This also forced companies and the Petroleum Branch to reconcile well information and therefore have more accurate data available.
- Continued support for the Oracle Petroleum Branch database and the Manitoba Oil and Gas Well Information System (MOGWIS).
- Update the Branch's technical well files on the internet.
- Ongoing support for GIS functions.
- Continued updating and enhancement of Petroleum data offerings.
- Assist with Holiday Oil Volumes.

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 2006/07, the following Ministerial Orders were issued:

Lease Validation between Helen Shirley Bulloch and Melvin James Williamson & Total Petroleum Land.	February 18, 2007	Total Petroleum Land
Unit Agreement Sinclair Unit No. 1	June 30, 2006	Tundra Oil & Gas Partnership
Waterflood Order No. 16 – Sinclair Unit No. 1	June 30, 2006	Tundra Oil & Gas Partnership

In 2006/07 the Acting Director of Petroleum made the following orders:

Salt Water Disposal Permit No. 191	December 22, 2006	New Midland Petroleum Ltd.
Salt Water Disposal Permit No. 192	March 16, 2007	Rideau Petroleums Ltd.

Petroleum Industry Overview :

	2006	2005
New Wells Drilled	476	285
Oil Production	1,239,157 m ³ (7.79 million bbls)	811 924 m ³ (5.1 million bbls)
Value of Oil Sales (\$million)	\$ 530	\$ 320.1
Average Selling Price	\$395.03/m ³ (\$62.77/bbl)	\$395.03/m ³ (\$62.77/bbl)
Wells Producing - December	2209	1736
Estimated Industry Expenditures (\$million)	\$400.0	\$243.0

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

10-5(c) Petroleum

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	Estimate 2006/07 \$	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,032.5	19.50	1,113.2	(80.7)	
Total Other Expenditures	343.5		290.0	53.5	
Total Expenditures	1,376.0	19.50	1,403.2	(27.2)	

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 disputes were registered in 2006/2007.

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. In 2006, British Columbia hosted the Surface Rights Conference. The Conference provides an overview of issues and trends related to Board matters in Western Canada in the oil and gas sector

1.	Signed Agreements for Surface Leases (fiscal year)	=	409
	Total Number of Recorded Surface Leases	=	3060
2.	Review of Compensation Applications	=	1
3.	Right of Entry Applications	=	0
4.	Termination of Board Orders	=	0
5.	Application for Abandonment Orders	=	0
6.	Board Orders Issued	=	0
7.	Mediation Reports	=	1

10-5(d) Boards and Commissions

Expenditures by Sub-Appropriation	Actual 2006/07 \$	Estimate 2006/07 FTE	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	4.4	27.2	(22.8)	
Total Other Expenditures	13.1	17.7	(4.6)	
Total Expenditures	17.5	44.9	(27.4)	

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. The program, established in the fall of 1995, 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 \$400,000.00 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 and Snow Lake areas. Two offerings are held per fiscal year.

Companies with approved projects under the April 2006 offering had until October 31, 2006 to complete their work, and approved projects under the November, 2006 offering had until March 31, 2007 to complete their work. Sixty-four of the original 81 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 2006/2007 fiscal year, Science, Technology, 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. Four site inspections for projects representing \$187,147.00 or 7.5% of the allocated assistance have been completed.

Program Highlights from October 1995 to March 31, 2006

- 145 companies have participated under MEAP of which:
 - 104 companies are considered new to Manitoba.
 - 16 are major exploration companies, and
 - 129 are junior companies (note: a company is considered a major exploration company if its market capitalization is greater than \$100 million).
- \$22.3 million of assistance has been issued to 590 completed projects.
- \$164.9 million in exploration expenses have been reported.
- Reported exploration expenditures under the Program indicate every \$1 million in assistance paid generates \$7.4 million in exploration expenditures.

Mineral Exploration Assistance Program 2006 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>
06-04-01	43	42	22,484.7	1,100.0	30	13,253.3	859.3
06-11-01	41	39	34,353.9	1,400.0	34	31,531.5	1,240.4
TOTAL	84	81	56,838.6	2,500.0	64	44,784.8	2,099.7

Note: Projects approved under the November 2006 offering have until June 15, 2007 to file final reports and make application for final payment

Results of Assistance by General Region of Exploration for 2006/2007

	Projects		Exploration \$ in 000's		Assistance \$ in 000's	
Far North	5	(6.2%)	\$ 4,822.7	(10.8%)	\$177.1	(8.4%)
Flin Flon/Snow Lake	23	(28.4%)	\$12,745.5	(28.5%)	\$638.4	(30.4%)
Hudson Bay Lowland	3	(3.7%)	\$ 1,507.7	(3.4%)	\$ 99.9	(4.8%)
Lynn Lake/Leaf Rapids	5	(6.2%)	\$ 3,373.8	(7.5%)	\$145.2	(6.9%)
Northern Superior	7	(8.6%)	\$ 9,033.6	(20.2%)	\$277.8	(13.2%)
SE Trans-Hudson Orogen	0	(0.0%)	\$ 0.0	(0.0%)	\$ 0.0	(0.0%)
Southeastern Manitoba	26	(32.1%)	\$ 6,892.3	(15.4%)	\$404.4	(19.3%)
South Central Manitoba	3	(3.7%)	\$ 240.3	(0.5%)	\$ 11.8	(0.6%)
Thompson Nickel Belt - Superior Boundary Zone	9	(11.1%)	\$ 6,169.0	(13.8%)	\$345.0	(16.4%)

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 Potamine Corporation of Canada (51 per cent). In November 2006 BHP Billiton, one of the largest diversified mining companies in the world, purchased Potamine's share in the MPC and has committed to submit a \$15 million exploration plan to the provincial government within two years. A consultants report in 1986 concluded that at that time the Manitoba Potash Project had sufficient mineable reserves to sustain a world class potash mining and processing operation for over 25 years.

Acid Rain Abatement Program - Flin Flon

This program provides financial assistance to Hudson Bay Mining and Smelting Co., Limited for the construction of environmental improvements to the metallurgical plant at Flin Flon. Modernization of the plant resulted in containment of sulphur dioxide emissions within prescribed limits.

The department continued to monitor the commitments by HBM&S and administered the ancillary loan agreement between Manitoba and Saskatchewan.

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 mineral land. The Program is targeted at increasing mineral exploration in Manitoba to help replenish declining ore reserves. The Program is funded at \$123,100 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 2006/07 the program received 15 applications for grants; 15 prospecting projects were approved under the program and 13 were completed. The total amount of Program funds dispersed for 2006/2007 was \$47,468.30.

Gordon Davy	7,500.00
William Hood (2 projects)	2,310.10
Ken Klyne (2 projects)	2,483.24
John Lee (2 projects)	6,267.25
William Kuran	4,426.92
Richard Masson	6,930.15
Steve Masson	7,500.00
Jim Rastel	6,861.22
Harold Westdal (2 projects)	<u>3,189.42</u>
Total Funds Dispersed:	<u>\$47,468.30</u>

18-5(e) Mineral Industry Support Programs

Expenditures by Sub-Appropriation	Actual 2006/07 \$	FTE	Estimate 2006/07 \$	Variance Over (Under)	Expl. No.
Mineral Industry Support Programs					
- Mineral Exploration Assistance Program	2,126.9		2,500.0	(373.1)	
- Prospectors Assistance Program	47.5		123.1	(75.6)	
- Manitoba Potash Project	234.5		196.5	38.0	
- Acid Rain Abatement Program – Flin Flon	53.1		88.5	(35.4)	
Total Expenditures	2,462.0		2,908.1	(446.1)	

AMORTIZATION AND OTHER 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 Desktop Management Initiative costs allocated to the departments as a percentage of total units;
- the departments share of the total estimated costs of the Desktop Management Initiative and Enterprise System Management;
- 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 2006/07 \$	Estimate 2006/07 FTE \$	Variance Over (Under)	Expl. No.
(a) DESKTOP MANAGEMENT INITIATIVE				
Government-wide Desktop Costs	4,793.6	4,803.3	(9.7)	
Less: Recoverable from other appropriations	(4,793.6)	(4,803.3)	9.7	
(b) ENTERPRISE SYSTEM				
Amortization Expense	3,457.7	3,447.6	10.1	
Less: Recoverable from other appropriations	(3,457.7)	(3,447.6)	(10.1)	
(c) DESKTOP SERVICES				
- Amortization Expense -Transition	36.9	38.5	(1.6)	
- Enterprise Software Licenses	92.4	92.8	(0.4)	
(d) Amortization Expense	6,229.3	6,229.4	(0.1)	
(e) Interest Expense	4,174.9	4,175.0	(0.1)	1
Total Expenditures	10,533.5	10,535.7	(2.2)	

1. The deferral of planned projects directly affects the planned interest.

SCIENCE, TECHNOLOGY, ENERGY AND MINES

Reconciliation Statement

EXPENDITURE DETAILS	
2006/07 MAIN ESTIMATES	60,150.8
Transfer of functions from: <ul style="list-style-type: none">▪ Internal Reform, Workforce Adjustment and General Salary Increases▪ Competitiveness, Training and Trade▪ Special Warrant OIC 105/2007 to Other-Exp and to Recovery	2,067.9 11,794.2 1,069.0 (1,069.0)
2006/07 ESTIMATE	74,012.9

Expenditure Summary
3 pages
Excel Table

Expenditure Summary
Page 2
Excel Table

Expenditure Summary
Page 3
Excel Table

INSERT REVENUE SUMMARY

1 Page

5 Year Historical
1 page
Excel Table

SCIENCE, TECHNOLOGY, ENERGY AND MINES 2006/07 Annual Report Performance Measurements

The 2006-07 reporting year is the first year that a standardized Performance Measurement section appears in Departmental Annual Reports. This section is another step in our process to provide Manitobans with a more complete picture of the activities of government and their impacts on the province. That process was begun in 2005 with the release of the document, *Reporting to Manitobans on Performance, 2005 Discussion Document*, which can be found at www.gov.mb.ca/finance/performance.

Performance indicators in departmental Annual Reports are intended to provide Manitobans with meaningful and useful information about government's activities, complementary to financial results. Some measures incorporate data collected by the provincial government, while others show data that are collected by external agencies. A range of existing, new and proposed measures may be reported in subsequent years, as the process continues to evolve.

Your comments on performance measures are valuable to us. You can send comments or questions to mbperformance@gov.mb.ca

L'exercice 2006-2007 est la première année où les rapports annuels du ministère comprennent une section d'information sur le rendement standardisée. Il s'agit d'une autre étape du processus visant à ce que les Manitobains aient un meilleur aperçu des activités du gouvernement et des répercussions de celles-ci sur la province. Ce processus a été amorcé en 2005 avec la publication du document *Rapport aux Manitobains sur le rendement — Document de travail 2005*, qui se trouve sur Internet à : www.gov.mb.ca/finance/mbperformance/perf02.fr.html.

Les indicateurs de rendement dans les rapports annuels des ministères ont pour objectif de fournir aux Manitobains des renseignements valables et utiles sur les activités du gouvernement, en tant que complément des résultats financiers. Certains renseignements incorporent des données recueillies par le gouvernement provincial, alors que d'autres montrent des données rassemblées par des organismes externes. À mesure que le processus évolue, un éventail de mesures actuelles, nouvelles ou proposées pourrait être inclus dans le rapport dans les années à venir.

Nous accordons beaucoup d'importance à vos commentaires sur la mesure de la performance. Vous pouvez nous les envoyer, ainsi que toute question, à mbperformance@gov.mb.ca

Strategic Priority: Drive implementation of the Green Strategy and maximize energy & climate change opportunities for Manitobans

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	Where are we starting from? (C)	What is the 2006/2007 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>We are measuring progress toward developing alternative energy sources for Manitoba by measuring Wind Energy Production and the level of investment it is attracting in Manitoba.</p>	<p>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>	<p>As of 2005, St. Leon has the first test Wind farm in Manitoba, which was built with a \$210 million private capital investment.¹</p> <p>2007 is the first year for which we are measuring this wind energy production.</p>	<p>St. Leon went into full production in August 2006, generating 100 MW annually.</p>	<p>Increasing.</p> <p>In March of 2007 Hydro issued a Request for Proposals (RFP) for 300 MW of wind energy.</p> <p>In addition, Hydro has targeted an additional 600 MW of wind for development starting in 2012/2013.</p> <p>In total, 1000 MW of wind will result in over \$2 billion in investment.</p>	<p>For more information, please see the press releases and reports below.</p> <p>Province, Manitoba Hydro Unveil Expression of Interest To Develop 1,000 Megawatts of Wind Over the Next Decade – November 2005 http://www.gov.mb.ca/chc/press/top/2005/11/2005-11-21-01.html</p> <p>Southern Manitoba Farmers Set To Harvest Province's First Wind Crop – April 2005 http://www.gov.mb.ca/chc/press/top/2005/04/2005-04-28-04.html</p> <p>For more information about Wind Energy visit the Canadian Wind Energy Association website http://www.canwea.ca/</p> <p>Province of Manitoba Climate Change Action Plan 2002 http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf</p>

¹The 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

Strategic Priority: Create major opportunities for community & economic development through ‘New Economy’ industries and technology

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	Where are we starting from? (C)	What is the 2006/2007 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>We are measuring the ability to create Community and Economic Development (CED) opportunities for Manitobans in the ‘new economy’ by measuring the number of communities in Manitoba with broadband or high speed Internet access.</p>	<p>Access to Broadband is a cornerstone to economic development as it creates opportunities for Manitobans to compete in global markets, enhances education opportunities through e-learning and provides access to health care through tele-health.²</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 2006/07 273 of Manitoba’s 473 communities have or are in the process of gaining access to broadband services . This is a 26% increase over the previous year.</p>	<p>A steady increase in connectivity continues within the province as the Municipal And Rural Infrastructure Fund is accessed by municipal groups to provide rural and northern communities with High Speed Internet.</p>	<p>For more information, please see the documents below.</p> <p>Broadband – High Capacity Internet for all Canadian Communities (Industry Canada) http://www.broadband.ic.gc.ca/pub/index.html?iin.lan g=en</p> <p>This measure was also reported on page 46 of <i>Reporting to Manitobans on Performance 2005 Discussion Document</i>, which is available at http://www.gov.mb.ca/finance/mbperformance/index.html</p>

² Access offers local businesses opportunities to participate in a wider area of commerce. Access and a community’s web presence can be viewed as a tool for gaining e-commerce, enhancing economic development, and fostering growth in key areas. By reducing and even eliminating the economic costs traditionally associated with distance, broadband communications will offer all Manitoba communities the potential to capitalize on their natural and human assets.

Strategic Priority: Significantly improve Manitoba’s research capacity and the environment for our researchers

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	Where are we starting from? (C)	What is the 2006/2007 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>The capacity of Manitoba’s research community, by measuring the amount of funding directed to research organizations in Manitoba by the Manitoba Government.</p>	<p>Basic research capacity and its infrastructure is a key indicator as it is an indicator of Manitoba’s competitiveness in retaining and attracting research investment and talented researchers and technologists.</p>	<p>The MRIF’s predecessor, the Manitoba Innovation Fund (MIF)³ was established in 1998 and provided total annual research funding of \$7 million.</p>	<p>In 2006/07 \$12.91 million of support was provided to expand Manitoba’s research capacity through the Manitoba Research and Innovation Fund (MRIF).</p>	<p>Increasing. Since program inception in 2003/04 to the end of 2006/07, the MRIF has provided \$76 million for research and development projects and research infrastructure and innovative support activities. The fund has increased 46% since the 1998.⁴</p>	<p>Manitoba Innovation Framework http://www.gov.mb.ca/est/innovation/index.html</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) http://www.innovation.ca/index.cfm</p> <p>Genome Canada http://www.genomecanada.ca/</p> <p>Canada and Canadian Institutes for Health Research (Regional Partnership Program.) http://www.cihr-irsc.gc.ca/</p>

³ In 2003/04 the Manitoba Research and Innovation Fund³ (MRIF) was established, with an allocation of \$12.95 million, as the main vehicle for provincial research and innovation funding.

⁴ This percentage is based on the first established funding dedicated specifically at supporting research in 1998, which started with the MIF (see above note).

Strategic Priority: Drive and support service transformation in Government

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	Where are we starting from? (C)	What is the 2006/2007 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>The effectiveness of government's service transformation efforts toward citizen-centered service delivery, by using a service quality index devised for the Citizens First Surveys. These surveys are conducted independently by the Institute for Citizen-Centred Service and the Institute of Public Administration of Canada.</p>	<p>Public demand for improved service delivery continues to escalate year over year, which means that government must monitor its service improvement progress to ensure that it is meeting the needs of its citizens.</p>	<p>The Provincial Government's Service Quality Score has improved since Citizens First 1 was published in 1998. At that time, our Service Quality Score was 47.</p>	<p>Citizens First 5 is not scheduled to be published until Summer of 2008. As such, our most recent figure is from Citizens First 4 (2006). It shows that Manitoba's service reputation is improving, with a rating of 57/100 on the Service Quality Score.⁴</p>	<p>Our scores have shown continued improvement with Citizens First 2 (2000), where Manitoba's rating was 53, and Citizens First 3 (2003), where Manitoba's rating was 56.</p>	<p>Manitoba Innovation Framework http://www.gov.mb.ca/est/innovation/index.html</p> <p>Visit this site to review the outcomes of Citizen First 4 http://www.gov.mb.ca/csc/servicemb/smb_gi1.html</p> <p>A potential issue with using Citizens First data is that it is unclear whether or not this measure will be available for the long term, which would require a change in this measure at a later date.</p>

⁴ This Service Quality Score is an index based on how satisfied the public is with government services. Citizens First 4 describes five main facets of client satisfaction; they are: "knowledge," "fairness," "going the extra mile," "outcome" and "timeliness." When the public experiences these in high levels, service quality scores increase.

Strategic Priority: Find the top opportunities to lever and expand Government’s ICT assets as strategically as possible to benefit Manitobans

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	Where are we starting from? (C)	What is the 2006/2007 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>Manitoba’s ability to maximize the use our Information and Communication Technology (ICT) assets by measuring the number of Public Sector entities (i.e. schools, hospitals, and crown corporations) that use the Public Sector Data Network (PSDN)⁵ as their primary network infrastructure.</p>	<p>Public sector entities that choose to become part of a larger user network will benefit from reduced costs, reliable service levels and consistent security provisions.</p>	<p>2005/06 marked our first attempt at measuring this indicator.</p> <p>At the time, 15 Education sites⁶ and all 11 of the Manitoba Health Authorities were using the PSDN under the current contract.</p>	<p>Currently 26 Education sites and all 11 of the Manitoba Health Authorities, which comprise 127 sites, are using the PSDN under the current contract. In addition Manitoba Agriculture Services Corporation (MASC) has 26 sites. The total number of PSDN sites in use for government totals 226.</p>	<p>This measure is too new to establish a meaningful trend yet; we expect the number of entities that use the PSDN to increase.</p>	<p>As access to the PSDN in the public sector broadens, the government will gain overall savings as a result of a more inclusive, robust contract that is negotiated on behalf of all public sector organizations.</p>

⁵ The Manitoba government’s Provincial Data Network (PDN) has been renamed the Public Sector Data Network (PSDN). The PSDN represents a contract for the use/sharing of ICT capabilities with other public sector entities.

⁶ We define education sites as any educational facility, such as schools or post-secondary institutions, as well as administrative offices, such as school division offices, that support educational facilities.

Strategic Priority: Help expand the development of Minerals and Petroleum industries in Manitoba

<p>Annual exploration expenditures by the minerals and petroleum exploration industries.</p>	<p>Annual exploration expenditures are the most direct indicator⁷ of the level of mineral and petroleum exploration activity in the Province. 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 annual expenditure change: \$56.5 (0.38%).</p>	<p>2007 Mineral exploration (dollar value millions) of exploration in Manitoba and percentage of Canadian exploration: \$49.5 (2.6%).</p> <p>2007 Petroleum exploration and development capital expenditures (dollar value millions) and annual expenditure change: \$175 (up 10.8%) (estimate)</p>	<p>Since 2003 there has been an upswing in the absolute amount of mineral exploration expenditures in Manitoba, coinciding with a worldwide increase in commodity process and exploration activity.</p> <p>Mineral exploration (dollar value millions) of exploration in Manitoba (annual expenditure change): 2002: \$29.8 (up 3.8%) 2003: \$27.2 (down 7.0%) 2004: \$36.0 (up 32.4%) 2005: \$43.4 (20.6%) 2006: \$48.8 (12.4%) 2007 \$49.5 (up 1.4%)</p> <p>Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba and percentage of Western Canadian Sedimentary Basin (WCBS) capital expenditures: 2002: \$56.5 (up 38.8%) 2003: \$51.8 (down 8.3%) 2004: \$64.5 (up 24.5%) 2005: \$128. 8 (up 99.6%) (estimate) 2006: \$158.0 (up 22.6%) (estimate)</p> <p>Continuing high oil prices and discovery of the Sinclair oil field in 2004 have resulted in an upward trend in exploration and development expenditures since 2003. Manitoba's share of WCSB expenditures, though relatively small, reflects the increased expenditures. Over the past 5 years, CAPP exploration and development expenditures have averaged 54% of total oil industry expenditures in Manitoba as estimated by the Department. Projections for 2006 are not available from CAPP.</p>	<p>Natural Resources Canada (NRCan) reports mineral exploration and deposit appraisal statistics for all provinces and territories at http://mmsd1.mms.nrcan.gc.ca/mmsd/exploration/default_e.asp</p> <p>Commodities attracting particular attention in the past 4 years include precious metals, diamonds, and uranium. Manitoba has gold deposits but no identified diamonds or uranium. This fact will have had an impact on the observed decrease in Manitoba's share of Canadian mineral exploration.</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>The Department conducts an annual survey of total oil industry expenditures in Manitoba.</p>
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⁷ 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.

PART B - CAPITAL INVESTMENT

Capital Investment is provided in the Estimates of Expenditures under Part B. For the year ended March 31, 2007, the department's capital authority provided for the purchase of hardware and software to provide for the development of an information technology infrastructure refresh business plan. Support for internal reform initiatives involving the use of information technology in the delivery of government's services, including the Better Systems Initiative, are reported separately.

Part B - CAPITAL INVESTMENT

Expenditures by Sub-Appropriation	Actual	Estimate	Variance Over (Under)	Expl. No.
	2006/07 \$	2006/07 FTE \$		
B.6(a) – Desktop Managed Environment	3,990.8	4,000.0	(9.2)	
B.6(b) – Other Information Technology Projects	293.7	514.0	(220.3)	1
B.6(c) – Enterprise System	3,297.5	3,475.0	(177.5)	
B.6(d) – Corporate Information Technology Projects	1,786.3	1,800.0	(13.7)	
Total Capital	9,368.3			

1. Expenditures lower than budgeted as Application Development Tooling Software and the Network Management Tool did not proceed.

APPENDIX A

ASSOCIATED AGENCIES, COMMISSIONS and COUNCILS

GREEN MANITOBA ECO SOLUTIONS

Green Manitoba Eco Solutions is a special operating agency of the Department of Science, Technology, Energy and Mines. The Department supports

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Science, Technology, 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 Science, Technology, Energy and Mines. MERLIN 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.

MANITOBA GAMING CONTROL COMMISSION

The Manitoba Gaming Control Commission is an independent commission created to regulate and control gaming activity in the Province of Manitoba with the aim of ensuring that the gaming activity is conducted honestly, with integrity and in the public interest. Manitoba Gaming Control Commission tables its annual report under separate cover with the Manitoba Legislature.

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.

APPENDIX B

FINANCIAL INFORMATION

Science, Technology, Energy and Mines
Summary of Business Assistance
2006/2007 Fiscal Year

MANITOBA CENTRES OF EXCELLENCE FUND	655,800.00
MANITOBA RESEARCH AND INNOVATION FUND	13,547,600.00
LESS: RECOVERABLE FROM URBAN DEVELOPMENT	(750,000.00)
TRANSFER PAYMENTS	4,308,600.00
MINERAL INDUSTRY SUPPORT PROGRAMS:	
Mineral Exploration Assistance Program	2,099,679.98
Manitoba Prospectors' Assistance Program	<u>47,468.30</u>
	<u>\$19,909,914.28</u>

APPENDIX C

MINERAL RESOURCES DIVISION PUBLICATIONS

Geoscientific Papers

GP2006-1

New uranium-lead geochronology results from the Lynn Lake greenstone belt, Manitoba (NTS 64C11–16) / by C.J. Beaumont-Smith, N. Machado and D.C. Peck (11 p. includes 5 figures and 4 tables)

Geoscientific Reports

GR2006-1

Geology of the Thompson Bay–Persian Lake area, North Arm, Athapapuskow Lake, Manitoba (NTS 63K12NE) / by D.E. Prouse (includes 9 figures, 2 tables of analytical data and 1 colour map, scale 1:10 000)

Open File Reports

OF 2006-1

Humus sampling in the Mayville Igneous Complex, southeastern Manitoba (NTS 52L12): using the mobility of palladium in aqueous surficial environments as a guide to nickel–copper–platinum group element mineralization / by P. Theyer (includes 2 figures and 1 table)

OF 2006-2

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Muhigan Lake (NTS 63J/10), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-3

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Pakwa Lake (NTS 63J/15), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-4

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Halfway Lake (NTS 630/01), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-5

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Pistol Lake (NTS 630/02), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-6

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Wimipedi River (NTS 630/06), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-7

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Tullibee Lake (NTS 630/07), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-8

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Hambone Lake (NTS 630/08), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-9

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Ospwagan Lake (NTS 630/09), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-10

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Wuskwatim Lake (NTS 630/10), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-11

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Nelson House (NTS 630/15), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-12

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Noble Lake (NTS 630/16), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-13

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Thompson (NTS 63P/12), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-14

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Mystery Lake (NTS 63P/13), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-15

Residual total magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Harding Lake (NTS 64B/01), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-16

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Muhigan Lake (NTS 63J/10), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-17

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Pakwa Lake (NTS 63J/15), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-18

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Halfway Lake (NTS 63O01), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-19

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Pistol Lake (NTS 63O02), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-20

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Wimipedi River (NTS 63O06), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-21

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Tullibee Lake (NTS 63O07), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-22

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Hambone Lake (NTS 63O08), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-23

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Ospwagan Lake (NTS 63O09), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-24

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Wuskwatim Lake (NTS 63O10), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-25

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Nelson House (NTS 63O15), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-26

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Noble Lake (NTS 63O16), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-27

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Thompson (NTS 63P/12), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-28

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Mystery Lake (NTS 63P/13), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-29

First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Harding Lake (NTS 64B/01), Manitoba / by M. Coyle and F. Kiss (scale 1:50 000)

OF 2006-30

GIS compilation of geology and tectonostratigraphic assemblages, western Uchi Subprovince, western Superior Province, Ontario and Manitoba / by D.R. Lemkow, M. Sanborn-Barrie, A.H. Bailes, J.A. Percival, N. Rogers, T. Skulski, S.D. Anderson, K.Y. Tomlinson, V. McNicoll, J.R. Parker, J.B. Whalen, P. Hollings, M. Young (1 CD-ROM)

OF 2006-31

Reinterpretation of Falconbridge Limited drillcore from the southern part of the exposed Thompson Nickel Belt, Manitoba (parts of NTS 63J, O, P and 64A) / by C.R. McGregor, J.J. Macek and H.V. Zwanzig (1 DVD)

OF 2006-32

Bedrock geology of the Gull Rapids area, Manitoba (part of NTS 54D6) / by C.O. Böhm, M.S. Bowerman and M.W. Downey (1 DVD)

OF 2006-33

Thompson Nickel Belt geological compilation map, Manitoba (parts of NTS 63G, J, O, P and 64A and B) / by J.J. Macek, H.V. Zwanzig and M. Pacey (1 CD-ROM)

OF 2006-34

Manitoba Geochronology Database / by Manitoba Geological Survey (Digital Web Release only)

Geoscientific Maps

MAP2006-1

Aggregate resources in the Rural Municipality of Grahamdale, Manitoba / by H.D. Groom (scale 1:100 000)

Surficial Geology Compilation Map Series

SG-CMS

Surficial Geology Compilation Map Series of Manitoba / by G.L.D. Matile and G.R. Keller (1 DVD, scale 1:250 000 and 500 000)

Petroleum Reports and Maps

Crown Oil and Natural Gas Rights Map (scale 1:125 000)

Pool Location Map (1:125 000)

Well Location Map (1:125 000)

Preliminary Maps

PMAP2006-1

Geology of the Schist Lake–Mandy mines area, Flin Flon, Manitoba (parts of NTS 63K12) / by R.-L. Simard (scale 1:5000)

PMAP2006-2

Bedrock geology of the Bear Lake area, Manitoba (parts of NTS 53M4 and 63P1) / by C.O. Böhm and R.P. Hartlaub (scale 1:50 000)

PMAP2006-3

Revised geology of the Wuskwatim–Threepoint lakes area, Manitoba (NTS 63O10 and parts of 63O11) / by H.V. Zwanzig, J.A. Percival and L. Murphy (scale 1:50 000)

PMAP2006-4

Quaternary bedrock geology of the Kasmere Lake area, Manitoba (NTS 64N11 and parts of NTS 64N6) / by C.O. Böhm and S.D. Anderson (scale 1:50 000)

PMAP2006-5

Bedrock geology of the Putahow Lake area, Manitoba (NTS 64N15) / by S.D. Anderson and C.O. Böhm (scale 1:50 000)

PMAP2006-6

Surficial geology of the Kasmere–Putahow lakes area, northwestern Manitoba (parts of NTS 64N10, 11, 14 and 15) / by G.L.D. Matile (scale 1:50 000)

PMAP2006-7

Geology and structure of the Garner Lake–Gem Lake area, Rice Lake greenstone belt, Manitoba (NTS 52L11 and 14) / by S.D. Anderson (scale 1:20 000)

PMAP2006-8

Geology of the east-central part of the Bird River area, Manitoba (NTS 52L6N) / by H.P. Gilbert (scale 1:20 000)

PMAP2006-9

Geology of the Bernic Lake area around the Tanco mine, Bird River greenstone belt, southeastern Manitoba (NTS 52L6) / by P.D. Kremer and S. Lin (scale 1:10 000)

PMAP2006-10

Geology of the Bird River Sill, southeastern Manitoba (part of NTS 52L5) / by C. Mealin (scale 1:50 000)

Report of Activities 2006

Annual review / by E.C. Syme, p. 1.

FLIN FLON–SNOW LAKE

GS-1 Geology of the Schist Lake–Mandy mines area, Flin Flon, Manitoba (part of NTS 63K12) / by R.-L. Simard, p. 9.

GS-2 Stratigraphic subdivision of the Hidden and Louis formations, Flin Flon, Manitoba (NTS 63K16SW) / by Y.M. DeWolfe and H.L. Gibson, p. 22.

GS-3 Wonderland gabbro: U-Pb age and geological implications, Manitoba (NTS 63K12NE) / by A.H. Bailes and P. Theyer, p. 35.

GS-4 Metallogenic and metamorphic study of selected deposits from the Snow Lake area and the southern flank of the Kiseynew Domain, Manitoba (NTS 63K16 and 63N2) / by S. Gagné, C.J. Beaumont-Smith, A.E. Williams-Jones and A. Hynes, p. 42.

GS-5 Igneous carbonate-rich rocks from the south Wekusko Lake area, Manitoba (parts of NTS 63K9 and 63J12): a kimberlite-carbonatite dilemma / by A. Chakhmouradian, C.O. Böhm and J.K. Greville, p. 49.

GS-6 Activities of the Manitoba Geological Survey's Flin Flon regional office / by T.H. Heine, p. 63.

SUPERIOR PROVINCE

GS-7 Preliminary results from geological mapping of the Bear Lake greenstone belt, Manitoba (parts of NTS 53M4 and 63P1) / by R.P. Hartlaub and C.O. Böhm, p. 65.

SUPERIOR BOUNDARY ZONE, THOMPSON NICKEL BELT

GS-8 New tectonostratigraphic framework for the northeastern Kiseynew Domain, Manitoba (parts of NTS 63O) / by J.A. Percival, H.V. Zwanzig and N. Rayner, p. 74.

GS-9 Thompson Nickel Belt-type units in the northeastern Kiseynew Domain, Manitoba (parts of NTS 63O) / by H.V. Zwanzig, L. Murphy, J.A. Percival, J.B. Whalen and N. Rayner, p. 85.

GS-10 Regional granulite-facies metamorphism in the northeastern Kiseynew Domain, Manitoba (parts of NTS 63O) / by M.L. Growdon, J.A. Percival, N. Rayner and L. Murphy, p. 104.

GS-11 Detrital zircon provenance of the Pipe Formation, Ospwagan Group, Thompson Nickel Belt, Manitoba, NTS 63O8 / by N. Rayner, H.V. Zwanzig and J.A. Percival, p. 116.

GS-12 Preliminary field observations of regional metamorphism in the Thompson Nickel Belt, Manitoba (parts of NTS 63J15, 63O1 and 2, 63O8 and 9, 63P12 and 13) / by C.G. Couëslan, D.R.M. Pattison and J.J. Macek, p. 125.

FAR NORTH

GS-13 Preliminary results from geological bedrock mapping of the Kasmere and Putahow lakes areas, northwestern Manitoba (parts of NTS 64N6, 10, 11 and 15) / by C.O. Böhm and S.D. Anderson, p. 136.

GS-14 Surficial geological investigations in the Kasmere-Putahow lakes area, northwestern Manitoba (parts of NTS 64N10, 11, 14 and 15) / by G.L.D. Matile, p. 148.

SOUTHEASTERN MANITOBA

GS-15 Update and economic significance of geological mapping in the Garner-Gem lakes area, Rice Lake greenstone belt, southeastern Manitoba (NTS 52L11 and 14) / by S.D. Anderson, p. 155

GS-16 Geology and structure of the Bird River Belt, southeastern Manitoba (NTS 52L5 and 6) / by M. Duguet, H.P. Gilbert, M.T. Corkery and S. Lin p 170.

GS-17 Geological investigations in the Bird River area, southeastern Manitoba (parts of NTS 52L5N and 6) / by H.P. Gilbert, p. 184.

GS-18 Structural geology of the Bernic Lake area, Bird River greenstone belt, southeastern Manitoba (NTS 52L6): implications for rare element pegmatite emplacement / by P.D. Kremer and S. Lin, p. 206.

GS-19 Geological investigations in the Bird River Sill, southeastern Manitoba (part of NTS 52L5): geology and preliminary geochemical results / by C.A. Mealin, p. 214.

GS-20 Hydrological dynamics in the Winnipeg River basin, Manitoba / by S. St. George, p. 226.

GS-21 Revegetation of tailings at the Gunnar minesite, Manitoba (NTS 52L14): preliminary observations on plant growth in tailings amended with paper-mill sludge / by S. Renault, C. Nakata, A. Sabra, L. Davis and D. Overton, p. 231.

SOUTHWESTERN MANITOBA

GS-22 Aggregate resources in the Rural Municipality of Ste. Rose, Manitoba (NTS 62J13 and 14, 62O3 and 4) / by H.D. Groom, p. 234.

MANITOBA GENERAL

GS-23 Summary of investigations for the Sedimentary and Industrial Minerals Section, Manitoba Geological Survey / by R.K. Bezys, p. 240.

GS-24 Manitoba Geological Survey's Stratigraphic Corehole Drilling Program, 2006 (parts of NTS 62N16 and 63C1) / by J.D. Bamburak, p. 246.

GS-25 Manitoba's Precambrian Drillcore Libraries Program / by D.E. Prouse, p. 253.

GS-26 Manitoba Mineral Deposits Database / by T.H. Heine, p. 255.

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Breathing New Life into the Lynn Lake Nickel Mine / by Danniël Oosterman (Independent Nickel Corp.), p. 43.

Condition and Hazard Evaluation of Crown Owned Inactive Mine Sites in Manitoba / by Caius Priscu (AMEC Earth & Environmental Limited), p. 43.

Crowflight Minerals Inc. – Canada's Next Nickel Producer / by Tom Atkins (Crowflight Minerals Inc.), p. 43.

Developing Certifiable Mining Skills / by Rod Bushie (San Gold Corporation), p. 43.

Development of Indicator Mineral Methods for Ni-Cu-PGE Exploration: Thompson Nickel Belt Test Site / by Beth McClenaghan (Geological Survey of Canada), p. 44.

Duty to Consult / by Lisa Chartrand (Chartrand Consulting), p. 44.

Environmental Assessment and Remediation of the Former East Tailings Management Area – Lynn Lake, Manitoba / by Tom Wingrove (UMA Engineering Ltd.), p. 44.

Exploration Adding Value / by Nick Sheard (CRVD Inco), p. 44.

Improving Kimberlite Detectability Through Innovation / by Paulo Pereira (De Beers Canada Corporation), p. 45.

Inwood Magnesium Project / by Ryan Cooke (Gossan Resources Limited), p. 45.

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New Exploration Targets in Sub-Burntwood Strata, Wuskwatim Lake-Nelson House Region: Initial TGI III Geological-Geophysical Results / by Dr. John Percival (Geological Survey of Canada), Herman Zwanzig (Manitoba Geological Survey), Nicole Rayner (Geological Survey of Canada), and Linda Murphy (Manitoba Geological Survey), p. 46.

New Results from Geoscientific Investigations in the Far North of Manitoba / by Christian O. Böhm, Gaywood L.D. Matile and Scott D. Anderson (Manitoba Geological Survey), p. 46.

Nuinsco Resources: Focused on Production, Driven by Exploration / by Brian Robertson (Nuinsco Resources Limited), p. 46.

San Gold Corporation – Canada and Manitoba's Newest Gold Producer / by Dale Ginn (San Gold Corporation), p. 46.

"The Good, The Bad and The Ugly" - The Effects of Abandoned Mines on a Community / by Audie Dulewich (Town of Lynn Lake), p. 46.

The TGI-3 Flin Flon Project: A New Initiative to Support Base-Metal Reliant Communities of the Flin Flon-Glennie-Lynn Lake District / by Sally Pehrsson (Geological Survey of Canada), p. 46.

Thirty-five Years of MGS Mapping in the Thompson Nickel Belt: Tracking the Ospwagan Group and Ultramafic Bodies / by Herman Zwanzig and Josef Macek (Manitoba Geological Survey), p. 47.

Towards a New Stratigraphy of the Bird River Greenstone Belt, Southeastern Manitoba / by Paul Gilbert (Manitoba Geological Survey), p. 47.

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Lemkow, D. R., Sanborn-Barrie, M., Bailes, A. H., Percival, J. A., Rogers, N., Skulski, T., Anderson, S. D., Tomlinson, K. Y., McNicoll, V., Parker, J. R., Whalen, J. B., Hollings, P. and Young, M. 2006: GIS compilation of geology and tectonostratigraphic assemblages, western Uchi Subprovince, western Superior Province, Ontario and Manitoba; Geological Survey of Canada, Open File 5269.

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Miscellaneous Publications

- Manitoba Mining & Minerals Convention 2007 lure piece
- Manitoba Mining & Minerals Convention 2006 Registration Guide
- Manitoba Mining & Minerals Convention 2006 Program
- Exploration Activity Map 2006 – fact sheet
- Provincial Mining Week 2006 – flyer
- Manitoba report for *Overview of trends in Canadian mineral exploration 2006*
- *Manitoba—Your Exploration Advantage: highlights from the 2006 Manitoba Mining and Minerals Convention* – article for the *Keystone Professional* and the *Mid-Canada Forestry & Mining magazine*
- *Manitoba exploration and development highlights 2006* – article published in the *Northern Prospector*, *Manitoba Mining Review*, *CIM Magazine*, *The Northern Miner*, *Manitoba Business Magazine* and *SEG newsletter*
- *Community Prosperity through Mining* – article for *Grassroots News*
- *Mining exploration growing in Northern Manitoba* – article for Manitoba Aboriginal and Northern Affairs *Community Contact* newsletter
- *2006 Provincial Mining Week* – article for *Grassroots News*
- *A Primer on the aggregate mining Industry* – article for *Municipal Leader: the magazine of the Association of Manitoba Municipalities*

New Web Site Documents/Applications

- Orphaned/Abandoned Mine Site Rehabilitation
- Publication Sales (new releases of geological reports and maps)
- Report of Activities 2006
- Provincial Mining Week 2006
- 2006 Exploration Activity Map
- 2006 Exploration and Development Highlights
- 2006 Manitoba Mining and Minerals Convention
- GIS Map Gallery – new data includes Surficial Geology Compilation Map Series; new petroleum data includes Technical Well Files and 2007 Pool Location Map
- Manitoba Crown Oil and Gas Lease Sale Statistics (1979-2007)
- Manitoba Designated Fields and Pools – 2007
- Petroleum News Release Index Page
- Well Production Submission Form
- Petroleum Free Downloads Page
- Oil Activity Review