

**Manitoba Sustainable Development**

**Développement durable Manitoba**

**Annual Report  
2016-2017**

**Rapport annuel  
2016-2017**

**Manitoba** 

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**MINISTER OF  
SUSTAINABLE DEVELOPMENT**

Legislative Building  
Winnipeg, Manitoba, CANADA  
R3C 0V8

The Honourable Mrs. Janice C. Filmon, C.M., O.M.  
Lieutenant Governor of Manitoba  
Room 235 Legislative Building  
Winnipeg, Manitoba R3C 0V8

Your Honour:

It is my privilege to present you with the Annual Report for Manitoba Sustainable Development for the fiscal year ending March 31, 2017.

The Annual Report highlights the department's key accomplishments and partnership initiatives with business and communities in support of our mandate to protect the environment while meeting the goals of sustainable development.

I trust the information in this report demonstrates the department's commitment to sustaining and conserving Manitoba's diverse ecosystems and natural resources for today and for future generations.

Respectfully submitted,

*"Original signed by"*

Rochelle Squires  
Minister of Sustainable Development





The Honourable Rochelle Squires  
Minister of Sustainable Development  
Room 344, Legislative Building  
Winnipeg, Manitoba R3C 0V8

Dear Minister

I am pleased to present you with the Annual Report for Manitoba Sustainable Development for the period of April 1, 2016 to March 31, 2017.

Working in partnership with businesses, communities and the public, the department remains committed to delivering quality programs and services to protect the environment while sustaining and conserving Manitoba's diverse ecosystems and natural resources.

The Annual Report provides an overview of the activities of the department intended to foster sustainable economic development and highlights program objectives, key results and performance measures.

Respectfully submitted,

*"Original signed by"*

Rob Olson  
Deputy Minister





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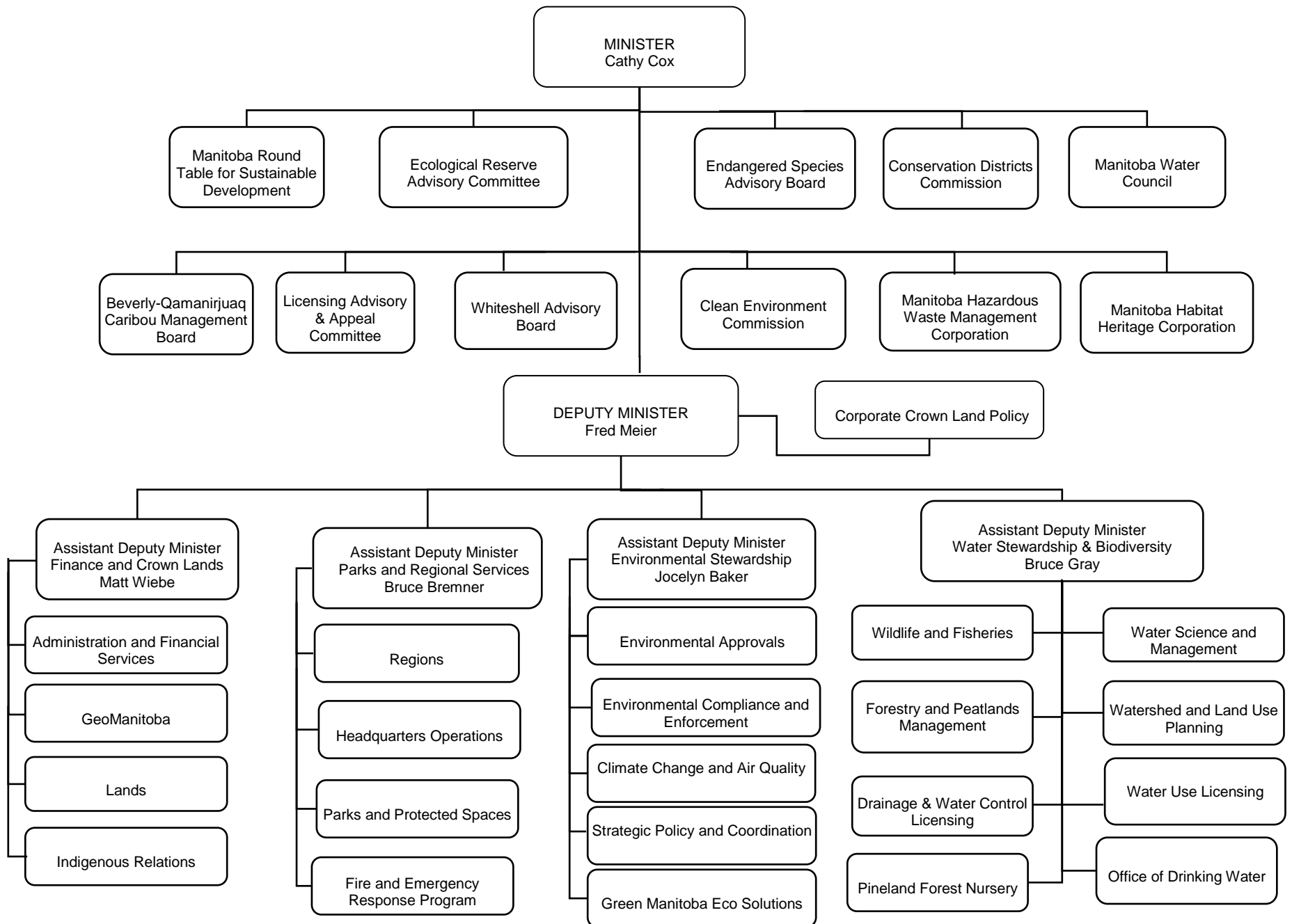
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# Manitoba Sustainable Development Organizational Chart as at March 31, 2017



# Highlights

## Finance and Crown Lands

- Enhanced the department approach to analyzing existing operations and expanded a Lean Management practice across the organization as a means to realize productivity efficiencies and improved services. A sample of department-wide processes reviewed include those related to Indigenous Community Consultation Funding, FIPPA and Contracts and Agreements.
- Issued survey instructions/examined plans of survey for approval on surveys for the disposition of Manitoba Crown lands. This included the approval of 112 Treaty Land Entitlement (TLE) selection sites.
- Achieved \$1,022,973.21 in cost recoveries for survey services to provincial government departments and agencies.
- Participated on the Institute of Public Administration of Canada (IPAC) Manitoba Board of Directors and led committee work involving reconciliation events. This work received the national IPAC Regional Group Excellence Award for 2016-17.

## Parks and Regional Services Division:

- Worked with the Wildlife and Fisheries Branch, Policy Branch and Manitoba Justice on a Crown-Aboriginal Consultation process with First Nations regarding night hunting. Conservation Officers increased fall patrol efforts to aid in the provincial mandate to reduce night hunting and dangerous hunting activities.
- Regional staff attended a meeting of the Big Game Surveys Committee and submitted a proposal, which was approved, to support a population survey of Qamanirjuaq barren ground caribou.
- Workshops were held in multiple Indigenous communities to discuss moose management and the creation of a regional moose co-management committee.
- The Central Region Integrated Resource Management Team (IRMT) developed an Indigenous Engagement Strategy in 2016, to provide direction to staff throughout the region to encourage engagement with Indigenous communities.
- Two park reserves, Goose Islands and Grand Island, were designated again as park reserves in December 2016 for a six month period with the intention of conducting further public consultations on proposals to designate the park reserves as provincial parks
- In July 2016 the province of Manitoba announced a regulated two-year moratorium on previously projected increases to park land lease and service fees for cottages in provincial parks
- Central Region wildlife staff completed a population survey for moose which was approved by the Provincial Big Game Management Committee. Results from these surveys allowed wildlife staff to monitor the current population of moose in the area and provided important information for regulatory and co-management considerations.
- Central Region wildlife staff assisted the Wildlife Branch in conducting a disease surveillance survey for cervids. Results helped the Wildlife Branch monitor for Chronic Wasting Disease and Bovine Tuberculosis and assisted in proactive management measures.
- Working with the Lake Manitoba Commercial Fisherman's Association, the department implemented a moratorium on the 3-inch fishery mesh for two years.

### **Environmental Stewardship Division:**

- Economic Development Council for Manitoba Bilingual Municipalities, Eco-West and the Association of Manitoba Municipalities were each approved \$50,000.00 to create greenhouse gas inventories, develop local climate action plans, enhance capacity at the local level, implement greenhouse gas reduction projects, and reduce emissions from landfill operations. Eco-West is an initiative of the Economic Development Council for Manitoba Bilingual Municipalities and is aiding rural municipalities to identify strategic infrastructure investments to enhance their resiliency to climate change
- Oversaw and monitored implementation of government mandate items, including providing strategic policy support to lead branches. The mandate related work of the branch focused on Alternative Land Use Services model and watershed based planning; the development of co-management strategies; safe hunting; and commercial fisheries certification.
- Monitored and participated in strategic discussions and negotiations related to federal, provincial, territorial, regional, and international climate change policy, including:
  - Participated in the Pan Canadian Framework development
  - Represented Manitoba on Canadian Council of Ministers for the Environment – Climate Change committee, and its subcommittees
  - Partnered with Natural Resources Canada and the Prairie Provinces through the Prairies Region Adaptation Collaborative to investigate the impacts of climate change and enhanced capacity for climate adaptation planning processes.

### **Water Stewardship and Biodiversity Division:**

- The Wildlife Section partnered with Memorial University of Newfoundland, Manitoba Hydro and the University of Manitoba on a research program aimed at understanding the potential impacts of wolf predation on moose populations in Manitoba.
- A wildlife encounter safety training program was developed to reduce the risk of dangerous wildlife encounters, particularly for people working or recreating in remote areas.
- The Biodiversity Unit collaborated on research activities into the development of an innovative “headstarting” program to raise Poweshiek Skipperling butterflies in captivity and release them to augment existing populations.
- A new Invasive Species Campaign was developed under the "Stop the Spread" umbrella banner with the message “Spot the Stripes” to increase awareness of the risk of zebra mussels and other aquatic invasive species "Protect Manitoba's Trees - Don't Move Firewood" to increase awareness of the risk of emerald ash borer and other harmful forest pests.
- The Aquatic Invasive Species program carried out over five thousand watercraft inspections at high risk areas of the province that resulted in 357 decontaminations of suspect watercraft. Only one new detection of a single zebra mussel specimen was detected (Singush Lake) through the lake monitoring program took extensive samples at 67 non-infested water bodies. Current zebra mussel infested waters are the Red River, Lake Winnipeg, and Cedar Lake.
- The new Groundwater and Water Well Act and supporting General Matters and Well Standards regulations came into force on January 1, 2017.
- Three well water educational videos on how to test well water, how to reduce risk of contamination, and how to disinfect a well were added to the departmental website, in support of the private water system program that is primarily used by rural homeowners throughout Manitoba.
- An enhanced Manitoba Drought Monitor website ([www.manitoba.ca/drought](http://www.manitoba.ca/drought)) was launched to provide up-to-date drought information to residents, stakeholders and across government on current drought conditions.

# Faits saillants

## Division des finances et des terres domaniales

- Amélioration de l'approche appliquée par le ministère pour analyser les activités existantes et élargissement d'une pratique de gestion allégée à l'échelle de l'organisation afin de réaliser des gains de productivité et d'améliorer les services. Dans l'échantillon des processus ministériels examinés figuraient ceux liés au financement des consultations avec les collectivités autochtones, à la *Loi sur l'accès à l'information et la protection de la vie privée* (LAIPVP) et aux contrats et ententes.
- Publication d'instructions d'arpentage et examen de plans d'arpentage en vue de leur approbation pour les levés liés à l'aliénation de terres domaniales du Manitoba. Cela comprenait l'approbation de 112 sites de sélection fondés sur des droits fonciers issus des traités (DFIT).
- Recouvrement de 1 022 973,21 \$ pour les coûts des services de levés réalisés pour le compte de ministères et d'organismes provinciaux.
- Participation au conseil d'administration de l'Institut d'administration publique du Canada (IAPC) Manitoba et direction des travaux réalisés en comité sur les événements de réconciliation. Ces travaux se sont vu attribuer le prix d'excellence Groupes régionaux de l'IAPC (échelon national) pour 2016-2017.

## Division des parcs et des services régionaux

- Collaboration avec la Direction de la faune et de la pêche, la Direction de la politique et le ministère de la Justice dans le cadre d'un processus de consultation entre la Couronne et les collectivités autochtones concernant la chasse nocturne avec les Premières Nations. Les agents préposés à la conservation ont intensifié leurs patrouilles automnales afin de contribuer au mandat provincial visant à réduire la chasse nocturne et les activités de chasse dangereuses.
- Des membres du personnel régional ont assisté à une réunion du comité relatif aux enquêtes sur le gros gibier et présenté une proposition, qui a été approuvée, en vue de soutenir une enquête sur les populations de caribous de la toundra de Qamanirjuaq.
- Des ateliers ont été organisés dans un certain nombre de collectivités autochtones pour débattre de la gestion de l'original et de la création d'un comité régional de cogestion de l'original.
- L'équipe de gestion intégrée de la ressource de la région du Centre a élaboré en 2016 une stratégie de participation des Autochtones afin d'orienter le personnel de toute la région dans ses efforts pour encourager la mobilisation des collectivités autochtones.
- Deux réserves de parc, celles des Îles-Goose et de l'Île-Grand, ont de nouveau obtenu en décembre 2016 la désignation de réserves de parc pour une période de six mois, avec l'intention de mener des consultations publiques supplémentaires sur les propositions visant à attribuer aux réserves de parc la désignation de parcs provinciaux.
- En juillet 2016, la province du Manitoba a annoncé un moratoire réglementé de deux ans sur les augmentations prévues antérieurement des droits de location de terres et des frais de service pour les chalets situés dans les parcs provinciaux.
- Le personnel chargé de la faune dans la région du Centre a réalisé une enquête sur les populations d'originaux qui a été approuvée par le comité provincial de gestion du gros gibier. Les résultats de cette enquête ont permis au personnel de surveiller la population actuelle d'originaux dans la région et ont fourni de l'information importante pour les questions associées à la réglementation et à la cogestion.
- Le personnel chargé de la faune dans la région du Centre a aidé la Direction de la faune en réalisant une enquête de surveillance consacrée aux maladies des cervidés. Les résultats ont aidé la Direction de la faune à

suivre la maladie du dépérissement chronique et la tuberculose bovine et ont alimenté la prise de mesures de gestion proactives.

- En collaboration avec la Lake Manitoba Commercial Fisherman's Association, le ministère a mis en place un moratoire de deux ans sur la pêche avec des filets à mailles de 3 pouces.

### **Division de la gérance de l'environnement**

- Le Conseil de développement économique des municipalités bilingues du Manitoba, ÉcoOuest et l'Association des municipalités du Manitoba ont chacun approuvé le versement de 50 000,00 \$ pour établir des inventaires de gaz à effet de serre, élaborer des plans d'action locaux liés au climat, renforcer les capacités à l'échelon local, mettre en œuvre des projets de réduction des gaz à effet de serre et réduire les émissions provenant des activités d'enfouissement des déchets. ÉcoOuest est une initiative du Conseil de développement économique des municipalités bilingues du Manitoba qui aide les municipalités rurales à établir des investissements d'infrastructures stratégiques permettant de renforcer leur résilience face au changement climatique.
- Supervision et surveillance de la mise en œuvre de certains éléments du mandat gouvernemental, notamment en apportant du soutien en politiques stratégiques aux principales directions. Le travail de la Direction lié au mandat se centrait sur un modèle de services d'utilisation plus rationnelle des terres et la planification au niveau des bassins versants, sur l'élaboration de stratégies de cogestion, sur la chasse sécuritaire et sur l'agrément des pêches commerciales.
- Surveillance des discussions et des négociations stratégiques liées aux politiques fédérales, provinciales, territoriales, régionales et internationales en matière de changement climatique et participation à ces discussions et négociations, notamment :
  - participation à l'élaboration du Cadre pancanadien;
  - représentation du Manitoba au sein du Comité des changements climatiques du Conseil canadien des ministres de l'Environnement et de ses sous-comités;
  - association avec Ressources naturelles Canada et les provinces des Prairies par l'entremise de l'organisme Prairies Region Adaptation Collaborative pour étudier les incidences du changement climatique et l'accroissement des capacités dans le cadre des processus de planification de l'adaptation au climat.

### **Division de la gestion des ressources hydriques et de la biodiversité**

- La Section de la faune s'est associée à la Memorial University of Newfoundland, à Manitoba Hydro et à l'Université du Manitoba pour un programme de recherche visant à comprendre les effets possibles de la prédation des populations d'originaux par les loups au Manitoba.
- Un programme de formation à la sécurité liée aux rencontres avec des espèces sauvages a été mis au point afin de réduire le risque de rencontres avec des animaux dangereux, en particulier pour les gens qui travaillent ou sont en vacances dans des régions éloignées.
- La Section de la biodiversité a collaboré à des activités de recherche sur l'élaboration d'un programme novateur « bon départ » visant à élever en captivité des papillons de l'espèce hespérie de Poweshiek pour les libérer ensuite afin d'accroître les populations existantes.
- Une nouvelle campagne contre les espèces envahissantes a été élaborée sous le thème « Mettez fin à la propagation » avec le message « Repérez les rayures » afin de renforcer la sensibilisation au risque lié aux moules zébrées et à d'autres espèces envahissantes. La campagne « Protégez les arbres du Manitoba – Ne déplacez pas le bois de chauffage » a été mise au point afin d'accroître la sensibilisation au risque lié à l'agrile du frêne et à d'autres ravageurs forestiers.
- Le Programme de lutte contre les espèces aquatiques envahissantes a mené plus de 5 000 inspections d'embarcations dans des zones à haut risque de la province, avec pour résultats 357 décontaminations d'embarcations suspectes. Un seul nouveau cas comptant un seul spécimen de moule zébrée a été détecté (au lac Singush) dans le cadre du programme de surveillance des lacs, alors que de nombreux

échantillons ont été prélevés dans 67 plans d'eau non infestés. Les plans d'eau actuellement infestés de moules zébrées sont la rivière Rouge, le lac Winnipeg et le lac Cedar.

- La nouvelle *Loi sur les eaux souterraines et les puits* et son règlement d'application *Règlement général sur les eaux souterraines et les puits d'eau* sont entrés en vigueur le 1<sup>er</sup> janvier 2017.
- Trois vidéos éducatives sur les puits d'eau, qui montrent les voies à suivre pour analyser l'eau des puits, réduire le risque de contamination et désinfecter un puits, ont été ajoutées sur le site Web du ministère, à l'appui du programme relatif aux réseaux d'eau privés utilisé principalement par les propriétaires ruraux dans tout le Manitoba.
- Un site Web amélioré consacré à la surveillance de la sécheresse au Manitoba a été lancé (en anglais seulement à [www.manitoba.ca/drought](http://www.manitoba.ca/drought)) pour donner de l'information à jour aux résidents, aux autres parties intéressées et à tous les paliers de gouvernement sur les conditions de sécheresse du moment.



## FINANCE AND CROWN LANDS

The Finance and Crown Lands Division provides executive management of programs and management services, including financial, information services, administrative support, comptrollership function for the department, planning and policy development, management of Crown land and related programs, facilitation of the engagement of Indigenous people in the department's activities, and stewardship of Manitoba's shared geospatial technology and information assets.

### Minister's Salary

The Minister's salary provides the Minister with additional compensation to which an individual appointed to Executive Council is entitled.

**Table AF.1**  
**12.1(a) Minister's Salary**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	51	1.00	51	0	
<b>Total 12.1(a)</b>	<b>51</b>	<b>1.00</b>	<b>51</b>	<b>0</b>	

### Executive Support

This area comprises support staff in the offices of the Minister and Deputy Minister of Sustainable Development.

The purpose of Executive Support is to develop, implement and oversee policies and programs that are designed to attain, over the long term, the goals set in the department's vision and mission statements; advise the Minister on matters relating to the department; provide policy direction for departmental programs; coordinate departmental communications, activities, and initiatives; and provide administrative support for the offices of the Minister and Deputy Minister.

**Table AF.2**  
**12.1(b) Executive Support**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	737	8.00	684	53	
Other Expenditures	115		182	(67)	
<b>Total 12.1(b)</b>	<b>852</b>	<b>8.00</b>	<b>866</b>	<b>(14)</b>	

## Administrative and Financial Services

Administrative and Financial Services is comprised of the following sections:

- Administration and Comptrollership
  - Process Improvement and Technology Unit
  - Shared Services and Risk Management Unit
- Financial Services

Administration provides executive, financial and administrative direction, advice, guidance and leadership to the department.

The Process Improvement and Technology Unit is responsible for the implementation of technology solutions and business processes, including lean and continuous improvement initiatives.

The Shared Services and Risk Management Unit is responsible for information services including public information, library services and access to information under *The Freedom of Information and Protection of Privacy Act* (FIPPA), fleet vehicle coordination, office accommodation, parking administration, records management, the delivery of the Safety, Health and Risk Management program, coordination of business continuity planning, accessibility and French language services.

Financial Services develops, communicates, monitors and evaluates departmental financial policies, systems, and procedures to ensure the effective, efficient and economical operation of departmental financial functions in compliance with requirements of the department, Treasury Board, the department of Finance and the Office of the Auditor General. It is also responsible for the comptrollership function for the department as it relates to procurement, contracts and grants providing direction, advice, guidance and oversight. Financial Services' scope of activities includes processing payments and revenue receipts, accounting, financial planning, internal reporting, auditing and review, budgeting exercises, capital planning, inventory and licencing. Financial Services is also responsible for the oversight of the warehouse which is the equipment/supply storage and mobilization point for branches and the Fire Operations Centre. In emergencies, such as fire and flood, the warehouse becomes the logistical support base for all equipment.

### Key Results Achieved:

- Enhanced the department approach to analyzing existing operations and expanded a Lean management practice across the organization as a means to realize productivity efficiencies and improved services. A sample of department-wide processes reviewed include those related to Indigenous Community Consultation Funding, FIPPA and Contracts and Agreements. These processes were revised and redefined so as to produce deliverables quicker with less red-tape.
- Detailed information regarding *The Freedom of Information and Protection of Privacy Act*, including information specific to Sustainable Development, can be found in the FIPPA Annual Report at: [http://www.gov.mb.ca/chc/fippa/annual\\_reports/pdf/2015\\_report.pdf](http://www.gov.mb.ca/chc/fippa/annual_reports/pdf/2015_report.pdf)

**Table AF.3  
12.1(c) Administration and Financial Services**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,715	55.00	3,770	(55)	
Other Expenditures	1,224		951	273	1
<b>Total 12.1(c)</b>	<b>4,939</b>	<b>55.00</b>	<b>4,721</b>	<b>218</b>	

1. Over-expenditure is due mainly to higher legal costs related to environmental issues.

## Corporate Crown Land Policy

Reporting to the Lands Committee of Deputy Ministers, Corporate Crown Lands Policy (CCLP) provides consulting services to various departments regarding Government-wide Crown land policies and practices and legislation to ensure effective horizontal governance.

### Key Results Achieved:

- Developed and revised policies, updated documents and developed guidance materials to support the implementation of process improvements. Improvements to overall coordination and harmonization of Crown land management and administration were achieved through interpretive, analytical and developmental work in various areas such as agriculture leases on departmentally held land, disposition of surplus Provincial land policies, pricing policies related to Crown Lands and Property Agency services, sale agreements, and circulation processes.
- Provided secretariat and advisory services to the Lands Committee of Deputy Ministers and the Crown Lands Assistant Deputy Ministers Committee regarding Crown land related policies, programs, planning and legislative matters. It also maintained the respective policies and procedures manual which is used extensively by various departments and Bloc Planning Committees (BPCs) for Crown land use planning, administration and management.
- Work continued on a multi-year project involving the coordinated internal review of Crown land related policies and legislation with various departments under the general guidance of the Lands Committee of Deputy Ministers. CCLP also participated in several inter-departmental committees and working groups to represent Government interests in Crown land policy.

### Key Program Outputs:

- Review and analysis of 60 proposed sales, transfers and exchanges of Crown land were completed for consideration by the Lands Committee of Deputy Ministers prior to seeking Cabinet or Ministerial approvals.
- As Chair of the Crown Lands Assistant Deputy Ministers Committee, responded to 12 requests for review of denied applications for Crown land sales, leases and permits and reviewed 4 proposed designated areas of Crown land. The Committee also approved land use classification coding changes proposed by the regional BPCs.

**Table CLP.1  
12.1(d) Corporate Crown Land Policy**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	345	3.00	279	66	
Other Expenditures	40		16	24	
<b>Total 12.1(d)</b>	<b>385</b>	<b>3.00</b>	<b>295</b>	<b>90</b>	

## Clean Environment Commission

Under *The Environment Act*, The Clean Environment Commission (CEC) provides a mechanism through which the public can participate in environmental decision making. The Commission conducts public reviews and hearings into matters of environmental concern and provides advice and recommendations to the Minister. The Commission, while reporting directly to the Minister, is independent of the department.

The Commission issues its own Annual Report with information on its mandate and operations. Copies can be obtained from the CEC at 305 – 155 Carlton Street, Winnipeg, MB R3C 3H8. The CEC can be contacted at 204-945-0594 or toll free at 1-800-597-3556 or by fax at 204-945-0090. The CEC's web site is [www.cecmanitoba.ca](http://www.cecmanitoba.ca)

**Table CEC.1**  
**12.1(e) Clean Environment Commission**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	562	3.00	481	81	
Other Expenditures	437		515	(78)	
<b>Total 12.1(e)</b>	<b>999</b>	<b>3.00</b>	<b>996</b>	<b>3</b>	

## GeoManitoba

GeoManitoba is responsible for geospatial technology and information assets. In addition to providing surveying, remote sensing, topographic, cadastral mapping services and sales, GeoManitoba supports government's intentions to develop corporate-wide Geographic Information System (GIS) capacity, to provide a revitalized approach to support delivery, acquisition and management of geospatial information for all Manitoba government departments. This includes providing leadership in the Province's use of GIS technology and specialized geomatics capabilities, stewardship for corporate GIS datasets and to centrally coordinate the development of GIS capacity for the Province, including:

- Centralized geospatial data storage, management and dissemination (spatial data infrastructure)
- Enterprise GIS software licensing
- Corporate data acquisition such as digital ortho imagery
- Improved human resource capacity for GIS

GeoManitoba encourages and facilitates sharing of geographic and spatially linked business data between departments to enhance decision making and to add value across government. GeoManitoba also assists government departments to evolve the use of GIS and spatial management technologies in support of program objectives.

### Key Results Achieved:

- Achieved \$1,022,973.21 in cost recoveries for survey services to provincial government departments and agencies. Major clients included the departments of Infrastructure, Sustainable Development, and Indigenous and Municipal Relations.
- Received 87 legal survey requests or verification surveys of old files projects for retracement surveys and survey monument restoration, Provincial Trunk Highway (PTH) and Provincial Road (PR) public road survey plans, water control survey plans and public road closings. Notable projects included Outflow Channel PTH 15 retracement Anola to Nourse and PTH 1 East West Hawk Lake to Richer retracement.
- Prepared legal (land) descriptions for disposition of Crown land and/or interest therein – for Crown Lands and Property Agency, Mines and Petroleum Branches.

- Initiated a LEAN review of the Survey Services cost-recovery process.
- Prepared boundary plans to define the limits of administrative areas such as Wildlife Management Areas, ecological reserves, provincial parks, indigenous traditional lands and land planning areas/zones. Notable work included Goose and Grand Island Provincial Parks and Photobase Plans at Minago River for Cross Lake Band of Indians Northern Flood Agreements.
- Continued to provide marker posts to Manitoba land surveyors free of charge for protection of survey monuments of the Township Survey System (155).
- Responded to requests for land and control survey information (83).
- Issued survey instructions/examined plans of survey for approval on surveys for the disposition of Manitoba Crown lands. This included the approval of 112 Treaty Land Entitlement (TLE) selection sites. Notable projects included various TLE site surveys such as Lake Manitoba and Dauphin River First Nations acquisition lands and Bipole and Henday collector/transmission line plans.
- Updated the province wide digital parcel inventory to ensure currency of Manitoba's parcel data.
- Continued the development of a seamless digital reference grid that approximates the location of townships, sections and quarter-sections of the Dominion Government Survey System throughout southern and northern Manitoba.
- Created daily and weekly composites using National Oceanic and Atmospheric Administration (N.O.A.A) Advanced Very High Resolution Radiometer (AVHRR) satellite data for the Canadian Crop Assessment Program (CCAP) and also for the Canadian Global Change Program. This project generates \$15,000 a year in revenue.
- Mapped Woodland Caribou Habitat in Manitoba in conjunction with the Manitoba Model Forest and the Wildlife and Fisheries Branch.
- Produced land use and land cover maps of Agro-Manitoba for the Agri-Environment Services Branch. Data was also provided to the Manitoba Habitat Heritage Corporation to supplement their peat land inventory.
- Lake depth maps for lakes in Manitoba and Ontario were updated and produced to include the Universal Transverse Mercator grids and coordinates. Geographic mapping produced and provided customized mapping for the general public; private sector companies and other government agencies/departments maintained and updated the base maps of Manitoba.
- The Distribution Centre is the second largest distributor of Topographic maps in Canada, selling 18,240 maps directly or through the 150 dealers in Manitoba, Ontario and the north central United States.
- The Canadamapsales.com website received 1,245 orders from across North America and internationally. This included the sale of maps, 120 annual park passes, and 388 orders for Water & Wastewater Operator Certificates, providing the public and clients the opportunity to purchase and pay for more departmental products and services through the internet.
- A Vexcell photogrammetric scanner was used to scan air photo negatives to transition government's Air Photo Library into a digital format. In 2016/17, 1,859 air photo products were produced and sold to the general public and government agencies.
- Conducted GIS analyses and created specialty mapping products for government agencies, private and public organizations
- Created or continued web mapping services for the following: Waste management including landfills, Agriculture soils and Weather Tracking, Explored conversion of Google Fusion Table Maps to AGOL, Camps and Lodges, Aquatic Invasive Species, Commercial Fish Production, FireSmart program, Drinking Water Advisories, Flooding Information, Parks Management Plans AGOL Update, Water Supply Survey

web mapping, East Grand Beach Collector Project, Look North, Farmers Markets, Drought Monitoring Streamflow Conditions, Web mapping support to Manitoba Infrastructure for Culvert Inventory Verification, and Rural Health Care & Emergency Measures Services (EMS).

- Managed Manitoba Land Initiative and L drive updates including: Assiniboine River Valley Wetland Inventory, Designated Drains Index, Registered Traplines, Forestry 2015 Fire Data, Watersheds and Ecosystems, Big Game Surveys, Integrated Watershed Management Planning Dataset, Protected Areas, Métis Hunting Areas, Wildlife Management Areas, Treaty Land Entitlement, Conservation Districts, Ecological Reserve Boundaries, National Hydrography Network, Game Hunting Areas, and other GIS data library updates and maintenance.
- The Manitoba Land Initiative website was updated with new geospatial datasets. This site has over 18,000 registered users accessing land based data information.
- Compiled digital topographic data, topologically structured, for Forestry Branch in the Nelson River Block.
- Provided topographical data, imagery and mapping support to multiple agencies involved in compensatory land claims.
- Conducted a full review of the 1:20,000 topographic data program, including a broad stakeholder needs assessment.
- Provided topographical data, imagery and mapping support to multiple agencies involved in compensatory land claims.
- Provided mapping support to internal agencies (Manitoba Bureau of Statistics).
- Identified key opportunities to capture traditional names as part of the Manitoba Indigenous Names Project.
- Completed preliminary design of the Manitoba Open Data Portal which will provide access to open geospatial information.
- An enterprise wide inventory of spatial data was conducted in preparation of implementing a central repository with data accessibility features. Upon completion of the repository, all but sensitive data will be served through this Open Data Spatial Portal to Manitoba staff and the public.
- Re-negotiated a three year, (plus two year option) Enterprise Licence Agreement with Esri Canada for Geographic Information Systems (GIS) software and technology.
- Developed guidelines and standards for publishing applications using GIS cloud technology.

**Table GE.1**  
**12.1(f) GeoManitoba**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	2,542	48.00	3,338	(796)	
Other Expenditures	758		960	(202)	
Less: Recoverable from Other Appropriations	(1,067)		(1,621)	554	
<b>Total 12.1(f)</b>	<b>2,233</b>	<b>48.00</b>	<b>2,677</b>	<b>(444)</b>	<b>1</b>

1. Under-expenditure is due to recruitment delays, and fewer Surveys completed.

## Lands

Manitoba's boundaries encompass an area of 65 million hectares consisting of 54.8 million hectares of land and 10.2 million hectares of water. The landscape varies from prairie grassland in the south, through to broadleaf, mixed wood and boreal forest, to tundra in the north. Lake Winnipeg, Lake Manitoba and Lake Winnipegosis cover much of the areas in central Manitoba. Lake Winnipeg covers 2.4 million hectares and is the largest lake in Manitoba. It is also the 12th largest freshwater lake in the world.

Manitoba's provincial Crown lands comprise approximately 40.5 million hectares. The Branch is responsible for provincial and regional level management and control of provincial Crown lands that are governed under Branch functions also include

- Lands Operations, Management and Planning;
- Indigenous Land Program and Cottage Lot Program;
- Traditional Area Planning and World Heritage Site Nomination;
- Manitoba Geographical Names Program.

### Land Operations, Management and Planning

Responsible for managing Crown land on a provincial scale and for providing assistance and direction for the delivery of services through five regional offices by Regional Land Managers (RLM). The branch develops and ensures departmental policies and positions on various Crown land use and applications are applied. It is responsible for approving conditions for the use of Crown land and the subsequent management of conditions.

Provides expert support to the public, Indigenous communities, the Minister, executive and provincial staff on sensitive and complex matters related to Crown land and Crown land property transactions.

Ensures the review of Crown land applications takes into consideration potential adverse effects on indigenous rights including community engagement as appropriate. Acts as lead in Crown-Indigenous consultations for a variety of major projects.

Ensures ongoing and process specific continual improvement methodologies are used to identify services and processes for improvements related to Crown land management.

Engages in the province's Red Tape Reduction Initiative. Completed the baseline regulatory requirement count for our Division to assist in streamlining government operations in relation to regulatory requirements.

### Key Results Achieved:

- Consideration was given in the review of Crown land applications to the impact of a Crown decision on treaty and indigenous rights. Conducted consultation in accordance with the provincial guidelines on Crown consultations.
- Incorporated new Crown Land Sale review procedure to pre-screen Sale Applications by utilization of current Operational Land Use Codes.
- Bloc Planning Committees (BPCs) reviewed 1,053 operational land use code changes to ensure compatible long term land and resource use.
- A total of 168 reviews including municipal development plans (47), zoning by-laws (90), road opening and closings and other municipal reviews (31) were conducted.
- A total of 1,126 applications, including requests for Crown land allocations and assignments (see chart below), proposals under *The Environment Act* (110), quarry permits and leases (650) and other request involving Crown land such as Infrastructure program reviews, oil battery sites, or annexations (9) were reviewed and responded to.

Application Type	NE Region	NW Region	Western Region	Central Region	Eastern Region	Total Applications
Development Time Frame	2	7	0	0	2	11
Easements	5	5	2	4	5	21
Leases & Permits	23	18	10	3	16	70
Licence of Occupation					1	1
Purchase	6	3	8	10	5	32
Wild Rice	0	0	5	0	1	6
<b>Totals</b>	<b>36</b>	<b>33</b>	<b>25</b>	<b>17</b>	<b>30</b>	<b>141</b>

### Indigenous Land Programs and Cottage Lot Program

Prepares various legal documents related to the fulfilment of Treaty Land Entitlement, other non-Treaty Land Entitlement settlement agreements and federal land transactions. These include issuance of Exclusive Use/Land Use Permits, Cabinet Submissions, Federal Transfers/Reversions of Administration and Control, Real Property Applications, Dissolving of Titles, and Fee Simple Transfers as specified in respective settlement agreements.

Provides technical assistance to First Nations, Canada, the Treaty Land Entitlement Committee and provincial government departments with respect to land transfer expertise, tracking and records management. Ensure department staff continue to be updated on the legal obligation and implementation process associated with Treaty Land Entitlement fulfilment.

Expedites the transfer of Crown land selected or Crown interests in other land acquired by 29 First Nations in accordance with their respective Treaty Land Entitlement agreements.

### Amount of Crown Land Selected under Treaty Land Entitlement and Reserve Land Set Apart

Entitlement Acres	Total Selected	Reserve Land Set Apart	Percent Complete	Acres Required to Complete
1,144,331	1,008,072	568,778	50%	575,987

### Amount of Other Land Acquired under Treaty Land Entitlement and Reserve Land Set Apart

Entitlement Acres	Total Acquired	Reserve Land Set Apart	Percent Complete	Acres Required to Complete
282,123	31,478	14,549	5%	267,574

(Note: 1 acre = 0.404685 hectares)

Delivers the Government's cottage lot development initiative, identifying sites and assessing their potential for cottage lot development. Ensures lots developed are allocated in an open and transparent process by way of public draw or release to the First Come First Served inventory. This initiative requires consultation with Indigenous communities and development agreements with municipal authorities.

The Cottage Lot Program responds to the commitment to enhance the recreational opportunities available for Manitobans through the availability of Crown land recreational cottage lots. Both the Cottage Lot Program and First Come First Served inventory contribute to economic activity through lot sales, construction, purchasing of goods and services and recreational spending. These activities create opportunities for local employment, First Nations and new business start-ups which help to grow the local economy.

### Key Results Achieved:

- Provided regular reporting on acreages and issues as well as advice upon request to First Nations, Canada, and the Treaty Land Entitlement Committee to assist in the implementation of Treaty Land Entitlement Agreement. Also responded in a timely manner to requests related to non-Treaty Land Entitlement settlement agreements from Canada, Legal Services Branch and other provincial departments.



- Presented information related to the obligation, process and steps involved in the processing of Treaty Land Entitlement requests to department staff. Outlined the roles and expectations of areas responding to provincial circulations related to Treaty Land Entitlement.
- Approximately 53 lots were allocated through the First Come First Served Cottage Lot Program.

### **Traditional Area Planning and World Heritage Site Nomination**

Administers planning area designations and land management plans proposed by First Nations for approval by the Government of Manitoba under *The East Side Traditional Lands Planning and Special Protected Areas Act*.

Coordinates the interdepartmental review of proposed planning area designations and plan approvals, participates in the department's review of applications for Crown land and resources on the east side of Lake Winnipeg and represents the department on planning teams, management boards, and the Pimachiowin Aki Corporation.

The Pimachiowin Aki Corporation, representing the Government of Manitoba, the Government of Ontario, and four First Nations (Bloodvein, Little Grand Rapids, Pauingassi, and Poplar River), leads the nomination for inscription of a 29,000 km<sup>2</sup> (2.9 million ha) World Heritage site in eastern Manitoba and northern Ontario. During the reporting year, Pimachiowin Aki generated international interest in addressing the challenges posed by mixed (cultural and natural) nominations.

Pimachiowin Aki would be Manitoba's first World Heritage site and Canada's first mixed site and associative cultural landscape. Less than 1% of all World Heritage sites are in the mixed site-cultural landscape category.

Section staff also represent the Branch on the Inuit south of 60<sup>o</sup> claims negotiations. Support in advancing Treaty Land Entitlement obligations through upgrades to the spatial dataset is also provided by the Section. Coordinated new policies to direct land allocations and dispositions.

### **Key Results Achieved:**

- Approved land management plans under *The East Side Traditional Lands Planning and Special Protected Areas Act*, continued to provide direction for the management, use and sustainable development of more than 20,000 km<sup>2</sup> (2.0 million ha) of provincial Crown land on the east side of Lake Winnipeg.
- Continued implementation of the plans to be guided by management boards established by agreements between the Government of Manitoba and the four First Nations.
- Continued to provide advice and logistical support to the Pimachiowin Aki Corporation throughout the referral process, including development of the new nomination dossier. The dossier was completed in December 2016 for submission to the United Nations Educational, Cultural and Scientific Organization (UNESCO) in January 2017.

### **Manitoba Geographical Names Program (MGNP)**

Provides a provincial geographical name authority that develops and implements policies and procedures, research and processing of decisions on new and established toponyms, and membership and liaison with the Geographical Names Board of Canada. Consistency and accuracy are indispensable to referring to a place and are essential to our personal, scientific, commercial, and economic environment.

Engages Manitoba's Indigenous people through the Indigenous Names Project which recognizes and records Manitoba's Indigenous heritage, culture, history, and language through the compilation of traditional names in Manitoba.

### Key Results Achieved:

- Advanced Manitoba's Commemorative Names Project's through three projects: 1. commemoratively naming geographical features to honour Manitoba's First World War fatalities; 2. honouring Peace Officers and First Responders who lost their lives in the line of duty; and 3. Vimy Ridge Memorial project including the 100<sup>th</sup> Anniversary of the Battle of Vimy Ridge Commemoration.
- Continued to maintain and disseminate the Manitoba Geographical Names Data Base ensuring Manitoba's authoritative toponymic data is effectively and efficiently distributed.
- Continued service to Manitobans as Manitoba's provincial names authority. The MGNP processed 166 Geographical Name Decisions in 2016/17.

**Table LA.1**  
**12.1(g) Lands**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	1,231	16.00	1,207	24	
Other Expenditures	4,818		4,249	569	1
Grant Assistance	189		234	(45)	
<b>Total 12.1(g)</b>	<b>6,238</b>	<b>16.00</b>	<b>5,690</b>	<b>548</b>	

1. Over-expenditure is due to payments of grants in-lieu of taxes and write off of Black River and Poplar River projects.

## Indigenous Relations

The Branch was established to build relationships between the department and Indigenous people of Manitoba. These relationships are necessary to maintain an ever increasing level of program and services to benefit all Manitobans. Through engagement, education and guidance the branch continues to guide the department in a meaningful direction to achieve successful outcomes and work towards reconciliation.

The Branch participates in strategic planning processes, such as development of policies, legislation, and programs to ensure that Indigenous rights are recognized and respected. The Branch is accountable for research, analysis, development, implementation and evaluation of new and existing resource programs. The Branch is also engaged in development of integrated resource policies, legislation relating to land use, co-management, resource allocation, environmental impacts, and sustainable development initiatives. The Branch also facilitates communication and serves as a bridge between the department, the Indigenous and non-Indigenous community.

The Branch continues to play an instrumental role in the Crown's Indigenous Consultation processes. One of the foremost objectives of consultation is to reconcile the relationship between the Crown and Indigenous people through engagement. The Indigenous Relations Branch also provides advice to other areas of the department on engagement and maintaining dialogue amongst the parties and as a relationship building strategy beyond the obligations of consultation.

### Key Results Achieved:

- Participated in Crown-Indigenous consultation processes related to Moose Management Closures as well as other Crown-Indigenous consultation processes.
- Participated in the ongoing development of a new Consultation framework with the department of Indigenous and Municipal Relations.

- Participated in the review of existing legislation, policy and programs and recommended amendments as required in accordance with the Treaties, Natural Resources Transfer Agreement, the Constitution of Canada and Supreme Court decisions.
- Developed and maintained formal and informal communication mechanisms between the department and Indigenous communities including support to communities in their efforts to develop traditional area land use plans.
- Evaluated new and existing resource programs, projects and policies, and where required, integrated the legal, cultural, social and economic requirements of the Indigenous community.
- Responded to inquiries from the department, resource users, public and educational institutions.
- Responded to the Truth and Reconciliation Commission Calls to Action recommendations to ensure departmental understanding, training and compliance is meaningful.
- Designed and managed the *Certificate of Indigenous Relations Program (CIRP)* for the department to provide training on Indigenous relations to staff to enhance one of the department's top three priorities – Reconciliation with Indigenous communities in Manitoba. The program was nominated for a Service Excellence Award.
- Participated on the Institute of Public Administration of Canada (IPAC) Manitoba Board of Directors and led committee work involving reconciliation events. This work received the national IPAC Regional Group Excellence Award for 2016-17.
- Further developed the Indigenous Relations intranet site. This site was designed for staff to have easy access to Indigenous resources on various topics including: engagement, consultation and accommodation, education opportunities, reconciliation, rights, maps and land use planning, community information, current news and culture and tradition.

**Table AF.6**  
**12.1(h) Indigenous Relations**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	327	5.00	441	(114)	
Other Expenditures	175		472	(297)	1
<b>Total 12.1(h)</b>	<b>502</b>	<b>5.00</b>	<b>913</b>	<b>(411)</b>	

1. Under-expenditure is due to grants terms and conditions were not met prior to year-end.

# PARKS AND REGIONAL SERVICES

## Regional Support Services

Regional Support Services co-ordinates delivery of programs and services at the community level, including:

- Field activities for resource management,
- Compliance and enforcement activities related to natural resources and parks safety and security delivered by Park Patrol Officers and Conservation Officers,
- Protection of people, livestock, crops and property from predators and other wildlife.

Programs and activities are delivered in five rural regions: Northwest Region, Northeast Region, Central Region, Eastern Region, and Western Region, and supported from Headquarters, Regional Support Services in Winnipeg. Multi-disciplined full-time and seasonal staff working from 39 community-based district and regional offices as well as Headquarters office in Winnipeg carry out the work.

### 2016/17 Objectives and Key Results Achieved:

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***Regional field staff are given the necessary knowledge, tools, and resources and are trained and certified in skill sets that will result in safe, effective, and professional delivery of department programs.***

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- Firearm qualification for 99 full-time field Conservation Officers (CO) was completed by Regional Training Officers and department's peer Firearms Instructors.
- Three new CO Recruits attended the Winnipeg Police Academy located in their headquarters building downtown Winnipeg. The 20-weeks of instruction included training in firearms, emergency driving, defensive tactics (DT), investigations and an on the job training period of 4 weeks.
- Training for 32 new hire seasonal Park Patrol Officers (PPO) was conducted by Regional Training Officers and departmental peer instructors at St Andrews College, University of Manitoba. This provided the PPOs certification for park enforcement, safety, and security duty. In addition, returning seasonal staff, both PPO's and Park Patrol Captains (PPC) were recertified in Defensive Tactics and leadership courses.
- 11 Defensive Tactic (DT) instructors were certified and trained in Instructor Principal Based Subject Control Tactics which was provided by the local Winnipeg company, Setcan.
- Central Training was conducted for 104 field CO's. This included training in emergency winter driving skills, DT recertification, scenario based training, officer safety lecture, update on pertinent legislation, and departmental enforcement responses. Alco-test training, aquatic invasive species (AIS) monitoring and water craft inspection training was also conducted for CO's and staff.
- Holster Transition for all COs was completed utilizing peer trainers (Basic Firearms Instructors - BFI).
- Five Basic Firearm Instructors attended a Remington 870 Shotgun Armorers course.
- All CO's completed an online eLearning course on the introduction to Critical Incident Stress Management (CISIM)
- Amended and updated several Operational Directives and Safe Work Procedures to reflect changes and new CO standards
- Special Investigations Unit team participated in undercover operations to catch poachers and to curb the significant black market wildlife parts trade.
- Set new standards for emergency equipment on CO vehicles.

- K-9 unit participated in several wildfire investigations, illegal hunting, fishing busts, and public education in community & school programs.

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***Sufficient liaison is maintained with other government departments, federal/provincial agencies and non-governmental organizations to maintain up-to-date and continually improving service delivery models***

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- Continued to work with Manitoba Justice to address issues such as authorities of Conservation Officers and legislative changes.
- Participated as a member of the Canadian Natural Resource Law Enforcement Chiefs Association.
- Participated in the formation of Manitoba Rabies Central with Manitoba Health and Manitoba Agriculture and Rural Development to form a new provincial rabies reporting and sampling system.
- Continued to work with the Wildlife Enforcement Division of Environment Canada and the United States Fish and Wildlife Service on cross border investigations. Successful prosecutions in joint operations were achieved.
- Continued to work with Manitoba Fire Program throughout the province with COs providing logistical support during wildfire fighting operations.
- Participated in the Western Canadian Law Enforcement Academy (WCLEA) for the delivery and training of 23 new recruits from Alberta, Saskatchewan, and British Columbia.

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***The regions and department executive are kept updated on emerging changes and issues. Strategies are prepared to handle problems and introduce new initiatives***

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- Provided direction, consultation and guidance on enforcement and compliance activities particularly on wildlife, AIS, recreational and commercial fisheries and provided liaison between regions and branches.
- Provided statistics and data on enforcement activities including prosecutions and warnings to the executive and regions.
- Worked with the Wildlife and Fisheries Branch, Policy Branch and Justice on a Crown-Aboriginal Consultation process with First Nations regarding night hunting.
- Provided Elders from First Nations communities throughout Manitoba the opportunity to speak on their perspectives of night hunting. The department supported First Nations Elders' Gatherings as part of the important discussion that helped promote increased understanding and cooperation between First Nations and the province in addressing unsafe hunting practices. The Elders' gatherings was held on March 6, 2017 at the Turtle Lodge in Sagkeeng First Nation and was attended by Ministers Clarke and Cox. A report on the Elders gatherings was generated by the AMC Elder's Council and tabled at the AMC's Special Assembly on March 26, 2017. An AMC resolution was passed that provided a number of recommendations to put into action including the need for further consultation with Manitoba's indigenous communities
- Updated regions on legal issues affecting court cases and gave subsequent enforcement direction.
- Criminal Property Forfeiture funding allowed purchase of night vision goggles which were distributed to regions for use on night time enforcement.

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***Specialized enforcement needs including detailed investigations, covert operations, forensic lab services, and canine detection are developed to meet the needs of the department's field officers in addressing violations of resource law***

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- Regional investigators assisted several districts with complex investigations primarily related to illegal harvest and use of fish and wildlife. In addition, the Special Investigations Unit assisted the districts with

electronic surveillance equipment that targets illegal harvesting practices as well as implementing the use of specialized surveillance equipment for remote activity monitoring to aid in detection of illegal harvest, movement, and commercialization of fish, wildlife, and other resources.

- A 3-year covert investigation relating to the illegal harvest and possession of wildlife in the Manigotagan area, including the conservation closure area, resulted in 17 charges under *The Wildlife Act & Regulations* being laid against 3 individuals. The case is currently before the courts.
- A 1-year covert investigation relating to the illegal sale of fish in the Portage la Prairie area conducted in 2015 resulted in 3 charges under *The Fisheries Act (Manitoba)*. The case is currently before the courts.
- A 1-year covert investigation relating to the illegal sale of fish in the Winnipeg area conducted in 2015 resulted in 3 charges under *The Fisheries Act (Manitoba)*. The case is currently before the courts.
- A 2-year covert investigation relating to the illegal sale of fish in the Manigotagan area conducted from 2015 and 2016 was concluded in the courts by way of guilty pleas by both individuals involved and resulted in \$1,560 in fines.
- A 3-year covert investigation relating to the illegal sale of fish in the Selkirk area conducted from 2013 to 2015 was concluded in the courts by way of guilty plea and resulted in \$560 in fines.
- Two Canine teams were used throughout the province on a variety of compliance checks and investigations of illegal fishing and hunting activities. This included 10 decoy operations, 43 night hunting patrols, 18 occurrences of searching for evidence in both non-confined and confined areas, 9 occurrences of searching vehicles, and 3 occurrences providing assistance on the execution of search warrants.
- The Canine Teams conducted 47 public education programs in schools and at public meetings throughout the province.
- The Canine handlers are trained Wildfire Investigators and the teams responded to 8 investigations of human caused wildfire.
- District Officers utilized the services of a Forensic Laboratory for Firearm analyses in 4 investigations of Wildlife offences and for DNA analyses in 6 investigations of Wildlife offences to corroborate evidence obtained.

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***The public has access to well-advertised TIP 24-hour toll-free numbers to report forest fires and resource-law violations***

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- The 24-hour toll free telephone service (1-800-782-0076), aiming at reducing the illegal harvest of fish and wildlife received calls, resulted in prosecutions and warnings. In addition, the toll free line received calls reporting forest fires.

<b>Table RO.1 T.I.P. Calls by Region 2016/17</b>									
<b>Region</b>	<b>Number of Calls</b>					<b>Number of Prosecutions</b>			
	<b>Fish</b>	<b>Wildlife</b>	<b>Other</b>	<b>Fire</b>	<b>Total</b>	<b>Fish</b>	<b>Wildlife</b>	<b>Other</b>	<b>Total</b>
Central	88	130	9	5	227	10	0	0	10
Western	12	87	4	9	103	0	1	0	1
Eastern	22	62	13	25	97	0	0	0	0
Northwest	6	2	1	7	9	0	0	0	0
Northeast	1	1	0	21	2	0	0	0	0
<b>Total</b>	<b>129</b>	<b>282</b>	<b>27</b>	<b>67</b>	<b>438</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>11</b>

<b>Table RO.2 T.I.P. Calls by Year 2007/08 to 2016/17 (excluding Fire)</b>										
	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
<b>Total Calls</b>	<b>312</b>	<b>300</b>	<b>319</b>	<b>317</b>	<b>311</b>	<b>358</b>	<b>310</b>	<b>392</b>	<b>538</b>	<b>438</b>
Information	6	6	25	32	13	15	45	8	113	15
Actioned	192	153	156	129	161	247	146	216	221	91
Prosecutions	18	22	23	20	14	31	20	20	46	11
Warnings	1	5	6	6	9	8	3	10	18	2

<b>Table RO.3 Common Violations under <i>The Provincial Parks Act</i></b>				
<b>Offence</b>	<b>Prosecutions</b>	<b>Warnings</b>	<b>Total Offences</b>	<b>Evictions</b>
No Park Vehicle Entry Permit	2,137	3	2,140	0
Cause Disturbance	32	38	70	162
Parking Violations	106	21	127	0
Disobey Officer/Sign/Permit	36	47	83	10
Camp w/o Permit/Prohibited	18	11	29	1
Unlawful Vehicle Operation	18	44	62	1
Possess Fireworks	8	15	23	0
Have Liquor Where Prohibited	9	0	9	21
Fail to Control Pet / On Beach	9	15	24	1
Fire w/o Permit/Unattended Fire	6	9	15	0
Fail to Maintain Campsite	19	18	37	0
Damage Pollute Park Property	2	16	18	0
Hunting/Firearm Violations	3	0	3	0
Other	6	11	17	1
<b>Total</b>	<b>2,409</b>	<b>248</b>	<b>2,657</b>	<b>197</b>

<b>Table RO.4 Common Violations under <i>The Wildlife Act</i></b>			
<b>Offence</b>	<b>Prosecutions</b>	<b>Warnings</b>	<b>Total Offences</b>
Hunt/Trap/Guide W/O Licence / Licence Infractions	43	38	81
Hunt From or Have Loaded Firearm in Vehicle	76	3	79
Tagging/Transport/Import/Export Infractions	21	18	39
Hunt Prohibited Area/Private Land W/O Permission	60	13	73
Hunt or Discharge Firearm From Road	36	1	37
Equipment Infractions	44	24	68
Hunt for Remuneration / Illegal Sale of Wildlife	3	8	11
Night Hunting / Dangerous Hunting	41	2	43
Abandon/Waste Game	11	2	13
Bait Infractions	11	3	14
Possess Illegally Taken / Prohibited Wildlife	23	4	27
Hunt or Trap Out of Season	7	3	10
Other	30	56	86
<b>Total</b>	<b>406</b>	<b>175</b>	<b>581</b>

**Table RO.5**  
**Common Violations under *The Fisheries Act (Canada)* and**  
***The Fisheries Act (Manitoba)***

Offence	Prosecutions	Warnings	Total Offences
Equipment Infractions	572	93	665
Licence Infractions	189	165	354
Exceed Limits	168	52	220
Transportation Infractions	26	30	56
Illegal Sale / Possession of Fish	44	60	104
Wastage of Fish	8	2	10
Fish During Closed Time / Closed Area	4	27	31
Live Bait Infractions	4	2	6
Other	1	30	31
<b>Total</b>	<b>1,016</b>	<b>461</b>	<b>1,477</b>

**Table RO.6**  
**Comparison of Wildlife, Fisheries, Parks and Migratory Birds**  
**Prosecutions 2007/08 to 2016/17**

Fiscal Year	Wildlife	Fisheries	Parks	Migratory Birds
2007-08	244	595	1,537	23
2008-09	234	802	1,636	13
2009-10	256	786	*448	9
2010-11	306	722	*455	11
2011-12	308	904	*381	24
2012-13	352	894	1,371	14
2013-14	316	800	1,670	26
2014-15	239	959	2,182	6
2015-16	329	1,265	3,260	14
2016-17	406	1,016	2409	12

\*Years where no Park Vehicle Passes were required

**Table RO.7**  
**Record of Violations Occurring 2016/17**

Acts	Prosecutions	Warnings	Total Offences
Crown Lands Act	14	15	29
Environment Act	15	2	17
Endangered Species & Ecosystems	1	3	4
Forest Act	17	12	29
Forest Health Protection Act	0	0	0
Fisheries Act (Canada)	778	189	967
Fisheries Act (Manitoba)	238	272	510
Freshwater Fish Marketing Act	1	0	1
Highway Traffic Act	22	4	26
Liquor and Gaming Control Act	167	169	336
Migratory Birds Convention Act	12	18	30
Off Road Vehicle Act	67	46	113
Provincial Parks Act	2,409	248	2,657
Resource Tourism Operators Act	1	6	7
Water Protection Act	0	15	15
Wild Animal & Plant Protection Act	7	1	8
Wildfires Act	12	26	38
Wildlife Act	406	175	581
<b>Total</b>	<b>4,167</b>	<b>1,201</b>	<b>5,368</b>

Total Fines: \$392,095 for 2016/17



**Hunter-killed livestock claims are evaluated and processed promptly and livestock producers are fairly compensated for animals accidentally killed by hunters**

- Hunter-Killed Livestock Program compensates livestock owners for animals deemed accidentally shot by licensed hunters during an open big game season. Claims are investigated by Conservation Officers and occasionally by RCMP. This year, two claims qualified for compensation totaling \$3,210. Program activity for the past ten years is illustrated in Table RO.8.

Year Paid	Claims	Claims Paid	Total Paid	Average Paid
2007-08	9	6	\$3,624	\$604
2008-09	4	2	\$1,087	\$543
2009-10	4	2	\$1,777	\$888
2010-11	4	0	\$0	N/A
2011-12	2	2	\$2,100	\$1,050
2012-13	0	N/A	N/A	N/A
2013-14	0	N/A	N/A	N/A
2014-15	3	2	\$3,922	\$1,961
2015-16	2	2	\$4,388	\$2,194
2016-17	3	2	\$3,210	\$1,605

Species	Region						% of Total
	NE	NW	E	C	W	Total	
Beaver	5	7	22	37	19	90	3
Black Bear	160	108	218	442	200	1,128	43
Polar Bear	410	0	0	0	0	410	15
Big Game	2	1	10	39	27	79	3
Wolf	17	4	10	37	7	75	3
Migratory Birds	2	6	15	62	47	132	5
Other*	20	32	93	429	165	739	28
<b>Total</b>	<b>616</b>	<b>158</b>	<b>368</b>	<b>1,046</b>	<b>465</b>	<b>2,653</b>	<b>100</b>

\*Other includes coyote, fox, raccoon, skunk,

**Table RO.10  
12.2(a) Headquarters Operations**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,203	33.95	2,790	413	1
Other Expenditures	845		913	(68)	
<b>Total 12.2(a)</b>	<b>4,048</b>	<b>33.95</b>	<b>3,703</b>	<b>345</b>	

1. Over-expenditure is due to higher Workers Compensation costs.

# Northwest Region

The Northwest Region has a Regional Office located at The Pas, with District Offices located at Cranberry Portage, Flin Flon, Snow Lake, and Grand Rapids, and sub fire offices at Sherridon/Cold Lake, Cormorant, and Moose Lake.

The area encompasses a diverse landscape, dominated by boreal forest, lakes, streams, bogs and marshes, largely in a natural state that includes parts of Manitoba Lowlands Natural Region to the south and Canadian Shield Natural Regions north, starting at Cranberry Portage.

The Boreal Forest is made up of predominately 7 species of trees including black and white spruce, jack pine, tamarack, white birch, balsam poplar, and trembling aspen with scattered pockets of balsam fir and eastern white cedar. There are also species such as burr oak, Manitoba maple, and green ash on ridges and along the banks of the Saskatchewan River.

Mineral extraction, commercial timber harvesting and processing, agriculture, resource-based tourism, and commercial fishing continue to be the main industries providing economic and employment benefits in the region. The harvesting of wild rice and trapping also provide some local employment. Recreational use of the region's wildlife, fish, and forest resources by both residents and non-residents is also significant and an important industry.

The region is home to world-class angling with many of the Manitoba records caught on the lakes and rivers including Pike, Walleye, Goldeye, Tullibee, Rainbow Trout, Burbot, Lake Whitefish, and Lake Trout, with the biggest recorded at 64 lbs. The pursuit of different fish species attracts visitors from all over North America and the world, with many master anglers of each species produced annually.

The region's parks provide a scenic natural setting with modern conveniences, great camping, fishing, canoeing, and boating opportunities. Park staff deliver services, programs, and security to the many visitors at Clearwater Lake, Bakers Narrows, Grass River, and Wekusko Provincial Parks, which includes 7 campgrounds: Bakers Narrows, Gyles, Iskwasum, Reed, Wekusko Falls, Campers Cove, and Pioneer Bay. Little Limestone Lake Provincial Park is the newest park in the region. The lake is a marl lake which is best known for its characteristic trait of changing color as the water warms in the summer. The park is located approximately 50 km north of Grand Rapids and is a popular viewing attraction for tourists.

## Key Results Achieved:

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### ***Cost-effective and professional delivery of field services to the public***

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- The District focus of fire prevention and education within the northern communities has resulted in stabilizing the number of human-caused fires. There remains an increased emphasis on fire investigations and cost recovery of significant human-caused wildfires.
- Problem wildlife control in communities, towns and cities continues to be actioned by Conservation Officers as black bear, wolf and coyote encounters with humans continues to be high.

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### ***Wildfire suppression activities***

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- The Northwest Region experienced a below average wildfire season with a total of 23 fires, of which 12 were caused by lightning and 11 were human induced, with a total of 685 hectares burned.
- As a result of internal surveys in 2013 and 2014 management has focused on the issues identified by the fire crews and provided training to assist with initial attack success and a cost effective delivery of the program.
- The community of Easterville was evacuated due to a wildfire that moved considerably fast. No structures were lost and no injuries reported. A fire investigation revealed arson to be the cause; several fires were set close to the community and arrests were made regarding this incident.

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## ***Fisheries***

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- Staff continued to participate in the Saskatchewan River Sturgeon Management Board. This co-management board's objective is to prevent further decline of sturgeon population and develop and coordinate a recovery plan. As part of the continued sturgeon research, a juvenile sturgeon tagging program was completed to assess lake sturgeon recruitment in the Saskatchewan River.
- An index netting program was conducted on Wekusko Lake to assess the current fish populations, with favorable results.
- Under the Coordinated Aquatic Monitoring Program, sampling of the fish communities on Cedar Lake, Cormorant Lake, the Saskatchewan River, and Moose Lake were completed to determine the health of aquatic environments and track them over time.
- Continued development of action plans to combat the spread of aquatic invasive species (AIS) and in particular zebra mussels in 2016. Zebra mussels were detected in Cedar Lake in 2015 and, as a result, an extensive monitoring plan was implemented to track any further spread. Provided public education and awareness, relating to the spread of zebra mussels, to cottage associations and communities, and signs were placed at each boat launch. Watercraft Inspection Stations were setup in The Pas and Grand Rapids as part of the AIS program.
- Continued community meetings on efforts to Eco-certify 14 commercial net fisheries in the region occurred in 2016, which included planning for additional field work to develop sustainable fisheries management plans.

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## ***Forestry***

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- Tolko Industries was acquired by Canadian Kraft Paper Industries Ltd. (CKPI) in November 2016.
- A major outbreak of Jack Pine Budworm (JPBW) in the southern part of the region and northern part of the Central Region has led to intensified harvest of Jack Pine stands within the affected area, in an attempt to gain value from the timber while it is still merchantable, and to help reduce the spread of the disease and to lower the fuel loading for potential wildfires. Approximately 250,000 hectares were classified as moderately to severely defoliated by the JPBW in this area in 2016.
- A total of 20 new work permits and 71 extended work permits were issued for logging, road construction and silviculture operations during last fiscal year. Approximately 130,000 m<sup>3</sup> of timber was delivered to Tolko/CKPI from Crown land in the region of which 54,000 m<sup>3</sup> conifer, 54,000 m<sup>3</sup> from the JPBW salvage area and 22,000 m<sup>3</sup> of Aspen for hog fuel within the Forest Management Licence Area (FMLA).
- The region supervised the planting of 440,000 trees throughout cutovers in the FMLA. Thirty timber inspection reports were conducted by region and district staff. A total of 202 personal use timber permits were issued in the region to local residents. Regional staff worked with CKPI staff in identifying hardwood leading stands to provide hog fuel for the heating systems of the mill, which is a cheaper cleaner heating method.

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## ***Wildlife***

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- Regional staff continued to collaborate with Wildlife and Fisheries Branch staff on development of action plans for boreal woodland caribou. These action plans are federal requirements as boreal woodland caribou are listed as a threatened species under the Federal Endangered Species Act. The region has 5 caribou management units and 4 of these are considered high conservation concerns.
- Caribou monitoring continued across the region and information was collected. Staff worked with and received funding assistance from local industries, resource management boards, and other departments for ongoing monitoring projects. Data collected aids in identification of critical habitat and core use areas, establishes mortality rates and herd stability, and allows us to direct and accommodate industrial development within the areas.

- Began development of the Carrot River Triangle working group to review Ducks Unlimited Canada operations and projects within the Saskram Wildlife Management Area.
- Moose population status continued to be a concern across the region. Discussions and consultation with local Indigenous and non-Indigenous communities is ongoing regarding the declining population, with a goal of establishing control measures to stabilize and grow the population for future generations to utilize. Aerial survey preparations for the Game Hunting Areas in the region is ongoing.
- Tom Lamb and Saskram Wildlife Management Areas within the Saskatchewan River Inland Delta had high water levels due to the abnormal amounts of rainfall received. Discussions with Ducks Unlimited Canada and local resource users are ongoing regarding these impacts.

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### ***Angler and hunter compliance***

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- Conservation Officers checked approximately 5,107 anglers, 631 hunters, and 52 commercial fishers for compliance, resulting in 237 enforcement actions.
- As a result of additional Game Hunting Area closers for moose in other areas of the province, officers reported a continual increase in licensed and subsistence moose hunting activity within the region.
- Simulated moose decoy operations and patrols continue to help deter illegal road hunting activity.
- Conservation Officers from the region assisted with high profile illegal hunting activity in the southern districts during the fall / winter.

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### ***Parks***

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- During Parks Day, white spruce seedlings were handed out to all visitors to plant in celebration of Canada's 150<sup>th</sup> birthday. Staff hosted various events and activities throughout the parks including Grass River, Bakers Narrows, Clearwater Lake and Wekusko Fall provincial parks during this time. Parks Day resulted in excellent attendance and an increase in visitor satisfaction.
- The Life Jacket Loaner program, which was introduced in Clearwater Lake Provincial Park, expanded to Bakers Narrows and Gyles (within Grass River) campgrounds.

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### ***Effective community relations***

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- Regional and District staff continued to participate as provincial representatives on the Cedar Lake, Cormorant, Opaskwayak Cree Nation, and Moose Lake Resource and Joint Management Boards. Opaskwayak Cree Nation and the Province signed a new 20-year Joint Management Agreement to jointly manage the natural resources and develop a land use plan for the traditional territory.
- Staff continued to hold annual Cottage Association meetings, attend Chief and Council meetings, Rural Municipality and City/Town meetings, and attended all meetings requested by the sportsmen's groups to provide assistance and information.
- Districts/regional staff continues to hold presentations in the local schools and university on fire prevention, resource management, bear smart program, career days and other special requests. Staff continued to participate in community events representing the department, including the Trappers Festival, Water Festival, Canada Day Parade, and Parks Day.
- Staff participated with joint initiatives working directly with other departments or branches to assist with effective community relations. This included high water concerns, mining activities, and unorganized territories within the region.
- Park Patrol and Conservation Officers received training in aquatic invasive species inspection techniques and were tasked with assisting with watercraft inspections within the region.

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**Regional concerns are considered before land is allocated**

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- The Northwest Regional Integrated Resource Management Team (IRMT) reviews and provides consolidated regional comments on timber harvesting mitigations, complex work projects, sales, leases, general permits, assignments, and lease renewal applications. The IRMT also reviews and comments on all Regional Licence Advisory Committee requests, exploration proposals, road development, Environment Act Licensing, quarry applications and work permit applications.
- The management and allocation of Crown land and Resources in the NW Region, to very diverse and competing users becomes at times very complex due to its nature.
- District Conservation Officers issue numerous work permits under The Crown Lands Act and The Wildfires Act, for construction projects and industrial operations. Work permits are used to mitigate the negative impacts of an activity to the environment and as a method of ensuring that the proponents are made aware of local and regional concerns and requirements.
- The region continued to review wild rice allocations, and has a Provincial Wild Rice Committee; and continues to work on policy to standardize the review of wild rice applications and assignments.
- Due to the existing market conditions there was a downturn in the exploration mining sector for which Crown land work permits are issued. As a result, exploration companies continue to be involved to a greater degree in low impact exploration including claim staking, soil sampling, line cutting, mapping, and geological reconnaissance. Two new mines, Lalor and Reed continue to be in operation in the Snow Lake area.
- The Region continued to provide comments and recommendations on allocation of Crown Lands within the region for purposes of both commercial and recreational development, including Treaty Land Entitlement Selections.

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**Other Notable Highlights**

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- Right of way clearing of Bipole III within the regional boundaries has been completed. Tower anchor foundations were installed along the line and the majority of towers erected. District and Regional staff developed and issued work permits to Manitoba Hydro for construction work. Several compliance inspections occurred and reports submitted to identify any areas that required additional work and ensured the conditions of the Environment Act Licence and Manitoba Hydro's Environmental Protection Plan were followed.

**Table RO.11  
12.2(b) Northwest Region**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	2,524	37.25	2,615	(91)	1
Other Expenditures	445		447	(2)	
<b>Total 12.2(b)</b>	<b>2,969</b>	<b>37.25</b>	<b>3,062</b>	<b>(93)</b>	

1. Under-expenditure is due to vacancies.

## Northeast Region

The Northeast Region encompasses 60% of the land area of Manitoba and is comprised primarily of vast uninterrupted tracts of boreal forest transitioning to taiga in the far north. The majority of the land base remains in its natural state, unaltered and undeveloped, and is largely inaccessible due to an extremely limited road network.

On a capita per area basis, the Northeast Region is the most sparsely populated region in the Province. Mineral extraction, processing and exploration, hydro-electric generation and transmission, resource-based tourism (lodges and outfitting), and commercial fishing and trapping are the main industries generating economic and employment benefits for the Region and Province. Domestic and recreational use of the Region's wildlife, fish, and forest resources by the residents of the Region is also significant.

Due to the values-at-risk associated with towns, communities, lodges, remote cottages and timber values, the Region's fire management and suppression program is also a priority program delivered in the Region, in terms of both employment and expenditures. It normally runs from May through September. The delivery of services, programs and security at Paint Lake Provincial Park and several other provincial parks is also a priority during this same time period. Undertaking the Crown's Duty to Consult (Section 35) with the 35 Indigenous and Northern communities located in the Northeast Region on government decisions or actions that could affect or infringe upon Treaty and Indigenous rights is a year round priority in the Northeast Region. The management and allocation of Crown land and resources to different, often competing, users and compliance monitoring and the enforcement of Crown land and resource legislation are year round activities in the Region. Participation on co-management boards and handling problem wildlife complaints, including the high profile Polar Bear Alert Program at Churchill, are also important program activities.

The Northeast Regional office is located at Thompson. District offices are located at Churchill, Gillam, Thompson, Wabowden, Lynn Lake, Norway House, God's Lake Narrows, and Island Lake. Sub-District offices are located at Split Lake, Nelson House, Pukatawagan, South Indian Lake, Cross Lake, Oxford House, and Leaf Rapids.

### Key Results Achieved:

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#### ***Cost-effective and professional delivery of field services to the public***

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- The 2016 fire season started out normal then turned wet in the Northeast Region. With the wet weather through late June and July, the number of fires and hectares burned was well below average within the region. There were a total of 104 fires burning. 19,130 hectares in the NE Region. Of the 104 fires, 76 were caused by lightning and 28 were human caused. 65 fires were actioned and extinguished, 43 wildfires received limited action, and 15 were no action.
- The Northeast Region issued 274 burning permits, with 250 being issued from the Norway House District.
- The Region continued with the delivery of the FireSmart Program. Work continued on the Pre-response Plan for Paint Lake Provincial Park and completed for the Burge and Zed Lake Pre-response Plan in Lynn Lake District. The Initial Attack Fire Crews helped with the cleanup of dead trees in the campgrounds and around the park. Fire Prevention work continued with the districts participating in Canada Day Parades, Nickel Days, Treaty Days, and numerous school presentations with appearances by Smokey Bear.

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#### ***Angler and hunter compliance***

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- Conservation Officers checked 986 anglers, 615 hunters, and 33 commercial fishermen for compliance.
- The region maintained effective community relations; particularly greater involvement, participation, and cooperation of Indigenous people in resource management, and effective liaison with organized angling, sports' and park user groups.
- Regional and District staff participated as provincial representatives on Resource Management Boards. Staff also participated on the Wapisi Caribou Committee, Beverly and Qamanirjuaq Caribou Management

Board, the Northwest Woodland Caribou Advisory Committee, the Churchill Northern Studies Centre Board, the South of 60° Inuit Land Claim Committee along the Hudson Bay Coast, as well as participated in community consultation meetings with the proposed new Polar Bear Provincial Park.

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***Minimize the number of complaints related to problem wildlife***

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- There were 390 occurrences for the 2016 polar bear season; this was the highest on record since the start of the Polar Bear Alert (PBA) program.
- Churchill PBA staff handled a total of 55 polar bears. The ice release for the 2016 season was between December 7<sup>th</sup> and 8<sup>th</sup>, when there was enough ice to support polar bears' travel on the ice. This is the longest ice-free period on record since the start of the PBA program.
- Polar bear surveys completed during the 2016 season included the Fall Coastal Survey and a March Den Emergence Survey. All coastal surveys dateback to 1970.

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***Wildlife***

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- Regional staff participated on the National Boreal Caribou Technical Committee and the Polar Bear Technical Committee.
- A fall coastal survey was conducted of the Hudson Bay polar bear population within Manitoba to assess distribution and general condition of polar bears during the ice-free period.
- A winter den emergence survey was conducted in the Kaskatamagan Wildlife Management Area to locate additional polar bears dens and identify areas of high denning concentration.
- The Beverly Qamanirjuaq Caribou Management Board (BQCMB) continued to support the communities and jurisdictions that manage and rely on these caribou populations.
- Regional staff attended a meeting of the Big Game Surveys Committee and submitted a proposal, which was approved, to support a population survey of Qamanirjuaq barren ground caribou.
- Regional staff participated on the survey of the Western Hudson Bay polar bear population to estimate population size, vital rates, and changes to distribution.
- Regional staff participated on two departmental mandate item committees: 1) to implement effective and innovative big game survey; and 2) to develop comprehensive harvest co-management strategies.
- Regional staff assisted on the Duck Mountain and Porcupine Mountain moose surveys.
- PBA staff deployed GPS ear transmitters on 18 polar bears released from the holding facility to assess if bears released in Manitoba travelled up to Arviat, Nunavut.
- Development of boreal woodland caribou range/action plans continued as per Manitoba's Boreal Woodland Caribou Recovery Strategy 2015.
- Workshops were held in multiple Indigenous communities to discuss moose management and the creation of a regional moose co-management committee.
- Regional staff participated on boreal caribou recruitment and population estimate surveys as part of the Bipole II mammal monitoring program.
- Staff attended the Fur Table held in Thompson, and the Annual General meetings of the Manitoba Trappers Association held in Norway House.
- Regional staff delivered multiple presentations to Resource Management Boards, communities, Manitoba Hydro, and departmental staff, on coastal caribou and polar bear surveys.

- The Northeast also had 303 black bear district occurrence reports, as well as two beaver and 21 wolf complaints.

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### ***Fisheries***

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- Staff continued to work with O-Pipon-Na-Piwin Cree Nation (OPCN) and Manitoba Hydro through the Southern Indian Lake Environmental Monitoring Committee to address environmental issues on Southern Indian Lake. OPCN operated a stream side Walleye hatchery near their spawn camp on the Vermillion River. The commercial fishery continued to under produce with production remaining at about 10% of the long term average. Efforts to identify environmental issues contributing to this problem continued.
- Coordinated Aquatic Monitoring Program (CAMP) continued to develop remote sensing tools for turbidity on the Nelson River and Churchill River Diversion. Continuous turbidity samplers were deployed on the Nelson River to confirm results interpreted from LandSat imagery. CAMP also collected sediment core samples from deep basins of Southern Indian Lake.
- Following community consultations, the Nelson River Sturgeon Board completed a new management plan for sturgeon stocks in the upper Nelson River. This plan was completed with funding from the Aboriginal Funding for Species at Risk program.

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### ***Regional concerns are considered before land is allocated***

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- The Region reviewed and provided comments on 49 Crown Land applications, 61 Casual Quarry Permits applications, and 18 Environmental Licence reviews/applications. 89 Work Permits were issued (17 mineral exploration, 32 Hydro related, 6 Forest cuts, and 34 other).
- 219 own use Timber Permits were issued in the Northeast Region. Approximately 38,145 cubic meters of softwood and hardwood was harvested in the Thompson and Wabowden Districts for Canadian Kraft Paper Industries (CKPI) in The Pas, Manitoba. 10,000 trees were planted on Timber Sale harvest areas and Mine Site rehabilitation projects in Lynn Lake District. Three Commercial fuelwood permits were issued. The Regional Forester delivered consultation to 10 communities for the Canadian Kraft Paper 2017/2019 operating Plan and worked for the Fire Program in Fire Guard Rehabilitation and Logistics out of West Hawk, Easterville, and Paint Lake.
- Manitoba Hydro's Bipole III right-of-way clearing was completed in the Northeast Region and a small number of towers were erected. Inspections were carried out by Conservation Officers on a regular basis. Gillam, Thompson, and Wabowden districts were the key work project areas.
- Manitoba Hydro's Keeyask Generation Project work continued with completion of the South Access road Right-of-Way (ROW), temporary camps, and work along burrow pits and quarry pits. The dam construction was completed.
- Regional staff participated on the Churchill Marine Observatory project, Churchill Cottage Lot program, and South of 60° Inuit Land Claim committees.
- Regional Land's staff participated as regional and local representatives for the Churchill Marine Observatory project, Churchill Cottage Lot Program, and South of 60° Inuit Land Claim committees.

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### ***Other Notable Highlights***

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- The annual Manitoba Trappers Association Fur Table was attended by 99 trappers throughout the north. There were four buyers at the Fur Table, with sales of wild fur pelts near \$167,478.00. Marten was the species most sold. 2,518 marten sold at an average of \$60 a pelt, for a sum of \$151,080.00.
- The 2016 sales of Barren Ground Caribou tags were all sold out on the first day. The fall migration of caribou into Manitoba did not happen until late September. Hunger harvest was very low for the fall season.



Winter harvest for 2016 was also very low. This is the second year in a row that caribou did not come into Manitoba in high numbers.

- Extensive caribou patrols were made during the fall by Otter Aircraft, and by truck and snowmobiles along the winter road network.
- The Beverly Qamanirjuaq Caribou Management Board (BQCMB) held its annual meetings in Saskatoon and Winnipeg. The BQCMB continued to work towards the conservation of both herds for the people that rely on caribou.
- Wildlife staff continued to monitor Boreal Woodland and Coastal Tundra Ecosystem Caribou throughout the region.
- Extensive patrol coverage was completed during the fall moose season throughout remote inland lakes by Northeast Region staff.
- Conservation Officers and Resource Management Technicians throughout the region conducted a number of Trapline patrols within their respective districts, checking on compliance of Wild Fur Regulations.
- Regional Wildlife staff continued as members of various committees, including the Nelson House RMB, the York Factory RMB, Wapusk National Park Management Boards, the Polar Bear Technical Committee, the Range States Conflict Working Group, and the Northeast Boreal Caribou Committee.

**Table RO.12**

**12.2(c) Northeast Region**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	3,359	43.95	3,323	36	
Other Expenditures	1,005		838	167	1
<b>Total 12.2(c)</b>	<b>4,364</b>	<b>43.95</b>	<b>4,161</b>	<b>203</b>	

1. Over-expenditure is due to higher expenses for the Parks Polar Bear surveillance program.

**Central Region**

The Central Region delivers programs and services associated with the Parks and Regional Services Division of Manitoba Sustainable Development, including: field activities for provincial park operations, maintenance and capital planning; design and development projects; wildlife, forestry and fisheries resource management; Crown lands management; compliance and enforcement activities related to natural resources and parks safety and security; wildfire protection and suppression; as well as protection of people, livestock, crops, and property from problem wildlife. These initiatives include the development, delivery, and evaluation of programs and services, inspection, compliance monitoring, and enforcement of natural resource legislation. This is done by multi-disciplined full-time and seasonal staff working from a Regional Office in Gimli and District offices in Ashern, Grand Beach, Gypsumville, Hodgson, Lundar, Manitou, Portage la Prairie, Riverton, Selkirk, Winnipeg Beach, Birds Hill, and Winnipeg. The Central Region Integrated Resource Management Team (IRMT) developed an Indigenous Engagement Strategy in 2016, to provide direction to staff throughout the region to encourage engagement with First Nation and Metis communities.

## Key Results Achieved:

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### ***Provincial Park Operations, Maintenance and Improvements***

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- The Winnipeg Beach Seawall Expansion was completed in August 2016. The high maintenance wooden boardwalk was replaced with a low maintenance cement boardwalk with a brick inlay that was used to represent the history of Winnipeg Beach by simulating a rail line. The bricks were engraved by the Town of Winnipeg Beach with the names of people who donated to the original wooden board walk. Shoreline protection consists of gentle slopes to expand the beach area and act as a shoreline defence by dissipating wave energy. Sheet piling was used to secure the shoreline. Fill from this project was used to build up the flood prone Winnipeg Beach soccer field.
- Birds Hill Park West gate renovations were completed allowing for a constant flow of traffic into the park while reducing traffic congestion on to PTH59. A signage renewal project was completed making it easier for the public to navigate the park. Campground electrical services were upgraded in Swamp Bay from 30 amp to 50 amp service.
- At Grand Beach, the tennis courts were resurfaced and new posts and nets were installed. The Trans Canada Trail Border to Beaches trail was completed as part of the Gateway Area Project. A new concession building was designed and built near Pavillion 1 to accommodate the concessions of central west beach. A new well was installed in the cottage subdivision to provide potable water to cottagers and west side facilities. Design work was completed for a new chlorination and water pressure system for the west side pump house.
- Hecla hosted the second annual T3 Canadian Forces Base 17 Wing Triathlon, a Duathlon (bike and run event), and two Aqua Bike events (swim and bike events). The T3 Triathlon had 156 participants and approximately 50 volunteers. The T3 Triathlon was well attended as it served as a qualifying even for the Canadian National competition. The Hecla Historical Church saw a complete exterior renovation which included siding, reframed windows, door frames, and new footing under the church steps allowing the church to be open to the general public for church services.
- Ongoing negotiations with the Department of Fisheries and Oceans Canada resulted in Manitoba successfully acquiring the Hecla Historical Lighthouse along with \$60,000.00 of dedicated federal funding for its restoration.
- Public consultations were undertaken in relation to ice driving activities proposed to occur on a portion of Lake Winnipeg within the boundaries of Hecla/Grindstone Provincial Park.
- Both Winnipeg Beach and Grand Beach were awarded Blue Flag designation. Blue Flag is an internationally recognized eco-label symbolizing clean and well-managed beaches and marinas worldwide.
- The aging Camp Morton campground office was levelled and renovated.
- Hnaua Provincial Park had its picnic shelter completely restored with new roof, fascia, and soffits.
- The Yellow Quill Dog Park installed a concrete tank in preparation for constructing a non-modern restroom in 2017.
- Beaudry Provincial Park permitted a native Tall Grass Prairie burn and reseeding to take place as part of an ongoing native prairie rehabilitation project.
- Consultations continued with Skownan First Nation to investigate the expansion of Chitek Lake Provincial Park.

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## ***Wildlife Management and Programming***

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### ***Public Outreach***

- The Narcisse Snake Dens, located in the Narcisse Wildlife Management Area (WMA), continued to be a popular wildlife viewing site, with approximately 20,000 visitors touring the area annually. Interpretive services were provided by three interpretive staff of the department and volunteer members from the Manitoba Herptocultural Society. The Snake of Narcisse website was improved to provide video updates of snake activity at various times during the viewing season.
- Central Region wildlife staff continued to oversee the use of the Chatfield Field Station, which provides important housing and accommodations for snake scientists that visit the site annually to conduct their research. The Field Station also provided accommodations for various graduate students and their research technicians throughout the year.
- Central Region wildlife staff co-chaired the Oak Hammock Marsh (OHM) Working Group and the Grant's Lake Working Group. Both Working Groups are comprised of local landowners, non-government organizations and government staff that meet once a year to discuss issues of mutual interest and concern as they relate to the management of the OHM WMA and management of the Grant's Lake WMA and Game Bird Refuge.
- Central Region wildlife staff organized and participated in numerous mentored hunting and trapping programs. These mentored programs provide young and first-time hunters and trappers a safe and fun introduction to our outdoor heritage. In 2016, these mentored activities included: the Oak Hammock Marsh mentored youth waterfowl hunt; the mentored youth trapping program at Oak Hammock Marsh; the wounded veterans' mentored waterfowl hunt at Oak Hammock Marsh; and the women's mentored muzzleloader hunt near Stuartburn.
- In cooperation with the Watchable Wildlife Program (Tourism Manitoba), Central Region wildlife staff continued development of the self-guided trail and interpretive infrastructure at Grant's Lake WMA, including the completion of the first phase of trail development and parking lot upgrades.
- Central Region wildlife staff continued development of the Tilenius Trail, located in Clematis Wildlife Management Area, in cooperation with the Watchable Wildlife Program (Tourism Manitoba). This trail is the newest birding trail to be added to Manitoba's Pine to Prairie Birding trail system, and provides visitors with the opportunity to see a variety of parkland birds and other wildlife.

### ***Wildlife Habitat***

- Phase II of the OHM infrastructure renewal project was completed in late 2016. Over \$750,000 was invested to replace failed water control structures and pipes, and to ensure optimal water and wildlife habitat management at OHM WMA. Central Region wildlife staff oversaw the procurement and purchase of all materials and supplies for this project.
- Wildlife staff assisted with monitoring and maintaining the four carp exclusion sites on Clandeboye Bay at Delta Marsh WMA. Delta Marsh continues to show improvements because of this initiative.
- Regional wildlife staff continued participation in the development of the St. Andrews Lock and Dam Special Conservation Area. This area was designed with the purpose of protecting American White Pelicans from entanglement in fishing line, as well as to increase public awareness of this issue which is prevalent across Manitoba. Wildlife staff also captured entangled and wounded pelicans and arranged for their transport to a wildlife rehabilitation organization.

### ***Wildlife Surveys/Monitoring***

- Central Region wildlife staff continue to participate in annual provincial bird surveys:

- Participated in the provincial Sharp-tailed Grouse Lek Surveys. Seven leks located throughout the southern Interlake were surveyed in April.
- A Woodcock survey route near Lundar was surveyed in April.
- A nocturnal owl survey route near Riverton was surveyed in March.
- Prepared a proposal to conduct a population survey for moose in GHA 21. The proposal was formally presented to the Provincial Big Game Management Committee for consideration and it was given the go ahead for January 2017. The survey was successfully completed by mid-January. Moreover, cancellation of big game surveys elsewhere in the province allowed for Central wildlife staff to conduct additional moose surveys in GHA 21A and GHA 21A Islands. These were successfully completed early February. Results from these surveys allowed wildlife staff to monitor the current population of moose in these areas and provided important information for regulatory and co-management considerations. Central Region wildlife staff assisted the Wildlife Branch in conducting a disease surveillance survey for cervids in GHA 27. Results helped the Wildlife Branch monitor for Chronic Wasting Disease and Bovine Tuberculosis and assisted in proactive management measures.
- Central Region wildlife staff assisted in the annual provincial Canada goose banding program. Almost 2,200 geese were banded in early July at a variety of locations in Winnipeg and Portage La Prairie. Another 4,800 Canada geese were banded near Churchill in early August. These geese comprise subspecies that typically stage at Oak Hammock Marsh and near Winnipeg in the fall. Information gathered from reported bands helped provincial wildlife staff determine annual recruitment, harvest rates, and migration patterns throughout the continental flyway.
- Ten cow elk in the North Interlake herd were outfitted with collars to determine distribution and range use, funded by the Fish and Wildlife Enhancement fund.

#### ***Wildlife Conflict – Crop Depredation***

- Wildlife staff assisted with the delivery of the Crop Depredation Program at OHM WMA and Grant's Lake WMA including lure crop maintenance, scare equipment maintenance, scare cannon depot operation, and seasonal staff supervision.
- Wildlife staff worked with Conservation Officers throughout the year to field complaints related to wildlife problems and general wildlife concerns and questions.

#### ***Indigenous Community Engagement***

- Central Region wildlife staff offered aerial moose survey demonstration flights to local First Nations and the local Fish Game Club after the GHA 21 Moose survey. Central Region wildlife met with Fisher River Chief and Council prior to the GHA21 Moose survey to discuss moose populations and the survey methods.

#### ***Wildlife Resource Use***

- Central Region wildlife staff oversaw the allocation of foreign resident big game licences to licenced outfitters.
- Regional wildlife staff worked with the Fisher River Cree Nation to help establish a big game outfitting business within the communities traditional use area.

#### ***Other Notable Highlights***

- Regional wildlife staff worked with the Wildlife and Fisheries Branch to develop a permit and guidelines for a new black bear cub rehabilitation facility located in the Central Region.

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## ***Forestry and Peat Lands Management and Programming***

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### **Jack Pine Budworm Salvage Operations**

- A severe infestation of Jack Pine Budworm (*Choristoneura pinus pinus* (Freeman)) has continued from the 3,000 hectares originally reported in August 2015, found in the Devils Lake Area. The 2016 Forest Health Survey Flights has indicated that the infestation area stretches approximately 80 kilometers to the north and 100 kilometers south of the community of Grand Rapids, and is approximately 50 kilometers in width to the west.
- Harvest plans were considered for the 50,000 hectares of infected Jack Pine stands south of highway #60 that is outside of FML-2. The intent of these plans was to reduce future wildfire hazards by targeting stands that had been severely defoliated and would have a greater likelihood of stand mortality. The focus was, therefore, around the Devils Lake and North Two Rivers areas, where the infestation had been first discovered.
- The distance to available markets of lumber and pulp and paper to these salvage areas was a major concern. The combined harvest of 650 hectares was possible with the cooperation of the Interlake Quota Holders, Spruce Woods Loggers, and Tolko (which was purchased by Canadian Kraft Paper Industries).

### **Operations**

- The focus of the regional consultations continued to be the jack pine budworm infestation area. This involved meetings and discussions requested by four local communities. Various informal meetings and discussions including other Indigenous communities continued to occur, with forestry staff who provided updates on forestry activities within the region.
- Approximately 30 hectares was harvested by quota holders within Forest Management Unit (FMU) 40 in areas that are in addition to the budworm salvage area mentioned above.
- As part of the regional forestry renewal program, 146 hectares was scarified to promote natural regeneration of Jack Pine. Just over one Hectolitre of Jack Pine cones were collected within the budworm salvage area, and the seed from these cones will be used for sowing seedlings in future years.
- Approximately 1,000 seedlings were given to the students in early school in Gimli as part of a public education and outreach.
- Regional forestry staff continued to work with Forestry and Peatlands Management Branch staff to protect and conserve Crown peatlands while providing for sustainably-managed commercial development. There are four active commercial harvesting areas located in the Central Region.

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## ***Fisheries Management and Programming***

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### **Public Outreach**

- Central Region fisheries staff worked with the local Game and Fish Clubs surrounding Lake Minnewasta to better enhance the lake's sport fishery. Lake Minnewasta attracts anglers from all areas of Manitoba seeking a variety of species, such as Largemouth Bass, Black Crappie, and large Walleye. Staff monitored the Lake's access points to determine angling pressure and propose new regulations to protect this fishery.
- Central Region fisheries staff worked with North Dakota and Minnesota government staff to explain the purpose and scope of the Red River Channel Catfish tagging study and to include them in ongoing and future studies by supplying tags and tagging guns.

- Regional staff reviewed Licensing Advisory Committee applications, environmental licensing proposals, land-use applications, water control works licences, resource allocation requests, development proposals, and scientific collection permit applications.

### ***Fisheries Surveys/Monitoring***

- Central Region fisheries staff assisted the Swan Creek Walleye Hatchery. Walleye are collected and stripped of their eggs and milt and incubated inside the hatchery until they hatch. This year, the hatchery raised approximately 26 million walleye fry which were stocked in lakes around Manitoba, of which 11 million were stocked within the Central Region.
- Central Region fisheries staff conducted its annual 6 week index netting program on Lake Winnipeg. Sample sites include Balsam Harbour, Hecla, Frog Bay, Matheson Island, Dauphin River and Grand Rapids. A total of 64 index nets were set and a total of 4,800 Walleye, Sauger, and Lake Whitefish samples were collected.
- Central Region fisheries staff conducted a Winter Creel Survey on the South Basin of Lake Winnipeg. Utilizing car counters and person to person interviews, approximately 39,000 vehicles and 85,000 anglers accessed the south basin for recreational fishing from January to March. It was estimated anglers harvested close to 72,000 kgs of walleye during the same period.
- Central Region fisheries staff worked with the Department of Fisheries and Oceans (DFO) and the University of Nebraska on the deployment of acoustic tags and receivers in approximately 500 fish, which include Lake Sturgeon, Channel Catfish, Walleye, and Bigmouth Buffalo, in the Lake Winnipeg Drainage Basin.
- Central Region fisheries staff conducted the Annual Lake Manitoba Index Program. A total of 44 net locations and 1,400 samples were collected.
- Central Fisheries staff continued to assist and collaborate with Manitoba Hydro on the Crown Corporation's Lake Winnipeg Coordinated Aquatic Monitoring Program (CAMP).
- Work continued with students from the University of Lincoln Nebraska, regional fisheries staff assisted with the Red River Channel Catfish Tagging Program. The sampling crew tagged Catfish on the Red River from Lake Winnipeg to Emerson. A toll free number is setup for anglers to call and report tagged Catfish. To date, 15,000 Channel Catfish have been tagged from the Red River. It is estimated that Channel Catfish populations on the Lower Red River range from 200,000 to 300,000 fish.
- Staff conducted the annual Lake Winnipeg spawn monitoring at Hecla Beach. Spawn testing is used to determine the progress of spawning Walleye. Once female Walleye reach 80% spawned out, the Lake Winnipeg commercial season is opened two days later.
- Staff assisted Wildlife and Fisheries Branch staff with the Zebra Mussel monitoring program, providing assistance with the deployment and retrieval of substrate samplers. Staff also assisted with veliger sampling on Lake Winnipeg and Lake Manitoba.

### ***Commercial Fishing***

- Central Region fisheries staff managed four large Commercial Fisheries: Lake Winnipeg; Lake Manitoba; Lake St. Martin; and Lake Waterhen. Staff also managed the Lake Carp fisheries and the Delta Marsh carp exclusion fishery as well as assisting with the Spring Creek mullet fishery. Staff managed numerous experimental fisheries throughout the region.
- Approximately 2,000 commercial licenses were issued to commercial fishers in the region. Commercial fishers issued 9,000 trade records and 2,500 load slips.
- Central Region fisheries staff attended 13 commercial fishing meetings at various locations around Lake Winnipeg and Manitoba to discuss the open marketing process.

- Central Region staff processed over 200 Lake Winnipeg quota transfers and processed 30 license transfers from Lake Manitoba and Lake St. Martin.
- Central Region staff attended meetings with the Lake Winnipeg co-management board and provided recommendations for changes. Regional staff also attended Lake Winnipeg area meetings to answer questions and provided updated changes to the Lake Winnipeg commercial fishery.
- Central Region fisheries staff worked to maintain and provide up-to-date production reports to enforcement staff.
- Working with the Lake Manitoba Commercial Fisherman's Association, the department implemented a moratorium on the 3-inch fishery mesh for two years. This will help with the long-term sustainability of the fishery.
- Central Region staff worked towards implementing a maximum mesh size on Lake Winnipeg. This helped to address numerous concerns from commercial and recreational anglers; in particular, that the harvest of spawning Walleye on Lake Winnipeg was unsustainable.
- Regional fisheries staff monitored the Whitefish Optimization Program. With department initiated changes to the program, staff worked to keep fishers informed on changes as the season progressed.

### ***Recreational Fishing***

- Central Region staff worked with various game and fish clubs to provide information and work with clubs to make changes to regulations on lakes within their areas.
- Central Region Staff issued 55 competitive fishing event permits. Most permits issued are for the Red River and Lake Winnipeg. Permits are issued to local game and fish clubs, organizations, businesses, and for requested citizen events such as family reunions.
- Central Region fisheries and enforcement staff continued with efforts to monitor recreational fishing pressures across the region.

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### ***Crown Lands Management and Programming***

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- The Inter-departmental Regional BLOC Planning Committee continued to review and update operational Crown land use codes to improve long-term land and resource use and reduced land use conflicts, and supports the Crown Lands Assistant Deputy Ministers Committee. A review of codes and associated maps was ongoing across the Region.
- Regional staff are responsible for the management, administration and enforcement of Crown land through communication with the public, issuance of permits, completion of site inspections, and dealing with compliance issues.
- The Region continued to update the pre-cleared list to reduce the amount of time required for regional review of new casual quarry permit applications, forwarded from Manitoba Growth, Enterprise and Trade.
- The Region participated in the review and development of Crown land policy documents that provided better direction to staff and improved the quality of service delivered to the public.
- The organization and mapping of all land use encumbrances into a digital layer commenced to aid staff in Crown land management throughout the region.

### ***Regional concerns are considered before land is allocated***

- Land use allocations were reviewed by the Region's Integrated Resource Management Team (IRMT) to ensure regional natural resource issues and operational considerations are included. This is accomplished

through the review of various circulars (e.g., sales, leases, permits, assignments, development plans, municipal by-laws, Environment Act proposals, environmental pre-screening.)

- A First Nation Assessment, including reviews in accordance with existing Treaty Land Entitlement Agreements, continued for all Crown Land disposition applications within the Region that may impact Treaty and Indigenous Rights.

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### ***Compliance and Enforcement Activities***

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- Regional staff responded to 2,922 district occurrence reports from the public, an increase of almost 25% from the previous year, related to parks safety and security, problem wildlife, and resource related complaints. In addition, staff provided representation on behalf of the department and professional advice to a large number of public industry, and interest groups on forestry, wildlife, Crown lands, parks, and other resource concerns and issues.
- Staff undertook 1,532 enforcement actions resulting in 762 prosecutions, 653 written warnings, and 87 evictions from provincial parks. These actions were primarily in response to public complaints on regulatory resource issues, and park safety and security concerns.
- The number of enforcement actions were down 6% from the previous year. This was primarily due to greater enforcement efforts focusing on night hunting activity which resulted in fewer contacts in the field as compared to other enforcement activities. Also, there was a noticeable reduction in the number of evictions from provincial parks; a 51% reduction as compared to the previous year.
- The Central Region Enforcement Strategy continued to provide direction to enforcement staff to identify the priorities with the region. Adjustments were made to scheduling and patrol efforts to address the increased efforts requested to enforce night hunting legislation. Considerable effort by all Conservation Officers was made to conduct an increased number of patrols during early morning, and after sunset. The effort resulted in three night hunting apprehensions, all of which are still before the courts.

### ***Problem Wildlife and Non-Regulatory Complaints***

- Education continued to be the first response in addressing problem wildlife and non-regulatory wildlife calls. Staff conducted more Bear-Smart presentations and requests from media in regards to bear, coyote, and deer related human-wildlife conflict situations; these have noticeably increased.
- In 2016/2017 the number of calls received in the region more than doubled from the previous year (1,759). Winnipeg District continued to receive the most problem wildlife and non-regulatory wildlife calls with almost 600 calls annually.
- The number of black bear complaints in the region increased from the previous year to a total of 442. The Grand Beach District accounted for 65% of all calls and continued to be the area of greatest concern.
- In Grand Beach District, the region has undertaken immobilizing all bears that are trapped and relocated. Each relocated bear was affixed with an ear tag for easy identification if it should return and pose a concern. The number of returning bears was higher than expected and confirmed that relocation in this area was only a temporary solution, requiring the need to deal with the same bear more than once.

### ***Central Region Wildfire Program***

- The Gypsumville District operated with two Initial Attack Crews and was the main base of operations for all wildfire suppression activities in the Central Region. There were 32 fires within the region in 2016. All fires were human caused. The Fire Prevention (education) Program continued to be a valuable tool in keeping the number of fires manageable.



**Outreach / Special Programs**

- Regional staff continued to participate in a Working Group with members of Peguis First Nation, Fisher Game and Fish Association, and the RM of Fisher, to address and resolve access concerns to Mantagao Lake located within the Mantagao Lake Wildlife Management Area.
- The Special Conservation Area, located at the St. Andrews Locks to protect pelicans from harm caused by fishing gear that has either been discarded or lost while sport angling, created many calls to the T.I.P. (Turn in Poachers) telephone line. Compliance patrols were conducted on a regular basis resulting in many prosecutions. A continued enforcement presence will be required to maintain public compliance.
- The region continued to play an active role in providing safety and security in Birds Hill Provincial Park during Folk Festival and many other special events that occur each year. Regional Operations staff participated in the beach safety review, conducted as a result of two drownings, in Birds Hill and Grand Beach provincial parks.

**Table RO.13  
12.2(d) Central Region**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	4,459	65.05	4,551	(92)	1
Other Expenditures	1,047		1,053	(6)	
<b>Total 12.2(d)</b>	<b>5,506</b>	<b>65.05</b>	<b>5,604</b>	<b>(98)</b>	

1. Under-expenditure is due to vacancies.

**Eastern Region**

The Eastern Region is comprised of rural towns, First Nation communities, Canadian Shield boreal forest, and agricultural lands. The region contains extensive tracts of natural undisturbed areas with the majority of the land not developed for human occupation. As a result, significant economic benefits are derived from natural resource based industries, such as forestry/peat harvesting, and from diverse recreational opportunities. Major programs administered by the region include park operations and maintenance, park safety and security, resource compliance/enforcement, wildfire suppression, as well as the delivery of regional Crown Land administration, fish, wildlife, and forest management programs.

Programs and public services are provided in the Eastern Region by multi-disciplined full time and seasonal staff working out of the Regional Office in Lac du Bonnet and District offices in Lac du Bonnet, Lake Winnipeg East, Pine Falls, Rennie, Seven Sisters, Sprague, Falcon Lake, Steinbach, and Beausejour. There are Sub-District offices in Berens River, Little Grand Rapids, and Bissett. Public lands in addition to undesignated Crown land administered through these offices include 14 provincial parks, 8 provincial forests, 9 wildlife management areas, and 13 ecological reserves.

**Key Results Achieved:**

**Hunter and Angler Compliance Levels**

- Conservation Officers conducted 1,258 big game, 142 upland game bird, 89 migratory bird, 6,889 angler, 547 Snopass, and 67 work permit inspections in the region. In addition, there were 29 decoy wildlife operations, 68 park evictions, and 400 cottage inspections conducted within parks.

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***Fire Management***

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- The region experienced a total of 36 wildfires, with a total of 16,683.5 hectares being burnt within the region. 28 of these fires were deemed to be human caused and 8 were started by lightning.
- On May 5, 2016 a fire was detected along the CNR rail line near Caddy Lake. The fire grew to 5,780.2 ha and resulted in the need to evacuate cottages in the Caddy Lake, Ingolf, Nora Lake and Florence Lake areas. Along with assistance of the OFC, an Ontario incident management team was brought in to assist with fighting the fire. The fire's final size was 5,780.2 ha, and destroyed one trapper's cabin and two buildings in the Ophir siding area. The fire was extinguished on June 14, 2016.
- On May 5, 2016 a fire was detected in Nopiming Provincial Park, consuming 12,723 ha within Manitoba and another 63,258 ha in Ontario. Cottage subdivisions in Beresford Lake and Wallace Lake were evacuated as a result of the fire. The department worked with the OFC to protect infrastructure and control this fire. The fire was deemed extinguished June 24, 2016.

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***Wildlife Management***

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- Wildlife staff continued to participate on the Committee for Cooperative Moose Management, to conserve eastern Manitoba's moose populations.
- GPS collars were placed on moose and wolves as part of a moose research initiative undertaken in partnership with Memorial University of Newfoundland, Manitoba Hydro, and the Assiniboine Park Zoo.
- Consultation processes continued with First Nations communities on a proposed extension of the Chief George Barker Wildlife Refuge.
- As part of a partnership initiative with the Rural Municipality of Stuartburn, the Nature Conservancy Canada and Manitoba Hydro, GPS collars were placed on elk in the Vita cross-border elk herd, and a joint Manitoba-Minnesota survey was conducted to assess elk numbers across the herd's overall range.

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***Fisheries Management***

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- As part of the long term Lake Sturgeon monitoring program, a population estimate was completed on the Nutimik / Numao Lake section of the Winnipeg River.
- Assisted Whiteshell Fish Hatchery staff with distribution of trout and walleye to numerous lakes throughout the region.
- Regional staff assisted Manitoba Hydro with the Coordinated Aquatic Monitoring Program; test netting on Lac du Bonnet, Pointe du Bois, and Manigotogan Lake were completed to determine the status of fish communities and monitor changes over time.

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***Regional Forestry and Peatlands Management***

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- The pine bark beetle infestation continued to expand in the region. In response, regional forestry staff implemented Fire Smart harvest patterns around local communities to reduce the threat of wildfires.
- 250,800 m<sup>3</sup> of timber was harvested within Forest Management Unit 24 and delivered in 2016/17. This represents 88% of the sustainable harvest level.
- Forest renewal operations included the planting of 1.05 million trees and the mechanical site preparation of approximately 1,000 hectares for future reforestation.
- Regional forestry staff continued to oversee the development of the eight licenced peat harvesting licence areas.

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***Parks and Park Operations***

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- Construction started on the six yurts at Tulabi Falls Campground.
- In the Betula Lake Campground, Whiteshell Provincial Park, a new modern washroom was opened to the public. In the Falcon Lakeshore campground, a new modern washroom and shower building was completed.
- June 24-26, 2016, a heavy rain event caused extensive damage to the infrastructure in the South Whiteshell area. Assessment of damages occurred throughout the summer and repairs through the Disaster Financial Assistance Fund were started.
- The Falcon Lake mall building was refurbished. The water treatment plant for the West Hawk town site was upgraded. A new water treatment plant at Caddy Lake was completed.
- The Moose Lake Provincial Park water treatment plant, modern washroom, and onsite waste water management facilities opened for public use.
- 25 campsites were upgraded to offer electrical service and all shower buildings in St. Malo campground were converted to pay showers.
- Additional life jackets were purchased for the loan kiosk at St. Malo Provincial Park in conjunction with the Friends of St. Malo Provincial Park Inc.

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***Cost-effective and professional delivery of field services to the public***

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- Conservation Officers from the Eastern Region continued to conduct patrols throughout Game Hunting Area (GHA) 26 to ensure compliance with the moose conservation closure. Conservation Officers increased fall patrol efforts to aid in the provincial mandate to reduce night hunting and dangerous hunting activities. Six aircraft assisted patrols were conducted to help in these efforts. While staff detected an increase in illegal activity, for the most part the closure in GHA 26 was respected.

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***Maintenance of effective community relations particularly greater involvement, participation, and co-operation of Indigenous people in resource management, and effective liaison with organized sportsmen's and park user groups***

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- Regional and District staff participated as provincial representatives at meetings with Indigenous groups and communities. Some of these regular meetings include:
  - Resource Stewardship Board meetings with Poplar River, Bloodvein, Little Grand Rapids, and Pauingassi First Nations.
  - The Eastern Region Model Forest Moose Management Committee which includes representatives from Indigenous groups, industry, and various other stakeholders.
  - Meetings with Indigenous groups in the consultation process regarding the development of the East Side Road and proposed World Heritage Site.
  - The Economic Development Subcommittee of the Shoal Lake Watershed Group tied into the Tripartite Agreement and the Shoal Lake 40 All Season Road steering committee.
- Regional staff continued to participate in discussions with Indigenous groups and rights based harvesters regarding management of the moose population in GHA 26 and 17A.
- Regional staff continued to work with various recreational trail committees (TransCanada Trail, ATV Manitoba, Snoman Inc. and Sandilands Ski Club) to oversee the development of recreational trails on Crown lands.

- Throughout the region staff continued to meet regularly with the Manitoba Trappers Association, Manitoba Wildlife Association and other user and special interest groups.
- Conservation Officers coordinated trapper education courses in remote Indigenous communities.
- Regional and District staff continued to meet regularly with the Whiteshell Cottagers Association, the Falcon-West Hawk Chamber of Commerce, and various other cottage associations and special interest groups to discuss park operations & maintenance and park safety and security issues.
- Regional and District staff met with local fire departments, Indigenous communities, RM councils, and railway companies to pre-plan for forest fire prevention and suppression operations.

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***Minimize the number of complaints related to problem wildlife***

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- In an effort to reduce the number of complaints received, staff continued to educate the public in regards to Bear Smart practices and other wildlife such as deer and wolves.

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***Regional concerns are considered before land is allocated***

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- The Eastern Region vetted all Crown land dispositions and applications, Licensing Advisory Committee (LAC), and mineral exploration applications by the appropriate district and the regional IRMT for review and consolidation of comments/recommendations.

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***Other Notable Highlights***

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- As part of the department's commitment to the recruitment and training program, Conservation Officers from the Eastern Region assisted with EVOC (Emergency Vehicle Operation Certification), firearm and other training throughout the province.

**Table RO.14  
12.2(e) Eastern Region**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	4,915	71.60	5,014	(99)	1
Other Expenditures	795		798	(3)	
<b>Total 12.2(e)</b>	<b>5,710</b>	<b>71.60</b>	<b>5,812</b>	<b>(102)</b>	

1. Under-expenditure is due to vacancies

## **Western Region**

The Western Region is a diverse area that encompasses a range of land based development and activities from urban centers to extensive agricultural and industrial development to remote undeveloped natural habitat. The region reaches from the United States border on the south to the northern end of Lake Winnipegosis and is geographically divided in half by Riding Mountain National Park. It was formerly two regions, South West Region and Western Region. Amalgamation of the two regions into the Western Region occurred a number of years ago with the regional office located in Brandon. Sub-regional offices are maintained in Dauphin and Swan River.

The region contains the majority of the Rural Municipalities in the province, and is the second most populated area of the province. Agricultural land use is predominant in the region while the northern sub-region supports a significant portion of the province's forestry industry. As a result of agricultural land use, there is abundant human-wildlife interaction resulting in more problem wildlife issues (beaver, coyote, and elk depredation). The region also has 6 of the 7 known elk populations in the Province and attracts significant numbers of resident

and Indigenous hunters. The region contains well-known natural topographic features such as the Spruce Woods sand dunes, Turtle, Riding, Duck, and Porcupine Mountains, as well as, Lake Winnipegosis. In addition, Lake of the Prairies is one of the premier walleye fishing areas in the province. Recreational and Commercial use of natural resources are a major economic stimulus in the region. There are 21 provincial parks in the region. The region contains the majority of outfitters in the province. Virtually all of the oil and gas activities in Manitoba occur in the southwest part of the region where the majority of the listed Species at Risk occur in Manitoba. The western region is also the only region with a major military base, CFB Shilo. Sustainable Development staff serves as members of the Shilo Environmental Advisory Committee.

All of the above uses and activities require extensive administration and monitoring under the Wildlife, Fisheries, Forestry, Parks, and Crown Lands Acts and Regulations and associated programs.

During the 2016/17 fiscal year, the administration of Wildlife, Fisheries, Lands and Forestry branch staff in the region transitioned from the branches to the region.

### **Key Results Achieved:**

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#### ***Cost-effective and professional delivery of field services to the public***

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- Several Conservation Officers (COs) were deployed to other Regions to assist with wildfire operations, including wildfire investigations. COs continue to spend many hours in the field to combat illegal hunting and fishing activities within the region.

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#### ***Western Region – Parks and Park Operations***

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- 18 campsites were upgraded from basic to electrical service and 6 family camping sites were added to Rainbow Beach Provincial Park.
- In the Spring of 2016, construction was completed at Blue Lake Campground in the Duck Mountains Provincial Park. Electrical improvements were made to 58 sites and camp sites were upgraded for larger camping units. This resulted in more camping opportunities for the public in both seasonal and transient camping.
- In the Fall of 2016, construction was started at Blue Lake's Group Use area, where sites received aesthetic and electrical improvements.
- Western Region staff worked with the Oak Lake Cottage Association and the Oak Lake Natural Areas Playground Committee to establish a new playground at Oak Lake Provincial Park. Completion of Phase 2 was done in 2016.

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#### ***Angler and hunter compliance***

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- COs conducted 1,325 big game, 24 upland game bird, 121 migratory bird, 5,456 angler, 22 Snopass, and 153 domestic fishing compliance checks. COs also undertook 159 timber operation inspections in the region. As a result of these compliance checks, there were 237 charges laid and 155 warnings issued.
- The spring Dauphin Lake and tributary walleye closure continued to be in effect during the spring spawning period. 452 First Nation fishers and 87 Métis fishers were checked while engaged in fishing during the closure. COs spent 326 staff-hours patrolling for compliance, which resulted in 24 written warnings for various offences. No major enforcement issues were encountered and cooperation was received from First Nations and Métis fishers.
- First Nation and Métis hunters and fishers continued to be very active in the Western Region. 226 First Nations fishers and 329 First Nations hunters were checked and Conservation Officers checked 301 Métis fishers and 156 Métis hunters.
- COs continued to conduct decoy and night operations to ensure compliance with wildlife legislation. Four trucks were seized in the Western Region as a result of night operations. Numerous decoy and night-time

operations were conducted in all areas of the region with a focus on areas that have a moose conservation closure, or where evidence of illegal or unsafe hunting practices were present.

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## ***Western Region – Fisheries Management***

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### **Public Outreach**

- Western Region staff assisted local angling groups with Beautiful Lake Walleye transfer and spring trap netting and Walleye telemetry on Vermillion Reservoir. Completed year 2 of trap netting study on Singush Lake to determine the species of fish within the lake. Selected Walleye and Northern Pike were tagged during the test netting to determine rates of growth of those species.

### **Fisheries Surveys/Monitoring**

- Western Region staff stocked 17,100,000 Walleye Fry, 15,184 juvenile/adult Walleye, 398 Northern Pike, 3,225 Yellow Perch, and approximately 220,000 salmonids in 80 waterbodies throughout the Western region, to supplement natural recruitment and diversify angling opportunities.
- Staff completed annual index netting on Lake of the Prairies, Dauphin Lake, and Lake Winnipegosis (CAMP), commercial sampling on Lake Winnipegosis and Dauphin Lakes, and completed the annual Dauphin Lake Walleye spawning monitoring.
- Staff conducted Lake Sturgeon research on the Assiniboine River as part of fish population assessments.
- Staff continued work on a Sustainable Fisheries Management Plan for Dauphin Lake with Treaty 2 representative and Lands and Waters Committee.
- Staff worked with Wildlife and Fisheries branch to develop an implementation plan for deploying an Aquatic Invasive Species Zebra Mussel containment plan and monitoring plan within the region.
- Staff consulted with Treaty 2 and other Indigenous ties concerning proposed spring conservation measures for the Walleye stocks on Dauphin Lake and its tributaries.
- Staff also participated in the Shellmouth Dam Liaison Committee meetings to manage the Lake of the Prairies' water levels to minimize impacts of fish stocks.

### **Commercial Fishing**

- Western Region staff continued working on a Sustainable Fisheries Management Plan for Swan Lake with Wuskwi Sipiik Indigenous Peoples and the Swan Lake Commercial Fisher's Association.

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## ***Western Region – Compliance and Enforcement Activities***

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- Regional enforcement staff initiated 439 charges, warnings, and evictions in 2016. This was down from 504 the previous year. However, charges and warnings for Wildlife Act and Wildlife Regulation offences increased to 147 in 2016, up from 116 the previous year. This increase is attributed to the department's focus on reducing illegal hunting activity within the region.
- A large enforcement effort was conducted by Western Region COs during the Fall of 2016, to address illegal night hunting and other serious resource poaching offences. As a result there were several hundred man hours of night patrols, close to 3 dozen decoy operations, several aircraft patrols, as well as special investigations and surveillances resulting in multiple charges, the seizure of four trucks, and ongoing investigations.
- As a result the south sub of the Western Region charges 10 individuals with Section 12 (1) of the Wildlife Act – Hunt a vertebrate animal at night with lights. The charges were a direct result of the increased funding provided for aerial surveillance and importation of staff from other regions.

- Several moose were unlawfully poached in the moose closure areas of GHAs 18 and 18(c), with investigations ongoing. Additional patrols were conducted to combat the illegal activity.
- A late winter and limited snow resulted in a reduced patrol effort for SNO Pass compliance and COs were still actively present in a few charges.
- An enhanced patrol effort was conducted in the Duck Mountain Provincial Park to address the unlawful activities of off road vehicles operating in restricted areas of the park in addition to related Off Road Vehicle Act infractions in multiple charges.
- Western region has the largest commercial forestry operating area in the province and the COs maintain a solid compliance patrol effort all year round. Compliance patrols were conducted to active cutting areas and charges were laid related to various offences under the Forestry Act and Regulations.

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***Maintenance of effective community relations particularly greater involvement, participation, and co-operation of Aboriginal people in resource management, and effective liaison with organized sportsmen's and park user groups***

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- The evolution of the Métis harvest rights issue continued to provide challenges to COs in the region since a higher number of Métis people are exercising their right to harvest fish and wildlife. Consultation continued with rights based groups to foster greater involvement in the decision making process and to seek greater levels of cooperation. COs were able to use compliance contacts with Métis people to develop relationships and to educate the resource users on current department enforcement protocols.
- Conservation Officers attended youth hunts (as members and speakers), Emergency Preparedness displays, resource user functions (trapper's meetings, commercial fisher meetings, seasonal campground draws, big game awards nights, junior rifle clubs, and the Manitoba Wildlife Federation Annual Convention), and participated in local Envirothons.

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***Minimize the number of complaints related to problem wildlife***

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- 465 occurrence reports regarding problem wildlife were received by district offices in the region in 2016/17. This represents a decrease of more than 100 over the previous year. Many of these complaints continue to be coyote/livestock related especially in the south portion of the region. Staff continued to educate producers on methods to minimize livestock or crop loss to problem wildlife.
- Staff educated the public on Bear Smart practices, with a focus on minimizing human-bear conflicts which can occur throughout the region.

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***Western Region – Wildlife Management***

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**Habitat**

- The Manitoba Hydro Bipole III project is erecting towers throughout the region. Western region wildlife staff have been monitoring habitat encroachment and construction activities to aid in moose recovery in moose sensitive zones.
- Western region assisted wildlife staff with the potential creation of a new WMA named the Sciater-Pine WMA, which will protect critical moose wintering habitat.
- The Harry-Cox Wildlife refuge had grassland re-establishment to further aid elk and deer in the area.
- Western region wildlife staff continued to work with the Forestry Branch and the forest industry to protect wildlife habitat in the Duck Mountain and Porcupine Mountain operating areas.
- Western region wildlife staff met with pasture managers from 10 community pastures to discuss habitat and biodiversity on community pastures.

## **Surveys/Monitoring**

- Western region wildlife staff continued to participate in annual provincial bird surveys, such as:
  - The provincial Sharp-tailed Grouse Lek surveys
  - Breeding bird surveys on Spy Hill Community Pasture
- Regional staff assisted with capture and relocation of wild turkeys.
- Regional and branch staff flew two winter moose surveys to monitor population levels for moose in GHAs 18, 18A, 18B, 18C, 13, and 13A since the moose conservation closure in 2011. The subsequent wolf surveys were not flown this year as there were poor snow conditions.
- A winter tick assessment was flown in the Spring of 2017 to continue monitoring moose tick damage in GHA 18.
- For the 2016 season, two proposals were presented to the Provincial Big Game Management Committee for consideration.
- Regional staff assisted in the disease monitoring program for Chronic Wasting Disease and Bovine Tuberculosis in the western region.
- Regional staff began to monitor bear scat to further investigate unknown facts influencing calf moose and elk survivorship during spring months.
- Regional staff performed habitat assessment/biodiversity surveys on Spy Hill Community Pasture.

## **Community Engagement**

- Western region wildlife staff continued to meet with numerous Indigenous communities about the current moose conservation closures and wildlife issues.
- A training session was held for several local communities to allow a more active role in moose surveys.

## **Wildlife Resource Use**

- Western region wildlife staff continued to oversee the allocation of foreign resident big game licence to licensed outfitters.
- A trapline was awarded to Tootinaowaziibeeng Indigenous Peoples in the Duck Mountain Registered Trapline (RTL) area. Regional staff assisted with the planning.

## **Other Notable Highlights**

- Western region staff assisted in hosting the 50<sup>th</sup> Annual Moose Conference and Workshop and the 8<sup>th</sup> International Moose Symposium in Brandon.

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## ***Western Region - Forestry and Peatlands Management***

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- Field sampling and planning was conducted for developing a 2016-2020 Operating Plan for historic plantations in Spruce Woods Provincial Forest. Approximately 1803 m<sup>3</sup> of over mature Jack Pine plantation was harvested near Spruce Woods/Shilo along with 212 m<sup>3</sup> of salvage dead timber.
- Coordinated IRMT review and approval conditions for LP Canada Ltd. and the Manitoba Quota Holders Association (MQHA) Operating Plans for 2016-2018.



- Cooperated with Forestry and Peatlands Branch staff on initiating Crown-Indigenous consultation on LP Canada Ltd. and the Manitoba Quota Holders Association (MQHA) Operating Plans for 2016-2018. Regional staff also initiated consultation on Regional Operating Plan for Spruce Woods Provincial Forest.
- Consultations related to moose recovery in the Mountain forest section continued with Indigenous communities and stakeholder groups. As part of the moose management strategy, planned timber harvest continued to be temporarily deferred from some key moose wintering areas.
- Forestry staff continued to work with smaller timber operators requesting access to salvage timber from declining stands. Efforts continued to be made to maximize utilization of timber from developments such as quarries, agriculture and Hydro Right of Ways (ROW).
- Coordinated review of 40 work permit applications for timber harvest.
- Provided assistance to Conservation Officers on conducting timber inspections and compliance investigations.
- Participated in Louisiana Pacific Canada Forest Management Planning Team for developing a Forest Management Plan for FML#3.
- Provided education assistance in natural resources for elementary school students, day care, and participated in a water festival with two Conservation Districts. More than 7,000 trees were planted with students and Boy Scouts in the Duck Mountains and Spruce Woods Provincial Forest.
- Developed and implemented a regional scaling work plan of factor sampling for various timber commodities at mill yards and in the bush, and scaling verification for timber report audits.
- Participated in Crown Land Code Review for FMU 11 (RM of Mountain South).

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### ***Western Region - Crown Lands Management and Programming***

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#### ***Crown Lands (Non Agricultural)***

- Manitoba's provincial Crown lands comprise approximately 40.5 million hectares. The Branch is responsible for provincial and regional level management and control of provincial Crown lands that are governed under The Crown Lands Act, The Wild Rice Act and The East Side Traditional Lands Planning and Special Protected Areas Act. Branch functions also include policy development and recommendations, the delivery of the Cottage Lot, Treaty Land Entitlement and Manitoba Geographical Names programs, and overseeing transactions administered through the Crown Lands and Property Agency (a special operating agency of the Manitoba Government).

#### ***Regional Land Management and Planning***

- Each Region is responsible for the management of Crown land and for the delivery of services through Regional Land Managers (RLM). The role of the RLM is involved in the development of departmental positions on various Crown land applications, including providing support to the Crown Lands Assistant Deputy Minister's Committee.
- The RLMs provided direction, advice and information to the Region's Integrated Resources and Environmental Management Team (IRMT) and Field Services Section staff, the Bloc Planning Committee, as well as other provincial and federal government departments, to local governments and external clients on matters related to provincial Crown land administration, Legislation, policies, procedures and guidelines. RLM also serves as Western Region coordinator to the Licence Advisory Committee for the collating responses from various disciplines of the Western Region in the review of applications.

- The RLM assists Government's cottage lot development initiative, continually identifying sites and assessing their potential for cottage lot development. This initiative requires consultation, and is working towards partnerships with First Nations and municipalities for future cottage subdivisions.
- The number of circulars by Region from April 1, 2016 to March 31, 2017 is as follows:

Application Type	NE Region	NW Region	Western Region	Central Region	Eastern Region	Total Applications
Development Time Frame	1	4			1	6
Easements	5	5	2	4	5	21
Leases & Permits	23	18	10	3	16	70
Licence of Occupation					1	1
Purchase	6	3	8	10	5	32
Wild Rice			5		1	6
Totals	35	30	25	17	29	136

### Key Results Achieved:

- The Region participated in a number of code change reviews as part of the Block Planning Committee that includes the Rural Municipalities of Alonsa, Mountain South, and North Cypress.
- Coordinated and assisted in the development of drone technology for reviewing Crown land parcels for land management decisions. This included assisting with hydrological review for culvert replacements in a cottage subdivision.
- Worked with two Indigenous community councils to coordinate Crown land encumbrances within their community plans which include Camperville, Duck Bay, and Dawson Bay Community Councils.
- Continued to assist the Cottage Lot Program through the availability of Crown land recreational cottage lots and the transfer of cottage lot subdivision agreements to the rural municipalities in conjunction with Lands Branch.
- Contributed to the completion of six seismic applications in Manitoba that amounted to 1.1 million dollars spent in the Province of Manitoba in 2016.

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### **Western Region – Wildfire Suppression Activities**

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The Region has two Initial Attack (IA) crews located at the fire base in Swan River. These crews, along with a number of district fire rangers, provided logistical support and the backbone of wildfire suppression activities within the region. As fire conditions dictate, additional IA crews were brought into the region to assist, or the Western crews are exported outside the region to assist in other locations. Only 2 wildfires occurred within the region in 2016.

**Table RO.15  
12.2(f) Western Region**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,908	70.30	4,840	68	
Other Expenditures	910		904	6	
<b>Total 12.2(f)</b>	<b>5,818</b>	<b>70.30</b>	<b>5,744</b>	<b>74</b>	

# Parks and Protected Spaces

Parks and Protected Spaces Branch is responsible for managing provincial parks, ecological reserves, and the Canadian Heritage Rivers System, and building a protected areas network for the long-term benefit of Manitobans and the environment. These lands protect unique, representative, or outstanding natural, cultural, and heritage features and resources, conserve ecosystems, and provide recreational and educational opportunities to approximately five million visitors each year.

## Key Results Achieved:

- Generated \$18.0 million in revenue by persons using the parks for personal enjoyment, commercial and general use.
- Park visitation exceeded 5.7 million visitors with cabin, yurt, group use and campsite reservations numbering 70,318.
- There was a continued focus on environmental infrastructure including water and wastewater systems and investments focused on back to basics with the replacement and upgrading of existing park facilities.

## Administration Section

The Administration Section is responsible for establishing strategic direction and guidelines, ensuring conformity to department policies and government goals and assessing the effectiveness of programs and services offered to the public. This section provides many functions including administrative and human resources support, capital budget coordination, and the management of fees collected from park users, commercial concessions, and the leased properties. Work programs are reviewed to ensure that goals are met and that expenditures conform to estimates, legislation, and policies. The Branch participates on the Canadian Heritage Rivers Board and the Canadian Parks Council. Grants were provided to the International Peace Garden, Manitoba Wildlife Foundation (upkeep and public programs at Fort Whyte Alive), and the Manitoba Coalition for Safer Waters (water safety, public education and programming).

## Key Results Achieved:

- Managed park programs and facilities in accordance with policies, procedures, and standards to meet branch, department, and government goals.
- Developed park programs and facilities according to branch current and capital spending estimates.
- Provided grants to organizations who implemented activities in accordance with branch policy, departmental mission, and government priorities.

## Planning and Protected Areas Section

The Planning and Protected Areas Section guides establishment and management of provincial parks and ecological reserves, manages the Canadian Heritage Rivers Program in Manitoba, and through the Protected Areas Initiative is building a network of protected areas that represents Manitoba's 16 ecoregions. The Section also undertakes environmental licensing and land use allocation reviews.

## Key Results Achieved:

- Participation on the Canadian Council of Ecological Areas Board of Directors; the Technical Planning Committee of The Canadian Heritage Rivers System; the Canada Parks Council Climate Change Working Group; the Canadian Council of Fisheries and Aquaculture Ministers Oceans Task Group on Marine Protected Areas; and contributed to various Pathway to Canada Target 1 Expert Task Teams and the Pathway to Canada Target 1 Communications Committee;
- Reviewed *Environment Act* Licence proposals, Crown land circulars and related items for proposed developments to assess possible implications on lands of interest to or administered by the Branch (provincial parks, park reserves, ecological reserves, areas of special interest, proposed protected areas)

- Consulted with Indigenous communities, stakeholders and the public to advance park system planning, and management planning.

### **Park System Planning and Ecology**

This program is responsible for the strategic direction of the Manitoba provincial park system, as well as, establishing both new and revised park boundaries, classifications, primary park goals and objectives, and land use categories. This is done via consultation involving the public, industry, stakeholders, Indigenous communities, and government agencies. A major function is undertaking the review process required to confirm permanent designations for existing park reserves. The program is also responsible for Manitoba's ecological reserves program, including the designation and management of ecological reserves.

#### **Key Results Achieved:**

- Initiated processes towards achieving the department mandate of acting "on the required consultation for the future of land under park reserve status."
- Two park reserves, Goose Islands and Grand Island, were designated again as park reserves in December 2016 for a six month period with the intention of conducting further public consultations on proposals to designate the park reserves as provincial parks.
- Work continued on the restoration of tall grass prairie in the Cordgrass and Millennium sites in Beaudry Provincial Park.
- Remediation and restoration of natural vegetation began by Tundra Oil & Gas on the former oil and gas well sites at Lulu Lake in Turtle Mountain Provincial Park.
- The department continued to review information received from the last round of consultation on Polar Bear Provincial Park study area and is continuing to work to engage with local First Nations and stakeholders.
- Interim restrictions continued to be in effect for licensed trapping within provincial parks until a review of trapping activities in relation to public safety and public consultation in parks has been completed.
- Invasive species management initiatives were undertaken in St. Malo (herbicide application for leafy spurge) and Grand Beach provincial parks (manual removal of flowering rush).

### **Ecological Reserves**

Ecological Reserves are established under *The Ecological Reserves Act* to protect areas with unique and representative plants, animals, geologic features, natural landscapes, and ecological processes.

#### **Key Results Achieved:**

- A five-year Report to the Legislature on the Status of Ecological Reserves was tabled.
- Monitoring bats for white-nosed syndrome was conducted in Walter Cook Caves and Lake St. George Caves ecological reserves.
- Field surveys were conducted in southwest Manitoba to assess areas for potential designation as ecological reserves.

### **Management Planning**

The Park System Planning and Ecology Section is responsible for preparing park management plans, developing park policies and facilitating resource management projects. Development of management plans for individual provincial parks is a requirement of Section 11 of The Provincial Parks Act. Management plans address topics such as park use, landscape protection, and recreational development, and ensure that the main purposes of the park are considered when land-use decisions are made. They provide details on what

land uses are appropriate and ensure that new activities or developments are compatible with the long-term management of the park.

#### **Key Results Achieved:**

- Public consultation was held on draft management plans for parks in the Western Region, including Grand Valley, Criddle/Vane Homestead, Oak Lake, Rivers, Seton, and William Lake provincial parks, and Yellow Quill Provincial Park in the Central Region.
- Work continued on a management planning process for Manigotagan River and Nopiming provincial parks.
- Management plans were completed for Kinwow Bay and Sturgeon Bay provincial parks.
- A management planning process was initiated for five parks in the Northeast Region, including Burge Lake, Paint Lake, Pisew Falls, Sasagiu Rapids and Zed Lake provincial parks.
- Public consultation was held on a draft Trails Plan for Birds Hill Provincial Park.

#### **Canadian Heritage Rivers System**

The Canadian Heritage Rivers System (CHRS) is Canada's national river conservation program. It promotes and enhances Canada's river heritage, and ensures that Canada's leading rivers are managed in a sustainable manner. The CHRS is built on river stewardship, cooperation, and public support. Rivers in the CHRS possess outstanding natural and/or cultural values, offer quality recreational opportunities, and showcase the benefits of healthy river environments, now and in the future. The Bloodvein, Hayes, Red, and Seal are Manitoba's Canadian Heritage Rivers.

#### **Key Results Achieved:**

- Continued to fulfill CHRS obligations such as the preparation of annual monitoring reports for each of Manitoba's Heritage Rivers.
- Work was initiated on the preparation of a ten-year monitoring report for the Hayes Canadian Heritage River.

#### **Protected Areas Initiative**

The Protected Areas Initiative (PAI) contributes to long-term sustainable development by building a network of designated protected areas that conserve ecosystems and maintain biodiversity in all 16 ecoregions across the province. Protected areas provide a range of ecological services, which have economic benefits to communities and businesses including natural regulation of water flow, water quality improvement, carbon storage and biodiversity conservation. They also conserve land and water where Indigenous people can continue their traditional activities such as trapping, hunting, fishing, and medicinal plant collection.

Currently, 7.1 million hectares (or 11.0 per cent of Manitoba) are protected. This includes two national parks, 30 ecological reserves, all or parts of 42 provincial parks and interim protected park reserves, all or parts of 51 wildlife management areas, parts of two provincial forests, parts of four traditional use planning areas, and private lands owned by Ducks Unlimited of Canada, Nature Conservancy of Canada, and Nature Manitoba. Protected areas are land, freshwater, or marine areas where logging, mining, oil and gas exploration and development, hydroelectric development, exploring for and harvesting peat, and other activities that may significantly and adversely affect habitat are legally prohibited.

#### **Key Results Achieved:**

- Initiated process towards achieving the department mandate of developing "a framework to reconcile the needs of industry and rural and northern communities while continuing to enhance the network of protected areas in Manitoba's natural regions".

- Initiated reviews and field surveys of several sites in southwest Manitoba to assess areas for potential protected areas designation.
- Contributed to national reports on the expansion of Manitoba's protected areas network.
- Manitoba fulfilled its \$7,000,000 commitment to the Nature Conservancy of Canada Manitoba Region Conservation Program Grant Funding Agreement. Grant funding contributed to conservation programming, helped to deliver on objectives to conserve and protect important habitats and areas of ecological significance.
- Reviewed Environment Act Licence proposals, Crown land circulars, and related items for proposed developments to assess possible implications on lands of interest to the PAI. Maintained effective relationships with other governments, non-government organizations, and Indigenous organizations.

### **Development and Operations Section**

The Development and Operations Section provides regional operations support, development direction, capital planning, landscape architectural design and project management for Manitoba Provincial Parks.

### **Design and Development**

The Design and Development unit provides development direction, site planning and public facility design services. The unit is responsible for all facets of planning, design and development within the Manitoba Parks system as it relates to park infrastructure, including the coordination of program budgets and the management of projects. This section also provides landscape architectural, and project management capacity, overseeing the design and implementation of capital works projects within provincial parks. A major function of this team is the development of new and the improvements of existing facilities, ensuring parks have maintainable, operable, and accessible facilities that meet visitor expectations and functional requirements.

### **Key Results Achieved:**

- Completed partnership project with the Winnipeg Folk Festival to support water system improvements at the Group Use Two area in Birds Hill Provincial Park.
- Campground electrification improvements and campsite enhancements were completed at St. Malo Provincial Park.
- Campground electrification improvements and campsite enhancements were initiated at the Blue Lake campground in Duck Mountain Provincial Park.
- Construction was completed on the Winnipeg Beach seawall upgrade at Winnipeg Beach Provincial Park.
- Construction was completed on the Paint Lake Provincial Park yurt project.
- Construction of a new playground at Falcon Lake Beach was completed.
- Construction was completed on the Bloodvein Boat Launch and Parking Lot near Bloodvein First Nation on the east side of Lake Winnipeg.
- Construction and installation of interpretive signage, trailhead and feature sign was completed and The Brokenhead Wetland Interpretive Trail and Boardwalk was officially opened on June 22, 2016.
- Construction was completed on roof and siding upgrades on the mall at Falcon Lake in Whiteshell Provincial Park.
- Construction was completed for a new food kiosk building at Grand Beach, along with renovations to the existing Pavilion 1 building.

- Work continued on West Gate improvements at Birds Hill Provincial Park including the definition of three traffic lanes. Construction began for an addition to the existing West Gate building to improve the function of that facility, and the addition of a kiosk building for the second service lane.
- Repairs and improvement work continued at Spruce Woods Provincial Park. Construction was completed on a new entry road, internal road system improvements, south park arrival sign, erosion control along the Assiniboine River, and new lift stations and a new force main to connect to the new sewage lagoon.
- Design work was initiated for new campground offices at Spruce Woods Provincial Park and at Blue Lake in Duck Mountain Provincial Park.
- Construction is ongoing for a new yurt village at Tulabi Falls in Nopiming Provincial Park.
- Design work was initiated for new development plans at Duff Roblin Provincial Park.

### **Process and Operations**

The Process and Operations unit coordinates the development of policies, procedures and legislation related to park operations and the delivery of core services within the Manitoba parks system. The unit provides centralized support and direction for ensuring that all regulatory processes related to facilities and core services are being maintained. Primarily, these control measures are delivered for drinking water, waste handling, and wastewater treatment operations. The unit is responsible for coordinating engineering assessments, compliance plans, operator certifications, as well as working in conjunction with the Design and Development unit on the planning and delivery of new and upgraded facilities.

### **Key Results Achieved:**

- Design work remained ongoing for wastewater facility improvements at Rivers Provincial Park and Adam Lake in Turtle Mountain Provincial Park as well as for a new truck haul facility in the south Whiteshell area.
- Design work continued for a water treatment system at Brereton Lake and was re-initiated for a wastewater lagoon in the south Whiteshell.
- Water treatment plant upgrades were completed at Moose Lake Provincial Park.
- Water treatment plant upgrades continued at Grand Beach and Wekusko Falls Provincial Parks and Opapiskaw and Caddy Lake campgrounds in Whiteshell Provincial Park.
- Design work continued on the Grand Beach Wastewater Lagoon Upgrade project.
- New water treatment upgrades were initiated at St. Malo Provincial Park in partnership with federal funding dollars.

### **Recreation and Education Services**

The Recreation and Education Services section sets the direction of the outdoor recreation, beach safety and the interpretation programs in Manitoba Provincial Parks, evaluates, and implements new initiatives in campground, day-use, backcountry management and outdoor education, as well as customer-service training and volunteer activities. The section guides and supports Regional Operations in ensuring high quality outdoor recreational experiences. This includes analysis of operating strategies and procedures, policy review, market research, marketing strategy development, promotion, and statistical compilation and trend evaluation.

### **Recreation Programming**

The Recreation Programming Unit is responsible to provide recreational opportunities that are diverse in scope through camping, cabins, and yurts, and group use facilities through fair and equitable access to provincial

parcs. The program must ensure that both field and head office staff provides quality customer service. The Parks Reservation Service and Seasonal Camping are major components of Recreation Programming.

#### **Key Results Achieved:**

- Ensured delivery of the recreation programming in Manitoba's provincial parks including nightly and seasonal camping; cabins and yurts; group use; Parks Reservation Service; and Campground Host.
- Reservations were made available through a call centre, online and through 32 campground offices in 2016. There were two opening days for reservations. Cabin, Yurt, Group-Use area, and Birds Hill Campground reservations opened mid-March and all other campgrounds opened on the first Monday in April. There are 64 yurts across 8 provincial parks, and 34 cabins in 2 provincial parks.
- Camper's Cove expanded their yurts from 6 to 9 and Kiche Manitou Campground added 1 more yurt bringing their total to 14.
- Infrastructure improvements were seen at several campgrounds in 2016. Betula, Moose Lake, and St. Malo (Sunset Shores) campgrounds all received new washroom and shower buildings. Blue Lakes, St. Malo and Manipogo converted basic sites to electrical service.
- Park programs and initiatives were promoted through daily tweets, news releases, and handouts. Information included opening and closing dates, Free Park Entry on select weekends, May long weekend liquor-free camping, and the Parks Reservation Service. Also included was the distribution of promotional items to community events, non-profit organizations, and youth groups.

#### **Beach Safety**

The Beach Safety Program is primarily focused on public education and water safety programming. Safety measures provided at 83 provincial park beaches include signage and public education materials, buoy lines, and risk management. Beach Safety Officers provided on-site water safety education and emergency response at three high-use provincial park beaches – Birds Hill, Grand Beach and Winnipeg Beach.

#### **Key Results Achieved:**

- Beach Safety Officers (BSOs) made 36,435 visitor contacts at three provincial park beaches during summer 2016. The nature of contacts predominantly consisted of public inquiries, child supervision reminders to parents/guardians, and injury prevention education. BSOs responded to 16 "major" medical emergencies and 12 water rescues. 2016 was the first year of five-year beach safety services agreements with two Manitoba companies - Criti Care EMS Inc. at Birds Hill Provincial Park, and Emergency Rescue Response Services at Grand Beach and Winnipeg Beach Provincial Parks.
- The Beach Safety program has experienced great success in intercepting thousands of risky behaviours from occurring over the years; however two tragic drowning events unfolded at Grand Beach Provincial Park and Birds Hill Provincial Park beaches in August 2016. Following the Grand Beach incidents, the department announced its intention to review the Beach Safety program and examine the effectiveness of existing Beach Safety program components. Incident reviews found that emergency response protocols were successfully executed by all involved agencies and that public service standards were maintained.
- Grand Beach (West Beach) and Winnipeg Beach (Main Beach) were re-certified under the Blue Flag program. The Blue Flag is a highly respected and recognized international eco-label that symbolizes clean and well-managed beaches and marinas. The international designation recognizes the beach's high standards of service related to environmental management, water quality, environmental education, and safety and services.
- St. Malo Provincial Park continued delivery of the "Beach Smart" water safety program at Main Beach and Sunset Shores Beach. Programming includes park interpreters delivering water safety messaging, life preserver ring stations with emergency alarms, and life jacket loan kiosks.



Sustainable Development continues to work with the Manitoba Coalition for Safer Waters (MCSW), an interagency group that coordinates water and ice safety activities in Manitoba. The department annually provides \$5,000 for public education initiatives with a focus on water safety for the new Canadians.

## **Interpretation**

The Interpretation Program offers visitors a deeper understanding and appreciation of natural and cultural resources in provincial parks. This in turn assists the public in understanding the goals and programs of the department. Live field programs complemented by publications, outdoor exhibits, and audio-visual materials bring visitors in direct contact with park resources and management. The program also undertakes research leading to brochure development and delivery of live programs throughout the park system.

### **Key Results Achieved:**

- Delivery of the field program included 3 year-round interpreters at Birds Hill, Spruce Woods and Whiteshell provincial parks, and 9 seasonal interpreters. Programs were presented at Birds Hill, Grand Beach, Hecla/Grindstone, St. Malo, St. Norbert, Spruce Woods, and Whiteshell Provincial Parks. In addition, Green Team Interpretive Assistant members provided assistance at these parks.
- Interpreters at St. Malo Provincial Park continued to focus on “Beach Smart” messaging to beach users.
- Due to a late resignation, the seasonal interpreter position at Grand Beach was vacant. Interpreters from other locations conducted minimal programming at Grand Beach and Winnipeg Beach in order to maintain the Blue Flag designations at both locations.
- Interpreters contacted approximately 51,500 visitors at interpreter-led events and in interpretive centres and museums. This was an increase of about 25% over the last year, attributed to the return of seasonal junior interpreter positions at Spruce Woods. However, the number of contacts remains down about 55% from the long-term average, attributed to the continued reduction of park interpreter positions across the province.
- School programs were conducted in all 7 locations in June and over the fall, winter, and spring at Birds Hill, Spruce Woods, and Whiteshell. Programs correlated to the Manitoba Education School Curriculum. Provided 280 school programs to approximately 7,000 Manitoba students.
- Hosted 3 workshops for science and social studies teachers as part of October in-service and development days, focusing on getting students in all grades into provincial parks.
- Continued partnership with ‘Leave No Trace Canada’ to promote low-impact activities in provincial parks and incorporated ‘Leave No Trace’ principles into interpretive programming and trail refurbishment.
- Annual trail refurbishment initiative saw new trailhead structures and interpretive signs erected for 15 trails in six parks.
- Updated self-guiding trail publications for six locations.
- The Heritage Properties Program was coordinated in Manitoba’s Provincial Parks including building assessment and restoration work at Hecla/Grindstone and Whiteshell. The Captain Kennedy House in River Road Provincial Heritage Park was closed due to structural concerns.
- The children’s activity booklet program continued to see a reduction in number of redemptions; less booklets were distributed due to the reduction of interpretive programs across the province. Only 200 booklets were redeemed compared to the previous annual average of 1,500. Booklets were available for distribution in every campground and at every interpretive event.
- The Provincial Park Passport to Adventure program continued to see a reduction in number of redemptions; less booklets were distributed and less stamps were available due to the loss of interpretive programs across the province. Only 37 passports were redeemed this year compared to the previous

annual average of 50. To date, over 1,900 park visits have been prompted by the program since its inception in 2009. Passport booklets were available for distribution in every campground and at every interpretive event.

- Winter public programming continued at Birds Hill, Spruce Woods and Whiteshell provincial parks with interpretive programs being offered on winter recreation trails and in the interpretive centres.
- A Manitoba Parks Twitter channel was coordinated through the Interpretation Unit. Daily content focused on promoting recreation, interpretive programs, and parks news.

### Key Program Outputs:

Outdoor Recreation Programming	Amount
Number of visitors	5.7million
Total Number of campsites*	6,128
Transient Campsites*	4,570 (4,093 available for reservation or 89.6%)
Transient Camping Nights	210,416
Seasonal Campsites (number does not include Permanent Trailer Village or Concessionaire campsites)*	1,527
Campgrounds offering reservation	44
Group Use Sites**	95
Family Vacation Cabins	34 (at 2 locations)
Yurts	63 (at 8 locations)
Reservations	70,318 (87% of camping stays in computerized locations reserve ahead)
Reservation Rate, compared to 2014/15	1,475 more reservations or 2% increase
Reservations made through Web	84%

\* campsites closed due to flooding not included.

\*\*2 recreation halls included.

### Cottaging and Commercial Development

The Cottaging and Commercial Development section administers the vacation home lot development program, commercial operations and Special Consideration Organization (SCO) operations under the authority of *The Provincial Parks Act* and regulations, including the Park Activities Regulation and the Permits and Leases Regulation. The section manages and controls land use activities and developments on vacation home, commercial business, and SCO lots through a site plan permitting process. The section takes a lead role in the resolution of development related disputes between neighbors. Management decisions are prescribed in various legislation, regulations, and policy guideline documents such as *The Cottager's Handbook for Manitoba Provincial Parks*. Some of the costs of road maintenance, garbage disposal, provision of water and sewer and other municipal type services provided to lease and permit holders, and private landowners are recovered from those users through an annual invoicing program carried out by the Crown Lands and Property Agency (CLPA). Permits are also issued by CLPA for commercial fish camps, wild rice cultivation, trap line cabin construction, hay and grazing, scientific research, and mineral claim-staking and exploration.

### Key Results Achieved:

- Initiated process towards achieving the department mandate of; "Institute a two-year moratorium on all lease and service fees for cottages found within provincial parks." In July 2016 the province of Manitoba announced a regulated two-year moratorium on previously projected increases to park land lease and service fees for cottages in provincial parks.
- Process towards revising and updating *The Cottager's Handbook* was implemented.

## Vacation Home Lot Development Program

The Program, in cooperation with the Crown Lands and Property Agency, administers about 6,300 vacation homes on leased, permitted, and private lands in Parks.

### Key Results Achieved:

- 295 permits were issued for cottage construction or structural modification.
- 80 leasehold inspections were carried out (based on cottage lease renewals)
- \$7.9 million revenue generated in land rent, service fees, permits, and lot development fees.

### Commercial Operations

This unit manages relations with private-sector business operators, via leases and permits, to ensure high-quality services for visitors.

### Key Results Achieved:

- Approximately 149 commercial operations provided such services as restaurants, stores, accommodations, golf courses, marinas, and concessions throughout Manitoba's provincial parks.
- There was 44 Special Consideration Organizations throughout Manitoba's provincial parks.

**Table RO.16**  
**12.2(g) Parks and Protected Spaces**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	16,593	248.75	16,630	(37)	
Other Expenditures	10,888		9,483	1,405	1
Grant Assistance	460		461	(1)	
Less: Recoverable from Rural Economic Development Initiatives	(472)		(472)	0	
<b>Total 12.2(g)</b>	<b>27,469</b>	<b>248.75</b>	<b>26,102</b>	<b>1,367</b>	

1. Over-expenditure is due to write off of Capital Projects and Parks Maintenance costs related to Hecla golf course operations agreement, higher Crown Land and Property Agency service costs, and Beach Safety program operations.

# Fire and Emergency Response Program

The Provincial Wildfire Program is responsible for the prevention, detection and suppression, of wildfires. The program manages all human and equipment resources needed for fighting wildfires in the province. Staff monitor weather patterns, lightning strikes, soil moisture and forest conditions to determine the probability and location of wildfires.

Manitoba's Wildfire Program works in close cooperation with other forest fire fighting agencies and jurisdictions. Equipment and other resources are shared through the Canadian Inter Agency Forest Fire Centre.

## 2016/17 Objectives and Key Results Achieved:

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***To coordinate the Provincial Wildfire Program to ensure maximum utilization, efficiency and cost-effectiveness of fire suppression resources to minimize human, property and resource losses.***

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- The 2016 wildfire season was below average in terms of the number of fires reported and hectares burned at 38,408. Full response fires totaled 163, limited response at 24 and no action at 15. There were 96 fires caused by lightning and 106 human caused fires.
- Two large border wildfires occurred on the Manitoba/Ontario border at Beresford Lake in the north and Caddy Lake in the south in early May. This resulted in several joint value protection operations between the Manitoba and Ontario Wildfire Programs.
- Value protection was a major part of the suppression activities on the two border fires due to the number of cottages and other infrastructure at risk. Hundreds of personnel from the two provincial agencies including personnel from the Office of the Fire Commissioner and Mutual Aid Fire departments were involved in the structural protection efforts.
- The weather pattern from June through the remainder of the wildfire season was wet and humid resulting in a lower number of fire starts.

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***To minimize the number of human caused fire starts through prevention and education.***

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As reported by the regions in weekly reports, the following statistics apply to human caused wildfires:

- 95 Human Caused Wildfires were reported.
- 70 Human Caused Wildfires were investigated, of the 23 that were not investigated 21 because the investigation was deemed not warranted and 2 because investigator not available.
- Human Caused Wildfire Investigations resulted in 12 Prosecutions and 26 Warnings.
- 21 Human Caused Wildfires were investigated further by trained Wildfire Investigators. The statistics are as follows:

Human Caused Wildfires by Region		Investigated
Central	30	4
Western	7	2
Eastern	22	6
Northwest	10	4
Northeast	26	5
<b>Total</b>	<b>95</b>	<b>21</b>

Cause Determined	
Intentional	43
Accidental	25
Negligence	24
Unknown	3
<b>Total</b>	<b>95</b>

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***To provide the capability to detect, report and safely initial attack all fires throughout the province with minimal costs and loss in accordance with the Initial Attack Preparedness System and Fire Program Policy and Operational Guidelines.***

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## **Air Operations**

- Single Engine Air Tanker (SEAT) aircraft were activated for spring training earlier than normal due to the dry conditions.
- First Air Tanker dispatch occurred on April 28, 2016.
- In early May, two separate fires in the Whiteshell and Nopiming Parks forced evacuations in those areas. Both fires required the deployment of Incident Management Teams.
- Fire activity was low throughout most of the Province for much of the remainder of the wildfire season. The other wildfire of significance during that period occurred near Easterville in late June and forced the evacuation of the community.
- Manitoba Government Air Services fire suppression fleet (CL-215s / 415s & birddogs) were released progressively after the September long weekend.
- Water bomber quick strike support was provided on two occasions, one to Ontario in May and one to Saskatchewan in July.
- Manitoba received one Air Tanker quick strike from Ontario in May.
- Manitoba had 5 helicopters on long-term contract for the 2016 season.
- Total aircraft expenditures were approximately \$14.4 million in 2016 compared to \$16.9 million in 2015 and \$6.5 million in 2014.

### **Aircraft Utilization Summary:**

#### **Fixed Wing Aircraft**

##### Airtankers / Birddogs / MGAS Otters

MGAS CL-215 / 415 hours flown: <b>480.1</b>	2015: 887.5
MGAS Birddog hours flown: <b>262.7</b>	2015: 494.3
Casual Hires, Birddog / SEATs hours flown: <b>135.6</b>	2015: 269
MGAS Otters, hours flown: <b>594.3</b>	2015: 778.8

#### **Rotor Wing Aircraft**

##### Helicopters / Long term Contract:

Intermediate R/W Hours flown: <b>384.5</b>	2015: 494.2
Medium R/W Hours flown: <b>732.8</b>	2015: 1240.6

##### Helicopters / Short term Contract:

Light R/W Hours flown: <b>14.0</b>	2015: 268.3
Intermediate R/W Hours flown: <b>796.4</b>	2015: 3567.8
Medium R/W hours flown: <b>439.7</b>	2015: 710.3

## Science and Technology

- The weather station at Little Grand Rapids was relocated and replaced with a new weather station that transmits via the GOES satellite. This station is now located approximately 300 meters from the old location. The new location has improved wind exposure, is located further away from the water and is now on a bedrock ridge.
- The FireView webpage was operational and actively used by the public and other agencies during the 2016 spring wildfire events which occurred in Whiteshell and Nopiming Provincial parks.
- Work started on the creation of an interactive mapping tool which will display hourly fire weather data from Manitoba weather stations. While these tools are targeted for public consumption they will also provide partner agencies, researchers and schools with access to real-time weather data.
- Work started on a new weather station site to accommodate the relocation of the existing weather station at Cranberry Portage in order to mitigate the influences of Athapapuskow Lake on this site. The station installation is planned for the summer of 2017.

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### ***To assist in the prevention of forest fires through public education***

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- Developed and provided public displays, education materials, and advertising materials specific to Manitoba as public education tools in areas of wildfire awareness, wildfire preparedness, and fire danger.
- Analyzed regional and seasonal trends in human caused wildfires to ensure effective and efficient messaging.
- Included the Head Park Interpreter and the park interpreter program on the Provincial Wildfire Prevention Committee to access their frontline experience with outdoor users for the future development and delivery of wildfire prevention and mitigation outreach materials.
- Held meetings with other departments, Branches and stakeholders to promote the benefits of FireSmart, including developing and implementing wildfire protection and hazard mitigation initiatives such as vegetation management plans for the forested areas surrounding communities and cottage subdivisions to mitigate the risks of wildfires.
- Worked on the development of pre-response plans and sprinkler deployment plans for the Paint Lake Provincial Park area in the Northeast Region. Started the initial assessment work for similar plans in the Clearwater Lake area of the Northwest Region.
- Maintenance on FireSmart demonstration sites continued at Falcon Lake Riding Stables, Falcon Lake District Office, Manitoba Forestry Association's Hadashville site, and the RM of Victoria Beach.
- Assistance was provided to stakeholders including other branches, the Office of the Fire Commissioner, Manitoba Hydro, local government, and the Sandilands Forest Discovery Centre by supporting or promoting their efforts in areas of wildfire hazard mitigation, public education, and community protection. The Wildfire Program encouraged local adoption and championing of FireSmart and wildfire prevention initiatives.
- Discussed FireSmart concepts and initiatives with interested Rural Municipalities to introduce FireSmart concepts into pre-response and mitigation plans.
- Continued direct public outreach and public education opportunities through various audiences including children's groups, cottage associations, and outdoor users.
- Maintained and updated the Manitoba Wildfire Program Restriction page as and when required, ensuring accurate information was displayed for public use.

- Delivered a Local FireSmart Workshop in accordance with the national FireSmart Canada Community Recognition Program and in cooperation with the Manitoba Office of the Fire Commissioner.
- Continued to promote National Community Wildfire Preparedness Day, a national wildfire pre-response awareness initiative, to communities and municipalities across the province using print, web based and social media methods.

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***To provide a trained complement of fire-line staff to successfully meet policy objectives.***

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Fireline training included:

- 84 Type II Emergency Fire Fighters were trained and certified. 36 new Type II Emergency Fire Fighter Crew Leaders were trained and certified.
- 234 Type III Emergency Fire Fighters were trained and certified. 55 Type III Emergency Fire Fighter Crew Leaders were trained and certified.
- 42 new Initial Attack Crew Members (Type I) were trained and certified to the Canadian Interagency Forest Fire Centre (CIFFC) Exchange Standards. Including, I-100, Hover Exit, WHMIS, TDG, and Chainsaw Safety and Certification.
- 16 individuals were trained and certified to the Type I Crew Leader level.
- 4 Individuals successfully completed the Advance Wildfire Behavior Course.
- 2 Individuals successfully completed the FI-310 Wildland Fire Investigation and Case Development Course.
- Additional training provided included First Aid/CPR, Transportation of Dangerous Goods, WHMIS, chainsaw and various online courses.

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***To coordinate the Provincial Wildfire Program to ensure adequate manpower, aircraft and equipment resources are available to achieve efficient and cost effective fire suppression activities required to minimize human, property and resource losses.***

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Plans and proposals completed in 2016/17:

- The Aquatic Invasive Species (AIS) protocol package was completed and the program extended with the purchase of additional decontamination steamers for remaining affected locations. This also served as a template for a national AIS strategy for the other wildfire agencies.
- Two communications trailers (1 north and 1 south) were designed, developed and completed in 2016. These units are to be used for large incidents to enhance public communication.
- Two trailers were purchased and outfitted to secure and move fitness equipment throughout the province. This equipment is used for the national physical fitness testing standard for the Manitoba wildfire suppression crews. All three wildfire regions have now been supplied with trailers.
- A third trailer was purchased for the Northeast Region to be outfitted as a Values Protection Unit during 2017. All three regions will then have a values protection unit to protect critical infrastructure and cottage subdivisions.

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***Imports and Exports***

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- One quick strike from Ontario with a CL415 air tanker group occurred in 2016.
- Imports from other Canadian agencies in 2016:

- One 20-person Type 1 Sustained Action crew, two Sector Leaders and one Agency Representatives from Nova Scotia on May 13, 2016
- Forty Sprinkler Kits from Ontario on May 9, 2016
- One CL-215 air tanker group with AAON and AAON trainee from Northwest Territories on May 10, 2016
- Exports to other Canadian Agencies from Manitoba in 2016:
  - Three separate CL-415 Quick Strike deployments into Ontario during May 2016 and one CL-215 Quick Strike deployment into Saskatchewan on July 1, 2016
  - One Dozer Boss and trainee to Alberta on May 21, 2016
  - One CL-415 Group to Ontario on May 3, 2016
  - 300 lengths of 1.5 inch hose and 50 Pulaski hand tools to Alberta on May 27, 2016.



Table R0.17

## 2016 - Number of Fires and Area Burned by Region and Cause

2016	Northeast		Northwest		Western		Central		Eastern		Province	
CAUSE	# fires	area burned (hectares)	# fires	area burned (hectares)	# fires	area burned (hectares)	# fires	area burned (hectares)	# fires	area burned (hectares)	# fires	area burned (hectares)
recreation	8	46.5	2	0.4	1	0.1	1	67.0	11	19.3	23	133.3
settlement	2	0.2					4	478.0	7	4.2	13	482.4
woods operations												
other industry	2	20.1	3	0.3	1	0.2	1	7.9	1	0.1	8	28.6
railroads									2	3,957.1	2	3,957.1
public projects	3	25.7					1	1.0			4	26.7
incendiary	13	6.0	4	663.5	3	115.9	20	1,009.0	2	21.8	42	1,816.2
miscellaneous			2	0.2	2	4.1	2	202.2	2	10.1	8	216.6
agricultural							3	24.0	3	15.7	6	39.7
lightning	76	19,031.9	12	20.3					8	12,654.7	96	31,706.9
all causes	104	19,130.4	23	684.7	7	120.3	32	1,789.1	36	16,683.0	202	38,407.5

Note: In the 2016 fire season the MODIS satellite was used to detect 7 wildfires in the observation zone which accounted for a burned area of 3864.4 hectares.

**Table R0.18**

**2016- Number of Fires and Area Burned by Priority Zone and Action Status**

2016	Actioned Fires				No Action Fires				Limited Action Fires				All Fires			
	# fires	% fires	area burned (hectares)	% of area burned	# fires	% fires	area burned (hectares)	% of area burned	# fires	% fires	area burned (hectares)	% of area burned	# fires	% fires	area burned (hectares)	% of area burned
RED	113	69.33%	19543.6	90.94%	1	6.67%	0.2	0.00%					114	56.44%	19543.8	50.89%
YELLOW	3	1.84%	11.1	0.05%					1	4.17%	1.4	0.01%	4	1.98%	12.5	0.03%
GREEN	24	14.72%	1601.5	7.45%					3	12.50%	1065	10.29%	27	13.37%	2666.5	6.94%
WHITE	23	14.11%	334.3	1.56%	14	93.33%	6562.6	100.00%	20	83.33%	9287.8	89.70%	57	28.22%	16184.7	42.14%
ALL ZONES	163	100.0%	21490.5	100.0%	15	100.0%	6562.8	100.0%	24	100.0%	10354.2	100.0%	202	100.0%	38407.5	100.0%

Red Zone      High Priority - Full fire suppression  
 Yellow Zone    Medium Priority - Suppression if resources available  
 Green Zone    Low Priority - Suppression if resources available  
 White Zone    No suppression unless values are at risk

**Table R0.19**

**2016 - Area burned by Priority Zone**

2016	Zone Area (ha.)	Hectares Burned	% of zone burned
Red	11,415,633.5	19,543.8	0.171%
Yellow	685,691.0	12.5	0.002%
Green	9,770,018.8	2,666.5	0.027%
White	23,081,244.9	16,184.7	0.070%

<b>All Zones</b>	<b>44,952,588.2</b>	<b>38,407.5</b>	<b>0.085%</b>
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**Figure 2**  
**Priority Zone Map**

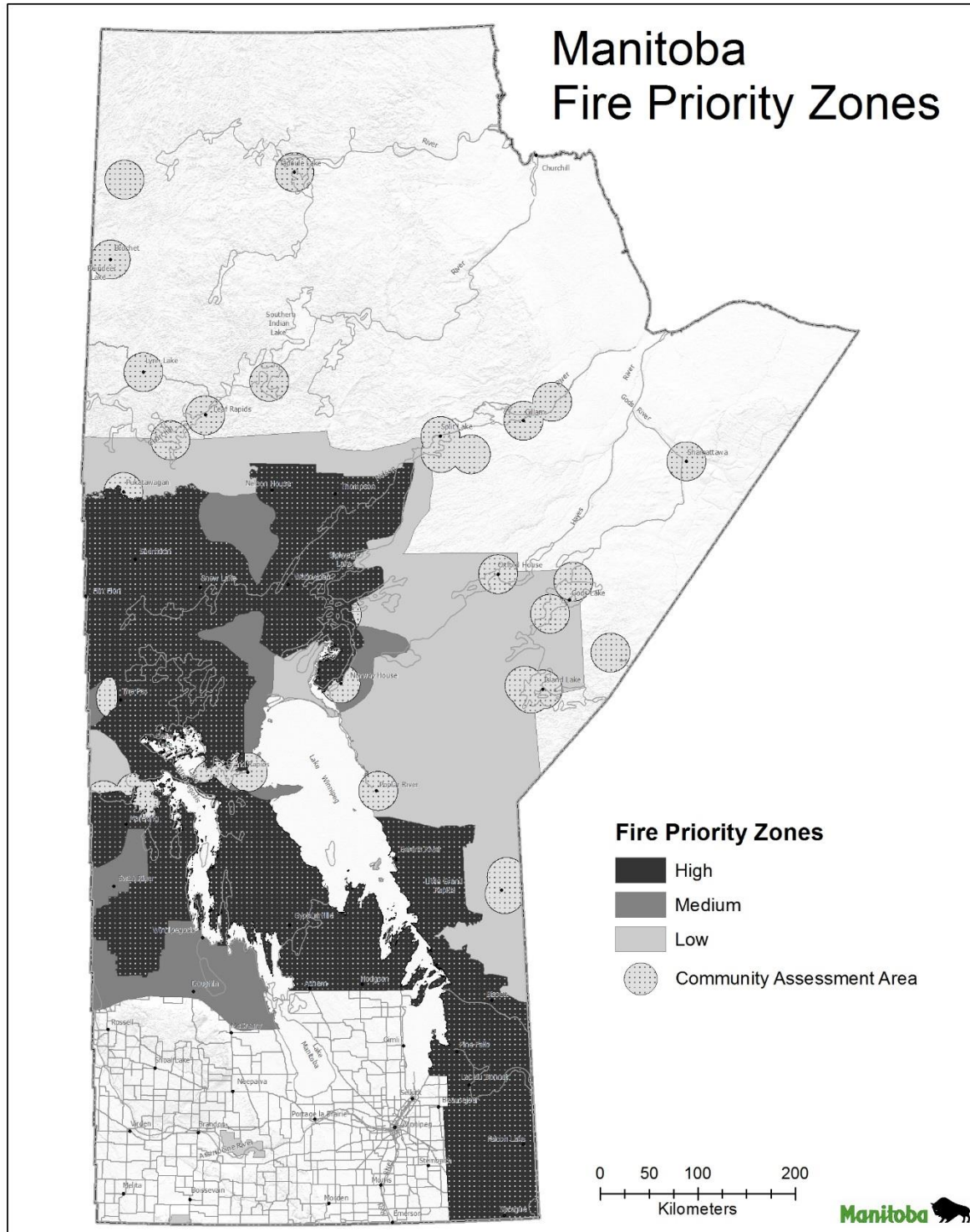
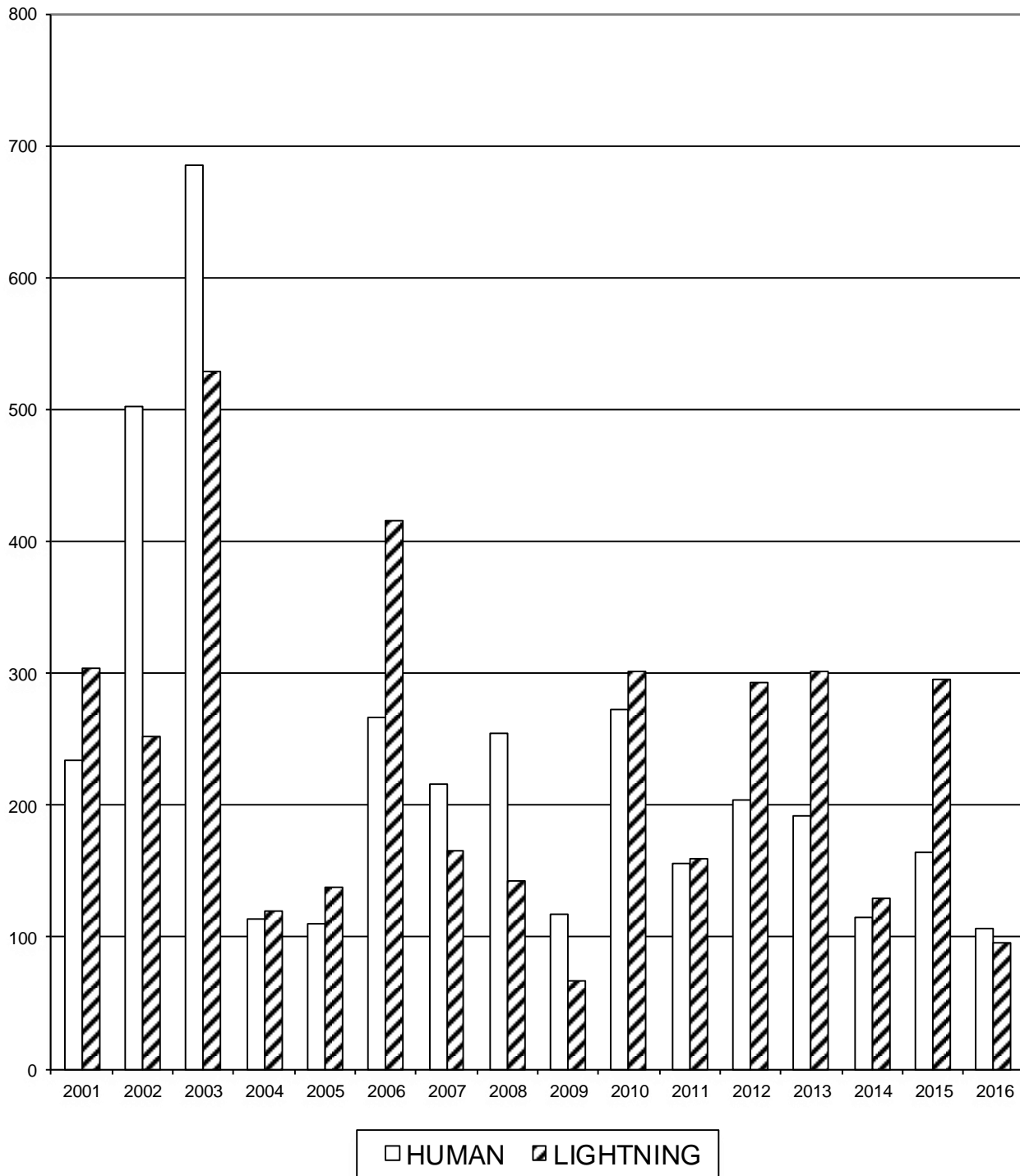


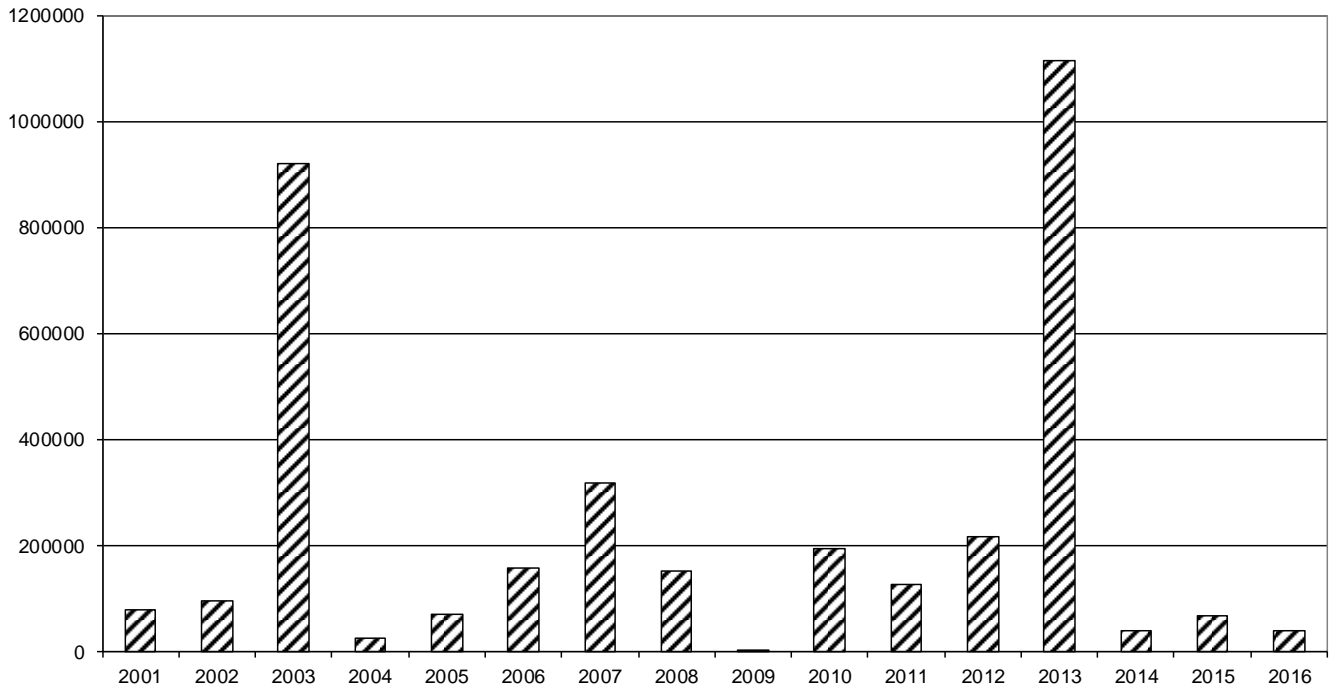
Figure 3  
Number of Fires, 2001 - 2016

# Number of Fires, 2001 - 2016



**Figure 4**  
**Area Burned 2001 - 2016**

### Area Burned (hectares) 2001 - 2016



**Table RO.20**  
**12.2(h) Fire and Emergency Response Program**

Expenditures by Sub-appropriation	Actual 2016/17 \$ (000)	FTE	Estimate 2016/17 \$ (000)	Variance Over/(Under) \$ (000)	Expl. No.
Salaries and Employee Benefits	11,264	65.25	6,928	4,,336	
Other Expenditures	4,521		10,555	(6,034)	
Less: Recoverable from Emergency Expenditures	(500)		(500)	0	
<b>Total 12.2(h)</b>	<b>15,285</b>	<b>65.25</b>	<b>16,983</b>	<b>(1,698)</b>	<b>1</b>

1. Net under-expenditure is due to vacancies, and lower expenditures for Air Services costs.

# ENVIRONMENTAL STEWARDSHIP

## Divisional Administration

Ensures the development, implementation and coordination of government-wide climate change programs, ensures the development and coordination of strategic policy initiatives for the department, ensures the management and implementation of the environmental policy, program and enforcement functions for the department and ensures that environmental impacts of developments are evaluated. Ensures the delivery of emergency response programming related to environmental emergencies.

**Table ES.1**  
**12.3(a) Divisional Administration**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	399	5.00	416	(17)	
Other Expenditures	43		44	(1)	
<b>Total 12.3(a)</b>	<b>442</b>	<b>5.00</b>	<b>460</b>	<b>(18)</b>	

## Environmental Compliance and Enforcement

The purpose of the Environmental Compliance and Enforcement Branch is to undertake inspection activities and enforce legislation to ensure regulatory compliance, and to respond to environmental incidents and complaints to protect human health and Manitoba's environment.

### Key Results Achieved:

- Inspected and monitored developments, operations and activities that may impact the environment by the release of pollutants and contamination to ensure compliance with Manitoba's environmental legislation.
- Enforced environmental legislation by ensuring compliance via: education, negotiation, investigation, warnings, orders, offense notices, and information. The legislation includes The Environment Act, the Dangerous Goods Handling and Transportation Act, The Contamination Sites Remediation Act, and the Ozone Depleting Substances Act and associated regulations. This includes environmental legislation and programs that address the management of contaminated sites, crop residue burning, hazardous waste, livestock manure and mortalities, municipal wastewater, onsite wastewater, petroleum storage and solid waste.
- Responded to environmental accidents and complaints in a prompt and effective manner to prevent or minimize impacts of pollutants and contaminants to the environment.

### Key Program Outputs:

#### Environmental Compliance

- Began operation and maintenance activities for three regional air-monitoring stations.
- Regionalized the emergency response function and integrated it with compliance activities.
- Conducted an air monitoring survey of the Mission Industrial Park.

## Environmental Emergency Response

- The Environmental Emergency Response Program received over 1900 calls to the Emergency Response 24-hour line, with 554 incidents handled directly by the Emergency Response Team and/or regional designates. The Emergency Response Coordinator received approximately 400 additional non-emergency enquiries related to dangerous goods and emergency response.
- Emergency Response members participated in the *Provincial Environmental Emergency Coordination Annex* table top exercise as part of the Manitoba Emergency Plan, and participated in the Canadian Council of Ministers of the Environment (CCME) Environmental Emergencies Working Group.
- Manitoba and Canada signed the Environmental Occurrences Notification Agreement.
- Manitoba and Canada signed an Agreement defining mutually agreed roles for the administration of the Transportation of Dangerous Goods Act, regarding data sharing.

**Table EO.1  
Environmental Legislation Enforcement Summary 2016/17**

<b>Legislation</b>	<b>Prosecutions</b>	<b>Warnings</b>	<b>Orders</b>	<b>Fines(\$)</b>
<i>Contaminated Sites Remediation Act</i>				
<i>The Dangerous Goods Handling and Transportation Act</i>				
- Storage and Handling of Petroleum Products and Allied Products Regulation	1	5		\$723.65
- Dangerous Goods Handling and Transportation Regulation				
<i>The Environment Act</i>	2	19	11	\$16,223.83
- Litter Regulation	1	2		\$203.80
- Onsite Wastewater Management Systems Regulation	16	48		\$15,002.06
- Livestock Manure and Mortalities Management Regulation	2	5		\$4043.65
- Waste Disposal Grounds Regulation	5	11		\$10,174.60
- Disposal of Whey Regulation	1			\$2543.65
<b>Total</b>	<b>28</b>	<b>90</b>	<b>11</b>	<b>\$48,915.42</b>

**Table EO.2  
Suspensions or Variations under The Environment Act 2016/2017**

<b>Date</b>	<b>Licensee</b>	<b>Purpose</b>
2016-04-25	Prairie View Municipality	Early discharge to prevent overflow of wastewater treatment lagoon.
2016-05-03	Indigenous and Municipal Relations (Cormorant)	Request for emergency discharge of wastewater treatment lagoon to prevent breach of cell.
2016-05-26	LDG of Pinawa	Discharge of wastewater prior to discharge period specified in Licence.
2016-06-14	Sustainable Development Parks and Regional Services	Commence discharge of wastewater from treatment lagoon after allowable discharge period specified in Licence.
2016-09-30	RM of West Interlake	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-06-09	City of Portage la Prairie	Due to equipment failure apply biosolids not completely digested to land.
2016-07-08	City of Morden	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-07-21	Norquay Holding Co. Ltd.	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-08-08	RM of Thompson	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-08-23	RM of Lorne (Somerset)	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-09-09	RM of Lorne (Notre Dame de Lourdes)	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-09-26	RM of Westlake-Gladstone	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-09-26	RM of Westlake-Gladstone (Langruth)	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-09-26	RM of Westlake-Gladstone (Plumas)	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-09-26	City of Portage la Prairie	Due to equipment failure apply biosolids not completely digested to land.



<b>Date</b>	<b>Licensee</b>	<b>Purpose</b>
2016-09-28	RM of Roland	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-06	Blue Water Lands Ltd.	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-06	Sunnyside Colony Ltd.	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-11	Avonlea Colony	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-14	Manitoba Sustainable Development	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-17	RM of Lorne	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-17	RM of Prairie View	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-17	Camp Arnes	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-18	Indigenous and Municipal Relations Cross Lake	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-19	RM of Clanwilliam-Erickson	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-19	RM of Pipestone	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-19	RM of Harrison Park	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-19	Frontier School Division	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-19	Seymourville Community Council	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.

<b>Date</b>	<b>Licensee</b>	<b>Purpose</b>
2016-10-20	RM of Lorne	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-20	RM of Lakeshore	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-24	Town of Morris	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-24	RM of West Interlake	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-27	RM of Montcalm	Commence discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-10-31	Town of Lac du Bonnet	Extend discharge period for release of treated wastewater from treatment lagoon past the discharge date specified in Licence.
2016-11-01	RM of Yellowhead	Discharge of treated wastewater from the secondary cell of the treatment lagoon past the discharge date specified in the Licence.
2016-11-01	RM of La Broquerie	Extend discharge period for release of treated wastewater from treatment lagoon to allow for additional time to reduce phosphorus levels.
2016-11-02	RM of St. Rose	Discharge of treated wastewater outside of the discharge dates specified in the Licence.
2016-11-02	Town of Niverville	Extend discharge period for release of wastewater from treatment lagoon to allow for additional time to reduce phosphorus levels.
2016-11-03	RM of Fisher	Extend discharge period for release of wastewater from treatment lagoon beyond date specified in Licence and discharge of wastewater from secondary cell without meeting limit for total coliform.
2016-11-04	City of Morden	Discharge of treated wastewater outside of the discharge dates specified in the Licence.
2016-11-07	Koch Fertilizer Canada, ULC	Fertigate effluent from the secondary containment pond for the liquid fertilizer tanks outside the dates specified in the Licence.
2016-11-17	RM of West Interlake	Extend discharge period for release of wastewater from treatment lagoon beyond date specified in Licence and discharge of wastewater from secondary cell without meeting limit for total coliform.

Date	Licensee	Purpose
2016-11-09	Town of Altona	Discharge of treated wastewater outside of the discharge dates specified in the Licence.
2016-11-18	Norquay Holding Co. Ltd.	Discharge of treated wastewater outside of the discharge dates specified in the Licence.
2016-11-25	RM of Portage la Prairie (Poplar Point)	Discharge of treated wastewater outside of the discharge dates specified in the Licence.
2016-12-05	RM of La Broquerie	Extend discharge period for release of wastewater from treatment lagoon to allow for additional time to reduce phosphorus levels.
2016-12-05	Providence University College	Extend discharge period for release wastewater from treatment lagoon to allow for additional time to reduce phosphorus levels.

**Table EO.3  
12.3(b) Environmental Compliance and Enforcement**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,755	53.00	3,804	(49)	
Other Expenditures	733		860	(127)	1
<b>Total 12.3(b)</b>	<b>4,488</b>	<b>53.00</b>	<b>4,664</b>	<b>(176)</b>	

1. Under expenditure is due to discretionary spending.

## Environmental Approvals

The Environmental Approvals Branch is responsible to assess development proposals and to issue environmental approvals to ensure that project effects do not adversely impact human health and Manitoba's environment.

### Key Results Achieved:

- Managed the regulatory processes for applications for new and existing developments to ensure they were thoroughly assessed in accordance with *The Environment Act*, *The Dangerous Goods Handling and Transportation Act*, *The Contaminated Sites Remediation Act* and supporting regulations.
- Administered programs related to impacted and contaminated sites, petroleum storage facilities, solid waste, hazardous waste, wastewater, and livestock manure and mortalities.
- Facilitated public participation in the environmental assessment processes.
- Developed licence and permit terms and conditions that regulate construction and operation activities in an environmentally sustainable manner.
- Continued to improve website information by adding additional information and updating guidance material. Public use of the Branch online public registry continues to increase.

- Building on success from the previous year, the Branch initiated several additional detailed reviews of approval processes to improve the efficiency of the process and the effective use of resources.
- Projects licenced during the year were largely a mixture of industrial and municipal infrastructure projects. There was a significant increase in the number of projects licenced, reflecting updates and alterations in many previously licenced industrial operations.

### Key Program Outputs

A summary of the environmental approvals reviewed, processed, and issued is provide in Table EA.1 below.

**Table EA.1  
Environmental Approvals Activities**

<b>Activities</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
<b><i>The Environment Act</i></b>			
Project proposals received	62	79	57
Licences issued	99	71	61
Project proposals refused	0	0	0
Minor alterations requests processed	63	68	56
Revision requests to Licences approved	51	35	28
Other reviews – Licence not required	46	60	39
Site inspections, monitoring	165	153	138
Pesticide Use Permits Issued	108	207	214
Post Seasonal Reports received/compiled	149	164	195
Public complaints investigated	13	18	9
Incinerator Registrations processed	0	0	2
Manure Storage Permits Issued	20	24	23
Manure Storage Repair Authorizations	5	10	4
Manure Storage Facilities Registered	15	4	10
<b><i>The Dangerous Goods Handling and Transportation Act</i></b>			
Project proposals received	10	17	12
Licences issued	16	20	10
Minor alterations requests processed	6	7	3
Pre-Licensing activities	8	12	13
Site inspections, monitoring	9	12	15
Petroleum Storage Operating Permits issued	379	114	36
Petroleum Storage Construction/Alteration applications received and permits issued	113	124	80
Licensed Petroleum Technician applications received and permits issued	65	99	79
<b><i>The Public Health Act</i></b>			
Applications for Certificates of Approval processed	26	39	42

Activities	2016/17	2015/16	2014/15
<b>Water and Wastewater Operator Certification Regulation</b>			
Certification Examination	522	647	606
Plant Classifications Issued	342	123	32
Operators Certificates Issued	414	373	370

**Table EA.2  
12.3(c) Environmental Approvals**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,881	34.00	2,911	(30)	
Other Expenditures	369		406	(37)	
Recoverable from Environmental Liabilities.	(103)		(193)	90	
<b>Total 12.3(c)</b>	<b>3,147</b>	<b>34.00</b>	<b>3,124</b>	<b>23</b>	

## Climate Change and Air Quality

The Climate Change and Air Quality Branch fosters inclusiveness, cooperation and the sharing of knowledge that motivates Manitobans to change behavior and build a low-carbon economy that is resilient to a changing climate. The Branch seeks to advance processes that reduce ecological impacts to our air, water, land and people. Doing so contributes to evidence-based decision making through accurate monitoring and modeling. The Branch also supports robust policy and programming tools that are innovative, adaptive and measurable and apply the principles and guidelines of sustainable development.

### Key Results Achieved:

#### Climate Change

- Announced the development of a Made in Manitoba Climate Action Plan.
- Continued partnerships and initiatives with organizations to collaboratively take action on climate change supported through a \$5 million climate fund.
- Undertook economic modeling of climate pricing impacts
- Continued support for the Prairie Climate Centre to provide climate information and tools to municipal governments, the private sector, civil society, and other practitioners in support of climate change adaptation planning.
- Monitored and participated in strategic discussions and negotiations related to federal, provincial, territorial, regional, and international climate change policy, including:
  - Participated in the Pan Canadian Framework development
    - Represented Manitoba on Canadian Council of Ministers for the Environment – Climate Change committee, and its subcommittees
    - Partnered with Natural Resources Canada and the Prairie Provinces through the Prairies Region Adaptation Collaborative to investigate the impacts of climate change and enhanced capacity for climate adaptation planning processes.

- Communicated Manitoba's ongoing climate change mitigation, adaptation and green economy efforts to the public, and worked with externally funded organizations that undertake climate change activities on behalf of Manitoba.
- Provided research, agreements and agenda support for the Manitoba delegation to the Marrakesh Conference of the Parties International Climate Change conference, along with other participants of the Canadian delegation.
- Supported Manitoba's Emissions Tax on Coal and Petroleum Coke by working with partner departments to enable a switch to biomass and other forms of green heat.
- Advocated for effective risk assessment and management practices for the development and implementation of provincial climate change policies and programs by continued early phase implementation of a department wide climate change risk assessment project.
- Tracked Manitoba's provincial greenhouse gas emissions inventory using Canada's National Inventory Report; quantified reductions resulting from government policies and programs, and reported progress toward Manitoba's reduction targets.

### **Waste Minimization**

- Provided technical expertise to protect human health and the environment and ensured an effective and efficient regulatory framework, including review and updating of environmental legislation, standards, guidelines, programs and services, and development of consistent and integrated environmental strategies and policies.
- Participated on waste minimization task groups under the Canadian Council of Ministers of the Environment.
- Managed the Sustainable Development Innovations Fund and its targeted funding programs, including the Waste Reduction and Pollution Prevention Fund and the Manitoba Climate Change Action Fund.
- Consulted with various stakeholders on current waste reduction actions and proposals on new ways to improve Manitoba's waste diversion efforts.
- Regulated Producer Responsibility Organizations responsible for management of a wide range of designated consumer products at end of life including paper, packaging, tires, oil, electronic and household hazardous waste. More information on regulated Producer Responsibility Organizations programs is available at [http://www.gov.mb.ca/sd/mb\\_recycling/](http://www.gov.mb.ca/sd/mb_recycling/)
- Supported initiatives to increase access and recycling of stewarded materials in northern and remote Manitoba communities.
- Encouraged public-private sector partnerships and enhanced public awareness of environmental issues.

### **Ozone Depleting Substances Program**

- Participated on the Federal Provincial Working Group on Controls Harmonization for Ozone Depleting Substances and Other Halocarbons; and provided a key role in implementing Canada's National Action Plan to control, reduce and eliminate use of ozone depleting substances and other halocarbons in Manitoba.
- Managed provincial program to prevent the release of pollutants contributing to climate change and impacting the stratospheric ozone layer.
- Ensured an effective and efficient regulatory framework, and managed an Agreement with the Manitoba Ozone Protection Industry Association (MOPIA) which allows the organization to administer key program

activities, including the issuance of 4,630 service technician certificates and 529 secondary distributor permits.

- Enhanced environmental awareness and regulatory compliance with MOPIA hosting several industry program information and awareness sessions and 13 one-day environmental awareness training courses for Manitoba refrigeration and air conditioning service technicians. Further information on MOPIA is available at <http://www.mopia.ca/>

### Air Quality Management

- Monitored ambient (outdoor) air quality parameters at the five established provincial sites, providing hourly air quality data for several pollutants, including ground level ozone, fine particulate matter, nitrogen oxides, sulfur dioxide, and carbon monoxide. Air quality data at three stations in southern Manitoba was used to provide hourly Air Quality Health Index forecast for the cities of Winnipeg and Brandon.
- Fulfilled provincial obligations as required by the existing Federal/Provincial/Territorial Memorandum of Understanding for the implementation of the National Air Pollution Surveillance (NAPS) program. This included submission of Manitoba's quality-assured air quality data to the Canada-Wide Air Quality Database.
- Operated and maintained the publicly accessible air quality website for display of near real-time and historical ambient air quality levels from the provincial air quality monitoring system. The website is at: <http://www.gov.mb.ca/sd/envprograms/airquality/air-quality/>
- Represented Manitoba in national discussions and negotiations regarding air quality management. This included the continued development of the federally-led new Air Quality Management System (AQMS) and its associated sub-groups and other air related programs under the Canadian Council of Ministers of the Environment (CCME).
- Provided reliable air quality information to partners and other stakeholders
  - Prepared annual reports regarding air quality or provincial compliance under Canada Wide Standards or Canada Ambient Air Quality Standards.
  - Provided air quality data to program partners or stakeholders (e.g. Manitoba Health)
- Provided technical and policy support to a number of departmental activities, including:
  - Management of releases from base metal smelters in Manitoba to protect local air quality
  - Review of air quality matters related to license applications or license requirements, federal programs and national/international agreements.

**Table CC.1  
12.3(d) Climate Change and Air Quality**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	1,149	12.00	1,125	24	
Other Expenditures	183		234	(51)	
Climate Change Initiatives	0		0	0	
<b>Total 12.3(d)</b>	<b>1,332</b>	<b>12.00</b>	<b>1,359</b>	<b>(27)</b>	

## Strategic Policy and Coordination

The Branch is responsible for the development of policy, legislation, and program alternatives for departmental and governmental strategic priorities and major initiatives. The Branch provides a leadership and coordination role in strategic planning, policy development and planning support and promotes consensus building and consistency with governmental mandates and the department's vision, goals and objectives.

The Branch leads the coordination of intergovernmental issues, and is the department's liaison with the Federal-Provincial Relations Branch, and the Canada, US, and International Relations Branch. This involves the coordination of Manitoba's participation on Federal, Provincial, and Territorial committees, including providing support for the Canadian Council of Ministers of the Environment (CCME). The Branch also represents the department on interdepartmental, provincial, national, and international agencies, boards and committees; and on national forums for inter-governmental cooperation and on issues related to national and international environment and trade agreements contributing to Manitoba's role and voice in national discussions on environmental protection in Canada.

The department is responsible for the administration and enforcement of 44 Acts and 139 accompanying regulations, plus additional responsibilities under federal statutes. The Branch provides technical and analytical support to all branches with the interpretation of legislation and facilitates the development of new Acts and/or regulations, or amendments.

The Branch's work also involves the delivery of front-line services such as the licensing and permitting of approximately 500 resource tourism operations such as lodges and outfitters, under *The Resource Tourism Operators Act*. It works with the regions and other branches of the department to promote the sustainable use and development of Manitoba's natural resources. The Branch administers two pieces of legislation: *The Resource Tourism Operators Act*, and *The Sustainable Development Act*. On behalf of the department and Government, the Branch leads the development of the annual work plan with the International Institute for Sustainable Development (IISD).

### Key Results Achieved:

- Oversaw and monitored implementation of government mandate items, including providing strategic policy support to lead branches. The mandate related work of the branch focused on Alternative Land Use Services model and watershed based planning; the development of co-management strategies; safe hunting; and commercial fisheries certification.
- Co-led analytical and research work associated with the development of a Made-in-Manitoba Climate and Green Plan, as well as facilitating the public consultation initiatives associated with the planning work.
- Led the public consultation process associated with the review of Manitoba's existing non-essential use pesticide legislation. This online consultation resulted in feedback from over 2,100 members of the public. Respondents were primarily private individuals, but also included the business sector and non-government organizations. The department also worked to develop options to improve the legislation related to non-essential pesticide use in Manitoba.
- Provided support to the Minister and Deputy Minister in their official activities representing Manitoba in the Canadian Council of Ministers of the Environment forum (CCME). The Branch worked cooperatively with other Canadian jurisdictions and the CCME Secretariat to coordinate and advance environmental management issues across Canada.
- Represented Manitoba on the intergovernmental committee for the North American Agreement on Environmental Cooperation, and monitored trade developments with respect to environment implications of the Agreement on Internal Trade (AIT), the GATT/WTO agreements, the ongoing Canada-European Comprehensive Economic and Trade Agreement (CETA), and Trans-Pacific Partnership (TPP) negotiations.
- Represented the department on negotiations to resolve Inuit and First Nation land claims in Manitoba.



- Responded to concerns regarding Off-Road Vehicle (ORV) management in Manitoba and worked with municipal government, interest groups and organizations in the development of pilot projects and proposals for enhancing Manitoba's snowmobile network.
- Provided secretariat support to the Manitoba Round Table for Sustainable Development, an advisory body to the provincial government, which provides advice and support to decision makers.
- Provided secretariat and analytical support to the Licensing Advisory Committee (LAC), the Administrator of Resource Tourism and the Resource Tourism Appeal Committee (RTAC) on matters relating to the regulation of resource tourism in Manitoba, as well as providing policy support on resource tourism policies and programming. The LAC is an advisory body which makes recommendations to the Administrator of Resource Tourism on the licensing of outfitters and the permitting of their facilities for the purposes of hunting, fishing and ecotourism activities. The RTAC is the appeal body for decisions made by the LAC.
- Led the department wide Regulatory Accountability review and assessment including the preparation of packages of regulatory instruments, supported training of Baseline Count Analysts and the counting of requirements to develop a government wide benchmark database.
- Provided logistical support to the Manitoba Excellence in Sustainability Awards program and arranged a successful event to honour awards recipients.

### Key Program Outputs

- The Licensing Advisory Committee held six regularly scheduled meetings and one additional meeting. A total of 240 applications were reviewed and recommendations developed for consideration of the Administrator of Resource Tourism. Approximately 450 outfitting licences and 750 associated facility permits were issued to resource tourism operators.
- Under Regulatory Accountability Working Group, 44 packages of regulatory instruments (over 8,000 pages) were assembled and approximately 20 staff received training (prior to March 31) in preparation of counts commencing after April 1, 2017.

### Legislation

The following legislative and regulatory activity occurred during the reporting period:

- **The Wildlife Amendment and Fisheries Amendment Act** sections 7, 8, 9, 17 and 19 came into force September 1, 2016.
- **The Groundwater and Water Well Act** come into force on January 1, 2017 except subsections 6(d)(i) and (ii), 10(a), sections 12, 14 to 9 and 33, subsections 50(2) and (3), and 86(3)(f).
- New Groundwater and Water Well Regulation (214/2015) and the Well Standards Regulation (215/2015) under **The Groundwater and Water Well Act** came into force on January 1, 2017.
- **The Fisheries Amendment Act** was introduced into the House on March 15, 2017. The Bill was designated to be held for consideration in the next session (November 2017).
- **The Red Tape Reduction and Government Efficiencies Act** was introduced into the House on March 16, 2017. The Bill was designated to be held for consideration in the next session (November 2017). The Bill proposes amendments to the following Acts under the purview of Sustainable Development:
  - The Dangerous Goods Handling and Transportation Act
  - The Drinking Water Safety Act
  - The Ecological Reserves Act
  - The Environment Act
  - The Fisheries Act
  - The Forest Health Protection Act
  - The Groundwater and Water Well Act
  - Manitoba Natural Resources Development Act

- Under **The Drinking Water Safety Act** amendment to
  - Drinking Water Safety Regulation (13/2017)
  - Drinking Water Quality Standards Regulation (14/2017)
- Under **The Forest Act** amendments to the Designation of Provincial Forests Regulation (143/2016)
- Under **The Parks Act** amendments to
  - Parks Fees Regulation (127/2016)
  - Park Reserves Designation (155/2016)
- Under **The Wildlife Act** amendments to
  - Wildlife Fees and Royalties Regulation (98/2016)
  - Designation of Wildlife Lands Regulation (15/2016)

More detail regarding the contents of the legislative and regulatory initiatives identified above may be found in those sections of this report that provide program-specific descriptions of activities undertaken during the reporting period.

**Table SP.1**  
**12.3(e) Strategic Policy and Coordination**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,825	20.00	1,631	194	1
Other Expenditures	128		126	2	
Grant Assistance	97		97	0	
<b>Total 12.3(e)</b>	<b>2,050</b>	<b>20.00</b>	<b>1,854</b>	<b>196</b>	

1. Over-expenditure due to lower vacancies than the Staff Turnover Allowance.

## International Institute for Sustainable Development

The Institute promotes the concept of environmentally sustainable economic development and the integration of the principles and practices of sustainable development within and between the public, private and voluntary sectors on a national and international basis.

The Institute issues a separate Annual Report (See [www.iisd.org/about/annual-reports](http://www.iisd.org/about/annual-reports)). Also copies can be obtained from the Institute at 111 Lombard Avenue, Suite 325, Winnipeg, MB R3B 0T4. The Institute can be contacted at 204-958-7700.

**Table IISD.1**  
**12.3(f) International Institute for Sustainable Development**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Grant Assistance	1,013		1,013	0	
<b>Total 12.3(f)</b>	<b>1,013</b>		<b>1,013</b>	<b>0</b>	

## Green Manitoba and Eco Solutions

Green Manitoba was created as a Special Operating Agency (SOA) effective April 1, 2006. Since its inception, Green Manitoba functions as a catalyst, knowledge portal and service delivery agent for government departments and a wide range of public and private sector organizations to help create a greener and cleaner Manitoba.

The mission of Green Manitoba is to promote sustainability practices by bringing together all partners (governments, business and other stakeholder organizations). Green Manitoba continues to serve as the access point for the public to acquire information about provincial sustainability issues and helps citizens make better sustainability decisions. Using an entrepreneurial approach focusing on innovation and cost-effective and practical solutions, Green Manitoba delivers programs, projects and products on a cost-recovery basis to foster sustainable practices related to waste reduction, greening government, and promotes and enhances sustainability education across the Province in all sectors.

As a Special Operating Agency, Green Manitoba issues its own business plan and annual report with information on its mandate, activities and results. Copies of these reports can be obtained on Green Manitoba's website: [www.greenmanitoba.ca](http://www.greenmanitoba.ca).

# WATER STEWARDSHIP AND BIODIVERSITY

## Administration

Staff provide the necessary direction and program development and coordination for the Water Stewardship and Biodiversity Division to ensure safe drinking water supply and allocation and conservation of wildlife and fisheries, forestry and water resources. Staff oversee funding, negotiate and administer contracts, and monitor efficiency and effectiveness of program results and resources.

**Table WS.1**  
**12.4(a) Divisional Administration**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	316	4.00	241	75	
Other Expenditures	186		260	(74)	
<b>Total 12.4(a)</b>	<b>502</b>	<b>4.00</b>	<b>501</b>	<b>1</b>	

## Water Science and Management

The Water Science and Management Branch consists of 32 scientific and technical personnel, including hydrologists, limnologists, aquatic biologists, hydrogeologists, engineers, and support staff who provide services in the following main areas:

- managing and protecting the quality and quantity of groundwater and surface water including beach water quality;
- providing scientific advice to support the sustainable management and use of surface and groundwater, to assure the protection of people, and to minimize damage to property from flooding and drought;
- providing engineering design services to conservation districts to assist in their water management planning and water infrastructure work;
- managing transboundary water issues that may have potential to affect the quality or quantity of waters that flow to Manitoba from upstream jurisdictions or are shared with neighboring jurisdictions; and,
- developing and implementing programs aimed at restoring the health of Lake Winnipeg.

The Branch delivers strong, scientifically based programs to ensure Manitoba's water resources and environment are managed and protected in a sound and sustainable manner, including the protection of human health and property.

The Branch provides technical and scientific support to a variety of stakeholders and technical input to and/or review of Environment Act proposals, development plans and subdivision proposals, zoning bylaws, Dangerous Goods Handling and Transportation applications, Mining Exploration Borehole applications, pipeline developments, Drinking Water and Wastewater Plants, and Livestock Site Assessment applications.

The Branch is organized into three sections: the Groundwater Management Section, Surface Water Management Section, and Water Quality Management Section.

### Groundwater Management

The Groundwater Management Section is responsible for evaluating, monitoring, and protecting the province's groundwater resources. Major activities include administering The Ground Water and Water Well Act;

undertaking studies to understand the occurrence and quality of groundwater; monitoring water levels and storing this information in databases.

### **Key Results Achieved:**

- The new Groundwater and Water Well Act and supporting General Matters and Well Standards regulations came into force on January 1, 2017. Legislative changes include the licensing of four classes of well drilling contractors, use of updated well construction and well sealing reports and mandatory identification tagging of new water wells.
- In support of the new Groundwater and Water Well Act:
  - An outreach program was completed to ensure key stakeholders understood and implemented the new legislation and information was placed on the website instructing the public how the new legislation relates to both new and existing well owners; and,
  - The department completed educational material that supports the Act including the development of new and updating documents on constructing and sealing wells in Manitoba.
- The department in cooperation with Green Communities Canada updated its 'Manitoba Well Aware' booklet. The booklet contains information for Manitoba well owners on groundwater and well basics, well construction and maintenance, well sealing, water testing and treatment options. The booklet is available in both official languages on the government website.
- Participated on watershed and aquifer management programs and through support for regional water well surveys being undertaken by Conservation Districts, the public, and other government agencies have become more informed of groundwater conditions in many parts of the province and homeowners have been made aware of the water quality from their well and individual responsibilities for well maintenance.
- Worked with the Conservation Data Centre (Wildlife and Fisheries Branch) to identify sites of endangered plant species and Nature Conservancy of Canada to sample a site that contains rare plant species. Shallow groundwater and stream flow monitoring continued in south-eastern Manitoba, and shallow groundwater monitoring continued in the Woodlands, Kleefeld and Carman areas to provide information on shallow groundwater and surface water.
- Provided technical support on matters related to well water quality including TCE (Trichloroethylene) in groundwater in the Rockwood Sensitive Area.
- Provided technical support to the Office of Drinking Water for GUDI (groundwater under the direct influence of surface water) screening of public/semi-public well water systems, and for private wells. Technical support was provided to five conservation districts for conducting private well site assessments and 775 private wells were inventoried and sampled.
- In cooperation with the Environmental Compliance and Enforcement Branch, ensured that wells drilled within the Rockwood Sensitive area were permitted as required under the Rockwood Sensitive Area Regulation.
- The section undertook a comprehensive well survey consisting of a mail-out to more than 550 recently drilled well owners. Ninety responses were received from an online questionnaire and 24 wells were inspected and sampled.

### **Key Program Outputs:**

- Thirty four licenses were processed under The Ground Water and Water Well Act to drill water wells in Manitoba. Conducted investigations on a number of complaints including flowing wells and otherwise nuisance wells that included providing down-well/underwater video inspections for Manitoba Infrastructure and Regional Parks Operations.
- The groundwater monitoring network consisted of approximately 850 monitoring sites located on major and minor aquifers of which 600 sites were equipped with daily water level recorders. Two monitoring sites

were converted to 'real-time' stations. Groundwater quality representative of aquifer conditions was sampled at 52 select monitoring wells throughout the province.

- Approximately 1,000 newly drilled wells and 475 well sealing reports were added to the GWDrill database. Almost 3,000 additional well reports were reviewed, updated or revised.
- An updated version of the water well report database was used in environmental site assessment and site selection were provided to more than 20 industry or consulting companies. Twenty-two requests for large water level data-sets encompassing approximately 250 monitoring wells was provided to consulting or other agencies for various areas and time-periods. Groundwater data was supplied to a number of university students to support their educational programming requirements.
- An aquifer mapping study of the Gull Lake region was completed. A report was presented to the local concerned citizens group.
- A map of flowing well and high static water conditions was completed and wall-sized copies were provided to all licensed water well drillers.
- Groundwater information was supplied to consultants, industry, municipal officials, and private individuals upon request. Information on expected groundwater conditions and water well construction at specific locations was provided to water well drillers and the public upon request.

### **Surface Water Management**

The Surface Water Management Section provides hydrological and other scientific services to monitor drought and water supply conditions, study climate change effects on water resources, support integrated watershed management planning and the sustainable use of surface water, and support the protection of people, property and the environment from floods and droughts. The Section also supports activities related to conservation districts' surface water management planning and the engineering design of their water infrastructure work. Finally, the Section plays a lead role in Manitoba's management of transboundary water quantity issues through its work on inter-jurisdictional water issues and opportunities.

### **Key Results Achieved:**

- Continued implementation of the action items outlined in the 'Manitoba Drought Management Strategy'.
- Chaired and provided secretariat support for the Manitoba Drought Assessment Committee. Began forming the stakeholder-based Red River Basin Drought Assessment Group to provide feedback on local drought conditions throughout the basin.
- Maintained and enhanced the Manitoba Drought Monitor website ([www.manitoba.ca/drought](http://www.manitoba.ca/drought)) to provide up-to-date drought information to residents, stakeholders and across government on current drought conditions.
- Ensured that consistent hydrological standards were developed, maintained and applied across Manitoba.
- Provided expert hydrology, water resource engineering and associated mapping support to other areas of the department.
- Produced monthly (April – October) and annual Water Availability and Drought Conditions Reports for Manitoba through analysis of drought indicators. Also included in the reports was a summary of agricultural, wildland fire and community water supply impacts due to drought conditions.
- Continued the development and application of precipitation, streamflow and groundwater drought indicators to monitor drought conditions in Manitoba. Explored other drought indicators for monthly conditions reports and Drought Preparedness Assessments.
- Provided information to Agriculture and Agri-Food Canada to help inform the Canadian and North American Drought Monitor monthly map products.

- Initiated a Drought Preparedness Assessment in the Roseau River watershed in tandem with the Integrated Watershed Management Planning process.
- Investigated and reported on inter-jurisdictional, inter-provincial and international water issues and opportunities, such as surface water management and the equitable sharing of water, through participation on various committees and task forces.
- Represented Manitoba on the International Joint Commission's Lower Pembina River Task Force to identify and oversee overall technical work related to finding a scientific solution to flooding within the Lower Pembina River Basin.
- Continued the assessment of Manitoba's low flow vulnerability on the Red River. A team of hydrologists and biologists began to develop a fish habitat model for the Red River to assess the impact of severe drought on various fish species. The team presented the preliminary results to the International Red River Board in January 2017.
- Provided technical and engineering input, advice, planning assistance, assessments and information for integrated watershed management plans and surface water management plans. Similar technical and engineering services were provided to conservation districts for a variety of water management problems and water infrastructure proposals, as well as for the capital works program planning process in conservation districts that manage large, trunk drainage waterway infrastructure.
- Finalized a Retention Strategy for the Roseau River Watershed. Retention sites were identified, analyzed, and prioritized for implementation. Results were presented to the Project Management Team for the Integrated Watershed Management Team and in a formal report.
- Worked with East Interlake Conservation District to develop advanced GIS layers for watershed management including hydro-conditioning LiDAR data.
- Provided technical and engineering input, advice, assistance, assessments and information for Drainage and Water Rights Licensing. This included water supply assessments for the Water Use Licensing Section and hydrology, hydraulic, and GIS expertise for the Drainage and Water Control Licensing Section.
- Participated in hydrometric/meteorological program planning activities with various branches and departments.
- Worked with several governments and stakeholders during hydrological drought (or low flow) conditions to help alleviate downstream impacts to residents and the environment. [www.manitoba.ca/drought](http://www.manitoba.ca/drought) .
- Maintained databases containing historical streamflow and water level information.

#### **Key Program Outputs:**

- Produced seven monthly reports and one annual report summarizing water availability and drought conditions across Manitoba in 2016/17 through the analysis of drought indicators and other data. Reports are available on the Manitoba Drought Monitor Website, alongside streamflow percentile plots for select gauges, and water supply status for select reservoirs.
- Completed Term of Reference and held two meetings with the Manitoba Drought Assessment Committee (October 17, 2016 and March 6, 2017).
- Developed discharges for the design of waterways and waterway openings to accommodate passage of fish for infrastructure planning, design and environmental approvals. Input was provided to 17 sites. Completed low flow analysis for evaluating wastewater minimum flows for five locations.
- Provided technical and engineering input, advice, planning assistance, assessments and information for integrated watershed management plans and surface water management plans developed by watershed

planning authorities. Seven peak flow reduction storage analysis projects were completed for watershed management plans. Drought Preparedness Assessments will be provided to watershed planners as an information source to inform watershed management plans. Assessments will include identification of drought-related vulnerabilities and suggested mitigation measures.

- Provided technical and engineering services to conservation districts for a variety of water management problems and water infrastructure proposals. The section provided engineering services of varying degrees for 20 conservation district projects, including the completed design and recommended construction specifications of the Scott Dyck Dam in the Pembina Valley Conservation District.
- Provided technical and engineering services to Water Resource Officers for approximately 15 drainage and water rights licensing issues.
- Responded to hydrologic data analysis/interpretation requests.

## **Water Quality Management**

The Water Quality Management Section provides services in support of the department's mission by protecting, maintaining, and rehabilitating the quality of Manitoba's aquatic ecosystems. This is achieved through a number of activities including operating and maintaining long-term and short-term water quality programs, managing and providing water quality data to various client groups, responding in a timely manner to emergencies and emerging water quality issues, and developing policy to further protect and enhance Manitoba's surface water quality.

### **Key Results Achieved:**

- Collaborated with upstream jurisdictions to develop and implement nutrient management strategies to reduce nutrient loading to the one million square kilometer Lake Winnipeg watershed.
- Work continued to reduce nutrient contributions to Lake Winnipeg and its watershed within Manitoba. Implemented the *Canada-Manitoba Memorandum of Understanding Respecting Lake Winnipeg and the Lake Winnipeg Basin* to facilitate a cooperative and coordinated approach to understand and protect the water quality and ecological health of Lake Winnipeg and the Lake Winnipeg Basin. Federal and provincial counterparts and partners initiated work on the State of Lake Winnipeg report and the Lake Winnipeg Indicator Series.
- Continued monitoring of physical, chemical and biological conditions on Lake Winnipeg from the *MV Namao* in cooperation with the Lake Winnipeg Research Consortium and others. Three scientific cruises on Lake Winnipeg were completed in 2016.
- Monitored water chemistry and benthic invertebrates from numerous Manitoba streams, rivers, and lakes was conducted. Data was used to assess water quality impairments, derive nutrient loads, establish long-term trends in water quality and quantify general water quality conditions such as with the Water Quality Index.
- Monitored recreational water quality at beaches across the province and timely results were provided to the public through the department website, posting of advisory signs, and tweets. Bathing water at approximately 60 Manitoba beaches were monitored for densities of the fecal indicator bacteria, *Escherichia coli*. Algal blooms were also monitored for concentrations of toxic algae. Incidents of swimmer's itch and subsequent beach postings were coordinated by this Section.
- Represented Manitoba on the Canadian Council of Ministers of the Environment (CCME) Water Management Committee and Guidelines Project Team.
- Participated as a member of the Pesticide Management Regulatory Agency Environmental Monitoring Working Group on neonicotinoid insecticides. Initiated a one-year monitoring program for neonicotinoid pesticides in Manitoba in partnership with Manitoba Agriculture and industry stakeholders to evaluate the distribution and ambient concentrations of neonicotinoid insecticides in Manitoba surface waters.



- High quality laboratory analytical services were acquired for Manitoba Sustainable Development, Manitoba Health, Seniors and Active Living, and Manitoba Agriculture. Ensured on-going communication and collaboration with contracted analytical laboratories.
- Continued to work with wastewater treatment facility owners to implement the Water Quality Standards for Nutrients in wastewater including assessing phosphorus compliance under the Manitoba Water Quality Standards, Objectives and Guidelines Regulation. More information is available at: [http://www.gov.mb.ca/conservation/waterstewardship/water\\_quality/quality/website\\_notice\\_mwqsog\\_2011.html](http://www.gov.mb.ca/conservation/waterstewardship/water_quality/quality/website_notice_mwqsog_2011.html)
- Worked with golf courses, municipalities and the agricultural sector to implement the Nutrient Management Regulation under The Water Protection Act (C.C.S.M.c.W65). More information is available at: <http://gov.mb.ca/conservation/waterstewardship/wqmz/index.html>

### **Key Program Outputs:**

- Water quality was monitored at 65 long-term stations on 51 waterbodies across Manitoba during 2016/17 as part of the long term water quality monitoring program. An additional 18 stations were monitored as a part of the Northern Flood Agreement and the Memorandum of Understanding with Manitoba Hydro on the Coordinated Aquatic Monitoring Program on 11 waterbodies. The Section worked in collaboration with Conservation Districts, Environment and Climate Change Canada, the University of Manitoba, and Manitoba Hydro in collecting water quality samples.
- Water quality on Lake Winnipeg was monitored at 60 stations in collaboration with the Lake Winnipeg Research Consortium during the spring, summer, fall and winter periods. Algae and benthic invertebrates were also monitored at a number of stations as a part of the long-term and Lake Winnipeg monitoring programs.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2016 including 20 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 15 beaches in western Manitoba. Approximately 52 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather health.
- Continued work under the Nutrient Management Regulation included the review of 109 Nutrient Management Plans, of which 101 were registered, for golf courses across Manitoba in 2016/17. Reviewed 38 site specific soil survey reports for the purpose of requesting rezoning of locations of Onsite Wastewater Management Systems mapped as Nutrient Management Zone N4.
- Responded to over 100 water quality data requests from the public, consultants, industry, academia, non-governmental organizations, conservation districts, stewardship groups, students and educators, and other provincial and federal agencies in 2016/2017.
- Provided assessments of status and trends in water quality and recommendations concerning improvements to surface water quality through the Integrated Watershed Management Planning process. The Section worked closely with Watershed Planners and Conservation Districts to deliver land-based programming aimed at reducing impacts to water quality. Water quality reports were drafted for Roseau River Integrated Watershed Management Plan and the Whitemud River Integrated Watershed Management Plan.
- Reviewed and provided comments on 40 proposals received under The Environment Act and other legislations related to wastewater treatment plants, lagoons, pipeline and transmission projects, livestock site assessments, drainage and other proposals for development that impact or alter aquatic environments.

**Table WS.2  
12.4(b) Water Science and Management**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	2,669	32.00	2,613	56	
Other Expenditures	823		861	(38)	
<b>Total 12.4(b)</b>	<b>3,492</b>	<b>32.00</b>	<b>3,474</b>	<b>18</b>	

## The Fish and Wildlife Enhancement Fund

The Fish and Wildlife Enhancement Fund (FWEF) was established in 2014 under authority of The Fish and Wildlife Enhancement Fund Act and its regulation (57/2014). The Fund is supported by imposts on angling, hunting and trapping licences. Manitoba Sustainable Development administers this Fund for the purpose of supporting fish and wildlife initiatives, including projects, programs and studies designed to protect and increase fish and wildlife habitats and populations in Manitoba, and government fish hatcheries. Two subcommittees are established to make recommendations on the funding of enhancement initiatives. The Fish Enhancement Subcommittee reviews and makes recommendations on all fisheries enhancement initiatives that seek funding and recommends initiatives to be funded. The Wildlife Enhancement Subcommittee reviews and makes recommendations on all wildlife enhancement initiatives that seek funding and recommends initiatives to be funded. These committees are comprised of representatives of angling, hunting and trapping organizations.

### Fish Enhancement

The Fish Enhancement Subcommittee met on two separate occasions (July 11, 2016, and October 24, 2016) to review 41 projects. Of the 41 projects, the following 25 were approved:

- *Documenting Channel Catfish Movements in the Red River to Assist Cohesive Population Management* – Study to address specific details of Channel Catfish movements from active and passive telemetry data.
- *Update and Reprint “Manitoba Parkland Fly Fishing Guide”* - Providing education programs at high schools and at new locations around the province, and inviting fly fishing experts to conduct educational seminars.
- *Dauphin Lake Creel Census* – Developing a sustainable annual harvest of the fishery.
- *Lake and Stream Inventories for Trout Stocking Potential* – Increasing fishing opportunities in the Duck Mountain Provincial Park and Riding Mountain National Park.
- *Effectiveness Assessment and Monitoring of Mink Creek Riffle Zones* – Mapping and monitoring of spawning.
- *Walleye Movement in the Red River and Lake Winnipeg* – Mapping movements to gain a better understanding of Walleye.
- *Lake Francis Fishery and Fish Habitat Enhancement Project* – Relocation of water control structure.
- *Chocolate Lake Fisheries Assessment and Trout Maintenance* – Assessing fish population for sustainable management.
- *Honoway Fishway Control Structure* – Effective management to allow for spawning.
- *Sustainable Fisheries Unit Co-operative Education Students* – Assessing fish stocks to manage and protect stocks.
- *Population Assessments on NW Region lakes to develop Sustainable Fisheries Management Plans* – Index netting and development of management plans for the lakes.
- *West Watjask Lake – Musky Introduction* – Stocking of fish for recreational angling.
- *Garrioch Creek Walleye Spawning Rehabilitation Project* – Rehabilitating and rebuilding stream banks and restoring spawning areas.

- *Lake Winnipeg Winter Recreational Creel Survey* – Surveying to assist in management of recreational resource.
- *McIntyre Anglers Spring/Summer/Fall Program 2016* – Providing sustainable angling education to students.
- *Index Netting and Fish Community Assessment* - Assessing fish species compositions and populations to assist in management decisions.
- *Technical Support for Assessment Program and Sustainable Fisheries Unit* – Support of a resource technician to work on age interpretation.
- *Summer Student Local Initiatives* – Maintenance of recreational angling sites.
- *Designing and Establishing a Youth Fly-Fishing Educational Camp in the Parkland Region* – Providing conservation and habitat education to young anglers.
- *Whiteshell River Fish Habitat Engagement* – Providing enhancement of fish habitats within the Whiteshell River.
- *Integrated Fisheries Assessments, Maintenance and Monitoring 2017* – Providing support to improved fishing access, research, stocking, and education.
- *Lake of the Prairies Walleye Telemetry* – Increased understanding of Walleye seasonal movement, habitat and spawning.
- *Parkland Aeration Systems* – Aeration of stocked lakes in the Lake of the Prairies Conservation District.
- *Lonely Lake Drain Spawning Shoal Project* – The construction of spawning shoals within the drain to improve Walleye productivity.
- *Lake of the Prairies Forage Base Assessment* – Improved knowledge of the ecological species in the lake to assist in management of the fishery.

FWEF funding provides support for the provincial fish culture program at the Whiteshell Fish Hatchery and Swan Creek (Lundar) and Clearwater Lake spawn camp (The Pas). The fish culture program support includes all costs related to hatchery staff salary; operational costs such as hydroelectricity, fish food and fish stocking; husbandry costs such as disease testing, inoculations, egg purchase and rearing activities; equipment purchases and repairs; and building maintenance.

The annual Fish Enhancement Stamp Competition was held in August 2016. The winning artwork “The One That Got Away” painted by Tom Andrich was unveiled at Oak Hammock Marsh Interpretive Centre and subsequently became the stamp on the 2017 recreational angling licence.

### **Wildlife Enhancement**

The Wildlife Enhancement Subcommittee met on two separate occasions (August 23, 2016, and March 22, 2017), to review 34 projects. Of the 34 projects, the following 17 were approved:

- *Wolf-Ungulate Dynamics in Riding Mountain National Park* – Understanding species interactions to ensure long term sustainability of wildlife populations.
- *Influences of Industry on Woodland Caribou decline in Northern Manitoba and West-Central Alberta* - Gained understanding of interaction between wolves and caribou, and habitat.
- *Harvest and Survival Rates of Adult Canvasbacks in Southern Manitoba* – Development of long term management strategy to ensure sustainability of Canvasback populations.

- *Small Mammal Population Diversity and Density Comparison between a Mature Black Spruce Forest and an “Altered” High Voltage Alternating Current Right-of-Way Corridor* – Gaining a better understanding of small mammal usage of altered habitat.
- *Spring Migration Chronology of Canada Geese and Cackling Geese* – Gaining understanding to assist in the long term sustainability of goose populations in Manitoba.
- *Understanding Moose Ecology in Manitoba* – Understanding factors influencing moose populations and development of management strategies.
- *Winter Weather Watchers Program* – Monitoring of winter climate conditions to guide management decisions related to wildlife species.
- *Home Range & Seasonal Movements of the Caribou-Vita Cross Border (Manitoba-Minnesota) Elk Population* - Information collected to be used to ensure the long-term sustainability of this elk population.
- *Whiteshell Trappers’ Museum Public Education Program* – Providing public awareness regarding today’s trapping techniques.
- *Manitoba Wild Turkey Management* – Providing public awareness regarding capture and relocation program, and expanding of turkey hunting opportunities.
- *Willow Bluff Boardwalk* – Aiding and maintaining habitat, and educating the public.
- *Boral Woods Nature Center* – Assist in building habitat, delivering of education and data collection that will aid in wildlife management.
- *Wild Turkey Trap* – Relocation of traps to aid in wildlife management.
- *Go Hunt – Hunting Recruitment Pathway Program Expansion, Promotion and Development* – Connecting hunting and shooting related programs in the province.
- *Trapper Involvement in Predator-Prey Research* – Information collected will aid in maintaining sustainable moose and wolf populations in the province.
- *White-Tailed Deer Population Monitoring – A Review and Assessment of Techniques* – Information collected will aid in maintaining sustainable deer populations.
- *Bringing Indigenous and Non-Indigenous Communities Together for Moose Conservation* – Engaging hunters in moose management programs in the province

**Fisheries Enhancement Fund\***

Closing Fund Balance (March 31, 2017)                      2,131  
 \*(thousands of dollars)

**Wildlife Enhancement Fund\***

Closing Fund Balance (March 31, 2017)                      749  
 \*(thousands of dollars)

## Wildlife and Fisheries Branch

The Wildlife and Fisheries Branch protects, manages and enhances wildlife and fisheries resources to conserve biological diversity, including wild species and terrestrial and aquatic ecosystems, for the benefit of all Manitobans. These resources annually contribute millions of dollars to the Manitoba economy and create thousands of jobs. Fish and other wild species also provide Manitobans with essential healthy living opportunities including renewable sources of high quality natural foods. Spending time in Manitoba's diversity of natural ecosystems restores our mental and physical health, and offers a lifetime of free natural opportunities for people to learn about the over 40,000 species of wild plants and animals in this province. Our economy and health depends on sustaining robust populations of wild species and healthy ecosystems.

Operating under the authority of legislation including The Wildlife Act, The Fisheries Act (Manitoba), The Endangered Species and Ecosystems Act, and The Water Protection Act. Staff develop assessment and monitoring programs, policies and legislation for fishing, hunting, trapping, conserving biodiversity, species and ecosystems at risk, fish and wildlife habitat, human-wildlife interaction management, and land and water management on Crown and private land. The Branch prepares and reports on programs, budgets, standards and guidelines in coordination with other areas of government including regional staff. Branch staff also represents Manitoba on many provincial, national, and international initiatives.

The Branch initiated work on the following items related to the Minister's mandate letter from the Premier.

- Develop comprehensive harvest co-management strategies in consultation with First Nations, Métis and licensed hunters and anglers to give local communities a greater voice and ensure long-term sustainability of our wildlife populations.
- Curtail unsustainable and unsafe hunting practices such as night hunting to keep all Manitobans safe.
- Implement effective and innovative big game surveys to improve and increase the transparency of population data for managers.
- Develop and implement a credible strategy to secure certification of Manitoba's commercial fisheries.

More information can be found about wildlife and fisheries activities at:

[www.gov.mb.ca/conservation/wildlife/index.html](http://www.gov.mb.ca/conservation/wildlife/index.html) and [www.manitobafisheries.com](http://www.manitobafisheries.com)

### Key Results Achieved:

- A total of 67,778 hunting and trapping licences were sold resulting in revenue of \$3.3 million.
- Manitoba's 8,483 licensed and permitted trappers harvested an estimated \$1.82 million in raw fur from September 1, 2015 to August 31, 2016 (the last complete Fur Year with complete returns). The requirements to pay royalties on the pelts, skins and hides of animals in Manitoba were removed in 2016/17.
- A total of approximately 310,000 Big Game hunter days and 124,000 Game Bird hunter days were estimated based on 7.2 days per hunter.
- Approximately 2,468 of the 5,100 allocated big game licences were used by 245 registered tourism operators.
- Forty-nine scientific fish collection and 59 live fish handling permits, which also include Interprovincial fish movements, were issued.
- Thirty-three aquatic invasive species permits (issued to authorize the possession of an aquatic invasive species, in this case, for educational purposes) and two transportation authorizations were issued.
- Under the guidance of the Sustainable Fisheries Unit, the department successfully met all conditions of certification under the Marine Stewardship Council to maintain the Waterhen Lake Walleye and Northern

Pike commercial gillnet fishery's internationally recognized sustainable certification status by successfully passing the 2nd annual surveillance audit of the fishery.

- In keeping with the Minister's mandate item related to credible certification of the commercial fishery, the Sustainable Fisheries Unit began working on developing a strategy to secure certification of Manitoba's commercial fisheries. This included working with commercial fishers to implement activities required to maintain the status of certified commercial fisheries, moving forward with implementing certifiable management measures on a number of lakes where fishers have requested certification, and building more sustainable fishery management regimes for fisheries where no current consensus exists to move forward with certification.
- The Wildlife Section, along with regional wildlife staff, continued to engage First Nations and Métis in regional moose recovery efforts for the western and eastern areas of the province.
- The Wildlife Section continued their partnership with Memorial University of Newfoundland, Manitoba Hydro and the University of Manitoba on a research program aimed at understanding the potential impacts of wolf predation on moose populations in Manitoba. The department will be providing approximately \$200.0 of in-kind support to this half-million dollar project.
- The Wildlife Section partnered with Memorial University on research aimed at understanding habitat requirements of moose, particularly those that influence survival and reproduction. Results of this research will aid in management decisions, as well as enhance the big game aerial survey program.
- The Big Game Unit conducted big game surveys – elk in GHA 35A; moose in Porcupine Mountain (GHAs 13, 13A), Duck Mountain (GHAs 18, 18A 18B 18C) and GHAs 21 and 21A.
- The Big Game Unit conducted one aerial Chronic Wasting Disease (CWD) Risk Assessment Survey, in GHA 27 in the south western corner of the province. Over a period of six days, approximately 3,885 sq. km along the Saskatchewan border were surveyed to pinpoint potential CWD risk sites, as well as to identify wild cervid population clusters. In total, 296 CWD Risk Sites were identified and 363 moose, 30 mule deer and 4,874 white-tailed deer were spotted.
- The Big Game Unit continued with the winter severity index program to monitor and predict the affects of winter conditions on deer mortality. This program was expanded to include 22 monitoring stations throughout the deer range and allowed stakeholder groups to contribute to the program.
- The Big Game Unit, in collaboration with regional staff, continued monitoring GPS-collared moose and wolf in eastern Manitoba, and elk in the southeast, and initiated an elk area use study in the Gypsumville area by GPS-collaring 10 cow elk.
- The Game Bird Unit developed annual harvest and harvest rate estimates of wild turkeys to estimate population size and for use in a provincial management plan.
- The Game Bird Unit and regional staff partnered with the Canadian Wildlife Service and states within the Mississippi Flyway on waterfowl population and harvest management programs, with a particular emphasis on temperate and sub-arctic nesting Canada Geese. Over 5,000 Canada geese were leg banded to estimate harvest and survival rates, and monitor the effect of international regulation changes.
- The Game Bird Unit partnered with Canadian Wildlife Service to deploy 150 geolocation devices (tracking devices) on three populations of Canada and Cackling geese to determine timing of migration to identify when southern nesting Canada geese are most vulnerable to harvest. This project is funded 2017-2019 with support from the Fish and Wildlife Enhancement Fund.
- Collaborated with Ducks Unlimited Canada on waterfowl surveys at Delta Marsh, to estimate staging waterfowl densities and to understand changes in abundance that coincided with completion and maintenance of the Common Carp Exclusion Project.

- The Game Bird Unit partnered with the regions and citizen volunteers to monitor numbers of sharp-tailed grouse on over 70 dancing grounds located throughout their range in Manitoba. The index of birds/dancing ground is used to monitor population status of this species.
- The Game Bird Unit partnered with regional staff, volunteers from Wild Gobblers Unlimited and affiliate clubs of the Manitoba Wildlife Federation in wild turkey population establishment releases. In total, six different sites in Western Manitoba received 121 wild turkeys, which were captured from several areas of high abundance.
- The Game Bird Unit, with funding from the Fish and Wildlife Enhancement Fund, conducted a harvest survey for upland game birds in Manitoba. The estimated provincial sharp-tailed grouse harvest in 2016 was 7,584 birds and the estimated provincial ruffed grouse harvest in 2016 was 40,279 birds.
- The Game Bird Unit partnered with the Canadian Wildlife Service, Ducks Unlimited Canada, and Delta Waterfowl on a pilot project to band several species of diving ducks to improve international harvest management. In total, 1,520 ducks were banded included 433 diving ducks.
- The Game Bird Unit partnered with Environment and Climate Change Canada to obtain 600 swab samples from ducks for testing for Avian Influenza Virus.
- Otter was added to the list of fur bearing animals for which certified traps must be used to meet the Agreement on International Humane Trapping Standards. Traps continue to be certified and added to the list required for use in Manitoba and their use is harmonized between all provinces and territories.
- The Biodiversity Unit collaborated on research activities with the University of Winnipeg, Nature Conservancy Canada, Environment and Climate Change Canada, Living Prairie Museum and the Assiniboine Park Zoo into the ecology and biology of Poweshiek Skipperling and Dakota Skipper butterflies and the development of an innovative “headstarting” program to raise Poweshiek Skipperlings in captivity and release them to augment existing populations.
- The Manitoba Conservation Data Centre maintains information in Biotics on 12,729 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish, ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,277 species are endangered or of conservation concern. The database contains 78,807 observations and 46,200 mapped features based on species observations. Biotics data were used to review 155 Environment Act licence documents, and 998 other licence, permit, lease, and land sale requests.
- The Sustainable Fisheries Unit, working in partnership with the University of Nebraska, Federal Department of Fisheries and Oceans, North Dakota Game and Fish, Minnesota Department of Natural Resources and Manitoba Hydro, began a new phase of a fish movement study that saw the beginning of an acoustic tracking program. This program is intended to illuminate exposure of valuable commercial and recreational species, such as Channel Catfish and Walleye; as well as Endangered/Threatened/Protected species such as Lake Sturgeon to Manitoba’s recreational and commercial fisheries and the recreational fisheries of Minnesota and North Dakota.
- The Fisheries Section undertook the second year of a multi-year study assessing hatchery-reared Lake Sturgeon movement and behaviour in the Assiniboine River.
- The Fisheries Section undertook ongoing environmental review of fisheries impacts associated with the Keeyask Hydro electric Generating Station project.
- The Fisheries Section participated in the development of the Management Plan and actions to sustain the Bigmouth Buffalo, a fish that is federally listed as Special Concern.
- The Fisheries Section continued work on a Lake Sturgeon recovery plan between Canada, Manitoba and Manitoba Hydro.



- The Manitoba Conservation Data Centre Biotics database was used by the Protected Areas Initiative to inform protected areas planning. Biotics data were also used by the Manitoba Habitat Heritage Corporation to secure species-at-risk habitat through land purchases and Conservation Agreements.
- The Habitat Stewardship Unit delivered the Mixed-grass Prairie Habitat Stewardship Project which mowed 353 hectares (872 acres) of shrub encroachment on native mixed-grass prairie to enhance them for native grassland species.
- The Habitat Stewardship Unit through the Mixed-grass Prairie Habitat Stewardship Project inventoried an additional 4,953 hectares (12,240 acres) bringing the total included in the Mixed-grass Prairie Inventory since 1989 to 199,056 hectares (491,880 acres). The 2016-17 Mixed-grass Prairie Inventory data were entered into the Manitoba Conservation Data Centre database. Western spiderwort, a plant species at risk, was monitored on one property.
- As part of the Tall Grass Prairie Communities and Species at Risk Project, species at risk surveys were conducted at the Manitoba Tall Grass Prairie Preserve on 48 properties, totaling 3,120 hectares (7,680 acres) and monitoring continued for seven provincially listed species (five of which are also protected federally) and 14 provincially rare species.
- The Wildlife Section took the lead in hosting the 6<sup>th</sup> International Moose Symposium and 50<sup>th</sup> North American Moose Workshop in Brandon. The symposium and workshop were well attended by more than 225 participants (scientists, researchers, students, and representatives from Indigenous communities and non-government agencies) with representatives from many different provinces and territories, and international countries.
- The 8th Annual Provincial Hunting Day was celebrated at the Winnipeg Trap and Skeet Club on September 24, 2016. Several Hunting Skills Day events and 17 formal mentored hunts for waterfowl and white-tailed deer were held in partnership with the Manitoba Wildlife Federation, Delta Waterfowl, Ducks Unlimited Canada, and Wild Gobblers Unlimited.
- The Manitoba Wildlife Federation administered Manitoba's Hunter Education Program on behalf of the department. In 2016-17, the program graduated 2,749 students, with courses being held in many communities across Manitoba.
- The Wildlife Section consulted with the Manitoba Wildlife Federation, the Manitoba Lodges and Outfitters Association, and the Archers and Bowhunters Association of Manitoba on hunting regulation changes, and collaborated with organizations to deliver various wildlife related programs (e.g., Manitoba Habitat Heritage Corporation, Mentored Hunt Partnership, Nature Conservancy Canada, Wild Turkey Relocation Program, NatureServe Canada and NatureServe).
- Manitoba and the Manitoba Trappers Association provided 16 mandatory trapper education events from which over 250 students graduated.
- The Wildlife Lands Unit co-chaired the Lake Francis Wildlife Management Area (WMA) Advisory Group, to facilitate local input on habitat management within the WMA.
- The Wildlife Lands Unit operated and maintained the Delta Marsh Common Carp Exclusion Project, developed in cooperation with Ducks Unlimited Canada, the University of Manitoba and other partners.
- The annual Tall Grass Prairie Day event was hosted at the Tall Grass Prairie Preserve on August 13, 2016, with 55 people attending as part of the Tall Grass Prairie Communities and Species at Risk Project. Two editions of "Prairie Ponders" were produced and distributed to local communities.
- The Manitoba Conservation Data Centre continued to partner with conservation groups (Nature Conservancy Canada and Manitoba Habitat Heritage Corporation) and governments (Canadian Wildlife Service and Rural Municipalities) to share data and update records in its database and conduct species at risk inventories. It also partnered with Parks Canada who provided information on plants and animals in

Riding Mountain and Wapusk National Parks to the Data Centre to create new and updated records in its database for those species that are of conservation concern.

- The Aquatic Invasive Species program worked with the Government of Canada's Canadian Border Service Agency to communicate on a standard operating procedure for how federal border agents can inspect and enforce federal Aquatic Invasive Species legislation under The Federal Fisheries Act to prevent the importation of invasive carp, and Zebra and Quagga mussels into Canada. Manitoba is the delegated authority overseeing the federal Aquatic Invasive Species Regulations.
- Aquatic Invasive Species program partnered with the Mid-Canada Marine and Powersport Dealers Association to communicate to marine dealers about the impacts of Aquatic Invasive Species and how dealers can play a pivotal role to increase awareness to boaters on preventing the spread of aquatic invasive species.
- The Aquatic Invasive Species program continued to collaborate with the federal department of Indigenous and Northern Affairs to provide information and guidance to northern communities regarding aquatic invasive species and the precautions they should take to prevent the spread of zebra mussels to other watersheds.
- The Aquatic Invasive Species program continued to work with enforcement to increase knowledge on aquatic invasive species and legislation by providing annual updates to Park Patrol and Conservation Officers. Royal Canadian Mounted Police working with Water Transport were also trained on aquatic invasive species and how to enforce provincial and federal legislation.
- The Aquatic Invasive Species program increased the capacity to conduct watercraft inspections by training 168 provincial staff and other government public sectors from all regions of the province.
- The Fisheries Section developed an interactive Angler Lake Information website to assist anglers in planning their next fishing adventure.
- Continued to coordinate Winnipeg's Urban Angling Partnership, which offers residents and visitors recreational angling opportunities through structured angling programs including: Winnipeg Fish Festival, Fish Winnipeg Challenge, Learn to Fish Clinics, Youth Angling Camps, and Fall Fishing Derby. The program goal is to encourage wider participation in recreational fishing.
- The Sustainable Fisheries Unit invited licensed commercial tourism outfitters and deferred Licence Advisory Committee (LAC) angling outfitting applicants to attend an open house to discuss issues and propose policy and management solutions to managing and sustaining a fully allocated fishery resource.
- The branch supported the Youth Angling Card initiative and Gear Up - Tackling the Future programs.
- The Fisheries Section held an Angling Industry Forum consisting of angling group representatives and Indigenous organizations to share information, discuss issues and propose options to improve collaborative partnerships and governance.
- The Manitoba Conservation Data Centre received approximately 115,000 observations for potential inclusion in its species at risk database; approximately 73,000 of these were reviewed and processed. Organizations contributing data included Bird Studies Canada, Manitoba Herp Atlas (reptiles and amphibians), the Tall Grass Prairie Preserve, and Parks Canada Agency. Hundreds of volunteers contributed much of these data through citizen science based programs.
- The Manitoba Conservation Data Centre entered into five Data Sharing Agreements to better assist partners in planning and implementing projects to minimize impacts on species at risk in Manitoba, and to improve data holdings of the centre's database. The Data Centre responded to 198 requests for information from our rare species database.

- The Biodiversity Unit facilitated research in Manitoba on the biology and ecology of wild species, ranging from endangered butterflies to frogs, snakes, small mammals, cougars and polar bears, and rare ecosystems such as alvars.
- The Wildlife Lands Unit worked in the Delta Marsh Wildlife Management Area with the University of Manitoba, Ducks Unlimited Canada, and others to support research related to staging waterfowl use of Delta Marsh, marsh water quality, vegetation changes and the effect of Common Carp on wetland habitat.
- The Mixed-grass Prairie Habitat Stewardship Project worked with livestock producers to implement sustainable prairie management prescriptions on private lands in southwestern Manitoba. This initiative serves to improve the quality of remaining native prairie, increase income to producers and ultimately leads to the long-term retention of native prairie grasslands which support biodiversity.
- The branch enhanced the fisheries information system to assist in the sustainable management, harvest, tracking and recreational usage of Manitoba Fisheries Resources.
- The Aquatic Invasive Species program provided a total of 62 presentations to the public, target groups, organizations, communities groups, provincial and federal government departments. Staff participated in trade shows to provide information regarding the status, distribution of species, to slow the spread of species such as zebra mussels to offset ecological and economic costs to the province and discussed adaption to communities around Lake Winnipeg that are either being impacted, or that could be impacted, by the presence of zebra mussels.
- Bathymetric surveys were continued on an additional 30 water bodies and created supporting angler information documents. This is part of the interactive 'Lake Information for Anglers' website and contains information on fish stocking, fish lake assessments, bathymetric lake views, launch photos and coordinates.
- The Problem Predator Removal Program was delivered under an agreement with the Manitoba Trappers Association. The goal of this program is to remove predators that have attacked livestock or threatened human safety. In 2016-17, trappers responded to 23 requests and removed 41 coyotes, 20 wolves and two foxes. Manitoba Agriculture Services Corporation (MASC) addressed approximately 1,900 predator-livestock claims in 2016-17. Of the total claims, 77 per cent of the livestock attack claims were attributed to coyotes, 19 per cent to wolves and 3 per cent to black bears.
- Game, Fur and Human-Wildlife Conflict Section staff continued to co-chair the Livestock Predation Protection Working Group, and worked with the Manitoba Beef Producers, Manitoba Agriculture, Manitoba Agricultural Services Corporation, Manitoba Sheep Association, Manitoba Goat Association, Manitoba Trappers Association and Agriculture and Agri-Food Canada
- The Growing Assurance: Farmland Beaver Damage Control Program was administered by Manitoba Agriculture and delivered by Manitoba Sustainable Development. This program funds the prevention and mitigation of beaver damage to agricultural land. In 2016-17, program participants included 52 municipalities, four Northern Affairs Communities, and seven pastures of the Association of Manitoba Community Pastures. Three Beaver Damage Control Workshops were delivered in chronic beaver conflict areas: Alonsa, Inwood and Moosehorn. A "Living with Beavers in Manitoba" fact sheet was developed and made available online.
- Over 280 new trappers passed the mandatory trapper education exam in 2016-17. Manitoba Sustainable Development and the Manitoba Trappers Association jointly deliver these courses, with added support from organizations or companies. Presentations were made to youth, conservation, and professional groups on trapping methods and research on furbearing animals.
- The department continued to deliver the "Be Bear Smart" program through workshops, educational displays and materials to industry, staff, and the public through various training opportunities, school presentations, tradeshow, park interpretation sessions and various other public events.

- The department continues to monitor human-black bear conflicts across the province. On average, approximately 1,500 reports of human-bear interactions are received each year.
- Furbearer and Human-Wildlife Conflict Management Unit staff collaborated on research activities with the University of Manitoba on public attitudes in response to Bear Smart messaging strategies, and to analyze the frequency of human-black bear conflicts in the Grand Beach district.
- Staff in the Furbearer and Human-Wildlife Conflict Management Unit developed a wildlife encounter safety training program to reduce the risk of dangerous wildlife encounters, particularly for people working or recreating in remote areas.
- Furbearer and Human-Wildlife Conflict Management Unit staff developed a “Coexistence of Pets and Wildlife” fact sheet in response to increasing reports of conflicts between pets and wildlife. This fact sheet was added to the educational information on the Branch’s website.
- Manitoba continued a moratorium on issuance of Resource Tourism Operator Licences for waterfowl in Game Bird Hunting Zones 3 and 4, in response to greatly increased demand and a large number of existing operators.
- The department supported the Lake Winnipeg Fishery Co-Management Board that represents a partnership with commercial fishers to maximize economic opportunities while ensuring the long-term sustainability of the fisheries resource.
- Annual program implementation plans were prepared for the Bovine Tuberculosis and Chronic Wasting Disease programs. The Big Game Health Program analyzed over 430 white-tailed deer, 82 elk and 24 moose samples for signs of Bovine Tuberculosis, Chronic Wasting Disease, and other diseases. All samples were negative for signs of reportable diseases.
- The Tall Grass Prairie Communities and Species at Risk Project resulted in the removal of 3.5 hectares (8.5 acres) of invasive species (leafy spurge and St. John’s wort) and 4.4 hectares (10.8 acres) of aspen to limit encroachment on tall-grass prairie lands to conserve species at risk.
- The Tall Grass Prairie Communities and Species at Risk Project began to selectively brush-mow small aspen trees and other shrubs where they encroach into prairie habitat supporting species at risk.
- The Wildlife Lands Unit continued to partner with Ducks Unlimited Canada and the City of Winnipeg on the delivery of the Manitoba Purple Loosestrife Project. The project protects wetland habitat through the release of bio-control (beetles) to reduce the spread of the invasive purple loosestrife plant.
- Manitoba continues to work with the Canadian Food Inspection Agency - Aquatic Animal Health Program on the implementation of a national fish health surveillance monitoring plan for Spring Viraemia of Carp and Whirling disease. Whirling disease was reported in trout located in Johnson Lake, Alberta. This is the first occurrence of this disease in Canada. Manitoba tests fish for Whirling disease and a host of other pathogens prior to stocking. All samples were negative for reportable and immediately notifiable diseases.
- The Aquatic Invasive Species program continued its Watercraft Inspection program. Watercraft inspectors, six decontamination units (five trailer-pulled units and one stationary unit) were deployed at high traffic boating areas. The program ran from early-July to late October and performed 5,069 watercraft inspections 357 decontaminations, and intercepted two mussel fouled watercraft. Watercraft inspectors inspected watercraft from 23 states and 6 provinces. Towards the end of the operating season five inspection stations transitioned to key highway locations located at Headingley, Eriksdale, Swan River, Grand Rapids and The Pas to intercept a higher volume of boater traffic.
- The Aquatic Invasive Species Program monitored 73 waterbodies in Manitoba for zebra mussels. Samples were taken in partnership with Regional Operations, Water Science and Management Branch, Swan Valley Sport Fish Enhancement, Manitoba Hydro (North-South Consultants), and the Lake Winnipeg Research Consortium.

- Sixty-seven non-invaded waterbodies were sampled throughout Manitoba based on watercraft movement, proximity to invaded waterbodies, and opportunistic sampling events. Of the 67 waterbodies, 41 were sampled for zebra mussel veligers, 23 for settled zebra mussels, and 3 were sampled for both zebra mussel veliger and settled adults.
- Only one new detection of zebra mussels was found. A suspect zebra mussel specimen was found in Singush Lake in Duck Mountain Provincial Park. Further investigation is required to determine or refute the presence of zebra mussels in this lake.
- To date, zebra mussels have been found in the Red River, Lake Winnipeg, and Cedar Lake.
- Lake Winnipeg, a zebra mussel invaded waterbody, was monitored through the spring, summer and fall to document this species' spread and establishment into the channel and north basin. Results indicated that zebra mussels have become well established in the south basin and that there was an increase in the presence of zebra mussel veligers and settled adult zebra mussels within the channel. There was no indication that zebra mussel infestation has increased in the north basin compared to that in 2015.
  - The Nelson River, Playgreen Lake, and Little Playgreen Lake (all downstream waterbodies from Lake Winnipeg) had no zebra mussel veligers or settled zebra mussel detected in any of the samples.
  - Following up on the detection of two single zebra mussel veligers found in Cedar Lake in 2015, twenty-nine zebra mussel veliger samples were collected in 2016 to confirm their presence and determine the extent of the infestation. No zebra mussels or settled zebra mussels were detected.
- The Aquatic Invasive Species Program sampled 43 waterbodies for spiny waterflea. None were detected in the 41 non-invaded waterbodies sampled. Spiny waterflea presence was confirmed in two known invaded waterbodies - Lake Winnipeg and Playgreen Lake.
- Flowering Rush, a prohibited species in Manitoba, was found in a wetland area in Grand Beach Provincial Park. The Aquatic Invasive Species Program and the Parks and Protected Spaces Branch coordinated efforts to remove one quarter of the stand.
- Whiteshell and Swan Creek hatchery targets for Walleye were met. The branch remains committed to increasing output for Walleye. Hatchery targets for salmonids (trout species) were surpassed.
- The production and distribution from the total fish hatchery system:
 

Walleye Fry	40,000,000 ± 30%
Trout (fingerlings and yearlings)	300,000 ± 10%
- The Northern Fishermen's Freight Assistance program assists marginal commercial operations by partial subsidization of transport of eligible species from selected lakes to Winnipeg. Fishers pay the first 20¢/kg of freight, Manitoba pays the next 45¢/kg, and fishers pay any costs over 65¢/kg. Eligible species are lake whitefish, northern pike, lake trout, yellow perch, goldeye, cisco and several species of sucker. Subsidy payments to fishers are issued weekly by Freshwater Fish Marketing Corporation on behalf of Manitoba.

**Table WF.1**

**Licensed Fishers Employed in Manitoba Commercial Fishery, 2014/15**

	PART I LAKE WPG	PART II LAKE WPGOSIS	PART III LAKE MB	PART IV SPRING SUCKER CREEKS*	PART V OTHER WATERS	PART VI ADD'L WATERS	Experi mental	Total
<b>ANNUAL LICENCE HOLDERS</b>	774	92	186	42	312	95	26	1,375

**Note:** Those who fish in more than one area or season, or who fish both as hired persons and licence holders, are counted only once in the appropriate total column. Commercial fishing licenses are issued on a fiscal year basis (April 1st - March 31st). Commercial fishing statistics for 2016/17 were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

\*Spring Sucker Creek values have been inserted into adjoining water bodies.

**Table WF.2**

**Commercial Fishing Production (Round Weight kg), Total Value and Employment (Licensed Fishers) 2007/08 to 2015/16**

Year	PART I LAKE WINNIPEG		PART II LAKE WINNIPEGOSIS		PART III LAKE MANITOBA	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
2008	6,982,370	19,623,797	1,451,871	1,285,677	928,023	1,473,616
2009	6,961,049	18,640,267	1,299,150	983,968	795,112	1,355,281
2010	6,642,285	15,792,411	794,838	814,564	395,319	769,116
2011	6,294,268	16,934,883	1,165,329	1,094,160	923,278	1,917,100
2012	6,160,613	16,266,979	994,314	1,130,288	539,974	771,167
2013	6,584,360	15,715,014	1,417,850	1,487,128	879,382	895,484
2014	6,620,172	14,715,907	1,603,042	1,794,341	1,768,312	1,600,349
2015	6,717,817	15,783,613	1,777,863	1,927,147	1,823,327	1,896,092
2016	6,770,922	16,284,360	1,509,596	1,680,802	1,420,205	1,851,352

Year	PART V OTHER WATERS		PART VI ADDITIONAL WATERS		EXPERIMENTAL		Total	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
2008	2,390,956	3,565,740	463,554	613,014	75,832	174,411	12,292,607	26,736,254.99
2009	2,500,119	3,443,934	344,970	524,787	90,854	214,899	11,991,253	25,163,135.20
2010	2,361,167	3,231,550	341,640	436,475	55,785	102,841	10,591,033	21,146,958.30
2011	1,870,798	2,759,028	352,298	449,720	94,245	253,647	10,700,216	23,408,537.85
2012	2,233,063	3,264,045	491,776	651,783	104,569	226,659	10,524,309	22,310,921.51
2013	1,980,002	2,743,288	474,633	716,841	51,254	97,103	11,387,481	21,654,857.39
2014	2,265,543	3,256,311	490,526	688,314	65,190	203,404	12,812,785	22,258,625.18
2015	2,322,141	3,777,148	580,472	788,911	61,567	205,282	13,283,187	24,378,193.48
2016	1,986,299	3,418,491	329,307	544,869	71,317	245,598	12,087,646	24,025,473

**Note:** Total value includes both Initial Value and Final Payment. Commercial fishing statistics prior to 2007/08 were based on a fiscal year (April 1st - March 31st). Statistics from 2007/08 on are based on a "fishing year" (May 1st - April 30th). Statistics for 2016/17 were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

\*Annually, licensed commercial fishers hire approximately 1,000 hired helpers.

Table WF.3

**Commercial Fishing Production (Round Weight kg) by Area and Total Value by Species, 2015/16**

Species	PART I LAKE WINNIPEG		PART II LAKE WINNIPEGOSIS		PART III LAKE MANITOBA	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
CISCO	324,785	473,789	0	0	0	0
COMMON CARP	100,525	63,196	57,418	3,8142	515,811	347,354
FRESHWATER DRUM	26,810	7,986	6,552	2,052	977	305
GOLDEYE	28,834	42,531	0	0	1	2
LAKE WHITEFISH	2,479,030	4,920,933	56,766	86,374	12,527	20,279
NORTHERN PIKE	153,794	103,892	53,0138	50,8314	29,4281	20,1587
SAUGER	175,733	521,371	2	8	4,381	15,543
SUCKER	137,342	64,541	661,575	310,914	329,562	143,010
TROUT	0	0	0	0	9	5
WALLEYE	3,250,475	9,863,028	196,710	733,048	262,555	1,122,748
WHITE BASS	35,241	13,368			1	0
YELLOW PERCH	54,999	209,722	435	1,950	110	523

Species	PART V OTHER WATERS		PART VI ADDITIONAL WATERS		EXPERIMENTAL		Total	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
CISCO	66,543	52,031	270	106	1295	607	392,892	526,533
COMMON CARP	254	138	7,226	4,672			681,233	453,502
FRESHWATER DRUM			0	0			34339	10344
GOLDEYE	699	2,127	0	0	44	1,34	29,577	44,794
LAKE WHITEFISH	370,507	691,223	61,870	100,716	10,16	1,443	298,1716	582,0968
NORTHERN PIKE	388,798	240,785	80,326	71,116	8,168	4,902	1,455,505	1,130,596
SAUGER	22,08	62,77	19	58	30	93	182,374	543,351
SUCKER	555,868	260,102	104,413	48,257	6,772	3003	1,795,531	82,9826
TROUT	35,578	25,593	1	1	1,311	100	357,10	25,695
WALLEYE	565,667	213,9528	73,813	313,496	13,771	54,019	4,362,992	14,225,867
WHITE BASS	11	5					35,252	13,373
YELLOW PERCH	167	682	13,639	6,446	40,091	181,298	97,170	400,622



**Table WF.4  
Angling Licence Sales and  
Revenue 2004/05 to 2015/16**

	Resident/Manitoba – Senior Conservation
Year	Number
2004/05	12,530
2005/06	12,977
2006/07	13,923
2007/08	13,978
2008/09	14,585
2009/10	15,139
2010/11	15,353
2011/12	15,602
2012/13	16,901
2013/14	17,232
2014/15	18,028
2015/16	20,156

Note: Manitoba Seniors do not pay a fee for Conservation Angling licences. The department pays a \$1.00 fee to vendors for each angling license sold by a vendor.

Year	Resident of Manitoba- Regular			Resident of Manitoba-Conservation			Total: Resident of Manitoba (includes Sr. licenses above)	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
2004/05	44,885	15.89	669,173.65	73,934	10.28	686,978.52	131,349	1,344,102.17
2005/06	44,851	15.89	668,658.39	71,155	10.28	661,127.40	128,983	1,317,294.79
2006/07	46,810	15.89	697,872.90	74,851	10.28	695,393.28	135,584	1,379,872.18
2007/08	48,997	15.89	730,453.33	71,741	10.28	666,559.48	134,716	1,383,494.81
2008/09	50,196	18.89	898,899.44	72,379	13.28	889,604.12	137,160	1774,434.56
2009/10	51,983	18.89	930,843.87	74,239	13.28	912,479.92	141,361	1,828,744.79
2010/11	53,284	18.89	954,034.76	72,225	13.28	887,663.00	140,862	1,826,885.76
2011/12	53,861	18.89	964,501.29	71,228	13.28	875,436.84	140,691	1,824,894.13
2012/13	58,406	18.89	1,045,817.34	77,014	13.28	946,675.92	152,321	1,976,235.26
2013/14	53,102	23.89	1,216,961.80	73,095	18.28	1,264,642.55	143,429	2,465,071.35
2014/15	54,877	23.89	1,257,524.30	70,979	18.28	1,228,002.91	143,884	2,468,190.21
2015/16	61,064	23.89	1,399,346.60	75,350	18.28	1,303,774.50	156,570	2,683,671.10

Year	Resident of Canada-Regular*			Resident of Canada-Conservation*			Total: Resident of Canada*	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
2004/05	1,906	37.38	69,383.28	8,939	18.69	158,350.91	10,845	227,734.19
2005/06	1,705	37.38	62,055.90	8,495	18.69	150,422.55	10,200	212,478.45
2006/07	1,831	37.38	66,634.78	9,106	18.69	161,263.14	10,937	227,897.92
2007/08	2,101	37.38	76,469.38	9,139	18.69	161,851.91	11,240	238,321.29
2008/09	2,043	40.38	80,495.34	9,626	21.69	199,366.94	11,669	279,862.28
2009/10	2,150	40.38	84,714.00	10,055	21.69	208,258.95	12,205	292,972.95
2010/11	2,085	40.38	82,149.30	9,759	21.69	202,126.71	11,884	284,276.01
2011/12	2,275	40.38	89,632.50	9,886	21.69	204,829.34	12,161	294,461.84
2012/13	2,603	40.38	102,544.14	10,488	21.69	217,254.72	13,091	319,798.86
2013/14	2,392	45.38	106,222.96	10,070	26.69	258,783.90	12,462	365,006.86
2014/15	2,562	45.38	113,752.56	9,930	26.69	255,199.10	12,492	368,951.66
2015/16	2,679	45.38	118,963.02	10,866	26.69	279,345.22	13,545	398,308.24

Year	Non-Resident of Canada – Regular			Non-Resident of Canada – Conservation			Total: Non-Resident of Canada	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
2004/05	4,755	51.40	239,777.00	24,089	28.04	651,714.56	28,844	891,491.56
2005/06	4,271	51.40	215,364.40	23,116	28.04	625,376.64	27,387	840,741.04
2006/07	3,694	51.40	186,241.60	21,353	28.04	577,719.12	25,047	763,960.72
2007/08	3,331	51.40	167,975.40	20,448	28.04	553,163.92	23,779	721,139.32
2008/09	2,773	54.40	148,145.20	17,597	31.04	528,931.88	20,370	677,077.08
2009/10	2,637	54.40	140,908.80	14,801	31.04	444,855.04	17,438	585,763.84
2010/11	2,509	54.40	134,064.60	15,275	31.04	459,135.00	17,784	593,199.60
2011/12	2,472	54.40	132,084.80	14,259	31.04	428,605.36	16,731	560,690.16
2012/13	2,722	54.40	145,451.80	14,779	31.04	444,361.16	17,501	589,812.96
2013/14	2,455	59.40	143,406.90	14,490	36.04	508,288.50	16,945	651,695.40
2014/15	2,696	59.40	157,501.48	15,546	36.04	545,311.30	18,242	702,812.78
2015/16	3,267	59.40	190,836.46	17,430	36.04	611,493.50	20,697	802,329.96

Year	Total Regular Licences		Total Conservation Licences		Total Licences	
	Number	Revenue \$	Number	Revenue \$	Number	Revenue \$
2004/05	51,546	978,333.93	119,492	1,484,993.99	171,038	2,463,327.92
2005/06	50,827	946,078.29	115,743	1,424,435.59	166,570	2,370,513.88
2006/07	52,335	950,749.28	119,233	1,420,981.50	171,568	2,371,730.70
2007/08	54,431	974,898.11	115,306	1,381,575.31	169,737	2,356,473.42
2008/09	55,012	1,127,539.98	114,187	1,617,902.94	169,199	2,745,442.92
2009/10	56,770	1,156,466.67	114,234	1,565,593.91	171,004	2,707,482.00
2010/11	57,878	1,170,248.66	112,612	1,548,924.71	170,490	2,719,173.37
2011/12	58,608	1,186,218.59	110,975	1,493,827.54	169,583	2,680,046.13
2012/13	63,731	1,293,813.28	119,182	1,608,291.80	182,913	2,885,847.08
2013/14	57,949	1,466,591.66	114,887	2,031,714.95	172,836	3,481,773.61
2014/15	60,135	1,528,778.34	114,483	2,028,513.31	174,618	3,557,291.65
2015/16	67,010	1,709,146.08	123,802	2,175,163.22	190,812	3,884,309.30

**Note:** Total Revenue figures are net (less vendor's commission). Resident of Manitoba Senior's Conservation Licences were introduced in 1998/99. Starting with the 1999/2000 season – angling licences will be valid from May 1 – April 30.

Data prior to 2004/05 is available in previous annual reports.

\* The issuance of separate licences for Manitoba and non-Manitoba (Canadian residents) began in 2004.

**Table WF.5  
Bait Fishing Industry Statistics**

	Year						
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
No. of licensed bait fish fishers (frozen & live)	64	63	63	66	65	58	58
No. licensed for collection of live bait fish	32	33	33	30	31	31	31
No. of leech harvesters	21	22	22	22	22	20	20
No. of live bait dealers	46	43	43	48	50	56	66
No. of Kg of Frozen Bait Fish Produced	102,710	79,200	99,170	78,716	112,180	150,319	137,113
No. of live bait fish Produced (dozen)	105,900	114,880	118,220	110,489	109,799	156,536	130,490
No. of Kg of Leeches Produced	1,180	1,120	1,260	805	814	615	753
Estimated Gross sales							
Live bait fish	\$198,690	\$209,620	\$227,280	\$217,316	\$213,083	\$235,421	\$221,936
Frozen bait fish	\$834,630	\$814,180	\$1,080,970	\$801,581	\$809,149	\$1,278,488	\$934,516
Leeches	\$66,450	\$65,800	\$63,450	\$48,454	\$47,345	\$36,108	\$41,891
<b>Total</b>	<b>\$1,099,770</b>	<b>\$1,089,600</b>	<b>\$1,371,700</b>	<b>\$1,067,351</b>	<b>\$1,069,577</b>	<b>\$1,550,017</b>	<b>\$1,198,343</b>

**Table WF.6  
Manitoba Fish Farming Statistics**

		Year						
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
No. of Licensed Operators		27	27	26	25	25	24	27
	Species							
No. of Eggs Imported	Rainbow Trout	0	110,000	200,000	200,000	0	0	20,000
	Arctic Char	10,000	0	0	10,000	5,000	20,000	25,000
	Brook Trout	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
No. of Fingerlings Imported	Rainbow Trout	189,810	93,000	106,000	100,000	103,000	123,200	100,000
	Arctic Char	0	0	0	0	0	0	0
	Brook Trout	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
No. of Eggs/Fry Purchased in Manitoba	Rainbow Trout	0	4,000	0	0	0	0	0
	Arctic Char	0	0	0	0	0	30,000	0
	Brook Trout	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0
No. of Fingerlings Purchased in Manitoba	Rainbow Trout	5,600	5,000	1,865	4,520	12,240	12,040	41,500
	Arctic Char	73,900	2,000	0	0	0	0	0
	Brook Trout	1,000	500	500	0	0	0	0
	Other	0	0	0	0	0	0	0
No. of Fingerlings Sold	Rainbow Trout	86,000	141,800	170,320	78,800	81,435	81,420	110,000
	Arctic Char	60,000	2,000	0	0	0	0	0
	Brook Trout	0	0	0	0	0	0	0
	Other	0	100,000	0	0	0	0	0
No. of Kg of Fish Sold	Rainbow Trout	92,200	9,560	53,280	49,397	46,917	24	10,433
	Arctic Char	8,180	20,710	16,060	17,630	15,506	15,506	16,123
	Brook Trout	0	0	0	14	0	0	0
	Other	0	0	0	0	0	0	0
No. of Fingerling Customers		328	305	460	470	346	346	415

**Table WF.7**  
**12.4(c) Wildlife and Fisheries**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,375	61.35	4,779	(404)	1
Other Expenditures	2,197		1,719	478	2
Grant Assistance	924		924	0	
Northern Fisherman's Freight Assistance	410		410	0	
Less: Recoverable from other Appropriations	(128)		(128)	0	
<b>Total 12.4(c)</b>	<b>7,778</b>	<b>61.35</b>	<b>7,704</b>	<b>74</b>	

1. Under-expenditure is due to vacancies and Zebra Mussels salaries under-expended to cover operating costs.
2. Over-expenditure due to Zebra Mussel Program costs (covered by lapsed salaries).

## Habitat Enhancement Fund

The Fund provides a grant to the Manitoba Habitat Heritage Corporation in support of the Critical Wildlife Habitat Program for the conservation, restoration and enhancement of Manitoba wildlife habitat, and stewardship initiatives to conserve native grasslands, protect species at risk and prevent other species from becoming at risk. This Fund is also used to provide a portion of the match required for Federal Habitat Stewardship Program for Species at Risk allocations for Manitoba projects.

### Key Results Achieved:

- Maintained the conservation, restoration and enhancement of Manitoba wildlife habitat, particularly those grassland habitats important to species at risk, and the development and implementation of relevant land stewardship initiatives.
- Supported Critical Wildlife Habitat Program stewardship projects on mixed-grass and tall-grass prairies.
- Provided a portion of the funding for cost-sharing initiatives funded by Habitat Stewardship Program where a minimum 1:1 match is required. See detail on project accomplishments under Biodiversity, Habitat and Endangered Species Section.

**Table HE.1**  
**12.4(d) Habitat Enhancement Fund**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Other Expenditures	45		45	0	
<b>Total 12.4(d)</b>	<b>45</b>		<b>45</b>	<b>0</b>	

## Conservation District and Watershed Assistance

The Conservation Districts Program is a partnership between the Province and participating municipalities to provide for the conservation, control and prudent use of resources through the establishment of conservation districts under The Conservation Districts Act.

The mandate of the program is to promote the sustainable use and management of land, water and related resources on a watershed basis. The Province promotes watershed-based partnerships with municipalities to develop integrated watershed management plans; implement voluntary, incentive based programs and projects through partnerships that address risks to water resources and aquatic ecosystems; and ensure that the ecological integrity and overall health of each watershed is protected by empowering the local district boards to make decisions that will have impacts for present and future generations.

Manitoba provides annual grants to support conservation district operation and programming in areas such as water quality, surface water management, drinking water protection, water storage, soil conservation, wildlife habitat and public education programs that promote healthy, resilient watersheds.

In 2016/17 provincial grants totaling \$5,312,000.00 were provided as follows:

Alonsa	\$ 267,500.00
Assiniboine Hills	\$ 316,000.00
Cooks Creek	\$ 295,000.00
East Interlake	\$ 300,000.00
Intermountain	\$ 268,000.00
Kelsey	\$ 155,000.00
Lake of the Prairies	\$ 200,000.00
La Salle Redboine	\$ 222,000.00
Little Saskatchewan River	\$ 200,000.00
Pembina Valley	\$ 359,500.00
Seine-Rat River	\$ 378,000.00
Swan Lake Watershed	\$ 225,000.00
Turtle Mountain	\$ 303,000.00
Turtle River Watershed	\$ 417,500.00
Upper Assiniboine River	\$ 270,000.00
West Interlake Watershed	\$ 200,000.00
West Souris River	\$ 203,500.00
Whitemud Watershed	\$ 687,000.00
East Souris River Integrated Watershed Management Plan	\$ 20,000.00
Northwest Interlake Integrated Watershed Management Plan	\$ 25,000.00
<b>Total:</b>	<b>\$ 5,312,000.00</b>

The annual budgets and activities of the eighteen conservation districts are overseen and directed by the Conservation Districts Commission, chaired by the Deputy Minister of Manitoba Sustainable Development. The Conservation Districts Commission is comprised of representatives from groups having a direct relationship with the program (five departmental deputy ministers, one representative from the Manitoba Conservation Districts Association, one representative from the Association of Manitoba Municipalities, and two private citizens). Watershed Planning and Program staff support and manage the program on behalf of the Conservation Districts Commission, including developing integrated watershed management plans, administering provincial grant funding, developing and implementing program policy and monitoring the activities of conservation districts through a rigorous reporting scheme.

**Table CA.1  
12.4(e) Conservation District and Watershed Assistance**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Other Expenditures	5,312		5,312	0	
Less; Recoverable from other Appropriations	(1,165)		(1,165)	0	
<b>Total 12.4(e)</b>	<b>4,147</b>		<b>4,147</b>	<b>0</b>	

## Office of Drinking Water

The Office of Drinking Water worked to complete updates to the Drinking Water Quality Standards and Drinking Water Safety Regulations; streamline the processes for water system assessments; finalize policies and procedures related to the issuance of boil water advisories; and develop and implement an Indigenous Engagement Strategy. The Office continues to monitor the construction and operation of licensed public and semi-public water systems; to implement a progressive risk based enforcement strategy; to facilitate water system compliance with regulatory requirements and address long term boil water advisories; to expand the semi-public water system program; and to improve educational materials and technical support to private water system owners.

### Key Results Achieved:

- Updated the Drinking Water Quality Standards Regulation for the first time since the regulation was initially adopted in 2007. This brought Manitoba’s drinking water quality standards up-to-date with the health-based national guidelines that are relevant to Manitoba, including the full suite of disinfection by-products applicable to chlorine and other alternative disinfectants.
- Updated the Drinking Water Safety Regulation that focused on improving the infrastructure assessment process. The Office of Drinking Water developed a suite of detailed checklist-style assessment templates for system owners and consultants for smaller, lower-risk water systems; updated the terms of reference for engineering assessments of larger more complicated systems; developed a new set of guidelines for water system owners and operators; and implemented a communication strategy to advise them of the changes.
- Supported new construction and water system upgrades by issuing 43 public and 12 semi-public water system permits under The Drinking Water Safety Act; completed 22 post-construction inspections for major projects; and 23 pre-approval site visits to smaller systems to provide advice on low-cost options available to improve compliance and drinking water safety. Major projects completed in 2016/17 include the new Headingly water treatment plant and Rosser reservoir, which services the flagship CentrePort development and the rural municipalities of Headingly, Rosser and St. Francois Xavier.
- Supported public water system operations, by issuing 18 new operating licences, 59 renewals, 25 amendments and 8 revocations, bringing the total number of licensed public water systems to 418. In support of semi-public water system operations, the Office issued 55 new operating licences, 41 renewals, 3 amendments and 3 revocations, bringing the total number of licensed semi-public water systems to 344. Key amendments to the public water system operating licences included the addition of advisory notification plan requirements for systems serving more than 1,000 people. The advisory notification plan details how the system intends to communicate urgent drinking water quality information to residents, including critical customers (e.g. hospitals) and special sub-populations (e.g. non-English speaking residents).



- Monitored raw and treated water quality for 431 public water systems and 524 semi-public water systems; undertook 136 routine and unscheduled on-site inspections of public water systems and 90 inspections of semi-public water; prepared 393 public water system report cards (annual audits); reviewed water system infrastructure assessment reports for 25 public and 3 semi-public water systems; reviewed 16 public water system compliance plans; approved 5 compliance plans; and issued 14 warnings and 6 letters of direction.
- Completed on-site inspections to assess the systems' ability to produce and distribute safe water and to initiate the licensing process. Through an annual audit, provided water system owners with a summary of compliance issues that are available to the general public upon request.
- Continued to work with Manitoba Health, Seniors and Active Living, the Regional Health Authorities and other stakeholders to finalize the criteria for issuing boil water advisories to Manitoba water systems. The City's advisory notification plan was reviewed and updated; a provincial framework outlining roles and responsibilities for issuance of advisories was developed; and policies and procedures related to the issuance of advisories was finalized. The City's sampling locations, sampling protocols, and standards operating procedures for watermain repairs and reservoir cleaning were reviewed and information was presented at the annual Manitoba Water and Wastewater Association conference.
- Provided input into the development of the Guidelines for Canadian Drinking Water Quality on behalf of Manitoba via the Federal-Provincial-Territorial Committee on Drinking Water chaired by Health Canada. The Office of Drinking Water worked with Manitoba Health, Seniors and Active Living to develop communication and implementation strategies for these new guidelines. This included development of factsheets for water system owners and operators and the general public; presentations to system owners and operators and other stakeholder groups; development of provincial monitoring protocols; and e-mail distribution of draft guidelines and monitoring protocols to water systems for information and comment. A detailed communication strategy was developed and implemented for the City of Brandon.
- Continued to expand its Partnerships for Safe Drinking Water Program, facilitated meetings with provincial, regional and municipal staff from the Cities of Winnipeg and Brandon, and the Pembina Valley Water Cooperative.
- Developed and initiated implementation of its Indigenous Engagement Strategy. A new committee, with representation from the First Nations and Inuit Health Branch of Health Canada and Indigenous and Northern Affairs Canada was formed, building on the existing interdepartmental committee with Manitoba Indigenous and Municipal Relations. Participated in the newly formed Certificate in Indigenous Relations program, the Pathways to Reconciliation Conference, and the Reconciliation Mandate Committee.
- Created and uploaded three well water educational videos on how to test well water, how to reduce risk of contamination, and how to disinfect a well to the departmental website. In support of the private water system program. Within 2 months of posting the videos, they were viewed 7,927 times.
- Compiled and reviewed 2,457 private well water samples submitted through provincial private well sampling subsidy program; responded to more than 1,028 telephone inquiries from private water system owners concerned about their water; and issued 10 drinking water avoidance advisories to private surface water system owners in response to blue green algae (cyanobacteria) concerns around Sandy Lake, North and South Pelican Lake, Killarney Lake, Oak Lake, Rock Lake, Rivers Reservoir, Victoria Beach, Grand Beach, and Metigoshe Lake.
- Reviewed and commented on 124 Environment Act submissions and 124 subdivision proposals.
- Provided support to the provincial Water and Wastewater Certification Program; lectured at Red River Community College's Water and Wastewater School for operators; led technical seminars and workshops for operators through the Manitoba Water and Wastewater Association.

**Table ODW.1  
12.4(f) Office of Drinking Water**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	2,273	28.00	2,153	120	1
Other Expenditures	600		665	(65)	
<b>Total 12.4(f)</b>	<b>2,873</b>	<b>28.00</b>	<b>2,818</b>	<b>55</b>	

1. Over-Expenditure due to lower vacancies than the Staff Turnover Allowance.

**Drainage and Water Control Works Licensing**

This Section ensures that private and municipal drainage, dams and other water control works are constructed, established, operated and maintained in accordance with The Water Rights Act.

**Key Results Achieved:**

- Licensing – Drainage and Water Control Works Licensing Section received 1,846 new applications and issued 1,307 licenses. Approximately 3,000 subdivisions and Crown land development proposals were reviewed. Staff responded to more than 200 formal drainage complaints.
- Enforcement – A total of 36 charges under The Water Rights Act were issued . Of those files, 31 fines were issued. The fines ranged from \$487.15 to \$1,500. Fines, charges and orders are issued to ensure compliance with The Water Rights Act.

**Table DW.1  
12.4(g) Drainage and Water Control Licensing**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	1,470	22.00	1,485	(15)	
Other Expenditures	379		392	(13)	
<b>Total 12.4(g)</b>	<b>1,849</b>	<b>22.00</b>	<b>1,877</b>	<b>(28)</b>	

**Water Use Licensing**

The Water Use Licensing section consists of two distinct program areas: the licensing of water extraction projects as required under the provisions of The Water Rights Act and the licensing of water power (hydroelectric) projects under The Water Power Act. The common objective of both programs is the allocation of a valuable provincial Crown resource (water and water power) for a beneficial purpose, while ensuring the protection of the interests of all Manitobans, and potentially directly affected third parties. The Branch is comprised of engineers, hydrogeologists, environmental scientists, engineering technologists, resource planners, and a database management specialist.

### Water Rights Licensing Program:

Under the authority of The Water Rights Act, this unit processes applications that request the allocation of surface water or groundwater for municipal, agricultural (i.e. livestock), industrial, irrigation, and other purposes. The primary duties of this program include: (1) effectively allocating water for beneficial uses; (2) providing optimal allocation based on the sustainability of the resource base; (3) assessing water use applications; (4) providing clients with quality service; and (5) considering and minimizing potential negative impacts of water use projects. Water Rights licensing staff also respond to requests to divert water for short term purposes. Some examples include the hydrostatic testing of petroleum product pipelines, dust suppression on road construction projects, or to wet the soil base for road compaction projects. Water Use records must be kept by all license holders. Water use fees apply to industrial projects and projects labelled 'other' (e.g., recreation).

#### Key Results Achieved:

- Number of valid and subsisting water use licences was the highest on record.
- Number of applications for new projects waiting approval was the lowest on record.
- Number of applications for renewal, transfer or amendment waiting approval continued to decline.

### Water Power Regulation and Crown Land Development Review:

Under the authority of The Water Power Act, this unit is responsible for two important sub-program areas. The first, more high profile program, is the licensing/re-licensing of new and existing water power generating stations and associated water power diversion and/or storage projects. Currently, there are 19 licensed water power projects. The primary duties of this program area include: (1) issuing water power licences; (2) monitoring licensing terms and conditions; (3) reviewing The Water Power Act and Regulation; (4) conducting Crown-Aboriginal consultations in accordance with Section 35 of the Constitution Act (1982); and, (5) the ongoing development of new compliance and reporting tools.

The second sub-program deals with the assessment and transfer of lands to Canada to fulfill obligations under the Treaty Land Entitlement program, and the review of applications to develop Crown land parcels located within the Water Power Licence areas and/or Water Power Reserve areas. Although these projects may have a short time frame compared to the licensing of water power projects, they are of great importance to the applicant and there is often short timelines associated with such requests.

#### Key Results Achieved:

- Began consultations between the Crown and First Nations, Métis, and other Indigenous communities for a number of Manitoba Hydro waterpower projects.
- Documents of a technical and regulatory nature continued to be added to the Water Power Licensing component of the government website as they became available.

**Table WU.1**  
**12.4(h) Water Use Licensing**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,042	20.00	1,373	(331)	1
Other Expenditures	133		206	(73)	
<b>Total 12.4(h)</b>	<b>1,175</b>	<b>20.00</b>	<b>1,579</b>	<b>(404)</b>	

1. Under expenditures in Salaries due to vacancies.

## Water Stewardship Initiatives

Water Stewardship Initiatives provides funding for scientific research, transboundary water management, innovative policy development, incentives, and projects or activities that improve management or protection of Manitoba's water quality, aquatic ecosystem health, fisheries and includes development and implementation of watershed management and source water protection plans, and protection of riparian areas and wetlands.

The following initiatives were supported:

- **Water Quality Science Protection Initiatives and Innovative Water Management Projects**

Support was provided for operation of the Lake Winnipeg Research Consortium's ship the *MV Namao*, to undertake water quality and fisheries science on Lake Winnipeg, to protect Manitoba from transboundary activities that may unacceptably impact Manitoba's water, to support work of the South Basin Lake Winnipeg Mayors and Reeves in its Lake Friendly Campaign, to protect and restore wetlands including continuing an inventory of wetlands, to monitor for pharmaceuticals in surface waters, and to support the University of Manitoba in a research project to better understand potential in-lake remediation options for mitigating algal blooms in Killarney Lake. Engineering support was also provided to Conservation Districts to design and build water retention structures to mitigate flooding and drought and to improve water quality.

- **Fisheries Science Initiatives**

Support was provided to efforts to eco-certify the Province's fisheries, to support the fisheries co-management board on Lake Winnipeg, and to support co-management initiatives with Buffalo Point First Nation and with Treaty Two on Dauphin Lake.

- **Boards and Committees to Support Citizen Engagement Initiatives**

Support was provided to a number of boards, commissions and initiatives that help manage transboundary water issues between the United States and Canada and between Canadian provinces, and that help facilitate the inclusion of local stakeholders in water governance. As a downstream jurisdiction, Manitoba is a key beneficiary of transboundary water groups that support water quality and quantity protection and management. Funds were provided to the Prairie Provinces Water Board, the Red River Basin Commission, the Assiniboine River Basin Initiative and the Partners FOR the Saskatchewan River Basin. Support was also provided to Manitoba Eco-Network's water caucus.

**Table WSI.1**  
**12.4(i) Water Stewardship Initiatives**

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Grant Assistance	723		742	(19)	
Other Expenditures	709		159	550	
<b>Total 12.4(i)</b>	<b>1,432</b>		<b>901</b>	<b>531</b>	<b>1</b>

1. Over-expenditures is due to payment of Northwest area water supply project legal obligations.

## Watershed and Land Use Planning

The Watersheds Branch is comprised of the Strategic Initiatives Section and the Watershed Planning and Programs Section. The Branch develops an integrated framework for watershed-based policy and programming including ecological goods and services to ensure the health and resiliency of Manitoba watersheds. The Branch also provides advisory and planning services to the Conservation Districts Program as per The Conservation Districts Act and implements watershed-based planning under the provisions of The

Water Protection Act. In addition the branch targets, prioritizes and delivers watershed-based management and planning projects that reduced the impacts of flooding, improves land management practices, protects drinking water, and improves water quality. Building capacity in stakeholder groups to improve water resource management and decision-making, the branch maintains effective relationships with other governments, non-government organizations, producer organizations and Indigenous organizations.

Healthy, well-managed watersheds, holistic water strategies, and the network of local watershed organizations reduce the impacts of flooding, nutrient loading, while improving water quality, protecting drinking water and mitigating effects of droughts. They provide a range of ecological services, which have economic benefits to communities and businesses including natural regulation of water flow, water quality improvement, carbon storage and biodiversity conservation.

In 2016/17, the Branch initiated work on the following items related to the Minister’s mandate letter from the Premier.

- Implement a province-wide program based on the Alternative Land Use Services (ALUS) model to help reduce flooding and improve water quality and nutrient management, in partnership with the Minister of Agriculture as well as stakeholders including landowners, ngo’s, federal and municipal governments.
- Implement watershed-based planning for drainage and water resource management with a goal of no net loss of water retention capacity in watersheds.

**Key Results Achieved:**

- Continued coordination of a new watershed-based policy framework to achieve a no-net loss of water retention.
- Worked with Manitoba Agriculture to initiate development of a province-wide program based on the Alternative Land Use Services (ALUS) model to help reduce flooding and improve water quality and nutrient management.
- Provided professional planning support and leadership to 18 Conservation District Boards and staff including assistance with land and water based program delivery, watershed management planning, provincial grant administration, policy development and board governance.
- Completed the Whitemud River Integrated Watershed Management Plan and initiated new planning processes for the Northwest Interlake and East Souris River watersheds.
- Continued work with seven water planning authorities to develop integrated watershed management plans with consideration to land and water management, conservation, drinking water quality and aquatic ecosystem protection.

**Table WL.1  
12.4(j) Watershed and Land Use Planning**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	1,205	14.00	941	264	1
Other Expenditures	149		164	(15)	
<b>Total 12.4(j)</b>	<b>1,354</b>	<b>14.00</b>	<b>1,105</b>	<b>249</b>	

1. Over-expenditure is due to lower vacancies than Staff Turnover Allowance.

## Forestry and Peatlands

The Forestry and Peatlands Management Branch serves to maintain and enhance benefits for every Manitoban through The Forestry Act, The Forest Health Protection Act, The Peatlands Stewardship and Related Amendments Act, and associated regulations and policies. The Branch works closely with staff in regional services to ensure that the programs and services are delivered consistently across the province. (For regional forestry and peatlands activities, please see the *Parks and Regional Services* section of this report.)

The Forestry and Peatlands Management Branch has three sections: Planning and Development, Inventory and Analysis, and Urban Forestry, Health and Field Services.

The Branch website is - <http://www.gov.mb.ca/sd/forestry>

### PLANNING AND DEVELOPMENT

The Planning and Development section provides cutting authorities, establishes conditions for all forestry and peatland operations, tracks and monitors harvesting, collects associated dues and charges, and ensures the successful renewal of harvested Crown forests and peatlands. The section also fosters economic development by supporting new and existing industries and by facilitating increased Indigenous participation in the forest and peat sector.

In November 2016 the Tolko kraft mill was purchased and began operations as Canadian Kraft Paper Industries Limited (CKP). The Forest Management Licence #2 was transferred from Tolko to CKP in November 2016.

### Timber Administration Program

The Timber program administers timber harvesting; provides cutting authorities, monitors harvest volumes and inspects timber operations. The program establishes commodity timber prices and collects timber dues, other fees and charges. The program also tracks the movement of Crown timber from forests to mill destinations and issues Timber Dealer and Wood Processing Facility licences.

### Key Results Achieved

- Commodity prices for Kraft continued at an all-time high throughout 2016/17. This combined with the strong US dollar, had Standard Distance Kraft dues rates ranging from \$6.02 to \$6.39/m<sup>3</sup>.
- Oriented Strand Board (OSB) Standard Distance dues rates started the year at base rate and rose to \$4.22/m<sup>3</sup>. OSB Standard Distance dues rates have not been this high since May 2013. Softwood Lumber Standard Distance dues rates started the year at or near base rate and rose to an all-time high of \$3.83. Newsprint dues remained at base rate throughout 2016/17.
- In total, 1,198,890 m<sup>3</sup> of Crown timber was harvested in Manitoba and \$4,029,700 in revenue was collected from Timber Dues and Charges in 2016/17. Overall volume and revenue increased in 2016-17. Volume reported by all Electronic Data Transfer (EDT) mills was up and timber dues increased during 2016-17. Volume reported by timber returns and timber permits was down.
- In the Eastern Region, there was over 152,000 m<sup>3</sup> of Jack Pine budworm salvage delivered with a reduction in timber dues and charges of greater than \$800,000.
- Tolko Industries Ltd. /Canadian Kraft Paper Industries Ltd. continued to utilize residual fiber from sawmills, residual biomass from debris piles and hardwood from green harvest operations to replace the use of fossil fuels at their Kraft mill.
- Continued to support the Minister of Sustainable Development with participation on the Canadian Council of Forest Ministers (CCFM). This included ongoing participation on a number of CCFM committees and working groups including the Indigenous Engagement committee, the Forest Innovation committee and the Forest in Mind committee.

- In 2016 the US Department of Commerce launched a Countervailing Duty (CVD) Investigation into the import of softwood lumber from Canada. With the assistance of a US trade lawyer and the Department of Growth, Enterprise and Trade, the Branch assembled and submitted a 1,500 page CVD questionnaire response to the US department of Commerce.

### **Wood Measurement Program**

This program ensures that Manitoba's scaling methods are consistent with national standards, provides training and licensing, calculates scaling factors for determination of net volumes, and monitors industry wood measurement programs. All Crown timber harvested in Manitoba is accurately measured and its movement is tracked from forests to mills.

#### **Key Results Achieved**

- A Manitoba - issued scaling licence was required for the measurement of harvested Crown timber. At the end of the reporting period, there were 71 licensed scalers in Manitoba.
- Worked with regional forestry staff to collect scaling data to update mass conversion factors, undersize and defect percentages.
- In collaboration with industry, initiated and improved scaling methodology and scaler training in Manitoba. These included:
  - A trial of the recently updated scaler re-licencing requirements in July 2016.
  - A review and update of Manitoba's scaling manual.
  - Implementation of a pilot project with CKPI examining alternate scaling methodologies.

### **Forest Management Planning**

The program provides a lead role in strategic forest management planning and supports regional counterparts with operational planning.

#### **Key Results Achieved**

- Louisiana Pacific submitted a two year Operating Plan covering 2016/17 which was approved subject to ongoing Section 35 Consultation efforts.
- Annual meetings were held with Louisiana Pacific and Tolko and annual reports were submitted.
- Continued work on the development of a new Forest Management Plan (FMP).

### **Renewal Program**

The role of Manitoba's Renewal Program is to ensure that all harvested forests are satisfactorily regenerated to maintain the existing distribution of forest ecosystem stand types on untenured Crown land. The renewal program implements a variety of silviculture activities to regenerate areas, monitors and tracks renewal success, assesses renewal performance of industry and maintain tree improvement seed orchards.

#### **Key Results Achieved**

- In 2016, the renewal program contracted the planting of 1,512,000 trees on approximately 900 ha of Crown land. This was accomplished through six tendered contracts.
- Renewal surveys were conducted on 805 ha of renewal blocks; 222 ha of hardwood blocks, and 583 ha of softwood blocks. Of the hardwood renewal areas surveyed, 222 ha achieved the provincial regeneration standards. Free to Grow (FTG) surveys were performed on 1,840 ha of softwood-dominated forest stands.

The surveys indicated a total of 1,565 ha have achieved the provincial FTG standard for softwood leading renewal blocks.

- A total of 23 hectoliters of Black Spruce and Jack Pine cones were collected in 2016 for future renewal efforts across the province. The Branch continued to maintain a seed bank with a forecasted 3 year supply of seed. There are 14 seed orchards for jack pine, white spruce and black spruce and 27 associated family tests across the province.

### **Forest Practices Program**

The Forest Practices program coordinates the development of various forest practice guidelines. The Forest Practices Committee is comprised of representatives from other branches and departments of the Government of Manitoba and the forest industry. The approved guidelines can be viewed from: [www.gov.mb.ca/sd/forestry/practices/guidelines.html](http://www.gov.mb.ca/sd/forestry/practices/guidelines.html)

### **Peatlands Management Program**

The Peatlands Management program manages the province's peat resources and harvesting industry. The program provides resource management planning and administration; supports peatland research and inventory initiatives; and coordinates the development of best-practices guidelines.

#### **Key Results Achieved**

- Implemented the new peatlands management framework administered by the Branch, under The Peatlands Stewardship Act.
- In 2016, 1,299,488 m<sup>3</sup> of peat was harvested in Manitoba and \$161,157.16 was collected in revenue from peat royalties and charges.
- Ten peat harvesting companies held 22 peat harvest licences in Manitoba. The number of companies decreased by 1 since 2015/16 due to an amalgamation of two operations.
- The Peatlands Practices Committee, comprised of Government of Manitoba and peat industry representatives, was created to develop provincial peatland management guidelines.
- The Branch continued to support peatland restoration research conducted by the Peatland Ecology Research Group from the Université Laval.
- The Branch entered into a collaborative research project with Ducks Unlimited Canada, Louisiana Pacific (Canada), the Saskatchewan Research Council and Brandon University to develop a wetland sampling method to estimate carbon content by wetland type.

### **Crown- Indigenous Consultation and Community Engagement Program**

This program focus is on the meaningful engagement and consultation of forestry and peatlands development plans with Indigenous communities. Support is provided to the Regions on operating plans and the administration the consultation funds. The program also participates in working groups to learn and share knowledge.

#### **Key Results Achieved**

- Communicated with Misipawistik Cree Nation (MCN) to provide updates regarding the current outbreak of jack pine budworm (JPBW) and JPBW management activities in the region.
- Held meetings with the Manitoba Métis Federation (MMF) regarding consultation on various Forestry Plans.



- In December 2016, the branch formed a Steering Committee to guide the Consultation process for Louisiana-Pacific's new long-term Forest Management Plan (FMP).
- Provided support to the Region by administering the Crown Aboriginal Consultation Fund Agreement.
- Consultation for Canadian Kraft Paper Industries (CKP) 2017-2019 Operating Plan: Participated in community meetings.

## **INVENTORY AND ANALYSIS**

The Inventory and Analysis section supports the management of Manitoba's forest and peatland resources through program areas of forest and peatlands inventories, mapping and technology support, wood supply and resource analysis, forest growth and climate change analysis.

### **Forest and Peatlands Inventory Program**

The Forest and Peatlands Inventory Program creates and maintains a current, comprehensive, and accurate ecologically-based inventory of Manitoba's forest and peatlands resources using a Geographic Information System (GIS).

#### **Key Results Achieved**

- The forest lands inventory photo-interpretation was completed for Canadian Kraft Paper Industries Limited Forest Management License 2 (FML #2) area of the Nelson River Forest section. A total of 1.5 million hectares were interpreted.
- Satellite imagery was acquired for 1.7 million hectares to track land base changes throughout Crown forested lands and peatlands in Manitoba.
- Completed the re-measurement of 13 NFI ground plots and interpretation of 2 NFI photo-plots, in collaboration with the National Forest Inventory (NFI) section of the Canadian Forest Service.

### **Coordinated GIS Support Program**

The Coordinated Geographic Information System (GIS) Support Program provides the Branch with data management, data analysis, mapping and new technology support. Departmental GIS support may also be provided upon request.

#### **Key Results Achieved**

- Supported the Urban Forestry Program by creating Dutch elm disease mobile web maps, an information dashboard and an automated approach to generating community reports.
- Supported the Field Services program by configuring iPads used for data collection.
- Supported the Forest Health Program by creating mobile web maps and analyzing jack pine budworm infestation data.
- Supported the Wood Measurement Program by developing a mobile application for stacked wood scaling.
- Supported the Timber Administration Program by updating the Timber Returns and Out of Province Net Volume Calculation reporting forms.
- Supported the Forest Productivity Program by acquiring and processing Landsat imagery used for the Random Forest and *k-nearest neighbor* (kNN) forest inventory pilot study. A digital survey was also developed to support the Forest productivity Program with field sampling data collection in the Pineland Forest Section.

- Supported the Resource Analysis Program with GIS tasks associated with the Forest Management Unit (FMU) 13 wood supply.
- Supported the Forest and Peatlands Inventory Program with harvest depletion GIS database updates, peatlands database improvements, coordinating the scanning of historical forest inventory data and the digitization of historical inventory data.

### **Resource Analysis Program**

The Resource Analysis Program supports forest management planning at the strategic, tactical, and operational levels by determining sustainable harvest levels (referred to as Annual Allowable Cuts or AAC), ensuring that ecological processes, timber and non-timber resources, and values associated with forest ecosystems are accounted for.

This program also leads climate change initiatives for the Branch such as conducting climate change research, assessing vulnerability and mainstreaming adaptation options into forest management planning and practices. Other projects and responsibilities include calculating forest biomass and carbon sequestration, the integration of new principles of forest ecology and landscape design, and incorporation of natural disturbances, forest succession and wildlife habitat forecasting into forest ecosystem modeling.

### **Key Results Achieved**

- The wood supply analysis for FMU 13 in Forest Management License 3 (FML #3) of the Mountain Forest Section was finalized.
- The wood supply report for FMUs 50, 51, 53, 57, 58, and 59 of the Saskatchewan River Forest Section, and an addendum to the wood supply base case analysis for the Saskatchewan River Forest Section, were completed and published online.
- The wood supply report for FMUs 67 & 68 of the Highrock Forest Section, and an addendum to the wood supply base case analysis for the Highrock Forest Section, were completed and published online.
- Collected data on carbon sequestration in poplar plantations and continued Jack pine assisted migration trials.
- Collaborated with the Pan-Canadian Framework, Forestry Adaptation Working Group, and the National Forest Sink committee to address climate change issues affecting forestry and the forest sector.

### **Forest Productivity Program**

The Forest Productivity Program implements field sampling, manages associated growth and yield data, and uses statistical techniques to create models for consistently predicting the growth, decay, yield and quality of Manitoba's forests. The program also provides the base information to assist in timber supply, sustained yield projections and assessments of forest carbon storage and dynamics.

### **Key Results Achieved**

- The Permanent Sample Plots (PSPs) program monitored the growth and change of provincial forests by re-measuring trees from plots established across the province. During the 2016-17 reporting period, 95 plots were re-measured and 2 new plots were established.
- Completed an analysis of the field sampling data collected from the Pineland Forest Section, impacted by various disturbances (wind, snow, and insect damage), to assist in developing yield curves for a re-assessment of sustainable harvest levels for the forest section.
- Designed a sampling program and selected 100 temporary sample plots in Nelson Forest Section to collect data that are required for further validation of Manitoba-Variant Growth and Yield Prediction System (MGYPSY).

- Initiated a pilot study to use *k-nearest neighbor* (kNN) and Random Forest non-parametric modeling approaches to impute forest inventory attributes for Forest Management Unit (FMU) 69.
- Designed a sampling program for Scots pine and Jack pine dominated plantations in FMU 4 to collect data that is required for the development of yield curves for the plantations in that area.

## **URBAN FORESTRY, HEALTH AND FIELD SERVICES PROGRAM**

The Urban Forestry, Health, and Field Services section conducts monitoring and control programs to reduce damage from invasive and native forest insects and disease. The section also delivers urban forestry programs, engaging communities to enhance forests within urban areas throughout Manitoba.

### **Key Results Achieved**

- Monitoring continued for spruce and jack pine budworm. 129 Ground plots were surveyed and 14,336 km aerial defoliation surveys were flown and mapped to determine population levels in support of management planning. Elevating populations of spruce budworm were observed in 2016, while a severe population of jack pine budworm was detected in the Interlake.
- An outbreak of Ips and monochamus beetles was detected in the southeast portion of Manitoba.
- Monitoring for the invasive Emerald Ash Borer (EAB) continued with 32 green sticky traps placed at high-risk locations across the province. Communities were encouraged to participate in monitoring efforts and supplement trap placements. In 2016, EAB was not detected in Manitoba. Manitoba's EAB Preparedness Plan was updated. The Forest Health Protection Regulations was amended to restrict ash imports from Ontario and Quebec as well as other areas regulated by the Canadian Food Inspection Agency.
- The Province collaborated with the Canadian Food Inspection Agency on a project to determine the presence of a wasp (*Cerceris fumipennis*) that preys on Emerald ash beetles in the same family as EAB. The 2016 results indicated that population's levels of the wasp are not high enough in Manitoba for this to be an operational survey tool.
- Monitoring for the invasive European gypsy moth continued throughout Manitoba in 2016. Low numbers were observed for the majority of sampled areas. However, monitoring within the RM of Lac du Bonnet treatment area revealed evidence that European gypsy moth was present. A control method called mass trapping was completed in the summer of 2016.
- Four firewood collection bins along three major highways into Manitoba were monitored to help prevent the establishment of invasive forest pests through the movement of firewood. These bins, along with informative highway signs, warned the public that by transporting firewood they may be spreading invasive forest pests.
- A new Invasive Species Campaign was developed under the "Stop the Spread" umbrella banner with the message "Protect Manitoba's Trees - Don't Move Firewood"

### **Urban Forestry Program**

The Urban forestry program engages Manitoba communities in managing, protecting and enhancing their urban forest resources. The program is also developing policies and procedures to help enforce *The Forest Health Protection Act* and is responsible for administering arborist licenses for Manitoba tree care workers under the Arborist Regulation.

## Key Results Achieved

- The Dutch Elm Disease (DED) management program was delivered within 38 participating communities throughout Manitoba. The province continued to coordinate the delivery of the program, conduct annual detection surveys, and provide funding to support preventative maintenance and tree removals. In 2016, detection surveys marked a total of 4,238 DED infected trees.
- Over 26,000 seedlings were distributed to schools and educational organizations and at events such as Eco Day in Brandon and National Tree Day. Over 570 potted white spruce were planted in parks and in schoolyards in various locations throughout Manitoba to enhance urban forests.
- The Urban Forestry Program continued to work with its Provincial Heritage Tree Program partners, Trees Winnipeg and the Manitoba Forestry Association, to promote Manitoba's Heritage Trees and maintain the online database.
- Public outreach continued in 2016, with attendance at events, such as the Royal Manitoba Winter Fair, Arbor Day, Eco Day and Enviro Expo. Staff participated in the provincial Envirothon event with the Manitoba Forestry Association.

**Table FO.1**  
**12.4(k) Forestry and Peatlands Management**

<b>Expenditures by Sub-appropriation</b>	<b>Actual 2016/17 \$(000)</b>	<b>FTE</b>	<b>Estimate 2016/17 \$(000)</b>	<b>Variance Over/(Under) \$(000)</b>	<b>Expl. No.</b>
Salaries and Employee Benefits	3,933	44.00	4,568	(635)	
Other Expenditures	3,210		3,874	(664)	
Grant Assistance	43		50	(7)	
Forest Regeneration Stock	799		545	254	
Less: Recoverable from Urban and Rural Economic Development Initiatives	(1,459)		(1,480)	21	
<b>Total 12.4(k)</b>	<b>6,526</b>	<b>44.00</b>	<b>7,557</b>	<b>(1,031)</b>	<b>1</b>

1. Under-expenditure is due to vacancies, lower Dutch Elm Disease grants, and lower programs costs due to seasonal issues.

## Pineland Forest Nursery

Pineland Forest Nursery issues its own Annual Report with information on its mandate and operations. Copies can be obtained from the General Manager at Box 45, Hadashville, Manitoba ROE 0X0. The General Manager can be contacted at 204-426-5235 or toll free 1-800-539-8721 or by fax at 204-426-2106. Pineland Forest Nursery's web site is [www.pinelandforestnursery.com](http://www.pinelandforestnursery.com).

## 12.4(I) Recoverable from Sustainable Development Innovations Fund

The department recovers funds from the Sustainable Development Innovations Fund (SDIF) to support departmental commitments as reported in the SDIF annual summary (see section 27.3).

**Table SD.1**

### 12.4(I) Recoverable from Sustainable Development Innovations Fund

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Less: Recoverable from Sustainable Development Innovations Fund	(2,410)		(2,410)	0	
<b>Total 12.4(I)</b>	<b>(2,410)</b>		<b>(2,410)</b>	<b>0</b>	

## 12.5 Costs Related to Capital Assets

Costs Related to Capital are allocated for all amortization and interest expenses on capital investments under the responsibility of Sustainable Development. The budget allocations follow the format for Part B by separating General Assets and Infrastructure.

**General Assets** - Funding for the construction of new facilities or the improvement of existing facilities that are used by government personnel to deliver services to the public. General Assets also includes the acquisition of machinery, equipment, and major computer software programs.

**Infrastructure Assets** - Funding provides for the construction of new facilities or the improvement of existing facilities that are used by the general public throughout the department's program areas. The majority of this funding is represented throughout provincial parks

**Table ACA.1**

### 12.5 Costs Related to Capital Assets

Expenditures by Sub-appropriation	Actual 2016/17 \$(000)	FTE	Estimate 2016/17 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
(a) General Assets					
(1) Amortization Expense	2,016		2,153	(137)	
(2) Interest Expense	1,197		1,251	(54)	
(b) Infrastructure Assets					
(1) Amortization Expense	5,151		5,279	(128)	
(2) Interest Expense	5,567		6,364	(797)	
<b>Total 12.5</b>	<b>13,931</b>		<b>15,047</b>	<b>(1,116)</b>	<b>1.</b>

1. Under expenditure in General and Infrastructure Assets, Amortization and Interest Expense, is due to delays and deferrals of various Parks infrastructure projects.

# Part B – Capital Investment

## General Assets

General Assets funding provides for the construction of new facilities or the improvement of existing facilities that are used by government personnel to deliver services to the public. General Assets also includes the acquisition of machinery, equipment, and major computer software programs

### Key Results Achieved:

- With respect to facilities, a new Helitac Officer Cabin was constructed in the Northeast Region to support the Wildfire Program.
- Machinery and equipment purchases included all-terrain vehicles, outboard motors, back hoes, industrial mower/tractors, trailers, 1 ton trucks, snow machines, Global Navigation Satellite System (GNSS) survey equipment, a loader, a skid steer, a fuel tank, and upgrades to winter trail groomers in the Whiteshell.

## Infrastructure Assets

Infrastructure Assets funding provides for the construction of new facilities or the improvement of existing facilities that are used by the general public throughout the department's program areas. The majority of this funding is represented throughout provincial parks.

### Key Results Achieved:

The department continued to utilize the project management services of the Manitoba Water Services Board to deliver a number of projects involving drinking water treatment and wastewater treatment:

- Continued work on the Grand Beach West Water Treatment Plant to address compliance requirements.
- Continued design work and submission of an Environment Act Proposal for the Grand Beach Wastewater Lagoon project.
- Completion of the Wekusko Falls Water Treatment Plant which now replaces the treatment facilities at the Wekusko Wildfire Base and the Wekusko Falls Campground.
- Near completion of the required upgrades to the West Hawk Lake Water Treatment System. This project became a priority when local businesses in the townsite started reporting poor water quality as a result of a degrading source of water. A new water source has now been located and connected to the facility.
- Near completion of the Caddy Lake Water Treatment plant. This surface water location was previously on a Boil Water Advisory.
- Completion of the required compliance upgrades for the Opapiskaw Campground Water Treatment Plant in the North Whiteshell.
- Completion of the new forcemains and lift stations in the Spruce Woods Wastewater Collection System in conjunction with a variety of other works at the park in response to flood damage remediation.
- Completion of the Stephenfield Campground Wastewater Lagoon.
- Initiation of two new projects under the federal co-funded Clean Water and Wastewater Fund: St. Malo Water Treatment Plant and Spruce Woods Water Treatment Plant.

With respect to the remaining projects that were not associated with the Manitoba Water Services Board:

- Near completion of the West Gate Improvements project at Birds Hill Provincial Park. The project involves adding a new lane for processing visitor traffic and giving a modern facelift to the original 1960's concrete structure.

- Continued partnership with the Winnipeg Folk Festival to complete the water system improvements at the Group Use Two area in Birds Hill Provincial Park
- Repairs and improvements continued at Spruce Woods Provincial Park as a result of the significant damage from the 2011 and 2014 flood events. In 2016/17, the new Park Entry Road and supporting signage was completed.
- Campground electrification improvements and campsite enhancements were completed at St. Malo Provincial Park.
- Campground electrification improvements and campsite enhancements continue at the Blue Lake and Cache Lake Campground in Duck Mountain Provincial Park.
- New yurts were added to the campground at Paint Lake Provincial Park.
- Work continues on the new Yurt Village at Tulabi Falls Campground in Nopiming Provincial Park.
- The Seawall Improvements project at Winnipeg Beach Provincial Park was completed in conjunction with the department of Manitoba Infrastructure's Water Control Works funding initiative.
- A new Concession Building was completed at Grand Beach Provincial Park.
- A new roof and siding upgrades were completed on the mall facility at Falcon Lake in Whiteshell Provincial Park.

# Sustainable Development Integration

Under *The Sustainable Development Act*, each department is required to integrate into its annual reporting process information about progress made in incorporating sustainable development into its activities. The section below provides just a few examples of the many activities the department has undertaken to incorporate or apply the Principles and Guidelines of Sustainable Development into its everyday operations and activities. Please note that a particular example may exemplify more than one principle and/or guideline.

## Principles of Sustainable Development

### 1. Integration of Environmental, Social, Health and Economic Decisions

To meet the intent of Principle # 1, the department ensures:

- a) its economic decisions and activities adequately reflect environmental, human health and social effects; and
- b) its environmental and health decisions, activities and initiatives adequately take into account economic, human health and social consequences.

#### Examples:

- Both Winnipeg Beach and Grand Beach were awarded Blue Flag designation. Blue Flag is an internationally recognized eco-label symbolizing clean and well-managed beaches and marinas worldwide.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2016 including 20 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 15 beaches in western Manitoba. Approximately 52 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather health.
- Continued work under the Nutrient Management Regulation which included the review of 109 Nutrient Management Plans, of which 101 were registered, for golf courses across Manitoba in 2016/17. Reviewed 38 site specific soil survey reports for the purpose of requesting rezoning of locations of Onsite Wastewater Management Systems mapped as Nutrient Management Zone N4.

### 2. Stewardship

To meet the intent of Principle # 2, the department ensures:

- a) its plans, policies and decisions ensure the economy, the environment, human health and social well being are managed for the equal benefit of present and future generations; and
- b) its decisions are balanced with tomorrow's effects.

#### Examples:

- Responded to 2,922 district occurrence reports from the public, an increase of almost 25% from the previous year, related to parks safety and security, problem wildlife, and resource related complaints. In addition, staff provided representation on behalf of the department and professional advice to a large number of public industry, and interest groups on forestry, wildlife, Crown lands, parks, and other resource concerns and issues.
- Undertook 1,532 enforcement actions resulting in 762 prosecutions, 653 written warnings, and 87 evictions from provincial parks. These actions were primarily in response to public complaints on regulatory resource issues, and park safety and security concerns.
- Negotiations with the department of Fisheries and Oceans Canada resulted in Manitoba successfully acquiring the Hecla Historical Lighthouse along with \$60,000.00 of dedicated federal funding for its restoration.



### 3. Shared Responsibility and Understanding

To meet the intent of Principle # 3, the department ensures:

- a) it takes responsibility for sustaining the economy, the environment, human health and social well-being and be accountable for its decisions and actions in a spirit of partnership and open co-operation with all Manitobans;
- b) its decisions and activities reflect Manitoba's shared common economic, physical and social environment;
- c) it understands and respects differing economic and social views, values, traditions and aspirations in its decision making and activities; and
- d) it considers and reflects in its decisions and activities the aspirations, needs and views of the people of the various geographical and ethnic groups in Manitoba, including Indigenous peoples to facilitate equitable management of Manitoba's common resources.

#### Examples:

- Parks authority completed a partnership project with the Winnipeg Folk Festival to support water system improvements at the Group Use Two area in Birds Hill Provincial Park.
- The Wildlife Section continued their partnership with Memorial University of Newfoundland, Manitoba Hydro and the University of Manitoba on a research program aimed at understanding the potential impacts of wolf predation on moose populations in Manitoba.
- The Sustainable Fisheries Unit, working in partnership with the University of Nebraska, Federal Department of Fisheries and Oceans, North Dakota Game and Fish, Minnesota Department of Natural Resources and Manitoba Hydro, began a new phase of a fish movement study that saw the beginning of an acoustic tracking program.
- Responded to the Truth and Reconciliation Commission Calls to Action recommendations to ensure departmental understanding, training and compliance is meaningful, and designed and managed the *Certificate of Indigenous Relations Program (CIRP)* for the department to provide training on Indigenous relations to staff.

### 4. Prevention

To meet the intent of Principle # 4, the department ensures:

- a) its activities and decisions and legislation anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects, and
- b) have particular careful regard to its decisions and actions whose impacts are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well being.

#### Examples:

- Office of Drinking Water supported new construction and water system upgrades by issuing 43 public and 12 semi-public water system permits under *The Drinking Water Safety Act*, completed 22 post-construction inspections for major projects, and 23 pre-approval site visits to smaller systems to provide advice on low-cost options available to improve compliance and drinking water safety. Major projects completed in 2016/17 include the new Headingly water treatment plant and Rosser reservoir, which services the flagship CentrePort development and the rural municipalities of Headingly, Rosser and St. Francois Xavier.
- Monitored raw and treated water quality for 431 public water systems and 524 semi-public water systems; undertook 136 routine and unscheduled on-site inspections of public water systems and 90 inspections of semi-public water; prepared 393 public water system report cards (annual audits); reviewed water system infrastructure assessment reports for 25 public and 3 semi-public water systems; reviewed 16 public water system compliance plans; approved 5 compliance plans; and issued 14 warnings and 6 letters of direction.

- Continued development of action plans to combat the spread of aquatic invasive species (AIS) and in particular zebra mussels in 2016. Zebra mussels were detected in Cedar Lake in 2015 and, as a result, an extensive monitoring plan was implemented to track any further spread. Provided public education and awareness, relating to the spread of zebra mussels, to cottage associations and communities, and signs were placed at each boat launch. Watercraft Inspection Stations were setup in The Pas and Grand Rapids as part of the AIS program.
- Conservation Officers checked approximately 5,107 anglers, 631 hunters, and 52 commercial fishers for compliance, resulting in 237 enforcement actions.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2016 including 20 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 15 beaches in western Manitoba. Approximately 52 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather health.

## 5. Conservation and Enhancement

To meet the intent of Principle # 5, the department ensures:

- a) its activities and decisions maintain the ecological processes, biological diversity and life-support systems of the environment;
- b) that renewable natural resources are harvested on a sustainable yield basis;
- c) that those persons who have been allocated provincial resources make wise and efficient use of them; and
- d) its programs and activities enhance the long-term productive capability, quality and capacity of natural ecosystems.

### Examples:

- Supervised the planting of 440,000 trees throughout cutovers in the Forest Management Licence Agreement (FMLA). Thirty timber inspection reports were conducted by region and district staff.
- Western Region stocked 17,100,000 Walleye Fry, 15,184 juvenile/adult Walleye, 398 Northern Pike, 3,225 Yellow Perch, and approximately 220,000 salmonids in 80 waterbodies throughout the Western region, to supplement natural recruitment and diversify angling opportunities.
- Water quality was monitored at 65 long-term stations on 51 waterbodies across Manitoba during 2016/17 as part of the long term water quality monitoring program. An additional 18 stations were monitored as a part of the Northern Flood Agreement and the Memorandum of Understanding with Manitoba Hydro on the Coordinated Aquatic Monitoring Program on 11 waterbodies. Sustainable Development worked in collaboration with conservation districts, Environment and Climate Change Canada, the University of Manitoba, and Manitoba Hydro in collecting water quality samples.
- Responded to over 100 water quality data requests from the public, consultants, industry, academia, non-governmental organizations, conservations districts, stewardship groups, students and educators, and other provincial and federal agencies in 2016/2017.

## 6. Rehabilitation and Reclamation

To meet the intent of Principle # 6, the department ensures:

- a) it actively endeavors to repair or have repaired damage to, or degradation of, the environment; and
- b) that the department builds into its future allocations of and plans for the use of resources the requirement to rehabilitate and reclaim areas and resources that may be damaged.

### Examples:

- Spruce Woods Provincial Park construction was completed on a new entry road and is now designed for climate change resilience with flood proofing and flood resilience integrated into the design.

- Water quality on Lake Winnipeg was monitored at 60 stations in collaboration with the Lake Winnipeg Research Consortium during the spring, summer, fall and winter periods. Algae and benthic invertebrates were also monitored at a number of stations as a part of the long-term and Lake Winnipeg monitoring programs.

## 7. Global Responsibility

To meet the intent of Principle # 7, the department ensures:

- a) it thinks globally when acting locally, recognizing there is economic, ecological and social interdependence among provinces and nation; and
- b) it works co-operatively, within Canada and internationally, to integrate economic, environmental, human health and social factors in decision making while developing comprehensive and equitable solutions to problems.

### Examples:

- Continued to provide advice and logistical support to the Pimachiowin Aki Corporation throughout the referral process, including development of the new nomination dossier. The dossier was completed in December 2016 for submission to the United Nations Educational, Cultural and Scientific Organization (UNESCO) in January 2017.
- Advanced Manitoba's Commemorative Names Project's through three projects: 1. commemoratively naming geographical features to honour Manitoba's First World War fatalities; 2. honouring Peace Officers and First Responders who lost their lives in the line of duty; and 3. Vimy Ridge Memorial project including the 100<sup>th</sup> Anniversary of the Battle of Vimy Ridge Commemoration.
- Represented Manitoba on the intergovernmental committee for the North American Agreement on Environmental Cooperation, and monitored trade developments with respect to environment implications of the Agreement on Internal Trade (AIT), the GATT/WTO agreements, the ongoing Canada-European Comprehensive Economic and Trade Agreement (CETA), and Trans-Pacific Partnership (TPP) negotiations.
- GeoManitoba created daily and weekly composites using National Oceanic and Atmospheric Administration (N.O.A.A) Advanced Very High Resolution Radiometer (AVHRR) satellite data for the Canadian Crop Assessment Program (CCAP) and also for the Canadian Global Change Program. This project generates \$15,000 a year in revenue.
- Lake depth maps for lakes in Manitoba and Ontario were updated and produced to include the Universal Transverse Mercator grids and coordinates. Geographic mapping produced and provided customized mapping for the general public; private sector companies and other government agencies/departments maintained and updated the base maps of Manitoba.

# Sustainable Development Guidelines

## 1. Efficient Uses of Resources

To meet the intent of Guidelines # 1, the department ensures:

- a) encourage and facilitate development and application and use of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources; and
- b) employ full-cost accounting to provide better information for decision-makers.

### Examples:

- Achieved \$1,022,973.21 in cost recoveries for survey services to provincial government departments and agencies. Major clients included the departments of Infrastructure, Sustainable Development, and Indigenous and Municipal Relations.

## 2. Public Participation

To meet the intent of Guideline # 2, the department ensures:

- a) use and establish forums which encourage and provide opportunity for consultation and meaningful participation in departmental decision making processes by Manitobans;
- b) provide due process, prior notification and appropriate and timely redress for those adversely affected by departmental decisions and actions; and
- c) strive to achieve consensus amongst citizens and the department with regard to decisions affecting them.

### Examples:

- Environmental Stewardship Division led the public consultation process associated with the review of Manitoba's existing non-essential use pesticide legislation. This online consultation resulted in feedback from over 2,100 members of the public. Respondents were primarily private individuals, but also included the business sector and non-government organizations. The department also worked to develop options to improve the legislation related to non-essential pesticide use in Manitoba.

## 3. Access to Information

To meet the intent of Guideline # 3, the department ensures:

- a) improve and refine economic, environmental, human health and social information related to natural resources and the environment; and
- b) provide and promote the opportunity for equal and timely access to its information by all Manitobans.

### Examples:

- Enhanced the department approach to analyzing existing operations and expanded a Lean management practice across the organization as a means to realize productivity efficiencies and improved services. A sample of department-wide processes reviewed include those related to Indigenous Community Consultation Funding, FIPPA and Contracts and Agreements. These processes were revised and redefined so as to produce deliverables quicker with less red-tape.
- Strategic Policy and Coordination branch developed and revised policies, updated documents and developed guidance materials to support the implantation of process improvements. Improvements to overall coordination and harmonization of Crown land management and administration were achieved through interpretive, analytical and developmental work in various areas such as agriculture leases on departmentally held land, disposition of surplus Provincial land policies, pricing policies related to Crown Lands and Property Agency services, sale agreements, and circulation processes.

#### **4. Integrated Decision Making and Planning**

To meet the intent of Guideline # 4, the department ensures:

- a) encourage, facilitate, establish and ensure its decision making and planning processes are efficient, timely, accountable and cross-sectoral; and
- b) incorporate into its decision making and planning an inter-generational perspective of future needs and consequences.

##### **Examples:**

- Continued to participate as provincial representatives on the Cedar Lake, Cormorant, Opaskwayak Cree Nation, and Moose Lake Resource and Joint Management Boards. Opaskwayak Cree Nation and the Province signed a new 20-year Joint Management Agreement to jointly manage the natural resources and develop a land use plan for the traditional territory.

#### **5. Waste Minimization and Substitution**

To meet the intent of Guideline # 5, the department ensures:

- a) encourage and promote, within and outside of the department, the development and use of substitutes for scarce resources where such substitutes are both environmentally sound and economically viable; and
- b) reduce, reuse, recycle and recover the products the department uses in its daily operations and encourage, promote and facilitate the 4 R's in society generally.

##### **Examples:**

- Regulated Producer Responsibility Organizations responsible for management of a wide range of designated consumer products at end of life including paper, packaging, tires, oil, electronic and household hazardous waste.
- Managed the Sustainable Development Innovations Fund and its targeted funding programs, including the Waste Reduction and Pollution Prevention Fund and the Manitoba Climate Change Action Fund. Also, Sustainable Development managed the provincial program to prevent the release of pollutants contributing to climate change and impacting the stratospheric ozone layer.
- Established an effective and efficient regulatory framework, and managed an Agreement with the Manitoba Ozone Protection Industry Association (MOPIA) which allows the organization to administer key program activities, including the issuance of 4,630 service technician certificates and 529 secondary distributor permits.
- Participated on the Federal Provincial Working Group on Controls Harmonization for Ozone Depleting Substances and Other Halocarbons; and provided a key role in implementing Canada's National Action Plan to control, reduce and eliminate use of ozone depleting substances and other halocarbons in Manitoba.

#### **6. Research and Innovation**

To meet the intent of Guideline # 6, the department ensures:

- a) encourage and assist in the research, development, application and sharing of knowledge and technologies which further economic, environmental, human health and social well-being.

##### **Examples:**

- Central Region fisheries staff conducted its annual 6 week index netting program on Lake Winnipeg. Sample sites include Balsam Harbour, Hecla, Frog Bay, Matheson Island, Dauphin River and Grand Rapids. A total of 64 index nets were set and a total of 4,800 Walleye, Sauger, and Lake Whitefish samples were collected. It conducted a Winter Creel Survey on the South Basin of Lake Winnipeg. Utilizing Car

Counters and person to person interviews, approximately 39,000 vehicles and 85,000 anglers accessed the south basin for recreational fishing from January to March. It was estimated anglers harvested close to 72,000 kgs of Walleye during the same period.

- Approximately 1,000 newly drilled wells and 475 well sealing reports were added to the GWDrill database. Almost 3,000 additional well reports were reviewed, updated or revised.
- The Biodiversity Unit collaborated on research activities with the University of Winnipeg, Nature Conservancy Canada, Environment and Climate Change Canada, Living Prairie Museum and the Assiniboine Park Zoo into the ecology and biology of Poweshiek Skipperling and Dakota Skipper butterflies and the development of an innovative “headstarting” program to raise Poweshiek Skipperlings in captivity and release them to augment existing populations.
- The Manitoba Conservation Data Centre maintains information in Biotics on 12,729 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish, ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,277 species are endangered or of conservation concern. The database contains 78,807 observations and 46,200 mapped features based on species observations. Biotics data were used to review 155 Environment Act licence documents, and 998 other licence, permit, lease, and land sale requests.
- The Sustainable Fisheries Unit, working in partnership with the University of Nebraska, Federal department of Fisheries and Oceans, North Dakota Game and Fish, Minnesota Department of Natural Resources and Manitoba Hydro, began a new phase of a fish movement study that saw the beginning of an acoustic tracking program. This program is intended to illuminate exposure of valuable commercial and recreational species, such as Channel Catfish and Walleye; as well as Endangered/Threatened/Protected species such as Lake Sturgeon to Manitoba’s recreational and commercial fisheries and the recreational fisheries of Minnesota and North Dakota.

## Sustainable Development Procurement Goals

### 1. Education, Training, and Awareness

To meet the intent of Goal #1, the department ensures a culture that supports sustainable procurement practices exist within their department by:

- a) increasing awareness about the benefits of Sustainable Development Procurement among departments, employees and vendors; and
- b) expanding the knowledge and skills of procurement practitioners and end users.

#### Examples:

- Education continued to be the first response in addressing problem wildlife and non-regulatory wildlife calls. Wildlife staff conducted more Bear Smart presentations and requests from media in regards to bear, coyote, and deer related human-wildlife conflict situations; these have noticeably increased.
- In 2016/2017 the number of calls received in the region more than doubled from the previous year (1,759). Winnipeg District continued to receive the most problem wildlife and non-regulatory wildlife calls with almost 600 calls annually. Currently the District has a six month Resource Management Technician (RS2) to assist with problem wildlife complaints.
- The number of black bear complaints in the region increased from the previous year to a total of 442. The Grand Beach District accounted for 65% of all calls and continued to be the area of greatest concern.
- Beach Safety Officers (BSOs) made 36,435 visitor contacts at three provincial park beaches during summer 2016. The nature of contacts predominantly consisted of public inquiries, child supervision reminders to parents/guardians, and injury prevention education. BSOs responded to 16 “major” medical emergencies and 12 water rescues. 2016 was the first year of five-year beach safety services agreements

with two Manitoba companies - Criti Care EMS Inc. at Birds Hill Provincial Park, and Emergency Rescue Response Services at Grand Beach and Winnipeg Beach Provincial Parks.

- Interpreters contacted approximately 51,500 visitors at interpreter-led events and in interpretive centres and museums. This was an increase of about 25% over the last year, attributed to the return of seasonal junior interpreter positions at Spruce Woods. However, the number of contacts remains down about 55% from the long-term average, attributed to the continued reduction of park interpreter positions across the province.

## 2. Pollution Prevention and Human Health Protection

To meet the intent of Goal #2, the department needs to protect the health and environment of Manitobans from possible adverse effects of their operations and activities, and provide a safe and healthy working environment by:

- a) reducing their purchase and use of toxic substances; and
- b) reducing solid waste sent to landfills from Government of Manitoba owned or leased facilities occupied by the department.

### Examples:

- The Environmental Emergency Response Program received over 1,900 calls to the Emergency Response 24-hour line, with 554 incidents handled directly by the Emergency Response Team and/or regional designates. The Emergency Response Coordinator received approximately 400 additional non-emergency enquiries related to dangerous goods and emergency response.
- The groundwater monitoring network consisted of approximately 850 monitoring sites located on major and minor aquifers of which 600 sites were equipped with daily water level recorders. Two monitoring sites were converted to 'real-time' stations. Groundwater quality representative of aquifer conditions was sampled at 52 select monitoring wells throughout the province.
- Continued monitoring of physical, chemical and biological conditions on Lake Winnipeg from the *MV Namao* in cooperation with the Lake Winnipeg Research Consortium and others. Three scientific cruises on Lake Winnipeg were completed in 2016.
- Monitored water chemistry and benthic invertebrates from numerous Manitoba streams, rivers, and lakes. Data was used to assess water quality impairments, derive nutrient loads, establish long-term trends in water quality and quantify general water quality conditions such as with the Water Quality Index. Bathing water at approximately 60 Manitoba beaches were monitored for densities of the fecal indicator bacteria, *Escherichia coli*. Algal blooms were also monitored for concentrations of toxic algae. Incidents of swimmer's itch and subsequent beach posting were coordinated.
- Worked collaboratively with MOPIA to reduce the use of Ozone depleting substances in the province.

## 3. Reduction of Fossil Fuel Emissions

To meet the intent of Goal #3, a department needs to reduce fossil fuel emissions of their operations and activities by:

- a) reducing both consumption and emissions of vehicle fuels; and
- b) as a substitute for regular fuels, increase their use of ethanol-blended fuels and alternative energy sources.

### Examples:

- Climate Change and Air Quality (CCAQ) branch continued partnerships and initiatives with organizations to collaboratively take action on climate change supported through a \$5 million climate fund, and undertook economic modeling of climate pricing impacts.

- CCAQ continued support for the Prairie Climate Centre to provide climate information and tools to municipal governments, the private sector, civil society, and other practitioners in support of climate change adaptation planning. It also monitored and participated in strategic discussions and negotiations related to federal, provincial, territorial, regional, and international climate change policy.

#### 4. Resource Conservation

To meet the intent of Goal #4, a department needs to reduce their use and consumption of resources in a sustainable and environmentally preferable manner by:

- a) reduce the total annual consumption of utilities including natural gas, electricity, propane, fuel oil and water in all leased or owned Government of Manitoba buildings and premises occupied by the department; and
- b) within the context of reduced resource use, increase the proportion of environmentally preferable products and environmentally preferable services used by the department.

#### Examples:

- The Pimachiowin Aki Corporation, representing the Government of Manitoba, the Government of Ontario, and four First Nations (Bloodvein, Little Grand Rapids, Pauingassi, and Poplar River), leads the nomination for inscription of a 29,000 km<sup>2</sup> (2.9 million ha) World Heritage site in eastern Manitoba and northern Ontario. During the reporting year, Pimachiowin Aki generated international interest in addressing the challenges posed by mixed (cultural and natural) nominations. Pimachiowin Aki would be Manitoba's first World Heritage site and Canada's first mixed site and associative cultural landscape. Less than 1% of all World Heritage sites are in the mixed site-cultural landscape category.
- In 2016, the renewal program contracted the planting of 1,512,000 trees on approximately 900 ha of Crown land. This was accomplished through six tendered contracts.

#### 5. Community Economic Development

To meet the intent of Goal #5, a department would ensure that their procurement practices foster and sustain community economic development by:

- a) increasing the participation of Indigenous peoples and suppliers in providing for the department's goods and services needs;
- b) assisting in the development and growth of local environmental industries and markets for environmentally preferable products and services; and
- c) increasing the participation of small businesses, community based businesses and Co-ops in the department's procurement opportunities.

#### Examples:

- A total of 67,778 hunting and trapping licences were sold to community members resulting in revenue of \$3.3 million.
- Manitoba's 8,483 licensed and permitted trappers harvested an estimated \$1.82 million in raw fur from September 1, 2015 to August 31, 2016 (the last complete Fur Year with complete returns). The requirements to pay royalties on the pelts, skins and hides of animals in Manitoba was removed in 2016/17. A total of approximately 310,000 Big Game hunter days and 124,000 Game Bird hunter days were estimated based on 7.2 days per hunter.



# Revenue and Expenditure Summaries

Table RE.1

## Reconciliation Statement

\$(000s)

DETAILS	2016-17 ESTIMATES
<b>2016-17 MAIN ESTIMATES</b>	\$141,715
<b>MAIN ESTIMATES AUTHORITY TRANSFERRED FROM:</b>	
Enabling Appropriation	
• Internal Service Adjustments	2,484
<b>2016-17 ESTIMATE</b>	<b>\$144,199</b>

Table RE.2

## Revenue Summary by Source

For the year ended March 31, 2017 with comparative figures for the previous year

Actual 2015-16	Actual 2016-17	Increase (Decrease)	Source	Actual 2016-17	Estimate 2016-17	Variance	Expl. No.
<b>OTHER REVENUE:</b>							
658	281	(377)	Clean Environment Commission Cost Recovery	281	100	181	1.
1,142	976	(166)	Cottaging Initiative	976	732	244	2.
672	843	171	Environment Fees and Sundry	843	615	228	3.
3,749	4,584	835	Forestry Fees and Sundry	4,584	4,112	472	4.
423	291	(132)	GeoManitoba Fees and Sundry	291	321	(30)	5.
1,997	2,200	203	Land Information Sales and Fees	2,200	1,697	503	6.
17,751	18,067	316	Parks Fees	18,067	17,772	295	7.
5,802	5,948	146	Regional Operations Fees and Cost Recovery	5,948	5,320	628	8.
3,203	3,298	95	Wildlife Sundry	3,298	3,187	111	9.
502	449	(53)	Sundry	449	300	149	10.
2,269	2,167	(102)	Fisheries Fees and Sundry	2,167	1,916	251	11.
105,883	120,572	14,689	Water Power Rentals	120,572	107,722	12,850	12.
119	125	6	Water Resources Sundry	125	120	5	
<b>144,170</b>	<b>159,801</b>	<b>15,631</b>	<b>Subtotal</b>	<b>159,801</b>	<b>143,914</b>	<b>15,887</b>	
<b>GOVERNMENT OF CANADA:</b>							
44	25	(19)	1. Waterfowl Crop Damage Prevention	25	25	(0)	
30	30	0	2. Ecosystem Monitoring Network	30	30	0	
0	0	0	3. Softwood Lumber Agreement	0	0	0	
<b>74</b>	<b>55</b>	<b>(19)</b>	<b>Subtotal</b>	<b>55</b>	<b>55</b>	<b>(0)</b>	
<b>144,244</b>	<b>159,856</b>	<b>15,612</b>	<b>Total</b>	<b>159,856</b>	<b>143,969</b>	<b>15,887</b>	
86	8	(78)	Sale of Government Assets	8	0	8	

**Explanation Number:**

1.	Higher revenue due to the recoveries from Manitoba Hydro related to Lake Winnipeg Regulation Hearing.
2.	Higher revenue due to higher sales of cottage lots on Crown lands in 2016-17.
3.	Higher revenue primarily due to higher Environmental Licence Proposal Class 2 & 3 applications, Pesticide approval application fees, certification fees and Onsite waste water fees collection.
4.	Higher revenue primarily due to higher Forest Timber sales, higher Damage Appraisal fees as development projects on crown lands in 2016/17.
5.	Lower revenue due to lower sale of maps and prints due to timing of Fisheries and Oceans inability to provide product during peak season.
6.	Higher revenue due to market value assessment process approved and billing Manitoba Hydro for easement and increase in sale of land brought to conclusion and increase associated with the TransCanada Pipeline.
7.	Higher revenues for Parks fees due to favourable camping weather conditions and collection of Camping, Land use permits/Licences and park vehicle permits fees in 2016/17.
8.	Higher Regional Operations Fees and Cost Recovery revenue due to providing assistance in out of province forest fire suppression revenues and revenues from Indian and Northern Affairs and Mutual Aid Response System.
9.	Higher revenue due to increase in sale of big game, game bird, hunting licenses due to an increase in volume of non-resident hunters coming to Manitoba.
10.	Higher revenue mainly due to collection of revenues from Northern Affairs Fund for a 10-year agreement for payment of Government Asset Cupruss Lagoon.
11.	Higher revenue due to increased Angling licence sales due to a warmer summer and extended fall.
12.	Higher revenue due to Land Rental a change in accounting practice policy recognizing the March Water Power Rental payment, to correctly account for year-end revenue stream, when it was received early in 2016/17 and increase in water rental associated with large storage volume of water due to above average inflow of water which allows for producing larger quantities of electricity for sale.

**Table RE.3**  
**Expenditure Summary**

For fiscal year ended March 31, 2017 with comparative figures for the previous year.

Estimate 2016/17	Appropriation	Actual 2016/17	Actual 2015/16	Increase (Decrease)	Expl. No.
<b>12-1 Finance and Crown Lands</b>					
51	(a) Minister's Salary	51	38	13	
	(b) Executive Support				
684	Salaries and Employee Benefits	737	734	3	
182	Other Expenditures	115	152	(37)	
	(c) Administration & Financial Services				
3,770	Salaries and Employee Benefits	3,715	3,852	(137)	
951	Other Expenditures	1,224	1,048	176	1.
	(d) Corporate Crown Land Policy				
279	Salaries and Employee Benefits	345	341	4	
16	Other Expenditures	40	25	15	
	(e) Clean Environment Commission				
481	Salaries and Employee Benefits	562	397	165	2.
515	Other Expenditures	437	335	102	
	(f) GeoManitoba				
3,338	Salaries and Employee Benefits	2,542	2,331	211	
960	Other Expenditures	758	732	26	3.
(1,621)	Less: Recoveries from other appropriations	(1,067)	(1,031)	(36)	
	(g) Lands				
1,207	Salaries and Employee Benefits	1,231	1,165	66	
4,249	Other Expenditures	4,818	5,413	(595)	4.
234	Grant Assistance	189	234	(45)	

<b>Estimate 2016/17</b>	<b>Appropriation</b>	<b>Actual 2016/17</b>	<b>Actual 2015/16</b>	<b>Increase (Decrease)</b>	<b>Expl. No.</b>
	(h) Indigenous Relations				
441	Salaries and Employee Benefits	327	398	(71)	
472	Other Expenditures	175	321	(146)	5.
<b>16,209</b>	<b>Total 12-1</b>	<b>16,199</b>	<b>16,485</b>	<b>(286)</b>	
	<b>12-2 Parks and Regional Services</b>				
	(a) Regional Support Services				
2,790	Salaries and Employee Benefits	3,203	3,273	(70)	
913	Other Expenditures	845	879	(34)	
	(b) Northwest Region				
2,615	Salaries and Employee Benefits	2,524	2,450	74	
447	Other Expenditures	445	444	1	
	(c) Northeast Region				
3,323	Salaries and Employee Benefits	3,359	3,445	(86)	
838	Other Expenditures	1,005	1,021	(16)	
	(d) Central Region				
4,551	Salaries and Employee Benefits	4,459	4,209	250	6.
1,053	Other Expenditures	1,047	1,088	(41)	
	(e) Eastern Region				
5,014	Salaries and Employee Benefits	4,915	4,818	97	
798	Other Expenditures	795	795	0	
	(f) Western Region				
4,840	Salaries and Employee Benefits	4,908	4,717	191	7.
904	Other Expenditures	910	879	31	
	(g) Parks and Protected Spaces				
16,630	Salaries and Employee Benefits	16,593	16,148	445	8.
9,483	Other Expenditures	10,888	11,129	(241)	9.
461	Grant Assistance	460	460	0	
(472)	Less: Recoverable from Rural Economic Development Initiatives	(472)	(472)	0	
	(h) Fire and Emergency Response Program				
6,928	Salaries and Employee Benefits	11,264	11,226	38	
10,555	Other Expenditures	4,521	4,319	202	10.
(500)	Less: Recoverable from Emergency Expenditures	(500)	(500)	0	
<b>71,171</b>	<b>Total 12-2</b>	<b>71,169</b>	<b>70,328</b>	<b>841</b>	
	<b>12-3 Environmental Stewardship</b>				
	(a) Divisional Administration				
416	Salaries and Employee Benefits	399	389	10	
44	Other Expenditures	43	52	(9)	
	(b) Environmental Compliance and Enforcement				
3,804	Salaries and Employee Benefits	3,755	3,731	24	
860	Other Expenditures	733	811	(78)	
	(c) Environmental Approvals				
2,911	Salaries and Employee Benefits	2,881	3,106	(225)	
406	Other Expenditures	369	468	(99)	11.
(193)	Less: Recovery from Environmental Liabilities	(103)	(168)	65	
	(d) Climate Change and Air Quality				
1,125	Salaries and Employee Benefits	1,149	1,067	82	
234	Other Expenditures	183	283	(100)	
0	Climate Change Initiatives	0	0	0	

Estimate 2016/17	Appropriation	Actual 2016/17	Actual 2015/16	Increase (Decrease)	Expl. No.
	(e) Strategic Policy and Co-ordination				
1,631	Salaries and Employee Benefits	1,825	1,789	36	
126	Other Expenditures	128	176	(48)	
97	Grant Assistance	97	97	0	
1,013	(f) International Institute for Sustainable Development	1,013	1,013	0	
<b>12,474</b>	<b>Total 12-3</b>	<b>12,472</b>	<b>12,814</b>	<b>(342)</b>	
	<b>12-4 Water Stewardship and Biodiversity</b>				
	(a) Divisional Administration				
241	Salaries and Employee Benefits	316	334	(18)	
260	Other Expenditures	186	256	(70)	
	(b) Water Science and Management				
2,613	Salaries and Employee Benefits	2,669	2,525	144	12.
861	Other Expenditures	823	771	52	
	(c) Wildlife and Fisheries Branch				
4,779	Salaries and Employee Benefits	4,375	3,870	505	
1,719	Other Expenditures	2,197	2,096	101	13.
924	Grants Assistance	924	924	0	
410	Northern Fisherman's Freight Assistance	410	410	0	
(128)	Less: Recovery from REDI	(128)	0	(128)	
45	(d) Habitat Enhancement Fund	45	45	0	
	(e) Conservation District and Watershed Assistance				
5,312	Conservation District and Watershed Assistance	5,312	5,312	0	
(1,165)	Less: Recoverable from Rural Economic Development Initiatives	(1,165)	(1,165)	0	
	(f) Office of Drinking Water				
2,153	Salaries and Employee Benefits	2,273	2,247	26	
665	Other Expenditures	600	589	11	
	(g) Drainage and Water Control Licensing				
1,485	Salaries and Employee Benefits	1,470	1,539	(69)	
392	Other Expenditures	379	541	(162)	14.
	(h) Water Use Licensing				
1,373	Salaries and Employee Benefits	1,042	1,038	4	
206	Other Expenditures	133	144	(11)	
901	(i) Water Stewardship Initiatives	1,432	1,602	(170)	15.
	(j) Watershed and Land Use Planning				
941	Salaries and Employee Benefits	1,205	1,062	143	16.
164	Other Expenditures	149	175	(26)	
	(k) Forestry and Peatlands Management				
4,568	Salaries and Employee Benefits	3,933	4,528	(595)	17.
3,874	Other Expenditures	3,210	3,161	49	
50	Grant Assistance	43	27	16	
545	Forest Regeneration Stock	799	582	217	18.
(1,480)	Less: Recoverable from Urban and Rural Economic Development Initiatives	(1,459)	(1,428)	(31)	
(2,410)	(l) Less: Recoverable from Sustainable Development Innovations Fund	(2,410)	(2,410)	0	
0	(m) Pineland Forest Nursery	0	0	0	
<b>29,298</b>	<b>Total 12-4</b>	<b>28,763</b>	<b>28,775</b>	<b>(12)</b>	
	<b>12-5 Costs Related to Capital Assets</b>				
	(a) General Assets				
2,153	(1) Amortization Expense	2,016	1,831	185	19.
1,251	(2) Interest Expense	1,197	911	286	20.

Estimate 2016/17	Appropriation		Actual 2016/17	Actual 2015/16	Increase (Decrease)	Expl. No.
	(b)	Infrastructure Assets				
5,279	(1)	Amortization Expense	5,151	4,430	721	21.
6,364	(2)	Interest Expense	5,567	5,643	(76)	
<b>15,047</b>	<b>Total 12-5</b>		<b>13,931</b>	<b>12,815</b>	<b>1,116</b>	
<b>144,199</b>	<b>TOTAL EXPENDITURES</b>		<b>142,534</b>	<b>141,217</b>	<b>1,317</b>	

### B.12 Capital Investment

	(a)	General Assets				
500	(1)	Information Technology Projects	142	0	142	22.
2,544	(2)	Other Equipment and Buildings	1,576	2,905	(1,329)	23.
	(b)	Infrastructure Assets				
11,272	(1)	Parks Infrastructure Projects	7,537	10,023	(2,486)	24.
728	(2)	Crown Land and Cottage Lot Development	200	187	13	
<b>15,044</b>	<b>TOTAL B.12 CAPITAL INVESTMENT</b>		<b>9,455</b>	<b>13,115</b>	<b>(3,660)</b>	

### Explanations:

1. The increase in 2016/17 due to higher legal costs due to consultations and policy development.
2. The increase is due to Regional Cumulative Effects Hearings in 2016/17 for Lake Winnipeg Regulations Review consultations.
3. The increase is due to filling of several vacant positions and severance payouts on retirements.
4. The decrease is due to the reduction of cost of goods sold as a result of fewer cottages were brought up to "lock-up" stage in 2016/17 than in 2015/16, and Nature Conservancy grant paid in 2015/16.
5. The decrease is due to fewer Indigenous grants paid out in 2016/17, due to consultation delays.
6. The increase is due to fewer vacant positions in 2016/17 and severance payouts on retirements.
7. The increase is due to fewer vacant positions in 2016/17 as compared to 2015/16.
8. The increase is due to severance payouts on retirements.
9. The decrease is due to a reduction in grants payments in 2016/17 as compared to 2015/16.
10. The increase is due to an adjustment in Bad Debt Allowance account in 2016/17 for Manitoba Hydro.
11. The decrease is due to more vacancies in 2016/17 and reduced operating due to the vacancies.
12. The increase is due to fewer vacancies in 2016/17.
13. The increase is due to increased staffing for the Zebra Mussels program and severance payouts on retirements. There was an increase to the Zebra Mussels program expenses.
14. The decrease is due to more vacancies in 2016/17, reduced operating due to vacancies and fewer civil legal costs.
15. The decrease is due to fewer Crown Aboriginal Consultations and grant payments in 2016/17.
16. The increase is due to fewer vacancies in 2016/17.
17. The decrease is due to more vacancies in 2016/17 and fewer severance payouts for retirement.
18. The increase is due to additional seedling orders required for renewal of areas damaged by natural causes.
19. The increase is due to capitalization of multi-year Assets under construction and Amortization expensed at half year rule in 2015/16 and one year Amortization charged on 2016/17 projects.
20. The increase is due to capitalization of multi-year Assets under construction and interest expensed at half year rule in 2015/16 and one year interest charged on 2016/17 projects.
21. The increase is due to year over year difference in Amortization Expense applied to multi-year Infrastructure projects that were capitalized in 2016/17. While Part B spending overall in 2016/17 was not increased, the increase is applicable to capitalization of completed multi-year Infrastructure projects.
22. The increase is due to completion of Information Technology projects which were deferred in 2015/16.
23. The decrease is due to a reduction in equipment purchases and delays in receiving timely approvals resulting in deferrals of many parks Regional projects to future years.
24. The decrease is due to delays in receiving timely expenditure management approvals resulting in deferrals of many parks Infrastructure projects to future years.

**Table RE.4**  
**Five Year Expenditure and Staffing Summary by Appropriation**  
 For year ending March 31, 2013 – March 31, 2017\*

	2012/2013		2013/2014		2014/2015		2015/2016		2016/2017	
	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)
Administration and Finance	207.58	23,859	151.79	17,010	148.75	15,422	142.00	16,485	139.00	16,199
Parks and Regional Services	664.58	72,405	644.40	70,134	644.10	69,026	640.10	70,328	636.10	71,169
Environmental Stewardship	129.00	13,283	136.00	13,395	133.00	12,603	127.00	12,814	124.00	12,472
Water Stewardship & Biodiversity	237.60	35,844	244.35	31,384	238.35	29,435	227.35	28,775	225.35	28,763
Costs Related to Capital Assets		10,516		11,805		43,607		12,815		13,931
<b>Total Appropriations</b>	<b>1,238.76</b>	<b>155,907</b>	<b>1,176.54</b>	<b>143,728</b>	<b>1,164.20</b>	<b>170,093</b>	<b>1,136.45</b>	<b>141,217</b>	<b>1,124.45</b>	<b>142,534</b>

\*Adjusted figures reflect historical date on a comparable basis in those appropriations affected by re-organization, during the years under review.

## 27.3 Sustainable Development Innovations Fund (SDIF)

The goal of the SDIF is to contribute to Manitoba's environmental sustainability. This approach indirectly takes into account the economy, human health and social well-being. The SDIF achieves its purpose through targeted funding initiatives and programs, implemented through an application or proposal process. These designated programs align with departmental priorities, as well as other government initiatives. The SDIF supports Manitoba based projects or projects that will be of benefit to Manitoba and contribute to meeting the objectives of the SDIF:

- To support and promote innovation in the environmental and sustainable development industries.
- To encourage environmentally sound decisions and actions.
- To promote research and demonstration of new initiatives not addressed by existing programs.
- To stimulate economic development and diversification that will improve the quality of life, and strengthen community identity, throughout Manitoba.
- To demonstrate new approaches to prevent waste and pollution, and conserve resources.
- To support activities that may benefit both the global and local environment.

The SDIF's funding initiatives and departmental and government strategic priorities contribute towards the protection, enhancement, conservation, or rehabilitation of Manitoba's environment. Funding support is provided for the development, implementation and promotion of innovative environmentally sustainable projects delivered by local government and provincial government departments, business and industry, community and youth groups, Indigenous organizations, First Nation communities and educational institutions. Programs help address various environmental issues, including:

- Waste reduction and prevention;
- Climate change;
- Aquatic invasive species prevention, and
- Natural resource conservation.

### Process and Fund Management

The Climate Change and Air Quality Branch, in partnership with the Comptrollership, Grant Accountability & Contract Review Section, provides overall management and administrative support to the Fund, including responding to inquiries and reporting.

The Branch manages the Waste Reduction and Pollution Prevention (WRAPP) Fund and the Manitoba Climate Change and Action Fund (MCCAF). The Aquatic Invasive Species Program and Bear Smart Initiative are managed by the Wildlife and Fisheries Branch, while the Manitoba Forestry Association Private Land Resource Planning Program is managed by the Forestry and Peatlands Management Branch.

The Waste Reduction and Pollution Prevention (WRAPP) Fund uses an application or proposal process. Applications or proposals submitted for funding consideration are evaluated against the funding program's criteria. The evaluations are compiled and summarized and then submitted for review to an Advisory Committee, comprised of representatives from provincial government departments.

The Minister has delegated approval authority for projects receiving funding of \$25,000 or less. Projects to be awarded funding in excess of \$25,000 are subject to Treasury Board approval.

During 2016-17 the SDIF supported projects and programs under the following categories:

**1. Targeted Funding Initiatives**

- Manitoba Climate Change Action Fund (MCCAF)
- Waste Reduction and Pollution Prevention (WRAPP) Fund

**2. Departmental and Government Strategic Priorities**

- Aquatic Invasive Species Program
- Bear Smart Initiative
- Private Land Resource Planning Program
- Sustainability Initiatives
- Special Initiatives

## **TARGETED FUNDING INITIATIVES**

### **Manitoba Climate Change Action Fund (MCCAF)**

The MCCAF continued to support initiatives to reduce greenhouse gas (GHG) emissions in targeted sectors consistent with the goals for protecting the environment while ensuring a prosperous and environmentally conscious economy.

#### **Key Results Achieved:**

Grant funding of \$200,000.00 was approved to support key initiatives under priority areas of education and outreach and impacts and adaptation:

- Green Action Centre was approved \$100,000.00 to coordinate and deliver climate friendly active transportation initiatives related to active transportation and green driving public education and outreach.
- Manitoba Eco-Network Inc. was approved \$100,000.00 for Climate Change Connection, which acts as a clearinghouse of information, coordinates outreach, builds awareness and promotes individual and community actions to reduce greenhouse gas (GHG) emissions and promotes changes necessary to live more sustainable and climate-friendly lifestyles.

### **Waste Reduction and Pollution Prevention Fund (WRAPP)**

The WRAPP Fund continued to be an integral program for supporting waste reduction and pollution prevention activities in Manitoba, as municipalities, businesses, communities and other organizations continued to seek alternative ways to manage waste materials and protect the environment.

#### **Key Results Achieved:**

- A grant of \$100,000.00 was approved to support Green Action Centre's Waste Reduction Services, including Environmental Information Services, the Compost Action Project, Environmental Speakers Bureau (ESB), and the coordination and promotion of Waste Reduction Week (WRW). The Compost Action Project focused on education, consultation, referral, training and the provision of resources that target residential, as well as institutional and commercial organic wastes, and those who either produce or manage these streams of organics. The ESB provided environmental education support for schools on sustainability issues which include educational materials and classroom presentations on waste minimization and pollution prevention, water conservation, climate change, energy, and other related topics. The WRW promoted waste reduction activities throughout Manitoban communities, businesses and schools.
- A grant of \$5,000.00 was approved to support Solid Waste Area Management Project to increase the diversion of organic waste from landfill by expanding upon its current residential organic curbside collection program by conducting a commercial composting pilot project.



## Climate Change Initiatives

In December 2015, Manitoba released its new *Climate Change and Green Economy Action Plan*. The new plan commits Manitoba to reduce its GHG emissions 1/3 over 2005 levels by 2020, 1/2 by 2050, and to become carbon neutral by 2080. The plan also commits to providing annual funding of \$1 million for climate change projects over five years.

### Key Results Achieved:

Grant funding of \$500,000.00 was approved to support key initiatives:

- Keystone Agriculture Producers (KAP) was approved \$100,000.00 to conduct research to identify implications and opportunities in the agricultural sector associated with implementing a carbon pricing system in Manitoba, and implementing an Alternative Land Use Services (ALUS) program within the rural agricultural landscape. KAP also reviewed work undertaken in British Columbia to address emissions from the agricultural sector and held meetings soliciting input from their members on carbon pricing.
- Economic Development Council for Manitoba Bilingual Municipalities, Eco-West and the Association of Manitoba Municipalities were each approved \$50,000.00 to create greenhouse gas inventories, develop local climate action plans, enhance capacity at the local level, implement greenhouse gas reduction projects, and reduce emissions from landfill operations. Eco-West is an initiative of the Economic Development Council for Manitoba Bilingual Municipalities and is aiding rural municipalities to identify strategic infrastructure investments to enhance their resiliency to climate change.
- Prairie Climate Centre Funding was approved \$200,000.00 to develop a state-of-the art climate change research and education facility at the University of Winnipeg Richardson College for the Environment with the objective of providing provincial and municipal governments, private sector, civil society organizations and other practitioners with reliable information that will help them assess future climate risks and adapt to climate change. As part of this project, Climate Atlas website was created, the University of Winnipeg's department of Geography produced a documentary outlining the current and projected impacts of climate change on Manitoba's Boreal Forest and geospatial maps and data of historical and future climate change impacts across the Canadian Prairies landscape is being developed.
- Aki Energy was approved \$100,000.00 to expand geothermal energy installations in northern communities, install biomass systems at Manitoba First Nations, and install roof-top solar photo voltaic systems at Fisher River Cree Nation with the objective of creating green jobs and expanding renewable energy in Indigenous communities.

## DEPARTMENTAL AND GOVERNMENT STRATEGIC PRIORITIES

### Aquatic Invasive Species Program

The Aquatic Invasive Species (AIS) program is designed to prevent the introduction of AIS and slow the spread of aquatic invasive species within the province. (AIS) can have significant economic costs to Manitoba and can aggressively invade, alter aquatic habitats, threaten native fish species and valuable recreational resources. AIS, such as Zebra and Quagga mussels and invasive carp pose a tangible threat with irreversible consequences to Manitoba. AIS program aims to offset or delay financial costs associated with dealing with AIS with anticipated, negative implications on tourism, industry and municipalities.

#### Key Results Achieved:

- The Watercraft Inspection (WCI) program was continued with a focus on containing the spread of Zebra Mussels from Lake Winnipeg, the Red River, and Cedar Lake by educating watercraft owners and intercepting risk of spread by inspecting watercraft and water-related equipment at high traffic boat access areas to Lake Winnipeg and the Red River. Monitoring was continued and laboratory analysis of zebra mussel samples were undertaken. In the fall, Watercraft Inspection Stations transitioned to key highway locations to intercept boating traffic while one station remained at Selkirk Park. 2016 marked the sixteenth consecutive year conducting this program.

### Bear Smart Initiative

The Bear Smart Initiative continued to support activities that focus on proactive prevention to reduce conflicts with black bears. When people practice Bear Smart principles, bears are less likely to become food conditioned and human habituated, thereby enhancing public safety, reducing property damage and the frequency of human-black bear encounters.

The initiative also continued a shift toward a broader approach to prevention and mitigation of human conflicts with all wildlife species, with messaging to be “Wildlife Smart”. As cottage and acreage development, as well as human activity expands further into wildlife habitat, the frequency and intensity of negative human-wildlife interactions is expected to increase. In many cases, undertaking prevention measures for potential black bear conflicts will also prevent conflicts with other wildlife species.

#### Key Results Achieved:

- Public awareness was continued with metal and coroplast signage erected along provincial roads and highways advising the public of “Roadside Feeding of Wildlife Prohibited”. In 2015, a regulation was passed to prevent this practice and thereby reduce the likelihood of roadside conflicts that can result in: vehicle collisions with wildlife or other vehicles, euthanizing wildlife that becomes injured or a threat to people, and property damage.
- Parks and Natural Areas Branch interpretive staff continued to play an important role in the delivery of the *Bear Smart* message. Delivery of *Bear Smart* presentations to approximately 734 park visitors across Manitoba. Interpretive events focused on areas where the potential for conflicts with black bears are likely to occur and included: Birds Hill, Whiteshell, Spruce Woods, St. Malo and Hecla/Grindstone Provincial Parks. Many of these events involved amphitheatre presentations, guided walks, family and school presentations and inspections in campgrounds at camp sites.
- The *Bear Smart* display was exhibited at the Cottage Country Show and Boat Show in Winnipeg, the Intermountain Conservation District Water Festival in Ethelbert, and the Royal Manitoba Winter Fair in Brandon, with over 3,000 individual contacts made.
- *Be Bear Smart* activity booklets continued to be distributed throughout the province. The booklet is a very popular educational tool for all ages, and children can remit the completed booklets to Parks and Natural Areas for various rewards. It is also available on the website for public access to print.

## **Private Land Resource Planning Program**

The Private Land Resource Planning (PLRP) program continued to be delivered by the Manitoba Forestry Association to promote the wise management of private lands while meeting the needs of the landowners. The program focuses on preserving and/or enhancing natural biodiversity and assists landowners by promoting multi-land use benefits including harvesting, water quality, wildlife enhancement, tree planting (reforestation and afforestation), climate change (carbon sinks), and economic development, such as non-timber forest products, recreation and tourism. The program, together with the private land resource plans, helps to ensure landowners are provided with the most current, comprehensive educational tools pertaining to private land management available so they may manage their woodlots sustainably. The program is continuously improved upon with stakeholder input, assessment of other woodlot programs and emerging trends related to forest certification, carbon accounting and ecological goods and services.

### **Key Results Achieved:**

A grant of \$170,000.00 was approved to support Manitoba Forestry Association continued delivery of the Private Land Resource Planning Program (PLRP) which included the following:

- Resource Planning: Completion of five resource management plans, two tree planting plans; and one timber assessment (fee for service) plan.
- Training and Extension: Forestry training for high school participants at the Regional Envirothon event in Clearwater, Manitoba; tree biology and importance of forests and sustainable forest management workshop for elementary students at Binney Water Festival; woodlot education field day for University of Winnipeg forestry students in Vassar, MB; forestry training workshop for junior high students at Harvest Moon Eco-challenge; tree biology and the importance of trees workshop for elementary students to prepare for the Qualico tree planting day; planted 150 white spruce trees with elementary students during National Forestry Week in Rosenort, MB; and tree I.D. workshop and information on careers for University of Manitoba students during the Environmental Industries Career Expo.
- Responding to 30 to 40 inquiries on a monthly basis from website (39%), phone (48%) and walk-in (13%) on forest health and pests; market information, tree planting (species identification, site preparation, planting, maintenance, etc.) and forest management.
- Contributed five articles to the Woodlot Association of Manitoba's newsletter.
- Provided input about woodlots and their importance in water management at Roseau River Integrated Watershed Management Planning meeting in Dominion City, MB.
- Coordinated the planting of 5,000 trees in partnership with Qualico homes in Morden, MB.
- Professional Development and Training: 2016 Regional/Provincial Envirothon in Pinawa, MB; Manitoba GIS User Group Conference; Arborist Certification Course; tree planting layout training; ESRI ArcGIS 2 Essential Workflows on-line training; shelterbelt and agro-forestry research at the Agriculture and Agri-Food Canada Research Centre; Quality Deer Management Association's Level 1 Deer Stewardship Course; Low Impact Logging Workshop; meetings held with Canadian Forest Services; 10<sup>th</sup> Annual Biomass workshop; and Manitoba Emerald Ash Borer workshop.
- Emerging and future issues being addressed in relation to climate change on Manitoba's private forest lands and implications for managed forest lands through strategic assessment of carbon metrics, forest vulnerability and forest adaptation.

### **Sustainability Initiatives**

The department recovers funds from the SDIF to support departmental commitments including, but not limited to, the International Institute for Sustainable Development, to continue the promotion and integration of the principles and practices of sustainable development within and between the public, private, and voluntary sectors on a national and international basis; and the Manitoba Habitat Heritage Corporation, to provide operating funds for the delivery of the North American Waterfowl Management Plan in Manitoba.

## Special Initiatives

An annual grant was provided to Multi-Material Stewardship Manitoba (MMSM) for a Newspaper Recycling Agreement, which supported the newspaper industry stewardship obligations to MMSM for packaging and printed paper.

**Table 1: Summary of SDIF Supported Projects and Programs**

<b>Project Categories</b>	<b>Amount Expended</b>
<b>Targeted Funding Initiatives</b>	
Manitoba Climate Change Action Fund (MCCAF)	\$200,000.00
Waste Reduction and Pollution Prevention (WRAPP) Fund	\$105,000.00
Climate Change Initiatives Fund	\$500,000.00
<b>Total</b>	<b>\$805,000.00</b>
<b>Departmental and Government Strategic Priorities</b>	
Aquatic Invasive Species Program	\$40,000.00
Bear Smart Initiative	\$18,679.27
Private Land Resource Planning Program	\$170,000.00
Sustainability Initiatives	\$2,410,000.00
Special Initiatives <ul style="list-style-type: none"> <li>• Newspaper Recycling Agreement</li> </ul>	\$956,300.00
<b>Total</b>	<b>\$3,894,979.27</b>
<b>Grand Total for SDIF</b>	<b>\$4,399,979.27</b>

**Table 2: SDIF Five Year Expenditure Summary (\$000)**  
**For years ending March 31, 2013 - March 31, 2017**

APPROPRIATION	Actual/Adjusted Expenditures				
	2012/13	2013/14	2014/15	2015/16	2016/17
Sustainable Development Innovations Fund	3,058.0	3,400.0	3,399.0	3,879.0	4,400.0
<b>Total</b>	3,058.0	3,400.0	3,399.0	3,879.0	4,400.0

## Performance Reporting Table 2016/17

The following section provides information on key performance measures for the department for the 2016/17 reporting year.

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

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

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

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (base-line data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
Certificates received by participants in the Certificate of Indigenous Relations Program (CIRP).	This program was developed in response to the Truth and Reconciliation Report (2016) Call to Action #57 to educate public servants on Indigenous history, rights, culture, relations, etc. This program aims to provide internal training on Indigenous Relations to staff within the department to enhance one of the department's top three priorities – Reconciliation with Indigenous peoples in Manitoba.	2016/17 was the first year of CIRP. The program is completed over one fiscal year.	19 Sustainable Development staff participated in the program and received their certificate.	CIRP will continue to be offered as long as it is approved by educate more staff in the department.  Trained staff are looked to now as important resources for their perspective branches.	The program was approved for its second year and 20 department staff are currently participating. CIRP was nominated for a Service Excellence Award for the 2016/17 year.
Estimated area in hectares of provincial Crown land co-managed with First Nations.	The amount of co-managed Crown land provides an indication of government's efforts to	As of 2016 co-managed areas have been established with	Approximately 17.9 million hectares of Crown land is co-managed or	Amount of Crown land under co-management and with approved land use	Approximately 2.1 million hectares of the 14.6 million hectares also have approved

<b>What is being measured and using what indicator? (A)</b>	<b>Why is it important to measure this? (B)</b>	<b>What is the starting point? (baseline data and year) (C)</b>	<b>What is the 2016/2017 result or most recent available data? (D)</b>	<b>What is the trend over time? (E)</b>	<b>Comments/recent actions/report links (F)</b>
	establish good relationships with First Nations.	10 First Nation groups totaling approximately 14.6 million hectares.	discussions are occurring with First Nations.	plans will continue to increase.	land use plans within the East Side Traditional Use Planning Area.
<p>The availability of high quality outdoor recreation opportunities and experiences for Manitobans; measured by:</p> <ul style="list-style-type: none"> <li>- Number of improved campsites made available (e.g., washrooms, showers).</li> <li>- Yearly occupation rates of all campsites.</li> </ul>	<p>It is important to measure the expansion of available recreational campsites because the ability to enjoy outdoor recreation experiences is very important to Manitobans. Camping is an important activity in Manitoba and it is important to know if the camping program is meeting the needs of Manitobans.</p>	<p>The baseline year is 2004/05 – 225 improved campsites were made available to Manitobans that year.</p>	<p>6 yurts were completed in Paint Lake Provincial Park. St. Malo upgraded 19 basic sites to electrical service. 30 campsites at Birds Hill Provincial Park have upgraded the amperage in their electrical service. Rainbow Beach converted 18 basic service sites to electrical service. The average campsite occupancy was 35.4%, which is up 2.7% from 2015/16.</p>	<p>From 2004/05 through 2016/17, a total of 1107 camping improvements were implemented.</p> <p>Increasing campsite occupancy.</p>	<p>The province has made significant commitments with respect to increasing camping and cottaging opportunities for Manitobans.</p> <p>St. Ambrose campground remains closed but open for day use.</p>
<p>Number of cottage lots made available to Manitobans.</p>	<p>Providing cottaging opportunities is important to government and Manitobans. Relative affordability of cottage properties is a major reason why Manitoba remains attractive as a place to live.</p>	<p>The baseline year is 2004/05 when the Cottage Lot Program began. The commitment at that time was to create 1,000 new cottage lots. In 2007 government announced another 1,000 new cottage lots would be created under the program. The focus of the</p>	<p>An estimated 1,402 cottage lots have been made available in the form of newly created lots since 2004 and from pre-2004 cottage lot inventory.</p> <p>Approximately 53 lots have been sold or leased through the First-Come, First-Served Program during 2016-17.</p>	<p>The number of Manitobans continue to express interest for cottage lots through the Cottage Program.</p> <p>In 2017, awareness in the existing inventory of lots increased as a result of marketing efforts at the Mid Canada Boat Show.</p>	<p>The two-year development timeframe requirement for lots offered for sale through the First-Come, First-Served Cottage Lot Program was removed in August 2015. The number of sales has increased dramatically since this change and 75 cottage lots were selected for sale through the First-Come, First-Served Cottage Lot Program since the development</p>

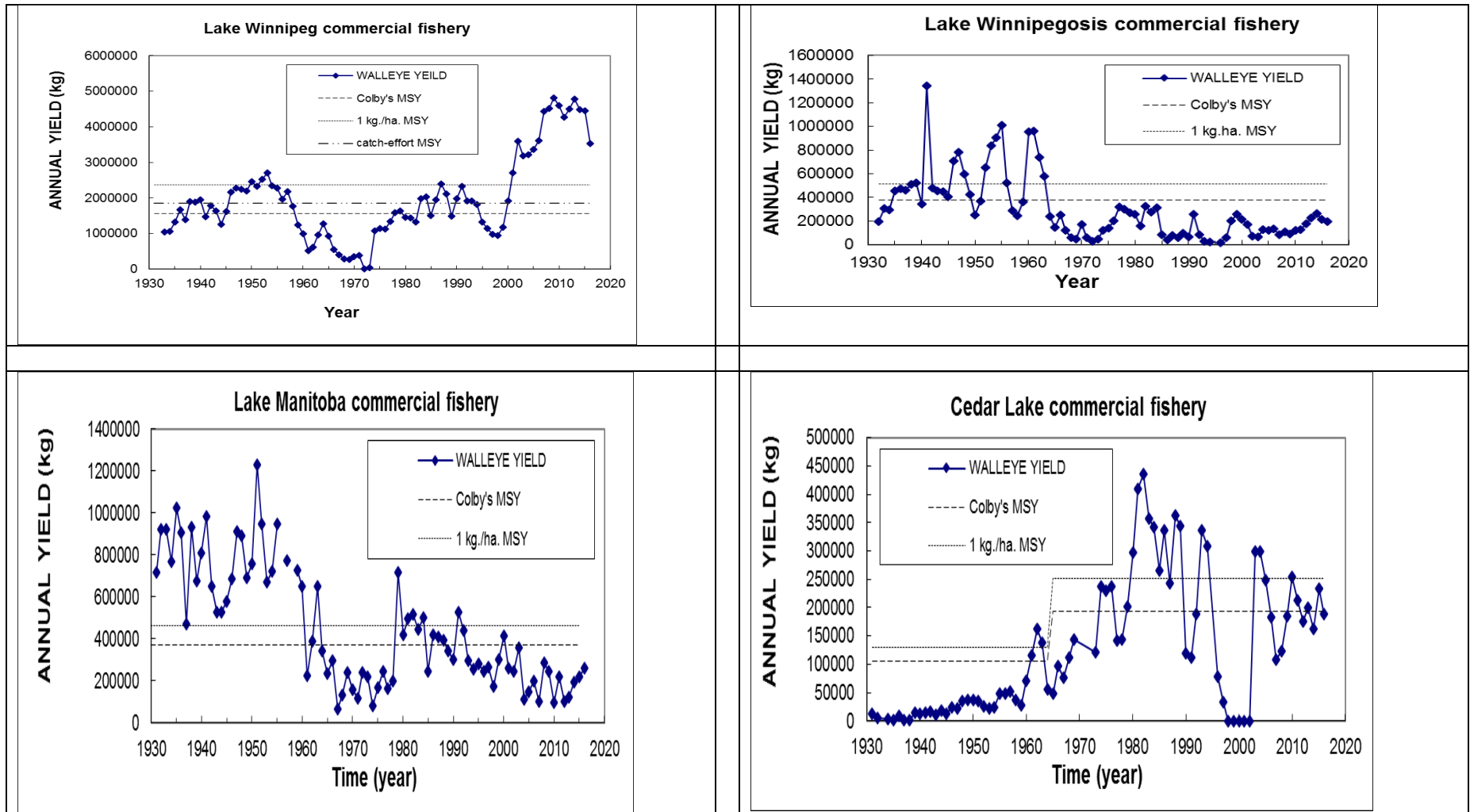
What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
		Program since 2007 has been on joint cottage lot development with First Nations as a means to create economic opportunities.			requirement was removed.
Reduction in environmental liabilities for which the department is responsible.	Contaminated and impacted sites may be harmful to human health and/or the environment. They need to be tracked to ensure public safety and health and environmental protection. They also create a financial liability that must be addressed.	The baseline year is 2005/06. Recorded value of environmental liabilities was \$39 million as of March 31, 2006.	Recorded value of environmental liabilities for the department was \$97.5 million as of March 31, 2015.	Recorded value of environmental liabilities should decrease as sites are remediated, and environmental quality should increase as a result. The financial liability should also decrease over time.	Initial identification and assessment phase is complete. Assessment and remediation of priority sites is ongoing. Stronger legislation to ensure "polluter pays" and that the department does not have to take responsibility for such sites is currently under consideration.
Hectares of protected land in Manitoba.	Protected areas help ensure conservation of biodiversity, maintain natural cycles, provide pristine areas and preserve land for Indigenous people to maintain their traditional activities. Measuring the growth in protected areas will tell us how well we are meeting our goal for protected lands that represent the	The baseline year is 1990 - 350,000 hectares were designated as protected when the Protected Areas Initiative began.	Currently 7.0 million hectares or 11.0% of Manitoba is protected – a significant increase since 1990. This includes two national parks, 30 ecological reserves, all or parts of 42 provincial parks and park reserves, all or parts of 51 wildlife management areas, two areas designated under <i>The Forest Act</i> , four traditional use planning areas, and various parcels	Since 1990, the area of protected lands has increased from 350,000 hectares to 7,176,000 hectares, as of March 31, 2016.	



What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
	biodiversity in each of Manitoba's ecoregions.		of conservation agency-owned private land.		
The number and type of forestry co-management agreements in place, projects or developments undertaken by Indigenous communities or number of contacts with communities or companies.	Provides an indication of the level of economic development opportunities in the forest sector for Indigenous communities.	The baseline year is 2008/09.	<p>1 contract (under the Indigenous initiative "set aside"): - 299,880 trees planted for a contract value of \$31,945.</p> <p>Working with several First Nations communities regarding community awards for timber harvesting.</p> <p>Commercial Community awards (1):</p> <p>1. Buffalo Point First Nation 1,000 m<sup>3</sup> hardwood</p> <p>Non-commercial community award (1)</p> <p>3. Opaskwayak Cree Nation 19,500 m<sup>3</sup> hardwood</p> <p>Forestry Crown Indigenous consultation continues. In 2016/17 meetings were held in many communities and more meetings are scheduled for 2017/18.</p>	Increasing involvement in all area of forest renewal.	Forestry Branch continues to explore opportunities to engage First Nation involvement within the provincial forest inventory program.
The status of fish stocks is being measured by	It is important to measure the status of	The baseline used for	See walleye production & MSY graphs, below.	<b>Lake Winnipegosis</b> – production of Walleye	<b>Lake Winnipegosis</b> – The department

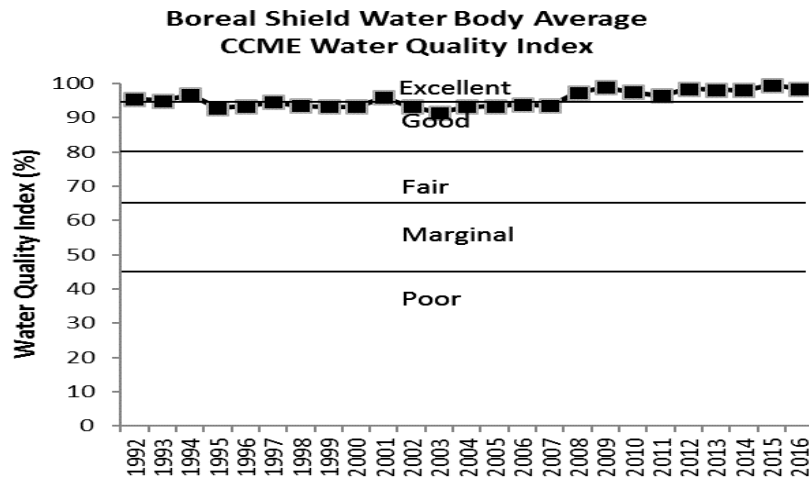
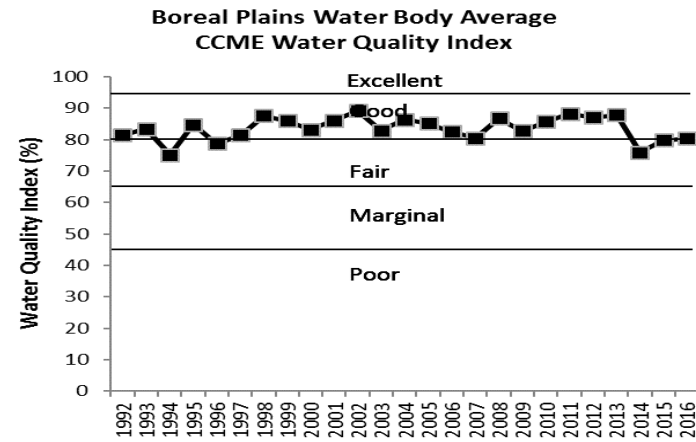
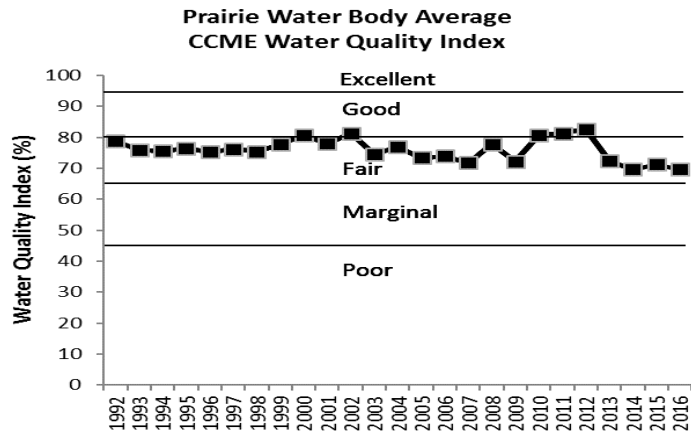
<p><b>What is being measured and using what indicator? (A)</b></p>	<p><b>Why is it important to measure this? (B)</b></p>	<p><b>What is the starting point? (baseline data and year) (C)</b></p>	<p><b>What is the 2016/2017 result or most recent available data? (D)</b></p>	<p><b>What is the trend over time? (E)</b></p>	<p><b>Comments/recent actions/report links (F)</b></p>
<p>comparing the commercial production of the most economically valuable fish species against Maximum Sustainable Yield (MSY). These comparisons are made for four large commercial fisheries: Lake Winnipeg, Lake Manitoba, Lake Winnipegosis and Cedar Lake.</p>	<p>these fish stocks because they are an indicator of both aquatic ecosystem health and economic opportunity for fishers.</p> <p>It is important to track production (i.e. annual species catch – see graphs, below) against lake-specific MSY, because harvest of consistently valuable species is reflective of stock abundance.</p> <p>MSY and annual production contribute to the establishment of quotas for each lake.</p>	<p>management purposes is MSY and historic annual catch.</p>	<p>Current walleye and mixed species quotas are:</p> <p><b>Lake Winnipegosis</b> – 263,320 kg (walleye)</p> <p><b>Lake Manitoba</b> – 907,200 kg (walleye, sauger)</p> <p><b>Cedar Lake</b> – 496,600 kg (walleye, sauger, goldeye, whitefish) – tolerance: not more than 300,000 can be walleye</p> <p><b>Lake Winnipeg</b> – 6,623,000 kg (walleye, sauger, whitefish)</p>	<p>has shown recent preliminary recovery.</p> <p><b>Lake Manitoba</b> – production has experienced long term decline in walleye and sauger; however, recent years have seen increase in pike and carp deliveries..</p> <p><b>Cedar Lake</b> – stabilized production over past 10 years.</p> <p><b>Lake Winnipeg</b> – Walleye and Lake Whitefish landings are somewhat unpredictable despite season extension for fourth straight year.</p>	<p>continued to implement rehabilitation strategies as part of overall stock recovery efforts.</p> <p><b>Lake Manitoba</b> – An agreement between Manitoba Sustainable Development and the Lake Manitoba Commercial Fishermen’s Association to implement a two-year moratorium on the use of three-inch mesh gillnets to address fishers’ concerns over the sustainability of yellow perch stocks in Lake Manitoba.</p> <p><b>Cedar Lake</b> –Fishery continues to be adjusted, in accordance with the management plan.</p> <p><b>Lake Winnipeg</b> – Monitoring efforts on Lake Winnipeg will continue and with annual stock monitoring activities.</p>

**Commercial production and maximum sustainable yield (MSY) on four large Manitoba fisheries.**



What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
Completion and Implementation of Integrated Watershed Management (IWMP) planning processes throughout Manitoba by Conservation Districts and Water Planning Authorities	Integrated Watershed Management Planning is recognized as one of the best tools to provide environmental resilience and build watershed community capacity	As of 2016-17, 21 IWMPs have been completed to-date for 21 watersheds in Manitoba. 6 additional plans are currently in initial development 1 additional plan is currently in the development of the second iteration of the plan	N/A	Target date for completion of initial IWMP for all watershed in municipal Manitoba (~28)	In 2016-17 the Whitemud River Integrated Watershed Management Plan was completed.  Two integrated watershed management plans were initiated for the Northwest Interlake and East Souris River watersheds.
Water quality in Manitoba, by assessing water quality data using the CCME Water Quality Index	It is important to measure water quality because we want to protect drinking water, fish and other aquatic life, recreation, and other important water uses.	Water quality has been tested at many rivers, streams and lakes since the early 1970s. The Water Quality Index has been calculated for 40 to 50 sites since 1992.	The latest data available is for 2016. Within the Prairie Ecozone, the CCME Water Quality Index Value was 70 or of "fair" quality. Within the Boreal Plains, the CCME Water Quality Index Value was 80 or of "good" quality. Within the Boreal Shield Ecozone, the CCME Water Quality Index Value was 99 or of "excellent" quality.	The Water Quality Index in Manitoba has generally been stable since 1992 (see graphs below).	Work is underway to protect, maintain and improve water quality in Manitoba including measures to reduce nutrient loading to waterways. For example, the department is encouraging innovative water and wastewater technologies to improve water quality; implementing new nutrient standards for wastewater, and promoting the reduction of nutrient loading via personal and collective action. The department is also working with upstream jurisdictions to protect, maintain and where necessary, improve, the quality of water flowing into Manitoba.

## CCME Water Quality Index for Manitoba



The Water Quality Index compares a number of important water quality parameters against established standards, objectives, or guidelines. When compared over time, it provides a useful indicator of how water quality may be changing. Annual data from 36 consistently monitored sites are used in the WQI.

The Water Quality Index yields a number between 0 and 100 that is indicative of the overall water quality.

**Excellent:** (CCME WQI Value 95-100) - water quality is protected with a virtual absence of threat or impairment; conditions very close to natural or pristine levels. These index values can only be obtained if all measurements are within objectives virtually all of the time.

**Good:** (CCME WQI Value 80-94) - water quality is protected with only a minor degree of threat or impairment; conditions rarely depart from natural or desirable levels.

**Fair:** (CCME WQI Value 65-79) - water quality is usually protected but occasionally threatened or impaired; conditions sometimes depart from natural or desirable levels.

**Marginal:** (CCME WQI Value 45-64) - water quality is frequently threatened or impaired; conditions often depart from natural or desirable levels.

**Poor:** (CCME WQI Value 0-44) - water quality is almost always threatened or impaired; conditions usually depart from natural or desirable levels.

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>Percentage of public water systems that achieve full compliance with their disinfection monitoring requirements.</p> <p>Percentage of public water systems that achieve full compliance with their bacteriological monitoring requirements.</p> <p>Percentage of public water systems that achieved full compliance with the physical, chemical and microbiological standards that apply to their system.</p>	<p>Disinfection and bacteriological monitoring requirements address critical acute public health risks associated with disease-causing microbiological organisms.</p> <p>Physical, chemical and microbiological standards address lower-level public health risks (e.g. risks associated with lifetime exposure).</p>	<p>The baselines established in 2015 for percentage of public water systems achieving full compliance with all disinfection and bacteriological monitoring requirements was 67% and 60% respectively.</p> <p>The baseline established in 2011 for percentage of public water systems achieving compliance with all chemical standards that applied to their system was 66%.</p>	<p>The percentage of public water systems achieving full compliance with all of the disinfection and bacteriological monitoring requirements in 2016 were 63% and 66% respectively.</p> <p>The percentage of public water system complying with all physical, chemical and microbiological standards that apply to their system in 2016 was 68%. Note that the initial baseline considered only chemical standards, whereas the latest data considers physical (turbidity) and microbiological (protozoa and virus) standards in addition to chemical standards.</p>	<p>The Office of Drinking Water began monitoring compliance with disinfection and bacteriological monitoring requirements in 2003. Compliance improved gradually over time, with occasional dips as the Office expanded its surveillance of previously unregulated systems or tightened reporting criteria.</p>	<p>Approximately 430 public water supply systems in Manitoba serve over 85% of residents. The remainder are serviced by semi-public or private water systems or fall within federal jurisdiction, e.g. First Nations.</p> <p>Rural and northern systems face significant challenges in trying to meet the monitoring requirements due to sample shipping constraints (transportation time limits and maximum/minimum temperature limits).</p> <p>For more information, see the Office of Drinking Water website at: <a href="http://www.gov.mb.ca/waterstewardship/drinking_water/index.html">http://www.gov.mb.ca/waterstewardship/drinking_water/index.html</a></p> <p>Drinking water safety is protected through the use of construction permits and operating licences; water quality monitoring; scheduled and unscheduled inspections; education of water system owners, operators and the general public; and progressive risk-based enforcement.</p> <ul style="list-style-type: none"> <li>• Permitting helps ensure that minimum engineering and construction standards are met or exceeded.</li> <li>• Licensing, inspections, water quality monitoring and enforcement help ensure that minimum operational performance and water quality standards are met.</li> </ul> <p>Activities focus on public health protection, and maintenance of water quality and public confidence.</p>
<p>Waste diversion</p> <p>Increase in recycling.</p>	<p>Manitoba is developing an aggressive recycling and waste reduction strategy.</p>	<p>2012: Manitoba's regulated recycling programs diverted 109,000 Tonnes of material from disposal.</p>	<p>2014: Producer Responsibility Organizations (PROs) diverted approximately 131,645 Tonnes of waste material to</p>	<p>Waste diversion from Producer Responsibility Organizations is increasing.</p>	<p>This is a new performance measure for the department and coincides with the department Plan.</p> <p>Manitoba Waste and Recycling Reports and Producer Responsibility Program Annual Reports: <a href="http://greenmanitoba.ca/annual-reports/">http://greenmanitoba.ca/annual-reports/</a></p>

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Organics tonnage diverted away from landfills for composting.  Recycling tonnages reported to the WRARS Program based on quantity of materials diverted from waste disposal facilities.	Reducing the amount of organic waste going to landfills reduces waste disposal costs, saves landfill space and generates environmental, social and economic benefits.  Reducing the amount of waste going to landfills reduces waste disposal costs and generates environmental and social benefits, including business opportunities.	2010: 19,672 Tonnes of organics diverted (Statistics Canada).  2010: 68,937 Tonnes of recycling reported by municipalities (65 kilograms per capita).	recycling and proper disposal systems.  2015: 57,659 Tonnes of organic waste was diverted to compost facilities.  2016: 56,724 Tonnes of organic waste was diverted to compost facilities.  2015: 76,212 Tonnes of recycling reported by municipalities (67 kilograms per capita).  2016: 78,540 Tonnes of recycling reported by municipalities (69 kilograms per capita).	The amount of diversion of organic materials is stable with the establishment of the Manitoba Composts Program in 2014. The program goal is to increase diversion of organic waste to 100,000 Tonnes annually by 2020.  The amount of materials being recycled is increasing.	Green Manitoba Annual Report provides information on the Manitoba Composts programs: <a href="http://greenmanitoba.ca/annual-report/">http://greenmanitoba.ca/annual-report/</a>  Green Manitoba Annual Reports: <a href="http://greenmanitoba.ca/annual-report/">http://greenmanitoba.ca/annual-report/</a> Producer Responsibility Program Annual Reports: <a href="http://greenmanitoba.ca/annual-reports/">http://greenmanitoba.ca/annual-reports/</a>
Quantity of waste disposed of at waste disposal sites and the resulting per capita waste tonnage.	Manitoba has high per capita waste generation rate when compared to other jurisdictions. Tracking the numbers will help measure waste diversion performance and indicate where more waste reduction recycling initiatives are needed.	2011: 923 Kilograms per capita (972,958 Tonnes of waste).	2015: 831 Kilograms per capita (977,585 Tonnes of waste).  2016: 771 Kilograms per capita (913,990 Tonnes of waste).	The amount of waste landfilled per capita is decreasing.	Green Manitoba Annual Reports: <a href="http://greenmanitoba.ca/annual-report/">http://greenmanitoba.ca/annual-report/</a>

What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2016/2017 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
Production of educational materials for public consumption.	<p>To inform the public about various options available for recycling of household waste materials.</p> <p>To inform the public about various sustainability initiatives undertaken in Manitoba so that they can participate.</p> <p>To encourage sharing of ideas and best practices to showcase the province's leadership in promoting sustainable practices.</p>	<p>Baseline: 2011-12 Ads placed in newspaper and magazines – 7</p> <p>Article – 1</p> <p>Display/exhibits – 10</p> <p>Presentations – 24</p> <p>Promotional materials (e.g., info cards, leaflets, magnets, memory sticks) – 4</p> <p>Web based resources – 4 (websites or online directories)</p> <p>Smart phone apps – 0</p>	In <b>2016-17</b> : Not reported	About the same. See the comments.	<p>Some of the interventions are fixed or recurrent such as the Eco Calendar, websites and directories. The contents are updated.</p> <p>Others items are produced on an as needed basis so the number may vary from year to year.</p> <p>The eco-depot locator apps introduced in 2013 remain popular and in line with the increased use of smart devices by the public.</p>
	To inform the public about maintaining healthy forests and forest invasive species.	<p>In 2015-16: Ads placed in newspaper and magazines – 9.</p> <p>Promotional article – 1</p> <p>Display/exhibits – 5</p> <p>Presentations – 16</p> <p>Fact sheets, brochures, tree guides</p> <p>Web based resources – 1 (websites, tweets, or online directories)</p>			<p>Produced on an “as-needed” basis.</p> <p>Tweets were issued regularly regarding emerald ash borer, don't move firewood, and other urban forestry/forest health issues.</p> <p>The forest invasive species campaign, was launched and added to the Province's new, “Stop the Spread” campaign and website. <a href="http://www.gov.mb.ca/stopthespread/fis/stop-spread">www.gov.mb.ca/stopthespread/fis/stop-spread</a></p>



# The Public Interest Disclosure (Whistleblower Protection) Act

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

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

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

The following is a summary of disclosures received by Manitoba Sustainable Development, Pineland Forest Nursery and Green Manitoba Eco Solutions for fiscal year 2016/17.

<b>Information Required Annually (per Section 18 of The Act)</b>	<b>Fiscal Year 2016/17</b>
The number of disclosures received and the number acted on and not acted on <i>Subsection 18(2)(a)</i>	Nil
The number of investigations commenced as a result of a disclosure. <i>Subsection 18(2)(b)</i>	Nil
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. <i>Subsection 18(2)(c)</i>	N/A

# STATUTORY RESPONSIBILITIES OF THE MINISTER OF SUSTAINABLE DEVELOPMENT

***The Climate Change and Emissions Reductions Act***, C.C.S.M. chapter C 135

***The Conservation Agreements Act***, C.C.S.M. chapter C 173

***The Conservation Districts Act***, C.C.S.M. chapter C 175

***The Conservation Officers Act***, C.C.S.M. Chapter C 177

***The Contaminated Sites Remediation Act***, C.C.S.M. chapter C 205

***The Crown Lands Act***, C.C.S.M. chapter C 340

[sections 1, 5 and 5.1, clause 7(1)(c), section 7.1.1, subsection 7.2(1), section 8, subsections 12(2), 13(1) and (2), 13.1(1), sections 19, 22 and 27 to 29; sections 4, 6 and 6.1, clauses 7(1)(a), (b), (d) and (e), subsections 7(2) to (6), sections 7.1, 10, 14, 16 to 18, 21, subsection 23(3), section 24, subsections 25(1) and (2) and sections 26 and 30 to 35 insofar as they relate to the administration of Crown lands not designated as agricultural Crown lands, including setting fees and rents and issuing work permits but excluding other dispositions]

***The Dangerous Goods Handling and Transportation Act***, C.C.S.M. chapter D 12

***The Drinking Water Safety Act***, C.C.S.M. chapter D 101

***The East Side Traditional Lands Planning and Special Protected Areas Act***,  
C.C.S.M. chapter E 3

***The Ecological Reserves Act***, C.C.S.M. chapter E 5

***The Endangered Species and Ecosystems Act***, C.C.S.M. chapter E 111

***The Environment Act***, C.C.S.M. chapter E 125

***The Fish and Wildlife Enhancement Act***, C.C.S.M. chapter F 87

***The Fisheries Act*** [except Part III], C.C.S.M. chapter F 90

***The Fishermen's Assistance and Polluters' Liability Act***, C.C.S.M. chapter F 100

***The Forest Act***, C.C.S.M. chapter F 150

***The Forest Health Protection Act***, C.C.S.M. chapter F 151

***The Ground Water and Water Well Act*** [except as it relates to the planning, construction or operation of provincial water control works], C.C.S.M. chapter G110

***The Manitoba Habitat Heritage Act***, C.C.S.M. chapter H3

***The Manitoba Hazardous Waste Management Corporation Act***, C.C.S.M. chapter H 15

***The International Peace Garden Act***, C.C.S.M. chapter I 70

***The Manitoba Natural Resources Transfer Act***, C.C.S.M. chapter N 30

***The Manitoba Natural Resources Development Act***, C.C.S.M. chapter N33

***The Natural Resources Agreement Act, 1938***, C.C.S.M. chapter N 40

***An Act to Ratify a Certain Agreement Between the Government of the Dominion of Canada and the Government of the Province of Manitoba***, C.C.S.M. chapter N 50

***The Manitoba Natural Resources Transfer Act Amendment Act***, C.C.S.M. chapter N 60

***The Manitoba Natural Resources Transfer Act Amendment Act, 1963***, C.C.S.M. chapter N 70

***The Ozone Depleting Substances Act***, C.C.S.M. chapter O 80

***The Provincial Parks Act***, C.C.S.M. chapter P 20

[except section 22 and clause 33(u) and the Debt Certificate Regulation M.R. 140/96]

***The Peatland Stewardship Act***, C.C.S.M. chapter P31

[except Part 7]

***The Pimachiowin Aki World Heritage Fund Act***, C.C.S.M. chapter P 70

***The Polar Bear Protection Act***, C.C.S.M. chapter P 94

***The High-Level Radioactive Waste Act***, C.C.S.M. chapter R 10

***The Resource Tourism Operators Act***, C.C.S.M. chapter R 119.5

***The Surveys Act***, C.C.S.M. chapter S 240 [Part II]

***The Sustainable Development Act***, C.C.S.M. chapter S 270

***The Upper Fort Garry Heritage Provincial Park Act***, C.C.S.M. chapter U 80

***The Waste Reduction and Prevention Act***, C.C.S.M. chapter W 40

***The Water Power Act***, C.C.S.M. chapter W60 [except as it relates to the planning, construction or operation of provincial water control works],

***The Water Protection Act***, C.C.S.M. chapter W65

**The Water Resources Conservation Act**, C.C.S.M. chapter W72

**The Water Rights Act**, C.C.S.M. chapter W80

[except as it relates to the planning, construction or operation of provincial water control works]

**The Wildfires Act**, C.C.S.M. chapter W 128

**The Wildlife Act**, C.C.S.M. chapter W 130

[except that portion of clause 89(e) that applies to compensation for damage to crops caused by wildlife as it pertains to big game and migratory waterfowl]

**The Wild Rice Act**, C.C.S.M. chapter W 140

[except subsections 10(1) and 11(1)]

and:

Manitoba Fishery Regulations, 1987 made under section 43 of the *Fisheries Act* (Canada)

As per Schedule "M", Order in Council No. 192/2016