

Manitoba Sustainable Development

Développement durable Manitoba

**Annual Report
2017-2018**

**Rapport annuel
2017-2018**

Manitoba Sustainable Development
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**MINISTER OF
SUSTAINABLE DEVELOPMENT**

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

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

May It Please Your Honour:

It is my privilege to present you the Annual Report of Manitoba Sustainable Development for the fiscal year ending March 31, 2018.

The Annual Report highlights the department's key accomplishments and initiatives that we deliver in partnership with Manitoba businesses and communities. The department is committed to meeting its mandate of protecting the environment while meeting the goals of sustainable development.

I believe the information in this report highlights the department's fiscal responsibility and 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





Sustainable Development

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

Dear Minister:

I am pleased to present you with the Annual Report for Manitoba Sustainable Development for the period of April 1, 2017 to March 31, 2018.

The department has made significant achievements in meeting its mandate. By working in partnership with businesses and communities, we continue to protect the environment while sustaining and conserving Manitoba's diverse ecosystems and natural resources. With a lens of fiscal responsibility, the department remains committed to delivering quality programs and services for all Manitobans.

The Annual Report provides highlights of the department's activities and program outcomes intended to foster sustainable economic development.

Respectfully submitted,

"Original signed by"

Rob Olson
Deputy Minister

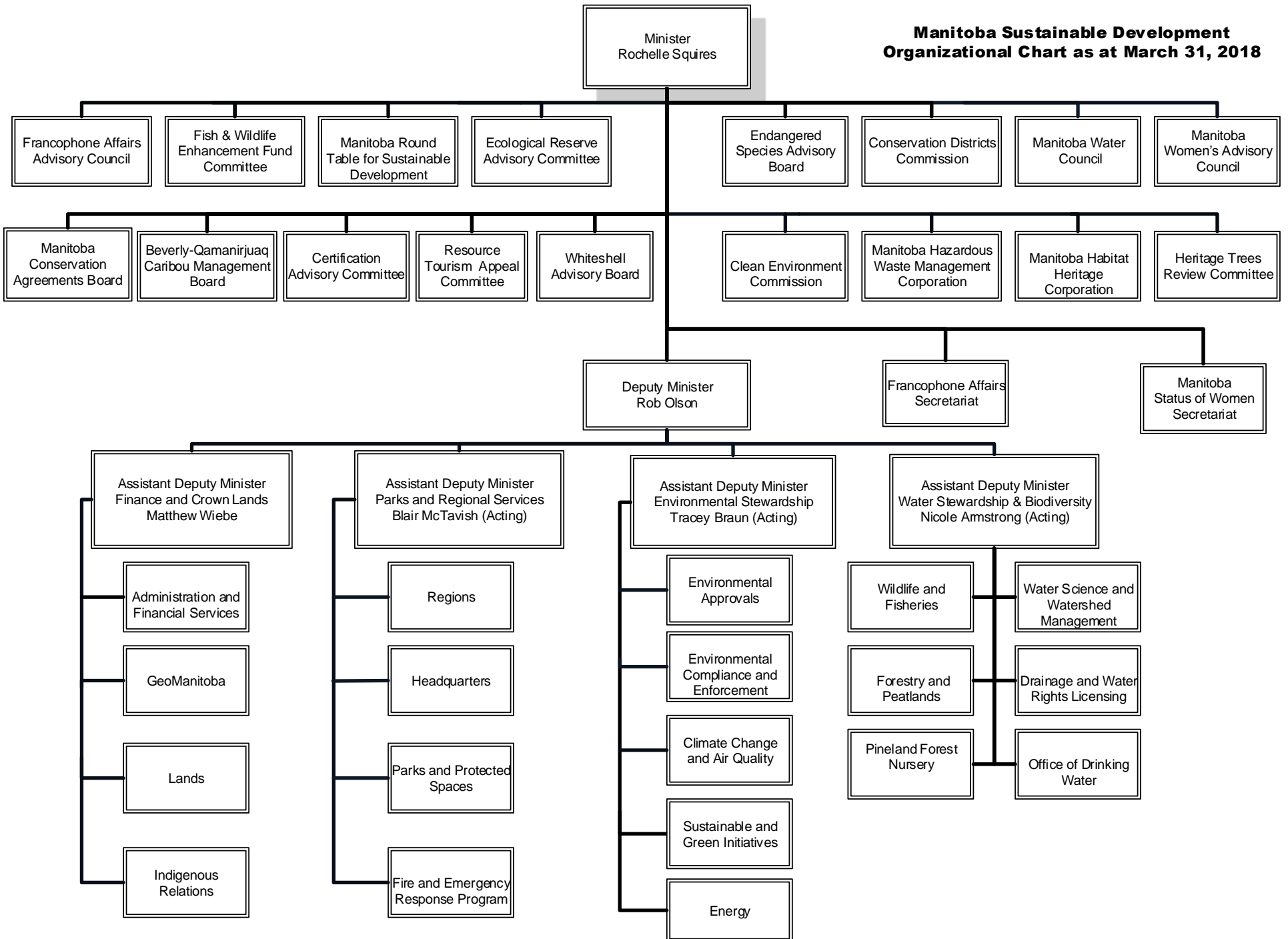


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**Manitoba Sustainable Development
Organizational Chart as at March 31, 2018**



Preface

Report Structure

This annual report is organized in accordance with the department's appropriation structure, which reflects the department's authorized votes approved by the Legislative Assembly. The report includes information at the main and sub-appropriation levels relating to the department's objectives, actual results achieved, financial performance and variances, and provides a five-year historical table giving the departmental expenditures and staffing. Expenditures and revenue variance explanations previously contained in the Public Accounts of Manitoba are now provided in this annual report.

Vision

Sustainable Development's vision and mission is to sustainably manage and protect the province's environment and rich biodiversity of natural resources such as water, wildlife and forests by working cooperatively with the public, Indigenous communities, and other agencies, governments and stakeholders to strike a balance between protecting the integrity of the environment and meeting the social and economic needs of Manitobans.

Mission

The department carries out its mission through:

- development and administration of legislation and regulations pertaining to natural resources, environment, water and pollution prevention;
- monitoring and allocating sustainable natural resource use;
- ensuring environmental protection by leading the review, assessment, approval, licensing and appeals processes for development activities;
- managing and monitoring of environmental and water quality;
- interfacing with other provinces and international jurisdictions to provide equitable sharing of transboundary waters;
- administration of funding programs to support departmental and government priorities; and, respecting and upholding the honour of the Crown with respect to rights of Indigenous peoples and reconciling relationships.

The department ensures compliance with legislation through education, voluntary action, negotiation, audit and enforcement. The department contributes to the economic development and well-being of the province through managing commercial use of natural resources-providing recreational, land, water and resource based opportunities and supporting community initiatives through grant funding programs. The department is responsible for ensuring sustainability of natural resources for all Manitobans, and for the continuance of rights of Indigenous peoples, upholding the honour of the Crown in regard to Treaty and Aboriginal rights of Indigenous peoples, and providing basic resource needs for subsistence users. The department also protects people, property and resource values from wildfires and the adverse effects of other natural and human caused occurrences.

In 2017, the Francophone Affairs Secretariat, Manitoba Status of Women Secretariat and Energy branch were transferred into the department of Sustainable Development.

Highlights

In 2017/18, the department activities and achievements included:

Finance and Crown Lands Division

- Furthered the department's approach to analyzing existing operations and expanded a lean management practice across the organization – as a means to realize productivity efficiencies and improved service. Many department processes were reviewed and redefined so as to produce deliverables with less red-tape.
- Sustainable Development achieved \$0.9M in cost recoveries by providing survey services to provincial government departments and agencies. Major clients included the Departments of Infrastructure, Sustainable Development, and Indigenous and Northern Relations.
- Sustainable Development mapped Woodland Caribou Habitat in Manitoba in conjunction with the Manitoba Model Forest and the Wildlife and Fisheries branch. GeoManitoba created new public facing web applications to support departmental business decisions and the release of information to the public through interactive web maps: waste management including recycling depots and landfills, agriculture soils and weather tracking, commercial fish production, flooding information, drought monitoring, Manitoba Infrastructure culvert inventory verification.
- 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) continued efforts to receive World Heritage Site designation (covering 29,040 km² in eastern Manitoba and northern Ontario) from the United Nations Educational, Scientific and Cultural Organization (UNESCO). Pimachiowin Aki would be Manitoba's first World Heritage site and Canada's first mixed site and associative cultural landscape.
- Francophone Affairs Secretariat handled a total of 139,384 requests for services at the Bilingual Service Centres (BSCs); the BSC's Interlake Region reached out directly and served over 2,600 member/clients in the Métis community. The BSCs launched a new, revamped website www.csbsc.mb.ca in April 2017.
- Manitoba Status of Women Secretariat continued to partner with the City of Winnipeg, Winnipeg Police Service, and community groups to develop and implement strategies to prevent and effectively respond to sexual violence in Winnipeg, as part of the United Nations Safe Cities Global Initiative. It administered grants awarded to 17 organizations, and also provided policy and administrative support to the Manitoba Women's Advisory Council.

Parks and Regional Services Division

- The northwest region stocked a total of 65,500 trout in 2017 with 35,500 12-15 cm Rainbow trout and 30,000 12-15 cm brook trout in the existing stocked trout waters, which are popular destinations for locals and visitors alike.
- Approximately 296,000 m³ of timber was delivered to Canadian Kraft Paper Industries from Crown land in the northwest region of which, 102,988.21-m³ was conifer from the Forest Management License area, 192,662.05 m³ was from the Jack Pine Budworm Salvage area in Management Unit 46, and 15,966.50 m³ was Aspen for hog fuel within the region.
- Fire and Emergency Response Program responded to 559 during the wildfire season, with full response fires totaling 359, and limited response totaling 200. Of these, 423 fires were caused by lightning while 136 were human induced.
- Birds Hill Park celebrated its 50th anniversary with official ribbon cutting and tree planting ceremonies with dignitaries such as the Manitoba Lieutenant Governor and the Minister of Sustainable Development in attendance. It hosted the 2017 Canada Summer Games bike and triathlon events. Hundreds of spectators and participants attended the well-organized sporting events. The Prairie Love Festival (yoga festival) held an event in Birds Hill for the first time and saw well over 1,000 visitors. Birds Hill Park and Folk Fest received a Manitoba Tourism Award for partnership. Two new life jacket kiosks were built to enhance the Beach Safety Program and to supply lifejackets to swimmers.
- Conservation Officers used two Canine teams throughout the province on a variety of compliance checks and investigations of illegal fishing and hunting activities including 11 decoy operations, 45 night hunting patrols, 19 occurrences of searching for evidence in both non-confined and confined areas, 2 searches of vehicles, 1 search for suspect and 5 assistance with search warrants. Conservation Officers conducted 1,022 big game, 140 upland game bird, 94 migratory bird, 6,500 angler, 71 Snopass, and 375 work permit inspections. Staff undertook 1,406 enforcement actions resulting in 605 prosecutions, 687 written warnings, and 114 evictions from provincial parks. These actions were primarily in response to public complaints on regulatory resource issues and park safety and security concerns.

Environmental Stewardship Division

- Sustainable Development rebated a total of \$7,327,328.83 from the Waste Reduction and Recycling Support Fund to municipalities and Northern communities for 73,926.924 tonnes of eligible recycling materials reported (62 kg/capita).

Water Stewardship and Biodiversity Division

- Approximately 900 newly drilled wells and 443 well sealing reports were added to the GWDrill database which is the provincial repository for water well stratigraphic, construction, pump testing, well sealing and water quality information. Over 1,500 additional well reports were reviewed, updated, or revised. Water quality was monitored at approximately 65 long-term stations on 51 waterbodies across Manitoba during 2017/18 as part of the long-term water quality monitoring program.

- 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 monitored at a number of stations as part of the long-term Lake Winnipeg monitoring programs.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2017. Sustainable Development staff responded to over 100 water quality data and information requests from the public, consultants, industry, academia, non-governmental organizations, conservation districts, stewardship groups, students and educators, and other provincial and federal agencies during 2017/18.
- A total of 64,946 hunting and trapping licences were sold resulting in revenue of \$3.2 million. Manitoba's 6,074 licensed and permitted trappers harvested an estimated \$2.01 million in raw fur from September 1, 2016 to August 31, 2017. Approximately 2,295 of the 4,208 allocated big game licences were used by 235 licenced Resource Tourism Operators. A total of approximately 306,000 Big Game hunter days and 117,000 Game Bird hunter days were estimated based on assumed 7.2 days per hunter.
- Co-management harvest plans were developed in partnership with local fishers and regional staff to meet third party sustainable fishing certification for fisheries managed by Skownan First Nation, Wuskwi Sipiik First Nation, Mosakahiken Cree Nation, and Chemawawin Cree Nation.
- Sustainable Development staff monitored 95 waterbodies in Manitoba for zebra mussels applying a partnership model. Samples were taken in partnership with Regional Operations, Water Science and Watershed Management branch, Swan Valley Sport Fish Enhancement, Manitoba Hydro (North-South Consultants), Lake Winnipeg Research Consortium, Department of Fisheries and Oceans (Science and AIS Prairies Area Unit), and Riding Mountain National Park.
- The department supported the 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. 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.

Faits saillants

Division des finances et des terres domaniales

- Poursuite de l'approche du Ministère pour l'analyse des activités en cours et déploiement au sein de l'organisation d'une pratique de gestion allégée afin d'améliorer l'efficacité de la productivité et le service. De nombreux processus du Ministère ont été examinés et redéfinis de manière à réduire la lourdeur administrative dans la production de livrables.
- Développement durable Manitoba a recouvré des coûts de 0,9 M\$ pour des services de levés auprès des ministères et des organismes du gouvernement. Le ministère de l'Infrastructure, celui du Développement durable et celui des Relations avec les Autochtones et le Nord comptent parmi les principaux clients.
- Le Ministère a cartographié l'habitat du caribou des bois au Manitoba, conjointement avec la société Manitoba Model Forest et la Direction de la faune et de la pêche. GéoManitoba a créé de nouvelles applications Web destinées au public pour soutenir les décisions opérationnelles du Ministère et la diffusion d'information au moyen de cartes interactives : gestion des déchets, dont les centres de recyclage et les sites d'enfouissement, terres agricoles et suivi des conditions météorologiques, production piscicole commerciale, information concernant les inondations, suivi des sécheresses, vérification des ponceaux par le ministère de l'Infrastructure.
- La société de Pimachiowin Aki, qui représente le gouvernement du Manitoba, celui de l'Ontario et quatre bandes de Premières Nations (Bloodvein, Little Grand Rapids, Pauingassi et Poplar River), a poursuivi les démarches pour obtenir la désignation de site du patrimoine mondial (d'une superficie de 29 040 km² couvrant l'est du Manitoba et le nord de l'Ontario) auprès de l'Organisation des Nations unies pour l'éducation, la science et la culture. Pimachiowin Aki constituerait le premier site du patrimoine mondial situé au Manitoba et le premier site canadien correspondant aux catégories « site mixte » et « paysage culturel associatif ».
- Le Secrétariat aux affaires francophones a traité 139 384 demandes de service présentées aux centres de services bilingues; ceux de la région Interlake ont traité les demandes directement et servi plus de 2 600 membres/clients de la communauté des Métis. En avril 2017, les centres de services bilingues ont lancé un nouveau site Web remodelé : www.csbsc.mb.ca.
- Le Secrétariat à la condition féminine du Manitoba a maintenu son partenariat avec la Ville de Winnipeg, le Service de police de Winnipeg et des groupes communautaires afin de développer et mettre en œuvre des stratégies de prévention et d'action efficaces contre la violence sexuelle à Winnipeg, dans le cadre de l'initiative mondiale des Nations unies pour des villes sûres. Le secrétariat a administré des subventions accordées à 17 organismes, en plus de fournir un soutien administratif et politique au Conseil consultatif des femmes du Manitoba.

Division des parcs et des services régionaux

- La région nord-ouest des services des parcs et de la faune a procédé au repeuplement de 65 500 truites en 2017, dont 35 500 truites arc-en-ciel et 30 000 truites mouchetées de 12 à 15 cm dans les eaux déjàensemencées de truites, qui sont des destinations populaires auprès de la population et des visiteurs.
- L'industrie canadienne des pâtes et papiers a reçu quelque 296,000 m³ de bois d'œuvre provenant de terres domaniales de la région du Nord-Ouest, dont 102 988 m³ de conifères de la zone de gestion forestière visée par une licence, 192 662,05 m³ de la région de récupération de la tordeuse du pin gris de l'unité d'aménagement forestier 46, et 15 966,50 m³ de tremble pour la production de combustible de déchets de bois dans la région.
- Le Programme de prévention des incendies et d'intervention d'urgence a répondu à 559 événements durant la saison des incendies échappés, dont 359 incendies à intervention maximale et 200 autres à intervention limitée. De ce nombre, 423 incendies ont été causés par la foudre alors que 136 étaient d'origine humaine.
- À l'occasion de son 50^e anniversaire, le parc provincial de Birds Hill a fait l'objet de cérémonies comprenant coupure de ruban et plantation d'un arbre en présence de la lieutenante-gouverneure et de la ministre du Développement durable du Manitoba. Les épreuves de vélo de montagne et de triathlon des Jeux d'été du Canada 2017 s'y sont déroulées, et des centaines de spectateurs et de participants ont profité de l'organisation réussie de ces événements sportifs. Le festival de yoga Prairie Love Festival a organisé au parc Birds Hill un premier événement qui a attiré plus de 1000 visiteurs. Le parc provincial Birds Hill et le Folk Fest ont reçu un Prix du tourisme du Manitoba dans la catégorie « partenariat ». Le Programme de sécurité à la plage s'est enrichi de deux nouveaux kiosques de distribution de gilets de sauvetage à l'intention des baigneurs.
- Des agents de conservation ont recouru à deux escouades canines dans le cadre de diverses vérifications de conformité et d'enquêtes sur des activités de chasse et de pêche illégales menées dans la province; ils ont notamment mené 11 activités de leurre, 45 patrouilles de chasse nocturne, 19 interventions de recherche de preuve dans des zones confinées ou non, 2 fouilles de véhicules, une recherche de suspect et 5 assistances avec mandat de perquisition. Les agents de conservation ont effectué de nombreuses inspections de permis, dont 1 022 pour la chasse au gros gibier, 140 pour la chasse au gibier à plumes sédentaire, 94 pour la chasse aux oiseaux migrateurs, 6 500 pour la pêche à la ligne, 71 permis d'accès aux sentiers de motoneige et 375 permis de travail. Le personnel a entrepris 1 406 mesures d'application qui ont donné lieu à 605 poursuites, 687 avertissements écrits et 114 expulsions des parcs provinciaux. Ces mesures ont été prises principalement à la suite de plaintes du public entourant des questions de ressources réglementaires et de sécurité dans les parcs, ainsi que pour des préoccupations relatives à la sécurité.

Division de la gérance de l'environnement

- Le ministère du Développement durable a remis 7 327 328,83 \$ du Fonds d'aide à la réduction du volume et au recyclage des déchets aux municipalités et aux collectivités du Nord pour 73 926 924 tonnes de matières recyclables admissibles déclarées (62 kg/habitant).

Division de la gestion des ressources hydriques et de la biodiversité

- Environ 900 rapports de forage de nouveaux puits et 443 rapports de fermeture de puits ont été ajoutés à la base de données GWDrill. Plus de 1 500 rapports de puits additionnels ont fait l'objet d'un examen, d'une mise à jour ou d'une révision. Durant l'exercice 2017-2018, des contrôles de la qualité de l'eau ont été réalisés dans 65 stations exploitées depuis longtemps sur 51 plans d'eau du Manitoba, dans le cadre du programme de surveillance à long terme de la qualité de l'eau.
- En collaboration avec le Lake Winnipeg Research Consortium, la qualité de l'eau du lac Winnipeg a été contrôlée dans 60 stations au cours du printemps, de l'été, de l'automne et de l'hiver. La présence d'algues et d'invertébrés benthiques a fait l'objet de contrôles dans un certain nombre de stations, dans le cadre du programme de surveillance à long terme du lac Winnipeg.
- Quelque 60 plages du Manitoba ont fait l'objet de contrôles pour détecter la présence de bactéries *Escherichia coli* et la prolifération d'algues durant l'été 2017. En 2017-2018, le personnel du ministère du Développement durable a répondu à plus de 100 demandes d'information et de données sur la qualité de l'eau en provenance du public, de conseillers, de l'industrie, d'établissements d'enseignement, d'organismes non gouvernementaux, de districts de conservation, de groupes d'intendance, d'étudiants et d'éducateurs, ainsi que d'autres organismes provinciaux et fédéraux
- La vente de 64 946 permis de chasse et de piégeage a engendré des recettes de 3,2 M\$. Du 1^{er} septembre 2016 au 31 août 2017, les 6 074 détenteurs manitobains de permis de chasse et de piégeage ont prélevé des fourrures brutes dont la valeur est estimée à 2,01 M\$. Des 4 208 permis de chasse au gros gibier attribués, 2 295 environ ont été utilisés par 235 exploitants d'entreprises touristiques autorisés. Au total, on estime à 306 000 le nombre de jours de chasse au gros gibier et à 117 000 le nombre de jours de chasse au gibier à plumes, à raison de 7,2 jours par chasseur.
- Des plans de cogestion de récolte ont été développés en partenariat avec les pêcheurs locaux et le personnel en région pour répondre à la certification de pêche durable par des tiers, pour des activités de pêche gérées par les Premières nations Skownan, Wuskwi Sipihk, la Nation des Cris de Mosakahiken et celle des Cris de Chemawawin.
- Le personnel du Ministère a mis en œuvre un modèle de partenariat pour assurer le suivi de 95 plans d'eau manitobains pour y détecter la présence de moules zébrées. Des échantillons ont été prélevés en collaboration avec la Division des opérations régionales, la Direction de la gestion et de la science de l'eau, la société Swan Valley Sport Fishing Enhancement, Manitoba Hydro (North-South Consultants), Lake Winnipeg Research

Consortium, le ministère des Pêches et des Océans (Science and AIS Prairies Area Unit) et le parc national du Mont-Riding.

- Le Ministère a soutenu les activités du MV Namao, le navire à moteur du consortium de recherche du lac Winnipeg, visant à étudier la qualité de l'eau et de la pêche sur le lac Winnipeg pour préserver le Manitoba des effets potentiellement inacceptables d'activités transfrontalières sur l'eau du Manitoba, pour restaurer les milieux humides et en poursuivre le dénombrement, et contrôler la présence de produits pharmaceutiques dans les eaux de surface. Le Ministère a également fourni un soutien technique aux districts de conservation pour la conception et la construction de structures de retenue d'eau pour limiter les inondations et les sécheresses, et améliorer la qualité de l'eau.

Statutory Responsibilities

Manitoba Sustainable Development is responsible for providing a wide range of central support services to government programs. Services fall under the general categories of central supply and property services. The department operates under the authority of the following acts of the Continuing Consolidated Statutes of Manitoba:

The Biofuels Act, C.C.S.M. chapter B40

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 Energy Act, C.C.S.M. chapter E112

The Energy Savings Act, C.C.S.M. chapter E 115.5

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 Gas Pipeline Act, C.C.S.M. chapter G 50

The Gas Allocation Act, C.C.S.M. chapter G 52

The Manitoba Habitat Heritage Act, C.C.S.M. chapter H 3

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 N 33

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 Renewable Energy Jobs Act, C.C.S.M. chapter R 85
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 W 65
The Water Resources Conservation Act, C.C.S.M. chapter W 72
The Water Rights Act, C.C.S.M. chapter W 80
[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. 227/2017

Under Francophone Affairs Secretariat:

The Bilingual Service Centres Act, C.C.S.M. c. B37
The Francophone Community Enhancement and Support Act, C.C.S.M. c. F157

Under the Office of Status of Women:

The Manitoba Women's Advisory Council Act, C.C.S.M. c. W170

In addition, policies specific to departmental programs are documented in the General Manual of Administration and various Manitoba government catalogues and publications.

FINANCE AND CROWN LANDS

The Finance and Crown Lands division provides executive management of programs and management services, including financial services, 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 peoples 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

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	41	1.00	42	(1)	
Total 12.1(a)	41	1.00	42	(1)	

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

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	620	8.00	693	(73)	
Other Expenditures	141		182	(41)	
Total 12.1(b)	761	8.00	875	(114)	1

1. Under-expenditure is due to vacancies and reduction in discretionary spending.

Administration and Financial Services

Administration and Financial Services is comprised of the following sections:

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

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

The Process Improvement and Technology Unit reviews program delivery requirements and delivers an information technology and business process improvement program that provides the department with related strategic, business operational, IT and financial planning; project management; analysis of departmental business requirements; business process improvement and design opportunities; and quality assurance. The Unit acts as a liaison for technology issues on behalf of the department.

The Shared Services and Risk Management Unit is responsible for information services including public information 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 branch 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 branch is also responsible for the oversight of the department's Winnipeg 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:

- The department's French Language Service (FLS) committee developed a multi-year strategic plan to improve French language services within the department to ensure departmental compliance with respect to The Francophone Enhancement and Support Act and the FLS Policy.
- Accessibility Committee developed a plan to improve accessibility within Sustainable Development to ensure departmental compliance with respect to The Accessibility for Manitobans Act and the Customer Service Standard.

- Furthered the department’s approach to analyzing existing operations and expanded a lean management practice across the organization as a means to realize productivity efficiencies and improved service. Many department processes were reviewed and redefined so as to produce deliverables with less red-tape.
- Expanded on opportunities for departmental collaboration, productivity and distributed decision-making through SharePoint and continued support to web conferencing software, and the departmental intranet site.
- Provided leadership, a development experience, and improved coordination of information on the department’s Internet site.
- Continued to work with government computer application developers in the production of new and enhanced business systems, and in the delivery of new technology.
- 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/2016_report.pdf

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

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,699	52.00	3,534	165	1
Other Expenditures	1,042		946	96	2
Total 12.1(c)	4,741	52.00	4,480	261	

1. Over-expenditure is due to secondment for Lean and E-Licensing Projects, and severance paid.
2. Over-expenditure is due to higher legal costs and other operating costs.

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 concerns 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 number at 1-800-597-3556 or by fax at 204-945-0090. The CEC's web site is www.cecmanitoba.ca

Table AF.4
12.1(d) Clean Environment Commission

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	316	3.00	309	7	
Other Expenditures	504		151	353	1
Total 12.1(d)	820	3.00	460	360	

1. Over-expenditure is due to the higher cost related to Manitoba Minnesota Transmission Hearings.

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, provide a revitalized approach to support delivery, acquisition and management of geospatial information for all Manitoba government departments. These include providing leadership in the province's use of GIS technology and specialized geomatics capabilities, stewardship for corporate GIS datasets, and central coordination of 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 \$0.9 M in cost recoveries for survey services provided to provincial government departments and agencies. Major clients included the Departments of Infrastructure, Sustainable Development, Indigenous and Northern Relations.
- Received legal survey requests for projects for Right of Way (ROW) surveys, retracement surveys and survey monument restoration. ROW surveys included various Provincial Trunk Highway (PTH) and Provincial Road (PR) public road survey plans, water control plans, and public road closings.
- Prepared legal (land) descriptions for disposition of Crown land and/or interest therein – for Crown Lands and Property Agency and the Mines and Petroleum branches within Growth, Enterprise and Trade.
- Prepared boundary plans to define the limits of administrative areas for Order in Council purposes such as Wildlife Management Areas, ecological reserves, provincial parks, Indigenous traditional lands, and Parks land planning areas/zone.
- Continued to provide marker posts (120) to Manitoba land surveyors free of charge for protection of survey monuments of the Township Survey System.
- Manitoba's microfiche database of historic land survey information was scanned to support enhanced internal and public online access to surveyor field notes.
- Responded to requests (70) for land and control survey information.

- Issued survey instructions/examined plans of survey for Director of Surveys approval on surveys for the disposition of Manitoba Crown lands. This included the approval of Treaty Land Entitlement (TLE) selection sites and Hydro transmission lines.
- Updated the province wide digital parcel inventory to ensure accuracy 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 Advanced Very High Resolution Radiometer satellite data for the Canadian Crop Assessment Program 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.
- Completed a pilot project in conjunction with the University of Winnipeg to produce land use and land cover maps of Manitoba utilizing Machine Learning Technology.
- 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 sold 18,654 topographic maps directly or through the 150 dealers in Manitoba, Ontario, and the north central United States.
- The Canadamapsales.com website received 1,272 orders across North America and internationally. This included the sale of maps, 127 annual park passes, and 441 orders for Water and Wastewater Operator Certificates. The web provides the public and clients the opportunity to purchase and pay for more departmental products and services.
- A Vexcell photogrammetric scanner was used to scan air photo negatives to transition government's Air Photo Library into a digital format. In 2017/18, 1,606 air photo products were produced and sold to the general public and government departments and agencies.
- Conducted GIS analyses and created specialty mapping products for government agencies, private and public organizations.
- Provided GIS and technical support to maintain/enhance existing web mapping services: FireSmart Collector project, Drinking Water Advisories, Look North, Farmers Markets, and Rural Health Care and Emergency Measures Services.

- Created new public facing web applications to support departmental business decisions and the release of information to the public through interactive web maps: waste management including recycling depots and landfills, agriculture soils and weather tracking, commercial fish production, flooding information, drought monitoring, and Manitoba Infrastructure culvert inventory verification.
- Updated and maintained ArcGIS Online, the Manitoba Land Initiative, and the internal GIS data library to enable access to geospatial information for internal and public use. Key datasets included cadastral data, LiDAR datasets, Assiniboine River Valley Wetland Inventory, Geographical Names, Forestry 2016 Fire Data, Protected Areas, Provincial Parks, Wildlife Management Areas, Treaty Land Entitlement, Manitoba Municipal Boundaries, Highway Inventory, and Road Network.
- Provided topographical data, imagery and mapping support to multiple agencies involved in compensatory land claims.
- Identified opportunities to capture traditional names as part of the Manitoba Indigenous Names Project.
- Completed Manitoba Geoportal (geospatial open data) to replace the Manitoba Land Initiative (MLI), providing enhanced functionality and updated geospatial information for government, private, and public data consumers.
- Enhanced geospatial governance and standards for the use of new and existing Geographic Information Systems (GIS) technology residing on premise and in the cloud.
- Continued to work with departmental and central Information and Technology to upgrade current enterprise GIS systems integral to GIS software licensing, management and control.
- Facilitated a partnership arrangement with Environment and Climate Change Canada to acquire LiDAR in the Seine and Rat River Watersheds to improve elevation information required for flood forecasting and surface water management.

Table AF.5
12.1(e) GeoManitoba

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,467	44.00	3,069	(602)	
Other Expenditures	791		940	(149)	
Less: Recoverable from Other Appropriations	(1,244)		(1,601)	357	
Total 12.1(e)	2,014	44.00	2,408	(394)	1

1. Under-expenditure is due to vacancies 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 of provincial Crown lands that are governed under the Crown Lands Act. These functions also include:

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

Key Results Achieved:

- Consideration was given in the review of Crown land applications to the impact of a Crown decision on Treaty and Aboriginal rights. Conducted consultation in accordance with the provincial guidelines on Crown consultations.
- Bloc Planning Committees reviewed 1,624 operational land use code changes to ensure compatible long term land and resource use.
- Reviewed 143 cases including municipal development plans (9), zoning by-laws (59), road opening and closings (18), Environment Act Reviews (47) and other municipal reviews (10).

- A total of 1,624 applications, including requests for Crown land allocations (716) and assignments (119) (see chart below), proposals under The Environment Act (108), quarry permits and leases (674), and other requests involving Crown land such as Infrastructure program reviews, oil battery sites, or annexations (7) were reviewed and responded to.
- A total of 119 assignment applications were reviewed and processed as per the chart below.

Application Type	NE Region	NW Region	Western Region	Central Region	Eastern Region	Total Applications
Development Time Frame	2	8	0	3	2	15
Easements	3	3	13	7	1	27
Leases and Permits	13	10	4	10	11	48
Licence of Occupation	0	0	2	0	2	4
Purchase	3	3	2	3	5	16
Wild Rice	0	5	0	0	4	9
Totals	21	29	21	23	25	119

Indigenous Land 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 Indigenous communities, Canada, the Treaty Land Entitlement Committee, and provincial government departments with respect to land transfer expertise, tracking and records management. Ensures 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	Per cent Complete	Acres Required to Complete
1,144,331	1,006,453	616,208	54%	528,557

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

Entitlement Acres	Total Acquired	Reserve Land Set Apart	Per cent Complete	Acres Required to Complete
282,123	31,476	14,546	5%	267,547

(Note: 1 acre = 0.404685 hectares)

Key Results Achieved:

- Provided regular reporting on acreages and issues as well as advice upon request to Indigenous communities, 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.

Cottage Lot Program

Delivers the Government's cottage lot development initiative encompassing identification of g 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.

Key Results Achieved:

- Approximately 34 lots were allocated through the 'First Come First Served' Cottage Lot Program.
- Initiated a review of the cottage lot program including a historical, financial and current assessment.

Traditional Area Planning and World Heritage Site Nomination

Administers planning area designations and land management plans proposed by Indigenous communities 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), continued to lead the nomination for inscription of a 29,040 km² (2.9 million ha) World Heritage site in eastern Manitoba and northern Ontario. During the reporting year, the Pimachiowin Aki nomination was revised and resubmitted after being referred back by the United Nations Educational, Scientific and Cultural Organization (UNESCO) the previous year.

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

Key Results Achieved:

- Land management plans approved under The East Side Traditional Lands Planning and Special Protected Areas Act continued to provide direction for the management, use and sustainable development of provincial Crown land on the east side of Lake Winnipeg.
- Implementation of the plans continued to be guided by management boards established by agreements between the Government of Manitoba and the four First Nations.
- Advice and logistical support was provided to the Pimachiowin Aki Corporation throughout the nomination evaluation process, including execution of a technical evaluation mission with advisors to the World Heritage Committee.

Manitoba Geographical Names Program (MGNP)

Provides a provincial geographical name authority that develops and implements policies and procedures, conducts research and process decisions on new and established toponyms, and liaises with the Geographical Names Board of Canada.

Engages Manitoba's Indigenous communities 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 and Indigenous naming tasks through three highlight 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. engaging directly with six Indigenous communities to document and approve traditional toponyms.
- Continued to maintain and disseminate the Manitoba Geographical Names Data Base ensuring Manitoba’s authoritative toponymic data is effectively and efficiently distributed.
- The MGNP processed 69 Geographical Name Decisions in 2017/18.

**Table AF.6
12.1(f) Lands**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,451	18.00	1,498	(47)	
Other Expenditures	4,280		3,890	390	1
Grant Assistance	134		134	0	
Total 12.1(f)	5,865	18.00	5,522	343	

1. Over-expenditure is due to higher Crown Land and Property Agency service costs.

Indigenous Relations

The Indigenous Relations branch was established to build relationships between the department and Indigenous communities of Manitoba. These relationships are necessary to maintain an ever increasing level of programs and services to benefit all Manitobans. Through engagement, education and guidance the branch continues 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 Treaty and Aboriginal 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 continues to play an instrumental role in the Crown Indigenous consultation processes. One of the foremost objectives of consultation is to reconcile the relationship between the Crown and Indigenous people through engagement. The 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 and night hunting practices.
- Participated in the ongoing development of a new consultation framework with the department of Indigenous and Northern Relations.
- Participated in the ongoing development of a new reconciliation strategy and framework with the department of Indigenous and Northern Relations.
- Participated in the review of existing legislation, policy, 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 Reconciliation with Indigenous communities in Manitoba. The program was nominated for a Service Excellence Award in 2017 and is in its third year.
- Further developed the Indigenous Relations intranet site. This site was designed for staff to have easy access to Indigenous related 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.
- Proposed enhancement of the department's Indigenous Engagement Policy to include a Reconciliation strategy and framework for Sustainable Development.

Table AF.7
12.1(g) Indigenous Relations

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	307	5.00	443	(136)	1
Other Expenditures	93		261	(168)	2
Total 12.1(g)	400	5.00	704	(304)	

1. Under-expenditure is due to vacancies.
2. Under-expenditure is due to lower grants payments.

Francophone Affairs Secretariat

The Francophone Affairs Secretariat advises public bodies and the Minister responsible for Francophone Affairs on measures to be taken to enhance the vitality of Manitoba's Francophone community, and to support and assist its development as required by The Manitoba Act, 1870, The Francophone Community Enhancement and Support Act, Manitoba's French Language Services (FLS) Policy, and other related government policies and legislations. It also oversees the development of government services offered in French and serves as a liaison between the government and Francophone organizations in the province.

Key Results Achieved:

- Coordinated projects funded in 2017/18 under the Canada-Manitoba Agreement on French Language Services, a cost-sharing agreement where Manitoba's \$1.4 million contribution is matched by the federal government.
- Contributed a total of \$25,000 toward six projects funded under the Agreement for Cooperation and Exchange between the governments of Quebec and Manitoba with respect to the Francophonie and \$20,000 toward four projects funded under the FLS component of the Memorandum of Understanding on Interprovincial Co-operation between the governments of Manitoba and New Brunswick. This allowed a number of Franco-Manitoban organizations to benefit from exchanges, mentoring, training and sharing of expertise.
- Participated in the 22nd Ministerial Conference on the Canadian Francophonie in Ottawa, Ontario, where the 150th anniversary of the Canadian Confederation was celebrated. Subsequently participated in the second Forum on Francophone Immigration jointly led by the Ministers responsible for Immigration and the Ministers responsible for the Canadian Francophonie on March 2, 2018 in Toronto, Ontario.
- Participated on the Intergovernmental Network of the Canadian Francophonie, including an in-person meeting in Whitehorse, Yukon, on November 7-8, 2017.
- Participated in two meetings of the Francophone Affairs Advisory Council, co-chaired by the Clerk of the Executive Council and the President of the Société franco-manitobaine, and comprised of deputy ministers and representatives from the Francophone community.
- Promoted the services offered in the six Bilingual Service Centres (BSCs) operating in rural and urban regions of Manitoba and organized outreach activities in the different communities.
- Handled a total of 139,384 requests for services at the BSCs.
- The BSC – Interlake Region reached out directly and served over 2,600 member/clients in the Métis community. The BSCs launched a new, revamped website www.csbsc.mb.ca in April 2017.

- In October 2017, the Bilingual Service Centres (BSCs) celebrated the 15th anniversary of the establishment of the first of six BSCs in Manitoba in 2002.
- Continued the partnership between the BSCs and the Société franco-manitobaine's 233-ALLÔ Information Centre, ensuring seamless information and services between the community and government bodies.
- Provided direction, consultation, analytical and planning support to 28 public bodies via the Secretariat's Policy Unit in the development of multi-year strategic FLS plans. Nineteen departments and Crown corporations had signed multi-year strategic FLS plans or had plans in the final approval stage on March 31, 2018. Eleven public bodies were still completing the development of their multi-year strategic FLS plans.
- Continued to raise awareness about and promote the use of the *Bonjour-Hello* active offer concept.
- Offered six active offer orientation sessions to 74 civil servants. Began development of an on-line training course for all civil servants on the Active Offer. Co-ordinated 132 registrations for French language training: evening and weekend programs for Manitoba government employees; 10 employees participated in *Maintien perfectionnement* French language training offered during the workday.
- Offered five DVD français (breakfast, video, discussion) series to 84 civil servants, in partnership with Organization and Staff Development, as a means to promote and encourage bilingual government employees to participate in various French-speaking activities.
- Dealt with 23 complaints, as well as various issues raised by the public regarding FLS.
- Updated the Secretariat's website and added new content in both official languages.
- Launched the Call for Nominations for the Prix Ronald Duhamel – Ronald Duhamel Award, a joint initiative of the Société franco-manitobaine, the federal government, the Francophone Affairs Secretariat, and the Manitoba Association of Bilingual Municipalities, to recognize an employee or group of employees of a government or quasi-governmental body at the federal, provincial or municipal level for distinguished service to Manitoba's Francophone community.

Table AF.8
12.1(h) Francophone Affairs Secretariat

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,804	41.00	2,850	(46)	
Other Expenditures	949		985	(36)	
Less: Recoverable from Other Appropriations	(205)		(235)	30	
Total 12.1(h)	3,548	41.00	3,600	(52)	

Secrétariat aux affaires francophones

Le Secrétariat aux affaires francophones conseille les entités publiques et la ministre responsable des Affaires francophones en ce qui a trait aux mesures à prendre en vue de favoriser l'épanouissement de la francophonie manitobaine et d'appuyer son développement comme l'exige la Loi de 1870 sur le Manitoba, la Loi sur l'appui à l'épanouissement de la francophonie manitobaine, la politique sur les services en français du Manitoba, et les autres dispositions législatives et politiques du gouvernement. Il supervise également l'élaboration de services gouvernementaux offerts en français, et sert de liaison entre le gouvernement et les organismes francophones dans la province.

Principaux résultats :

- coordination de projets subventionnés en 2017-2018 en vertu de l'Entente Canada-Manitoba pour les services en français, un accord à frais partagés selon lequel le gouvernement fédéral verse un montant équivalent à la contribution de 1,4 million de dollars du Manitoba;
- contribution totale de 25 000 \$ à six projets financés dans le cadre de l'Accord de coopération et d'échanges entre le gouvernement du Québec et le gouvernement du Manitoba en ce qui concerne la francophonie, et contribution de 20 000 \$ pour quatre projets financés en vertu de la composante concernant les services en français dans le cadre du Protocole d'entente Manitoba/Nouveau-Brunswick sur la coopération interprovinciale. Ces montants ont permis à plusieurs organismes franco-manitobains de bénéficier d'échanges, de mentorat, de formation et de mise en commun de connaissances spécialisées;
- participation à la 22^e Conférence ministérielle sur la francophonie canadienne à Ottawa, en Ontario, où le 150^e anniversaire de la Confédération canadienne a été célébré. Par la suite, participation au deuxième Forum sur l'immigration francophone mené conjointement par les ministres responsables de l'immigration et de la francophonie canadienne le 2 mars 2018 à Toronto en Ontario;
- participation au Réseau intergouvernemental de la francophonie canadienne, y compris une réunion en personne à Whitehorse au Yukon les 7 et 8 novembre 2017;
- participation à deux réunions du Conseil consultatif des affaires francophones, qui étaient coprésidées par le greffier du Conseil exécutif et le président de la Société franco-manitobaine et qui comprenaient des sous-ministres et des représentants de la communauté francophone;
- promotion des services offerts dans les six centres de services bilingues établis dans des régions rurales et urbaines du Manitoba, et organisation d'activités d'information dans les différentes collectivités;
- traitement de 139 384 demandes de services aux centres de services bilingues

- offre directe de services par le Centre de services bilingues — Région d'Entre-les-Lacs à plus de 2 600 membres ou clients de la communauté métisse. Le Centre de services bilingues a lancé un site Web remanié à l'adresse www.csbsc.mb.ca en avril 2017;
- célébration en octobre 2017 par les centres de services bilingues du 15^e anniversaire de l'établissement du premier des six centres de services bilingues au Manitoba en 2002;
- continuation du partenariat entre les centres de services bilingues et le Centre d'information 233-ALLÔ de la Société franco-manitobaine, qui permet une intégration des renseignements et des services entre la collectivité et les organismes gouvernementaux;
- orientation, consultation, assistance à l'analyse et à la planification offertes à 28 entités publiques, par l'intermédiaire de la section des politiques du Secrétariat, pour l'élaboration de plans stratégiques pluriannuels sur les services en français. Les plans stratégiques pluriannuels sur les services en français de 19 ministères et sociétés d'État étaient soit signés soit à l'étape de l'approbation finale le 31 mars 2018. Onze entités publiques travaillaient encore à l'élaboration de leurs plans stratégiques pluriannuels sur les services en français;
- continuation des activités de sensibilisation sur le concept de l'offre active *Bonjour-Hello* et de promotion de l'utilisation de ce concept;
- offre de six séances d'orientation sur l'offre active à 74 fonctionnaires. Début de la conception d'un cours de formation en ligne portant sur l'offre active pour tous les fonctionnaires. Coordination de 132 inscriptions à la formation linguistique en français (programmes le soir et la fin de semaine pour les employés du gouvernement du Manitoba); dix employés ont participé à la formation linguistique en français *Maintien-Perfectionnement* offerte pendant les heures de travail;
- offre de cinq séances de la série « DVD français » (déjeuner, vidéo, discussion) à 84 fonctionnaires, en partenariat avec Perfectionnement et formation, pour promouvoir diverses activités en français et encourager les employés bilingues du gouvernement à y participer;
- examen de 23 plaintes ainsi que de diverses questions soulevées par le public concernant les services en français;
- mise à jour du site Web du Secrétariat et ajout de contenu dans les deux langues officielles;
- lancement de l'appel de mises en candidature pour le Prix Ronald-Duhamel, une initiative conjointe de la Société franco-manitobaine, du gouvernement fédéral, du Secrétariat aux affaires francophones et de l'Association des municipalités bilingues du Manitoba, pour rendre hommage à un employé ou un groupe d'employés œuvrant au sein du secteur public ou parapublic fédéral, provincial ou municipal et s'étant distingué au service de la Francophonie au Manitoba.

Tableau AF.8
Secrétariat aux affaires francophones

Dépenses par sous-crédit	Chiffres réels 2017- 2018 (000) \$	ETP	Budget de 2017- 2018 (000) \$	Écart positif (négatif) (000) \$	Note expli- cative
Salaires et avantages sociaux	2 804	41,00	2 850	(46)	
Autres dépenses	949		985	(36)	
Moins : Somme récupérable d'autres postes	(205)		(235)	30	
Total 12,1 (h)	3 548	41,00	3 600	(52)	

Manitoba Status of Women

In support of the mandate of the Minister responsible for the Status of Women, the Manitoba Status of Women Secretariat promotes gender equality and the equal participation of all women in society; improves the economic, social, legal and health status of women; and works to end exploitation and violence against women. These objectives are achieved by identifying the needs and concerns of Manitoba women; raising awareness of issues affecting women; partnering with community organizations and other government departments to promote gender equality; and, bringing the concerns and aspirations of women to the provincial government to ensure they are integrated into government programs, policies and legislation.

Key Results Achieved:

- Transitioned the Family Violence Prevention Program from the Department of Families to the Manitoba Status of Women Secretariat to better align the two areas and look for synergies.
- Collaborated with the Office of the Clerk of Executive Council on the transformation strategy and prepared the process for establishing roundtables for Manitoba government employees to discuss sexual harassment.
- Worked in partnership with Federal/Provincial-Territorial (FPT) Status of Women Ministries across Canada on issues of common or national interest such as gender-based violence, economic security and women's leadership. Attended the annual FPT meeting of the Ministers responsible for the Status of Women in Toronto. Manitoba chaired the work on sexual violence and presented on how to advance reporting of sexual violence via a process called Third Party Reporting.
- Participated on the FPT Working Group on Family Violence.
- Continued to partner with the City of Winnipeg, Winnipeg Police Service, and community groups to develop and implement strategies to prevent and effectively respond to sexual violence in Winnipeg, as part of the United Nations (UN) Safe Cities Global Initiative. Activities included:
 - Co-chaired eight Safe City Steering Committee meetings.
 - Continued to support Ka Ni Kanichik's Heart Medicine Lodge program – the first Indigenous-led healing program for survivors of sexual violence in Canada.
 - Partnered with steering committee members to host the first of a series of workshops with men and boys on the topic of consent.
 - Partnered with JustTV to record five videos of male leaders from the community on the topic of consent.
- Recognized Sexual Assault Awareness month (April) by hosting two community events with expert panelists, one entitled "Supporting Survivors of Sexual Assault – What You Need to Know" in Winnipeg, and the other entitled "Creating a Culture of Consent – Experiences from Working with Kids, Youth and Adults" in Brandon. A social media campaign was also conducted throughout the month to bring awareness of the issue to

wider public and direct users to the province's "You Are Not Alone" website which offers information and resources to assist sexual assault survivors.

- Continued to work with the Winnipeg Blue Bombers on the Break the Silence on Violence Against Women campaign, which includes public service announcements and educational workshops led by Winnipeg Blue Bomber players and staff and provided to high school students, football teams, coaching staff and community leaders. Since 2016, the players delivered 20 presentations and 20 workshops each year. In 2017/18, the Blue Bombers visited the following schools in Winnipeg: Maples MET School, Garden City Collegiate, Kelvin High School, Maples Collegiate, St. James Collegiate, Hugh John MacDonald School and Grant Park High School as well as R.D. Parker Collegiate in Thompson, and Joseph H. Kerr School in Snow Lake.
- Chaired the Gender Based Violence Interdepartmental Working Group meetings.
- Commemorated Domestic Violence Awareness Month through the Family Violence Prevention Program, which funded three community events in November:
 - The Family Violence Consortium of Manitoba offered a free presentation on "Domestic Violence and Health Today."
 - The Manitoba Association of Women's Shelters gave a presentation on the origins of women's shelters.
 - Willow Place held the Challenge for Change dinner and social innovation lab.
- Celebrated the second annual Women's Equality Week in the third week in January, with the following activities:
 - Launched the Nellie McClung Trailblazer Scholarships, which supported women and girls pursuing education and careers in under-represented occupations with a particular focus on Science, Technology, Engineering and Math (STEM), business, and trades.
 - Hosted Breakfast with The Premier Brian Pallister: partnered with the Winnipeg Blue Bombers to highlight the issue of gender-based violence. The theme was "Be More than a Bystander" and invited guests reflected on the role men can play to help end violence against women.
 - Worked with the Women's Enterprise Centre to develop an online resource to support women who wish to sit on corporate boards.
 - Launched a gender-based analysis resource for government workers as a learning tool to be utilized across the public service to develop better policies and programs.
- Hosted an event in partnership with the Women's Enterprise Centre in March to provide information to women interested in corporate board membership.
- Administered community grants to 17 organizations.
- Provided policy and administrative support to the Manitoba Women's Advisory Council.

Manitoba Women's Advisory Council

The Manitoba Women's Advisory Council (MWAC) works within the Manitoba Status of Women Secretariat as an advisory body to government on issues of concern to women and

works to enhance the overall status of women in Manitoba. The Council focuses on issues that have a social, legal or economic effect on the lives of women and their families.

The Manitoba Women's Advisory Council was established through an Order-in-Council in 1980. Since 1987, the function and operation of the Council has been governed by The Manitoba Women's Advisory Council Act.

The Council has a chair and several community members appointed by the provincial government. Members reflect the cultural diversity of Manitoba women, and come from rural, urban and northern communities.

The Advisory Council reports to the Minister responsible for the Status of Women.

Key Results Achieved

- Held eight Council meetings, as mandated by The Manitoba Women's Advisory Council Act.
- Worked with a facilitator and the Council to produce a strategic plan for the years 2018-2020 to help guide the work of the Council.
- Commemorated key dates and raised awareness of women's issues by hosting large-scale community events:
 - December 6 Sunrise Memorial: to commemorate Canada's National Day of Remembrance and Action on Violence Against Women.
 - International Women's Day: launched "The Status of Women in Manitoba" publication. The publication highlights Manitoba's progress in women's equality in four critical areas: education, employment, health, and violence against women. It provides the public with accurate information on how women are faring in these critical areas and shows where opportunities remain for advancing positive change in the future.
 - Women's History Month: hosted two events on women and pay equity, one in Winnipeg and another in The Pas.
 - International Day of the Girl: hosted an event in partnership with the Boys and Girls Club of Winnipeg on girls and computer coding.
- Supported the "Engineering Changes Lives" initiative of Engineers Geoscientists Manitoba, which has a 30 by 30 goal: By 2030, 30 per cent of newly licensed engineers will be women, doubling the current rate.
- Achieved stronger connections with the women's community by supporting community activities, marches, networks of women, conferences and other event. Delivered community information via the Council's current e-mail distribution list to over 1,000 organizations and individuals.

**Table AF.9
12.1(i) Manitoba Status of Women Secretariat**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	555	7.00	622	(67)	1
Other Expenditures	154		185	(31)	
Grant Assistance	127		130	(3)	
Total 12.1(i)	836	7.00	937	(101)	

1. Under-expenditure is due to vacancies.

PARKS AND REGIONAL SERVICES

Headquarters Operations

Headquarters Operations 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 with supports from Headquarter based in Winnipeg. Staff from 39 community-based districts and regional offices as well as Headquarter office in Winnipeg carry out the work.

Key Results Achieved:

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.

- Firearm qualification for all full-time field Conservation Officers (CO) was completed by Regional Training Officers and the department's peer Firearms Instructors.
- Two new CO recruits attended the Atlantic Police Academy in Prince Edward Island. The 10-weeks of instruction included training in firearms, emergency driving, defensive tactics, investigations and an on the job training period of 6 weeks.
- Training for 31 new hire seasonal Park Patrol Officers (PPO) 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, 53 returning seasonal staff, both PPO's and Park Patrol Captains (PPC), recertified in Defensive Tactics and leadership courses.
- Central Training was conducted for all field CO's. This included training in defensive tactics recertification, scenario based training, officer safety lecture, update on pertinent legislation, and departmental enforcement responses, aquatic invasive species (AIS) monitoring and Provincial Offenses Act review for CO's and staff.
- Ice rescue instructors' course – 4 CO's trained.
- 24 Officers participated in three-day Investigative Interviewing course - - designed with RCMP new phased interview model and current case law; provides information and concepts from various other interviewing sources.
- Amended and updated Operational Directives and Safe Work Procedures to reflect changes and new CO standards.

- Special Investigations Unit participated in undercover operations to catch poachers and to curb the significant black market wildlife parts trade.
- K-9 unit participated in wildfire investigations, illegal hunting, fishing investigations, and public education in community and school programs.

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.

- Continued to work with Manitoba Justice to address legislative issues.
- Participated as a member of the Canadian Natural Resource Law Enforcement Chiefs Association.
- Participated in the Manitoba Rabies Central with Manitoba Health, Seniors and Active Living and Manitoba Agriculture in provincial rabies reporting and sampling system.
- Continued to work with the Wildlife Enforcement Division of Environment and Climate Change 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 operational support during wildfire fighting operations.
- Participated in the Western Canadian Law Enforcement Academy for the delivery and training of new recruits from Alberta, Saskatchewan, and British Columbia.

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

- 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 to the executives and regions, including prosecutions and warnings.
- Worked with the Wildlife and Fisheries branch, Sustainable and Green Initiatives branch and department of Justice on Crown-Indigenous consultations regarding night hunting.
- The department supported Indigenous Elders' Gatherings as part of the important discussion that helped promote increased understanding and cooperation between Indigenous peoples and the province in addressing unsafe hunting practices. This provided Elders from Indigenous communities throughout Manitoba the opportunity to speak on their perspectives of night hunting.
- Updated regions on legal issues affecting court cases and gave subsequent enforcement direction.

- Criminal Property Forfeiture funding allowed purchase of dash cameras, which were distributed to regions for enforcement usage.

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.

- 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 surveillance that targets illegal harvesting practices.
- Current Investigations:
 - Illegal sale of fish and wildlife in the Winnipeg area conducted between 2015 and 2017 resulted in 3 charges under The Fisheries Act (Manitoba) and The Wildlife Act.
 - Illegal sale of fish in the Winnipeg area conducted in 2015 resulted in 3 charges under The Fisheries Act (Manitoba).
 - Illegal harvest and possession of wildlife in the Manigotagan area, including the conservation closure area, conducted between 2015 and 2017 concluded in the courts by way of Hearing with 2 of the 3 individuals found guilty of 4 offences under The Wildlife Act and Regulations resulting in \$3,963 in fines.
 - Illegal sale of fish in the Portage la Prairie area conducted in 2015 was concluded in the courts by way of the individual admitting to 3 charges under The Fisheries Act (Manitoba) resulting in \$2,000 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 11 decoy operations, 45 night hunting patrols, 19 occurrences of searching for evidence in both non-confined and confined areas, 2 searches of vehicles, 1 search for suspect, and 5 assistance with search warrants.
- The Canine Teams conducted 18 public education programs in schools and at public meetings throughout the province.
- The Canine handlers are trained Wildfire Investigators and the teams responded to 2 investigations of human induced fire.
- District officers utilized the services of a Forensic Laboratory for Firearm analyses in 6 investigations of Wildlife offences and for DNA analyses in 3 investigations of Wildlife offences to corroborate evidence obtained.

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

- 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 on forest fires.

Table PRS.1 T.I.P. Calls by Region 2017/18									
	Number of Calls					Number of Prosecutions			
Region	Fish	Wildlife	Other	Total	Fire	Fish	Wildlife	Other	Total
Central	95	78	20	193	9	31	2	0	33
Western	20	118	6	144	18	8	3	0	11
Eastern	7	53	24	84	25	0	2	0	2
Northwest	3	6	1	10	11	0	0	0	0
Northeast	1	0	1	2	26	0	0	0	0
Total	126	255	52	433	89	39	7	0	46

Table PRS.2 T.I.P. Calls by Year 2008/09 to 2017/18 (excluding Fire)										
	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
Total Calls	300	319	317	311	358	310	392	538	438	433
Information	6	25	32	13	15	45	8	113	15	2
Actioned	153	156	129	161	247	146	216	221	91	142
Prosecutions	22	23	20	14	31	20	20	46	11	46
Warnings	5	6	6	9	8	3	10	18	2	15

Table PRS.3 Comparison of Wildlife, Fisheries, Parks and Migratory Birds Prosecutions 2008/09 to 2017/18				
Fiscal Year	Wildlife	Fisheries	Parks	Migratory Birds
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	2,409	12
2017-18	501	846	3,256	7

***Years where no Park Vehicle Entry Passes were required**

Table PRS.4**Record of Violations Occurring 2017/18**

Acts	Prosecutions	Warnings	Total Offences
Crown Lands Act	6	7	13
Environment Act	16	9	25
Endangered Species & Ecosystems	0	2	2
Forest Act	5	8	13
Forest Act	664	172	836
Fisheries Act (Canada)	182	192	374
Fisheries Act (Manitoba)	0	0	0
Freshwater Fish Marketing Act	14	3	17
Highway Traffic Act	142	183	325
Liquor and Gaming Control Act	7	14	21
Migratory Birds Convention Act	47	31	78
Off Road Vehicle Act	3,256	324	3580
Provincial Parks Act	4	5	9
Resource Tourism Operators Act	4	112	116
Water Protection Act	11	12	23
Wildfires Act	501	173	674
Wildlife Act			
Total	4,859	1,247	6,106

Total Fines: \$388,014 for 2017/18

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 legally hunting during an open big game season. Claims are investigated by Conservation Officers and occasionally by RCMP. This year, no claims qualified for compensation. Program activity for the past ten years is illustrated in Table PRS.5.

Table PRS.5**Hunter-Killed Livestock Compensation 2008/09 to 2017/18**

Year Paid	Claims	Claims Paid	Total Paid	Average Paid
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
2017-18	1	0	N/A	N/A

Table PRS.6 Problem Wildlife Occurrences 2017/18							
Species	Region						% of Total
	NE	NW	E	C	W	Total	
Beaver	3	4	19	36	11	73	2
Black Bear	343	173	382	595	362	1,855	59
Polar Bear	156	0	0	0	0	156	5
Big Game	1	0	12	33	45	91	3
Wolf	23	7	9	38	7	84	3
Migratory Birds	6	4	5	61	74	150	5
Other*	48	25	96	414	135	718	23
Total	580	213	523	1,177	634	3,127	100

*Other includes coyote, fox, raccoon, skunk

**Table PRS.7
12.2(a) Headquarters Operations**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,447	33.95	2,839	608	1
Other Expenditures	887		888	(1)	
Total 12.2(a)	4,334	33.95	3,727	607	

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

Northwest Region

The Northwest Region has a Regional Office located in The Pas, with District Offices located at Cranberry Portage, Flin Flon, Snow Lake, and Grand Rapids with 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 predominantly 7 species of trees including black and white spruce, jack pine, tamarack, white birch, balsam poplar, 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 two major companies in the Northwest Region is Hudbay Minerals Inc. in Flin Flon\Snow Lake, and Canadian Kraft Paper Industries Ltd. in the Pas, Manitoba. In addition, the harvesting of wild rice and trapping provide for 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, Cisco, Stocked Trout, Burbot, Lake Whitefish, and the very popular Lake Trout, with the biggest one 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 and a world record brook trout recorded on Barbe Lake.

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 in our Provincial Parks at Clearwater Lake, Bakers Narrows, Wekusko, and our largest Grass River. The parks include (7) campgrounds: Bakers Narrows, Gyles, Iskwasum, Reed, Wekusko Falls, Campers Cove, and Pioneer Bay. There are several remote campsites available on multiday canoe routes with the longest starting at Cranberry Portage on 1st Cranberry Lake along the Grass River system, which eventually flows into the Nelson River near Split Lake, 350 straight line kilometers away from the origin.

Little Limestone Lake Provincial Park is the newest park in the region. The lake is a marl lake that is best known for its characteristic trait of changing colour 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. Also near Grand Rapids is a recent Ecological Reserve, Walter Cook Caves, established to protect the many limestone caves in the area frequented by bats, the little brown myotis and northern myotis, and a variety of other rare features in the limestone and dolomite area.

Key Results Achieved:

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

- The district's focus of fire prevention and education within the northern communities resulted in stabilizing the number of human induced fires. There remains an increased emphasis on fire investigations and cost recovery of significant human induced fires.
- The Regional Integrated Resource Management team consisting of managers from various disciplines in the department, reached out to the local Indigenous and Northern communities, associations and various interest groups to introduce themselves, establish relations, and initiate shared management initiatives. This resulted in several meetings with some communities, education and involvement in projects, and the introduction of working committees to review and comment on resource activities within the region.

Wildfire suppression activities:

- Due to the values-at-risk associated with towns and communities and with timber values, the region's Wildfire Management and Suppression Program was the most significant and highest priority program delivered in the Northwest Region in terms of both employment and expenditures. It normally runs from May through September.
- The Northwest Region experienced an above average wildfire season over a short period, ranging from July 20 to August 20, 2017, with a total of 100 fires, of which 94 were lightning caused and 6 were human induced, with a total of 2,135 hectares burned.

Fisheries:

- 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 co-ordinate a recovery plan. As part of the continued sturgeon research, a juvenile sturgeon index netting program was completed to assess lake sturgeon recruitment in the Saskatchewan River.
- A total of 65,500 trout juveniles were stocked in 2017 with 35,500 (12-15 cm) Rainbow trout and 30,000 (12-15 cm) Brook trout in the existing stocked trout waters, which are very popular destinations for locals and visitors alike.
- Under the Coordinated Aquatic Monitoring Program, sampling of the fish communities on Cedar Lake, Cormorant Lake and Moose Lake were completed to determine the health of aquatic environments and track them over time.
- Development of action plans to combat the spread of aquatic invasive species (AIS) and in particular zebra mussels continued in 2017. Zebra Mussels were detected in Cedar Lake in 2015, and as a result, an extensive monitoring plan was implemented to track any further spread. Watercraft Inspection Stations were set-up in The Pas and Grand Rapids as part of the AIS program with the objective to educate the public, inspect watercraft, and conduct necessary decontaminations.
- Staff continued to meet with commercial fishing associations to update administration plans and work towards the development of sustainable fisheries management plans. Meetings were held with Moose Lake Fishers Association, Napanee Bay Fishers Association and the Burntwood Lake fishers.
- Continued community meetings on efforts to eco-certify some commercial net fisheries, which included planning for additional field works to develop sustainable fisheries management plans.
- Initial discussions with Misipawistik Cree Nation and the Town of Grand Rapids occurred regarding regulating the unsustainable harvest on the Saskatchewan River in Grand Rapids. Community meetings resulted in the development of a draft sustainable fisheries management plan.

- Staff administered and licenced 42 Commercial Baitfish Blocks and 3 Fish Farming Licences throughout the Region.

Forestry:

- A major outbreak of Jack Pine Budworm (JPBW) in the southern part of the Northwest Region and the northern part of the Interlake Region led to intensified harvest of Jack Pine stands within the affected area. Approximately 250,000 hectares were classified as moderately to severely defoliated by the Jack Pine Budworm in this area in 2016. Monitored the spread of the JPBW in 2017.
- Staff issued a total of 24 new work permits and 54 extended work permits for logging, road construction, and silviculture operations. 295,651.05 m³ of timber was delivered to Canadian Kraft Paper Industries from Crown land in the northwest region of which 102,988.21 m³ was conifer from the Forest Management License area, 192,662.05 m³ was from the Jack Pine Budworm Salvage area in Management Unit 46, and 15,966.50 m³ was Aspen for hog fuel within the region.
- The region supervised planting of 100,000 trees throughout cutovers in the Forest Management Licensed Area.
- 73 timber inspection reports were conducted by Regional and District Staff in the April 2017 to March 2018 period.
- A total of 316 personal use timber permits and 36 commercial timber permits were issued within the region.
- Regional staff continued to work cooperatively with staff of Canadian Kraft Paper Industries in identifying hardwood-leading stands to provide hog fuel for the heating systems of the mill. Regional staff worked cooperatively with the Central Region, Forestry branch and Canadian Kraft Paper Industries to plan for the management of the Jack Pine Budworm outbreak.

Wildlife:

- Regional staff continued to collaborate with Wildlife and Fisheries branch staff on development of action plans for boreal woodland caribou. These action plans are a federal requirement as boreal woodland caribou are listed as a threatened species. The Region has five caribou management units and four of these are considered high conservation concern.
- 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 identified critical habitat, core use areas, established mortality rates, and herd stability while enabling the branch to direct and accommodate industrial development.

- Tom Lamb and Saskeram Wildlife Management Areas are located in the northwest region. There are ongoing concerns from the public on high water levels in both of these areas and the impacts these might have on wildlife and resource uses. Recently, the Tom Lamb Wildlife Management Area working group was established with the intent to develop a management plan. Members include Indigenous communities, Ducks Unlimited Canada, Manitoba Hydro, and government representatives.
- The Carrot River Triangle working group met to review Ducks Unlimited Canada operations and projects within Saskeram Wildlife Management Area. Representatives included Indigenous communities, RM of Kelsey, local resource users, Ducks Unlimited Canada and government.
- Moose population status continued to be a concern across the region. Discussions and consultations continued with local Indigenous and non-Indigenous communities regarding the declining moose population with the goal of establishing control measures to stabilize and grow the population for future generations to utilize.
- A moose survey was completed in Game Hunting Area (GHA) 7. This was the first time a survey was conducted in this area. Demonstration flights, to show Indigenous community representatives the survey method, occurred following the survey. In GHA 2A, a portion of the area was closed to moose hunting.

Angler and hunter compliance:

- Conservation Officers checked approximately 3,806 anglers, 409 hunters, and 22 commercial fishers for compliance. A total of 195 general enforcement actions were taken within the region.
- As a result of additional Game Hunting Area closures for moose in other areas of the province, officers continued to encounter an increase in licensed and subsistence moose hunting activity within the region.
- Conservation Officers assisted with high profile enforcement initiatives in the southern districts.
- Simulated moose decoy operations and patrols to help deter illegal hunting activity.

Increase in the level of visitor satisfaction within Provincial Parks:

- During Parks Day, staff hosted various events and activities throughout the parks including Grass River, Bakers Narrows, Clearwater Lake, and Wekusko Falls Provincial Parks.
- Worked with the wildfire program on a static display setup at The Pas and Flin Flon Airports.

- The Life Jacket Loaner program continued in Clearwater Lake Provincial Park and expanded to Bakers Narrows, and Gyles (within Grass River) campgrounds.
- An Automated External Defibrillator was installed at Bakers Narrows Campground office.
- A new shower building was constructed in Wekusko Campground in 2017.

Effective community relations:

- Regional and district staff participated as provincial representatives on the Cedar Lake, Cormorant, Opaskwayak Cree Nation, and Moose Lake Resource and Joint Management Boards.
- Staff participated in the annual Cottage Association meetings, Chief and Council meetings, Rural Municipality and City/Town meetings, and sportsmen's groups meetings to provide assistance and information. District staff in the various locations in the Region were essential to keep community relations going, assisted with community needs and actioned upon any regulatory complaints received. Officer's presence in the communities not only lead in building the relationships, but also help deter community members from unlawful activity.
- Districts/regional staff presented in the local schools and university on fire prevention, resource management, bear smart program, career days and other issues of special interests. Staff continued to participate in community events representing the department including the Trappers Festival, Water Festival, Canada Day Parade, and Parks Day.
- Staff participated in joint initiatives with other government departments or branches to assist with effective community relations building. This included high water concerns, mining activities, and unorganized territories within the Region.

Regional concerns considered before land is allocated:

- The management and allocations of Crown Land and Resources in the Northwest Region, with diverse and competing users, became at times very elaborate due to its nature.
- Crown Land within the Region dealt with more complex issues regarding Treaty Land Entitlement selections, Reserve Land located in remote locations, individual and community selections under the Comprehensive Forebay Agreement, Community Interest Zones, and existing Crown Land dispositions.
- The Regional Land Manager worked with the Northwest Regional Integrated Resource Management Team and provided a consolidated response regarding; complex work permit applications, Regional License Advisory Committee requests, Environment Act Licensing proposals, and exploration-mining proposals with bulk samples. The Regional Lands Manager commented on behalf of the Region on standard sales agreements, leases, general permits, assignments, quarry permit applications, and lease renewal applications.

- District Conservation Officers issued numerous work permits under The Crown Lands Act and The Wildfires Act for construction projects and industrial operations. Work permits are issued to mitigate the negative impacts of an activity to the environment ensuring that the proponents are made aware of both local district and regional concerns and requirements.
- Networking and communications with the various towns, cities, and rural municipalities, and Indigenous communities is critical in allocating Crown Land throughout the Region. The Region continued to provide comments and recommendations on allocation of all Crown Lands for purposes of both commercial and recreational development including Treaty Land Entitlement selections.
- The Region continued to review wild rice allocations, assignments and conversions. The Provincial Wild Rice Committee provided provincial direction on Wild Rice Policies to standardize the review of wild rice applications and assignments.
- Demand for permitting companies remained low to moderate for 2017 in relation to diamond drilling, claim staking, geophysics, soil sampling, line cutting, mapping, and geological reconnaissance. Hudbay Minerals is the largest exploration and mining company in the Region and recently issued work permits for various exploration projects in the region.

Other Notable Highlights:

- District and Regional staff issued work permits to Manitoba Hydro for construction work of Bipole III line's. Several compliance inspections were undertaken 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 PRS.8
12.2(b) Northwest Region**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,553	36.50	2,579	(26)	
Other Expenditures	442		442	0	
Total 12.2(b)	2,995	36.50	3,021	(26)	

Northeast Region

The Northeast Region encompasses 60 per cent 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 per capita area basis, the Northeast Region is the most sparsely populated region in the province. Mineral extraction, processing and exploration, hydroelectric 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 significant.

Due to the values-at-risk associated with towns, communities, lodges, out camps, 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 a priority during this same time period. Undertaking the Crown's Duty to Consult (Section 35 of The Constitution Act 1982) with the 20 First Nation communities and 15 Indigenous 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 (PBA) Program at Churchill, are also important program activities in the region.

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:

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

- Fire in the vicinity of Wasagamak required the residents to evacuate. There were 348 incidences of fires burning 204,237 hectares in the Northeast region. Of the 348 fires, 279 were caused by lightning and 69 were human induced.
- The region continued to deliver Fire Smart Program. Districts officials participated in Canada Day Parades, Nickel Days, Treaty Days, and numerous school presentations with appearances of Smokey Bear.

Angler and hunter compliance:

- Moose hunting pressure continued to increase due to an increase in both road hunters and fly out camps. Moose patrol and Registered Trap Line patrol reports were completed for all districts.
- Staff maintained effective community relations resulting in enhanced participation and co-operation of Indigenous people in resource management, and effective liaison with

organized sportsmen's and park user groups. An increase in park use and angling pressure within Paint Lake Provincial Park by outside Indigenous communities was observed.

- Regional and District staff participated as provincial representatives on Resource Management Boards located at Nelson House, Split Lake, York Factory, Norway House, and Fox Lake. Staff also participated on the Wapisiu Caribou Committee, Beverly Qamanirjuaq Caribou Management Board, the Northeast 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 Protected Area. Meetings relating to the establishment of a coastal protected area were held with Fox Lake, York Factory, and Tastaskweyak First Nations.
- 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. Fish samples were collected from an area that had been stocked annually since 2011 with Walleye fry from a spawn camp run by OPCN through the Monitoring Committee. These samples confirmed that 22 per cent of the Walleye in that area arose from those stockings.
- The Coordinated Aquatic Monitoring Program (CAMP) continued to validate remote sensing tools for turbidity on most of the major river systems that are part of Manitoba Hydro's operations. Continuous turbidity samplers were deployed on the Nelson, Saskatchewan, Winnipeg and Burntwood rivers to confirm results interpreted from LandSat imagery.
- A series of studies funded by Manitoba Hydro's Lake Sturgeon Stewardship and Enhancement Program confirmed that yearlings stocked by the Nelson River Sturgeon Board in the upper Nelson River are successfully re-establishing Lake Sturgeon in that area.

Minimize the number of complaints related to problem wildlife:

- 150 occurrences were addressed during 2017 polar bear season; a significantly lower number compared to other years.
- Churchill Polar Bear Alert (PBA) staff handled a total of 22 polar bears. The ice release for the 2017 season was between November 8th and 9th, when there was enough ice to support polar bears to travel on the ice. This was one of the shortest ice-free periods since the start of the PBA program.
- Polar Bear Surveys completed for the 2017 season included the Fall Coastal Survey. All coastal surveys dating back to 1970 were compiled for an analysis of abundance, distribution, and vital rates.
- There was a total of 531 Black Bear occurrences throughout all districts of the Northeast region. Norway House had the most at 189.

Wildlife:

- Regional staff participated in the National Boreal Caribou Technical Committee and the Polar Bear Technical Committee meetings.
- A fall coastal survey of the Hudson Bay polar bear population was conducted within Manitoba to assess the distribution and general condition of polar bears during the ice-free period.
- The Beverly Qamanirjuaq Caribou Management Board held its bi-annual meetings in Saskatoon and Winnipeg. The board continued to support the communities and jurisdictions that manage and rely on these caribou populations.
- Regional staff participated on two departmental mandate item committees: 1) to implement effective and innovative big game surveys, and 2) to develop comprehensive harvest co-management strategies.
- Two orphaned Polar Bear COYs (cubs of the year) were translocated to the Leatherdale International Polar Bear Conservation Center in 2017.
- PBA staff deployed GPS ear transmitters on 11 polar bears released from the holding facility to assess if bears released in Manitoba travelled up to Arviat, Nunavut.
- Regional Wildlife staff assisted Environment and Climate Change Canada in a Biopsy Darting project in the Kaskatamagan Wildlife Management Area (WMA); 63 polar bears were darted to determine genetic relations of sub-populations.
- 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 III mammal-monitoring program.
- Regional staff delivered multiple presentations to Resource Management Boards, communities, Manitoba Hydro and departmental staff on coastal caribou and polar bear surveys.

Fisheries:

- 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. This was the second year that OPCN operated a streamside Walleye hatchery near their spawn camp on the Vermillion River. The commercial fishery production was very low compared to the long-term average.

- The 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 South Indian Lake. The cores will be used to understand the sediment history of the lake before and after hydroelectric development.

Regional concerns are considered before land is allocated.

- The Region reviewed and provided comments on 43 Crown Land applications, 97 Casual Quarry Permits applications, 9 Environmental Licence reviews/applications, 93 work permits issued (15 mineral exploration, 36 Hydro related, 6 Forest cuts, and 36 other), and 33 License Advisory Committee (LAC) applications.
- 187 own use timber permits were issued in the Northeast Region. Approximately 2,500 cubic meters of softwood and hardwood was harvested in the Thompson and Wabowden Districts. 20,000 trees were planted on Timber Sale harvest areas and Mine Site rehabilitation projects in Lynn Lake District. The Regional Forester also worked for the Fire Program in Fire Guard Rehabilitation and assisted in supervision and planning of the Jack Pine Budworm Salvage Harvest in Central Region.
- Manitoba Hydro's Keeyask Generation Project work continued with the completion of the South Access road right of way, temporary camps, and work along burrow pits and quarry pits.
- Regional Land's staff participated in the Churchill Marine Observatory project and Churchill Cottage Lot program.
- Regional Lands staff continued to meet with Thompson 20/20 personnel regarding suitable cottage lot potential within the Local Government District of Mystery Lake.
- An ice road constructed from Gillam to Churchill following the RC-60 transmission line was monitored by staff from Gillam and Churchill Districts.

Other Notable Highlights

- The annual Manitoba Trappers Association Fur Table was attended by 141 trappers throughout the north. Again, this year there were 4 buyers at the Fur Table, with sales of wild fur pelts near \$348,500. Marten was the species most sold, 3,399 marten sold at an average of \$90 a pelt for a sum of \$312,700.
- The 2017 sales of Barren Ground Caribou tags was slow as compared to previous years. The fall migration of caribou into Manitoba did not happen until late in September. Hunter harvest was very good for the fall season. Winter harvest for 2017 was also very low. The caribou did not migrate into the Tadoule Lake or Lac Brochet regions during winter 2017. Hunter activity was out of Lac Brochet, South Indian Lake, Tadoule Lake, and Northern Saskatchewan communities. Caribou harvest was estimated at 800 caribou.

- Extensive caribou patrols were carried out during the fall by Otter Aircraft, and by truck and snowmobile along the winter road network, and South Indian Lake.
- 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. Moose remain in good numbers.
- 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. Infractions were found relating to illegal traps and trapping after the season for 2017.
- Regional Wildlife staff worked with Nelson House Resource Management Board, the York Factory Resource Management Board, Wapusk National Park Management Board, the Polar Bear Technical Committee, the Range States Conflict Working Group, and the Northeast Boreal Caribou Committee.

Table PRS.9

12.2(c) Northeast Region

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,161	42.95	3,341	(180)	1
Other Expenditures	994		833	161	2
Total 12.2(c)	4,155	42.95	4,174	(19)	

1. Under-expenditure is due to vacancies.
2. Over-expenditure is due to higher cost related to the Polar Bear Alert Program.

Central Region

The Central Region delivers programs and services associated with the Parks and Regional Services Division including 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 Indigenous communities. To date, four staff from Central Region graduated from the Sustainable Development Certificate in Indigenous Relations Program (CIRP).

Key Results Achieved:

Provincial Park Operations, Maintenance and Improvements

- The Winnipeg Beach Seawall safety railing and Rip Rap replacement was completed in the winter of 2017. Parks staff helped Wildlife branch with the Narcisse Snake Den parking lot refurbishment, which included a comprehensive and organized approach to vehicle management in the area.
- Birds Hill celebrated its 50th anniversary (Birds Hill Park officially opened on July 15th, 1967) with official ribbon cutting and tree planting ceremonies with dignitaries such as the Manitoba Lieutenant Governor and the Minister of Sustainable Development in attendance. Birds Hill Park was host to the 2017 Canada Summer Games bike and triathlon events. Hundreds of spectators and participants attended the well-organized sporting events. The Prairie Love Festival (yoga festival) held an event in Birds Hill for the first time and saw well over 1,000 visitors. Birds Hill Park and Folk Fest received a Manitoba Tourism Award for partnership. Two new life jacket kiosks were built to enhance the Beach Safety Program and to supply lifejackets to visitors of all ages who plan on swimming in Birds Hill. Tree Bay also received an electrical site upgrade to 50-amp service. Birds Hill Beach introduced accessible Mobi-Mats that provide a lightweight non-slip portable roll-out beach access pathway for individuals of all abilities, pedestrians, wheelchair users and strollers.
- The Grand Beach concession buildings on the boardwalk received new roofs. Grand Beach was awarded Blue Flag designation. Blue Flag is an internationally recognized eco-label symbolizing clean and well-managed beaches and marinas worldwide.
- Two new specialized pieces of equipment were purchased to help clean the zebra mussels at the Lake Winnipeg Beaches such as Grand Beach, Winnipeg Beach, Hnaua Beach and Hecla/Grindstone Provincial Parks.
- Hecla hosted the third annual T3 Canadian Forces Base 17 Wing Triathlon, a Duathlon (bike and run event) and two Aqua Bike events (swim and bike event). A 5 km and 10 km marathon was also held in Hecla with numerous athletes from all over Canada in attendance. The campground shower building was refurbished with new plumbing, flooring and a ventilation system to provide clean shower facilities for campers. Two new ice-fishing shelters were built and placed on the lake for the public to use and received very positive recommendations from tourism Manitoba. A snowmobile warmup shelter was replaced for snowmobilers to enjoy. Two picnic shelters were constructed, one at Grindstone Provincial Park and the other at Beaver Creek Provincial Park. Washrooms at Beaver Creek were also refurbished. New garbage and recycling cages were built in the Grindstone Hecla Park cottage areas.
- Lundar Beach received a new garage package to safely store the parks maintenance equipment for the summer. Mold remediation was conducted on the Lundar Beach Campground office.

- Stephenfield Park maintenance crew created a new boat parking area to reduce conflicts between swimmers and recreational boaters.
- Park staff cooperated with Shakespeare in the Ruins to present “Romeo and Juliet” in the Trappist Monastery Provincial Park.

Wildlife Management and Programming

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 and drawing significant media attention. Four departmental interpretive staff provided interpretive and maintenance services during the peak spring viewing season. Wildlife staff provided regular updates to the website during peak season to inform visitors of the best time to visit.
- Central Region wildlife staff continued to oversee the use of the Chatfield Field Station that provides important housing and accommodations for international snake scientists who visit the site annually to conduct research. The Field Station also provided accommodations for graduate students and their research technicians throughout the year.
- Central Region staff participated on the Oak Hammock Marsh Interpretive Centre Advisory Board.
- Central Region wildlife staff co-chaired the Oak Hammock Marsh (OHM) Working Group and was designated secretary for the working group.
- Wildlife staff co-chaired the Grant’s Lake Working Group and was designated secretary for the working group.
- Central Region wildlife staff participated on the Lake Francis Advisory Group.
- Central Region wildlife staff organized and participated in numerous mentored hunting and trapping programs. These mentored programs provided young and first-time hunters and trappers a safe and fun introduction to our outdoor heritage. In 2017, these mentored activities included youth waterfowl hunt, youth trapping program and waterfowl hunt at Oak Hammock Marsh, and the women’s mentored muzzleloader hunt near Stuartburn, Manitoba.

Wildlife Habitat

- Central Region wildlife staff initiated plans for Phase III to replace failed water control structures at Oak Hammock Marsh (OHM). Phase II of the OHM infrastructure renewal project was completed late 2016. Over \$750,000 was spent to replace failed water control structures and pipes to ensure optimal water and wildlife habitat management at OHM WMA.

- Wildlife staff assisted with operation and maintenance of the four carp exclusion sites at Delta Marsh Wildlife Management Area (WMA). Delta Marsh revealed improvements in water clarity, return of submersed aquatic vegetation, and fall-staging waterfowl because of this restoration initiative.
- Wildlife staff continued to work on the development of the Skylake WMA. This WMA was initially proposed in 2006. The proposal was approved by Crown Lands Assistant Deputy Ministers Committee in 2017.
- Wildlife staff continued to work on the development of a proposal for a new WMA around the Shoal Lakes.

Wildlife Surveys/Monitoring

- Central Region wildlife staff participated in the provincial Sharp-tailed Grouse Lek Surveys in April and May and a Woodcock survey route near Lundar.
- Wildlife staff conducted a population survey for the South Interlake Elk herd in Game Hunting Areas (GHA) 21, 25, 25A; a survey for moose in GHA 15; and a survey for the North Interlake Elk herd in GHA's 20/16 in February 2018 that would allow wildlife staff to monitor the current population of elk in these areas and provide important information for regulatory and co-management considerations.
- Central Region wildlife staff coordinated and oversaw the GHA 21/21A wolf survey and assisted the Eastern region with moose surveys in GHA 26 and 17A.
- Central Region wildlife staff assisted the Wildlife and Fisheries branch in conducting a disease surveillance survey for cervids in GHA 13, 13A, 18, 18A allowing the scientists to monitor for Chronic Wasting Disease and Bovine Tuberculosis and assist in proactive management measures.
- Central Region wildlife staff assisted in the annual provincial Canada goose banding program. Almost 2,800 geese were banded in early July at a variety of locations in Winnipeg and Portage La Prairie. Another 3,400 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 to determine annual recruitment, harvest rates, and migration patterns throughout the continental flyway.
- Central Region wildlife staff continued to monitor the ten collared cow elk in the North Interlake herd to determine distribution and range use, funded by the Fish and Wildlife Enhancement Fund.

Wildlife Conflict – Crop Depredation

- Central Region 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 participated in the Victoria Beach Waste Advisory Group, providing advice on bear proofing their waste management systems.
- Wildlife staff worked with Conservation Officers throughout the year to address complaints related to wildlife problems and general wildlife concerns and questions.

Indigenous Community Engagement

- Central Region wildlife offered aerial elk survey demonstration flights to local Indigenous people and the local Fish and Game Club following the South Interlake Elk survey. Indigenous people included representatives from Peguis First Nation, Kinonjeoshtegon (Jackhead) First Nation, Treaty 2 communities, the Manitoba Métis Federation, and Moosehorn game and fish club.
- Central Region wildlife staff initiated Section 35 Consultation with local Indigenous communities concerning the low moose populations in GHA's 21 and 21A, and participated in the night hunting related consultations with Indigenous communities within the Central region.

Wildlife Resource Use

- Central Region wildlife staff oversaw the allocation of foreign resident big game licenses to licensed outfitters.
- Regional wildlife staff contributed to the hunting season setting process and participated in the Big Game and Game Bird Committee activities.
- Wildlife staff contributed to the revision of the Trapping Policy.

Other Notable Highlights

- Regional wildlife staff continued to work 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.

Forestry and Peatlands Management and Programming

Jack Pine Budworm Salvage Operations

- Since August 2015, the population of Jack Pine Budworm (*Choristoneura pinus pinus*) continued to increase. The 2017 Forest Health Aerial Surveys indicated severe to moderate defoliated jack pine stands extended to approximately 600,000 hectares. This area extends 150 kilometers from the community of Grand Rapids in both north and south directions, stretching between Lake Winnipeg to Lake Winnipegosis.
- The salvage harvest planning continued to target stands around the Devils Lake and North Two Rivers areas that had been severely defoliated to reduce future wildfire hazards.

- In 2017, approximately 2,770 hectares were salvaged in the Jack Pine Budworm area, through the combined efforts of the Interlake Quota Holders and Canadian Kraft Paper Industries.
- Information on the Jack Pine Budworm was made available to the public by erecting signs located at the three entrances to harvest salvaged areas along Highway 6.

Regular Operations

- Regional consultations with local Indigenous communities continued to focus on the Jack Pine Budworm salvage area.
- As part of an educational and outreach Forestry branch initiative, approximately 20,000 white spruce seedlings were provided to a number of Indigenous communities in the region. Members from Peguis First Nation, Fisher River Cree Nation, Skownan First Nation, Kinonjesoshtegon First Nation and Misipawistik Cree Nation participated in planting these seedlings within their communities.
- Approximately 23 hectares were harvested by quota holders within Forest Management Unit (FMU40) in addition to the areas mentioned above in the budworm salvage area.
- As part of the regional forestry renewal program, 28 hectares of regular harvest and 270 hectares of budworm salvage harvest were scarified in the summer to promote natural regeneration of jack pine.
- There was 43.8 Hectolitres of Jack Pine cones collected by members from both Peguis First Nation and Skownan First Nation in spring of 2017. This general cone collection occurred within the Interlake Seed Zone 3 and in conjunction with salvage and regular harvesting operations.
- Regional forestry staff continued to work with Forestry and Peatlands Management branch staff to monitor the management of the commercial development of peatlands on Crown lands.

Fisheries Management and Programming

Public Outreach

- Central Region fisheries staff conducted numerous meetings with commercial fishers regarding the changes the fish marketing regulations.
- Region 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 continued to review Licensing Advisory Committee applications, environmental licensing proposals, land-use applications, water control works licenses,

resource allocation requests, development proposals, and scientific collection permit applications.

- Central Region staff attended meetings with Minnesota and North Dakota to discuss the fishery and stock assessment of the Red River.
- Central Region staff responded to numerous questions and concerns from commercial fishers, anglers and other stakeholders, and provided fisheries related information to outside stakeholders, such as index data, creel survey data, and commercial production.

Fisheries Surveys/Monitoring

- Central Region fisheries staff conducted annual 6-week index netting program in Balsam Harbor, Hecla, Frog Bay, Matheson Island, Dauphin River and Grand Rapids of Lake Winnipeg. A total of 66 index nets were set, and a total of 2,950 Walleye, Sauger, and Lake Whitefish samples were collected.
- Staff continued to work with the federal Department of Fisheries and Oceans and the University of Nebraska on the deployment of acoustic tags and receivers on approximately 500 Lake Sturgeon, Channel Catfish, Walleye, and Bigmouth Buffalo fish, in the Lake Winnipeg Drainage Basin.
- Staff conducted the Annual Lake Manitoba Index Program. A total of 44 net locations and 2,100 samples were collected.
- Staff continued to assist and collaborate with Manitoba Hydro on the Crown Corporation's Lake Winnipeg Coordinated Aquatic Monitoring Program.
- Staff conducted the annual Lake Winnipeg spawn monitoring at Hecla Beach to determine the progress of spawning Walleye.
- Staff assisted with the Zebra Mussel monitoring program with support for 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, Spring Creek mullet fishery, and numerous experimental fisheries throughout the region.
- Staff worked on the development of the new open marketing regulations, and provided information regarding the new regulations to commercial fishers and fish dealers within the region.

- Approximately 2,000 commercial licenses were issued to commercial fishers in the region. Commercial fishers issued 10,000 trade records and 2,500 load slips. The Central Region moved to a digital format of commercial fishing licenses.
- Staff attended ten commercial fishing meetings at various locations around Lake Winnipeg and Lake Manitoba to discuss the open marketing process and shared experience with the Minister and Deputy Minister regarding the New Fisheries Regulations.
- Staff participated in the Lake Winnipeg Co-management Board meetings, and subcommittee meetings to review the Lake Winnipeg administration procedures.
- Staff processed over 180 Lake Winnipeg quota transfers and 25 license transfers from Lake Manitoba and Lake St. Martin.
- The three-inch mesh size moratorium on Lake Manitoba resulted in a positive response and commercial fishers had a record walleye catch in the 2017 season, yielding more than 450,000 kgs of walleye harvested.
- The maximum mesh size requirement was implemented for Lake Winnipeg fishery with mesh size of 5.25” in the South Basin and Channel, and mesh size of 5.5” in the north basin.

Recreational Fishing

- Central Region staff worked with various game and fish clubs to provide information on changes to fisheries’ regulations within their areas.
- Central Region Staff issued 49 competitive fishing event permits to local game and fish clubs, organizations, businesses, and interested citizen for events like family reunions.
- Central Region fisheries and enforcement staff continued to monitor recreational fishing pressures across the region.
- Recreation angling on Lake Winnipeg continued to thrive, and anglers benefitted from the implementation of a max mesh size in the commercial fishery. Master angler walleye caught last year was approximately 500 compared to approximately 180 the previous year as reported to Travel Manitoba.

Crown Lands Management and Programming

- 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.
- Regional staff carried out responsibilities of 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 thus reducing the amount of time required for regional review of new casual quarry permit applications, forwarded from the Department of 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 continued to aid staff in Crown land management throughout the region and to improve efficiencies in the field.

Regional concerns are considered before land is allocated

- Land use allocations were reviewed by the Region's Integrated Resource Management Team to ensure regional natural resource issues and operational considerations (e.g. sales, leases, permits, assignments, development plans, municipal by-laws, Environment Act proposals, environmental pre-screening) are included.
- Indigenous land considerations, including reviews in accordance with existing Treaty Land Entitlement Agreements, continued for all Crown Land disposition applications within the region.

Compliance and Enforcement Activities

- Regional staff responded to 2,871 district occurrence reports from the public, a slight reduction from the previous year, related to problem wildlife, and regulatory and non-regulatory resource related complaints. In addition, staff provided representation 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 1,406 enforcement actions resulting in 605 prosecutions, 687 written warnings, and 114 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 8 per cent from the previous year. This was primarily due to greater enforcement efforts focusing on night hunting activities, which resulted in fewer contacts in the field as compared to other enforcement activities. The number of evictions from provincial parks increased by 31 per cent from the previous year. Even though there was an increase in 2017/18, the number remained well below the previous five-year average.
- The Central Region Enforcement Strategy continued to provide direction to enforcement staff to identify the priorities within the region. Adjustments were made to scheduling and patrol efforts to address the increased efforts requested to enforce night hunting legislation. Conservation Officers increased the frequency of patrols during early morning and after sunset. These efforts resulted in three night hunting apprehensions, two resulted in guilty verdicts, and the other is still before the court.

Problem wildlife and Non-Regulatory complaints

- Staff continued to conduct Bear-Smart presentations and provided recommendations on how the public can reduce human-wildlife conflict encounters.
- In 2017/18, the number of calls received in the region reduced by 33 per cent compared to the previous year (1,177). However, it was only slightly lower than the five-year average. Winnipeg and Grand Beach districts received the most problem wildlife and non-regulatory wildlife calls with over 650 calls combined. The amount of time required to address these calls greatly impacted the ability of the Conservation Officers in the districts to respond to enforcement issues.
- The number of black bear complaints in the Region increased from the previous year by 35 per cent, to a total of 595. The Grand Beach and Selkirk Districts accounted for 50 per cent of all calls and continued to be the area of greatest concern.
- The region immobilized and relocated most of the bears that were trapped. Each relocated bear was affixed with an ear tag for easy identification. The number of returning bears was higher than expected and relocation in this area appeared to only be a temporary solution requiring the need to deal with the same bears more than once.

Central Region Wildfire Program

- The Gypsumville District operated with two initial attack crews for all wildfire suppression activities in the Central Region. There were 19 fires within the Region in 2017.

Outreach / Special Programs

- The special conservation area located at the St. Andrews Locks was managed to protect pelicans from harm caused by fishing gear. 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. The improvements made to the lake at Birds Hill Provincial Park increased the need for greater enforcement presence during peak use times.

**Table PRS.10
12.2(d) Central Region**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,588	64.05	4,606	(18)	
Other Expenditures	1,055		1,048	7	
Total 12.2(d)	5,643	64.05	5,654	(11)	

Eastern Region

The Eastern Region includes numerous rural towns, First Nation communities from within the Treaty 1, 3 and 5 areas, 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 through 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 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 1,022 big game, 140 upland game bird, 94 migratory bird, 6,500 angler, 71 Snopass, and 375 work permit inspections in the region. In addition, there were 25 decoy wildlife operations and 91 park evictions.

Fire Management

- 84 wildfires occurred in the region, burning a total of 15,715 hectares. Of the 84 fires, 47 were deemed as human caused while 37 were started by lightning.

Wildlife Management

Woodland Caribou:

- Regional staff continued to collaborate to develop action plans for boreal woodland caribou tuned to federal requirements and provincial commitments, as boreal woodland caribou is listed as a threatened species under both the Federal Species at Risk Act and the Provincial Endangered Species and Ecosystems Act. The region has three caribou management units, of which one (Owl-Flintstone) is considered to be of high conservation concern.
- Regional staff participated on the National Boreal Caribou Technical Committee.

Community and Stakeholder Engagement:

- Two applications for a community-led wildlife-monitoring project were prepared and submitted to federal and provincial funding sources on behalf of Sagkeeng First Nation.
- Open houses, engagement sessions, and consultation meetings continued with Indigenous communities and leadership on topics such as moose hunting, provincial regulations, moose management, shared management and a proposal to extend the Chief George Barker Wildlife Refuge.
- Numerous presentations were delivered at meetings with wildlife associations and partnership groups on topics related to monitoring and management of moose, wolf and elk populations.
- A training and assessment workshop was held for volunteers interested in participating in aerial moose surveys. Representatives from three Indigenous communities and one wildlife association participated in the workshop. Three of the four participants subsequently participated in moose surveys of GHA 17A and 26.
- Regional staff continued to participate on the Vita Cross-border Elk Monitoring Partnership, a body with representatives from government, industry, the Nature Conservancy of Canada and the Rural Municipality of Stuartburn. The partnership group produced a public newsletter, which presents results on recent monitoring projects for the Vita elk herd.
- Regional staff participated on the consultation steering committee for the Manitoba Minnesota Transmission Line Project.

Department Mandates:

- Regional staff participated on two mandate committees: a) implement effective and innovative big game surveys; and b) develop comprehensive harvest co-management strategies.
- Regional staff attended a night hunting and shared management session held with Indigenous representatives from eastern Manitoba, and presented information on the status of regional moose populations.

Surveys, Monitoring and Research:

- Wildlife staff coordinated and flew aerial moose surveys of GHA 26 and 17A with the assistance of other regional staff, and wildlife staff from Wildlife and Fisheries branch and other regions. Wolf surveys were also planned for these GHAs. A wolf survey was flown in GHA 26.
- Wildlife staff coordinated and conducted an aerial survey of the Vita elk herd with the assistance of other regional staff and Wildlife and Fisheries branch staff.
- Staff conducted woodcock and sharp-tailed grouse (lek) surveys.
- As part of a continuing initiative with industry and Memorial University of Newfoundland, regional staff monitored the movements of GPS-collared wolves and moose, and conducted investigations of wolf kill sites. Additionally, another 34 moose and 12 wolves were captured and outfitted with GPS collars in late winter.
- Regional staff continued to monitor the movements of GPS-collared elk in the Vita herd, and hosted a meeting to discuss management of the cross-border elk herd with representatives from Minnesota Department of Natural Resources.

Fisheries Management

- As part of the ongoing long term Lake Sturgeon monitoring program, a population assessment was completed on the Lac Du Bonnet section of the Winnipeg River in 2017.
- 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. Testnetting on Lac du Bonnet, Pointe du Bois, and Manigotagan Lake were completed to determine the status of fish communities and monitor changes over time.

Regional Forestry and Peatlands Management

- The pine bark beetle (*Ips pini*) infestation expanded to approximately 20,000 hectares in the region. In response, regional forestry staff continued to implement Fire Smart harvest patterns around local communities and harvest other impacted areas to reduce the threat of wildfires.
- 242,709 cubic meters of timber was harvested within Forest Management Unit 24 and delivered in 2017/18. This represents 90 per cent of the sustainable harvest level.
- Forest renewal operations included the planting of 1.7 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 licensed peat harvesting areas.
- Regional staff continued to work with staff from the Department of Growth, Enterprise and Trade to develop a sustainable strategy for gravel pits and quarries in Provincial Forests.

Parks and Park Operations

- The region completed construction on five of the six yurts at Tulabi Falls Campground.
- A new modern washroom and shower building was completed and opened to the public in summer 2017 in the Falcon Lakeshore campground.
- Contracts were developed and work undertaken throughout the year to continue repairing roads and other infrastructure damaged during a heavy rain event that occurred in June of 2016.
- Completed upgrades to the water treatment plant for the West Hawk town site.
- A new water treatment plant at Caddy Lake was completed and brought to operation in 2017.
- In St. Malo Provincial Park, as part of the federal Clean Water and Wastewater Fund, a new water treatment plant was constructed.
- Repairs initiated and completed to the Nutimik shower building.

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

- Conservation Officers from the Eastern region continued to conduct patrols throughout Game Hunting Area (GHA) 26 to ensure compliance with the moose conservation closure.
- Regional staff conducted six aircraft assisted patrols to meet the provincial mandated effort to reduce night hunting and dangerous hunting activities.
- Regional staff hosted and participated in a lean event focusing on streamlining the ATV event permitting process.

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

- Regional and district staff continued to participate as provincial representatives at meetings with Indigenous organizations and communities. Some of these regular meetings and presentations include:
 - Resource Stewardship Board meetings with Bloodvein and Little Grand Rapids.
 - Committee for Cooperative Moose Management, a multi-partner body with representatives from the Manitoba Model Forest, Indigenous communities, Licensed hunting groups, government, industry and other stakeholders. The committee produced a report entitled Status Report of the Moose Population in Game Hunting Area 26: Challenges and Recommendations for Sustainability.
 - 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 within Provincial Parks and on Crown lands.
- Staff continued to meet regularly with the Manitoba Trappers Association, Manitoba Wildlife Federation, and other user and special interest groups.
- 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 RM councils, and railway companies to pre-plan for forest fire prevention and suppression operations.
- Regional Forestry staff worked with approximately 200 youth on the Scouts Canada tree-planting project in the Sandilands Provincial Forest.
- Regional staff were involved with making numerous school presentations on a variety of topics throughout the year.
- Regional staff continued to organize and participate in the Mars Hill Wildlife Management Area cleanup, which brought together local citizens in an effort to remove garbage.

Minimize the number of complaints related to problem wildlife.

- In an effort to reduce the number of complaints received, staff took initiatives to educate the public in regards to bear smart practices and similar approaches with other species of wildlife such as deer and wolves.

Regional concerns are considered before land is allocated.

- The Eastern Region vetted all Crown land dispositions and applications, licensing advisory committee, and mineral exploration applications by the appropriate district and the regional Integrated Resource Management Team for review and consolidation of comments/recommendations.

Table PRS.11
12.2(e) Eastern Region

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,458	70.60	4,759	(301)	1
Other Expenditures	765		777	(12)	
Total 12.2(e)	5,223	70.60	5,536	(313)	

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. The Western Region’s regional office is located in Brandon. Sub-regional offices are maintained in Dauphin and Swan River.

Administratively the region deals with 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 six of the seven 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 and punch bowls, 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 serve 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. A key aspect in overall resource management is Western Region staff continue to actively engage rights based organizations.

Key Results Achieved:

Parks and Park Operations

- In the spring of 2017, construction was completed at the Blue Lake's Group Use area, where sites received aesthetic and electrical improvements. This resulted in 10 family/group camping sites being added that offer electrical hook up and improvements were also made to the larger group use areas. Two new pit privies were installed.
- In the spring of 2017, Western Region Park staff assisted with the implementation of the Aquatic Invasive Species (AIS) containment and monitoring program at Singush Lake in the Duck Mountains.
- The main access road into Asessippi Provincial Park experienced slumping in the spring of 2017, and required monitoring and periodic repairs along with regular maintenance.
- During the summer of 2017, a number of cottages were inspected by the District Park Supervisors within the Turtle Mountain and Duck Mountain Provincial Parks.
- In the fall of 2017, campsite enhancement work began at William Lake Provincial Park in Turtle Bay that offers basic camping at William Lake Provincial Park.
- In the fall of 2017, Tundra Oil and Gas completed the removal of the oil wells and related infrastructure from Turtle Mountain Provincial Park.
- In the fall of 2017, additional holding tanks were installed at Childs, Blue and Wellman Lakes as part of the Region's trailer dumping station improvement plan.
- In the fall of 2017, trail improvements were made at a number of park locations within the region.
- Discussions with Canadian Forces Base Shilo were initiated regarding the development of a new punchbowl along the Assiniboine River within the boundaries of Spruce Woods Provincial Park.

Angler and hunter compliance

- Conservation Officers (COs) conducted 1,306 big game, 47 upland game bird, 117 migratory bird, 6,124 angler, 62 Snopass, and 774 domestic fishing compliance checks. COs also undertook 138 timber operation inspections in the region. As a result of these compliance checks, 304 charges were laid and 158 warnings issued.
- The spring Dauphin Lake and tributary walleye closure continued to be in effect during the spring spawning period. COs spent 260 staff-hours patrolling for compliance, which resulted in 17 written warnings for various offences. No major enforcement issues were encountered and cooperation was received from Indigenous fishers.

- Numerous decoy and night-time operations were conducted in all areas of the region with a focus on areas under a moose conservation closure, or where evidence of illegal or unsafe hunting practices were present. A total of 52 decoy operations were conducted resulting in 18 wildlife contravention charges. A total of six aircraft night surveillance flights were conducted throughout the region resulting in one truck seized and four subjects charged for night hunting. One investigation resulted in three subjects being charged and subsequently convicted for unlawful hunting of moose in the Duck Mountains closure areas.
- Enhanced compliance and patrol checks by COs and Park Patrol for the AIS program resulted in numerous warnings with a heavy emphasis on raising public awareness throughout the Region.

Fisheries Management

Public Outreach

- Western Region staff stocked approximately 18,000,000 walleye fry, 4,512 juvenile/adult walleye, 400 northern pike, over 6000 yellow perch and 292,100 salmonids in around 80 waterbodies throughout the Western Region. Staff introduced 35 muskellunge into Wastjack Lake, restocked Mossberry Lake with 184 yearling walleye and Glad Lake with 22,500 arctic char. Most of the stockings were done with support from local sport fishing groups and cottage association groups. These stockings helped establish new fisheries as well as supplement natural recruitment to diversify and enrich angling opportunities.
- Assisted local angling groups with Beautiful Lake walleye transfer and spring trap netting.
- Conducted stocked trout waters maintenance program with local user groups on East Goose Lake, West Goose Lake, Tess Lake, and Persse Lake. Non-salmonid fish were captured and transported to other waterbodies in order to rehabilitate the trout.

Fisheries Surveys/Monitoring

- Completed annual index netting on Lake of the Prairies, Dauphin Lake and Lake Winnipegosis, and commercial sampling on Lake Winnipegosis and Dauphin lakes. Also, completed the annual Dauphin Lake walleye spawning monitoring.
- Conducted lake sturgeon research on the Assiniboine River as part of fish population assessments.

Lake Management

- Continued working on a Sustainable Fisheries Management Plan for Swan Lake with Wuskwi Sipiik First Nation and the Swan Lake Commercial Fisher's Association. This work was considered the foundation for submission to achieve eco-certification as a sustainably managed fishery.

- Continued working on a Sustainable Fisheries Management Plan for Dauphin Lake with Treaty 2 representatives, and Lands and Waters Committee.
- Consulted with Treaty 2 and other Indigenous communities concerning proposed spring conservation measures for the walleye stocks in Dauphin Lake and its tributaries.
- Participated in the Shellmouth Dam Liaison Committee meetings to manage the Lake of the Prairies water levels to minimize impacts on fish stocks.

Aquatic Invasive Species

- Worked with Wildlife and Fisheries branch to develop an implementation plan for deploying an aquatic invasive species zebra mussel containment and monitoring plan within the region.
- A watercraft inspection station was sited in Swan River for the purpose of inspecting and decontaminating watercraft.
- Following a suspicious detection of zebra mussel in Singush Lake in Duck Mountain Provincial Park, Sustainable Development implemented a containment plan. To minimize the risk of spreading zebra mussels from Singush Lake, transient (day-use) boating activity was restricted; meanwhile cottager boat activity was regulated. The restricted boat access was in effect for the entire 2017 open water season.

Compliance and Enforcement Activities

- COs continued to combat illegal hunting and fishing activities.
- Regional enforcement staff initiated 643 charges, warnings, and evictions in 2016. Charges and warnings for Wildlife Act and Wildlife Regulation offences increased to 150 in 2017, up slightly from 147 the previous year.
- A large enforcement effort was conducted by Western Region COs during the last two falls to address illegal night hunting and other serious resource poaching offences. The effort included several hundred-person hours of night patrols, around three dozen decoy operations, several aircraft patrols, as well as special investigations and surveillances.
- Several moose were unlawfully poached in the moose closure areas of Game Hunting Areas (GHA) 18 and 18(c), with investigations ongoing. Additional patrols were conducted to combat the illegal activity.
- The Snopass Trails never opened in the southern part of the region due to lack of snow, but COs conducted several patrols in the northern part of the region checking 62 snowmobilers.
- 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.

- Compliance patrols were conducted in active cutting areas and charges were laid for various offences under the Forestry Act and regulations.

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

- Métis harvest rights continued in the region as higher numbers of Métis people exercised their right to harvest fish and wildlife. Consultation continued with rights based groups to foster greater involvement and cooperation in the decision making process. COs were able to use compliance contacts with Métis people to develop relationships and to educate the resource users on current enforcement protocols of the department.
- Conservation Officers attended youth hunts (as members and speakers), emergency preparedness displays, resource user functions (trapper's meetings, commercial fisher meetings, seasonal campground draws, cottage owner association annual general meetings, big game awards nights, junior rifle clubs, and the Manitoba Wildlife Federation Annual Convention), and local Envirothons.

Minimize the number of complaints related to problem wildlife

- 583 occurrence reports regarding problem wildlife were received by district offices in the region in 2017/18 revealing an increase in more than 100 than that of the previous year's record. 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.

Wildlife Management

Habitat

- The Manitoba Hydro Bipole III project erected towers and strung line throughout the region. Western region wildlife staff continued to monitor habitat encroachment and construction activities to aid in moose recovery in moose sensitive zones.
- Western Region wildlife staff continued to work for the potential creation of a new wildlife management area (WMA) named the Sclater-Pine WMA for protecting critical moose wintering habitat.
- 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.

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.
- Monitoring of fall mallard migration.
- Regional and branch staff conducted aerial surveys for elk in GHAs 18, 18A, 18B, 18C, and GHAs 28, 31A, and moose in parts of GHA 19A.
- A winter tick assessment was carried out in the spring of 2018 to monitor moose tick damage in the Moose conservation closure area.
- Regional staff assisted in the disease-monitoring program for Chronic Wasting Disease and Bovine Tuberculosis in the western region and assisted with disease risk assessment aerial monitoring.
- Regional staff continued to monitor bear scat to investigate unknown facts influencing calf moose and elk survival 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 to consult and inform about the current moose conservation closures, big game population, and other wildlife issues.
- Staff met with RM of Mountain council members and the Intermountain Conservation District to discuss concerns about beaver and water levels in the proposed Sclater-Pine WMA.

Wildlife Resource Use

- Staff continued to oversee the allocation of foreign resident big game licenses to licensed outfitters.

Forestry and Peatlands Management

- Coordinated with Integrated Resource Management Team in relation to 2018-2020 Annual Operating Plans for LP Canada FML#3 and Mountain Quota Holder Association FMU 12 and 14.
- Initiated Crown Indigenous consultation on 2018-2020 forest operating plans in the Western region.
- 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 and communities requesting access to salvage timber from declining stands. Efforts continued to maximize utilization of timber from developments such as quarries, agriculture and Hydro Right of Ways.

- Coordinated review of 80 work permit applications for timber harvest and forest operations related activities for 142 harvest blocks.
- Provided assistance to Conservation Officers on conducting timber inspections and compliance investigations including drone reconnaissance.
- Hosted a forest practice/ timber compliance training and review workshop for Conservation Officers in the Western region.
- Assisted Forestry and Peatlands branch with delivery of the provincial timber-scaling course in Swan River.
- Participated with Louisiana Pacific Canada Forest Management Planning Team for developing a Forest Management Plan for FML#3, including industry engagement plan and Crown-Indigenous consultation plan.
- Implemented contract tree planting of 8,000 spruce seedlings in Spruce Woods Provincial Forest on an area that had harvest of historic plantation in the previous year.
- Educated elementary school students on natural resources, 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.
- Conducted review of current and past Forestry General Permits, Timber Dealer Licenses, and Wood Processing Facility Licenses for compliance audit.
- Completed Crown Land Code Review for FMU 11 (RM of Mountain South) with Block Planning Committee.
- Provided assistance to Forestry and Peatlands on Wood Supply Analysis for historic plantations in Spruce Woods Provincial Forest FMU 4.
- Provided support to Wildlife and Fisheries branch for Western region population and disease surveys.

Crown Lands Management and Programming

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

- The Regional Land Managers (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 to other provincial and federal government departments, 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 License Advisory Committee for collating of responses from various disciplines of the Western Region in the review of applications.
- The RLM assisted Government's cottage lot development initiative, by continually identifying sites and assessing their potential for cottage lot development. This initiative required consultation, partnerships with Indigenous communities and municipalities for future cottage subdivisions.
- The RLM assisted the East Duck Watershed Group in understanding options surrounding Crown lands water management issues in the Rural Municipalities of Mountain, Ethelbert, and Mossey River.
- The RLM participated in the Unmanned Aerial Vehicle (UAV) Ground School Course to complete requirements needed for Transport Canada's Certificate of Completion for flying UAVs in Complex Air Space.
- The RLM evaluated Casual Quarry Permits within Western Region to ensure that Western Integrated Regional Management Team concerns addressed.
- Employed one summer staff through Student Training Employment Program (STEP) to assist with developing efficiencies to the Crown land regional program. Directives included reviewing Crown land inventory, correcting and mapping spatially, assisting Lands branch with Grants in Lieu lands, and review/mapping encumbrances in the Western Region.
- 41 applications addressed by the Western Region from April 1, 2017 to March 31, 2018 included:
 - o 12 Easements
 - o 8 Leases and Permits
 - o 1 Licence of Occupation, and
 - o 20 Purchases

Key Results Achieved:

- Western region continued to update a number of outstanding Crown land use codes covering Rural Municipalities of Mountain South, Alonsa, and across the western region.
- Coordinated and assisted in the development of drone technology for reviewing Crown land parcels for land management decisions. These activities included assisting with hydrological review for culvert replacements in a cottage subdivision, investigations for night hunting, environmental spill assessment and practices, and beaver management options.
- A majority of Western region's encumbrances were reviewed for discrepancies with further onsite investigations that are ongoing. Majority of the encumbrances that were mapped spatially would further assist in compliance reviews and the overall application process.
- Continued to work with four Indigenous community councils including Camperville, Duck Bay, Dawson Bay and Barrows community councils to coordinate Crown land encumbrances within their community plans.
- Contributed to the completion of 14 geophysical (seismic) application, of which 9 were completed in Manitoba and amounted to \$2.98 million spent in the province of Manitoba in 2017.

Wildfire Suppression Activities

- The Western Region had two Initial Attack (IA) crews located at the firebase in Swan River. These crews, along with district fire rangers, provided logistical support and are the backbone of wildfire suppression activities within the region.
- As fire conditions were dictated, additional IA crews were brought into the region to assist; also, the Western Region crews were deployed outside the region to assist in wildfire suppression activities in other locations. Only 5 wildfires occurred within the region in 2017. Conservation Officers were dispatched to other regions to assist with wildfire suppression activities and wildfire investigations.

Table PRS.12
12.2(f) Western Region

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	5,054	69.30	4,941	113	1
Other Expenditures	888		899	(11)	
Total 12.2(f)	5,942	69.30	5,840	102	

1. Over-expenditure is due to Special Pay adjustment and overtime paid.

Parks and Protected Spaces

Parks and Protected Spaces branch is responsible for managing provincial parks, ecological reserves, and the Canadian Heritage Rivers System, as well as building a protected areas network for the long-term benefit of Manitobans and the environment. These lands help protect unique 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 \$18.5 million in revenue from persons using the parks for personal enjoyment, commercial use and general use.
- Park visit frequencies reached approximately 5.2 million with cabin, yurt, and group use and campsite reservations numbering 74,743.
- There was a continued focus on environmental infrastructure including water and wastewater systems and investments for 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 resource 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 that implement 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. Through the Protected Areas Initiative, it 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:

- Participated 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, Ministers Task Group on Marine Protected Areas, and the National Steering Committee and Communications Committee of Pathway to Canada Target 1.
- Reviewed Environment Act License proposals, Crown land circulars and related items for proposed developments to assess possible implications on lands of interest administered by the branch (provincial parks, park reserves, ecological reserves, areas of special interest, and 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, reviewing park reserves for permanent designation and establishing both new and revised park boundaries, classifications, primary park goals and objectives, and land use categories. These activities are done via consultation involving the public, industry, stakeholders, Indigenous communities, and government agencies. The program is also responsible for Manitoba's Ecological Reserves Program, including the designation and management of ecological reserves.

Key Results Achieved:

- Advanced the department's mandate to conduct required consultation for the future of land under park reserve status.
- Two park reserves, Goose Islands and Grand Island, were permanently designated as provincial parks, contributing over 1,170 hectares to the Protected Areas Network.
- Pemmican Island Park reserve was lapsed to allow reopening for mineral exploration for a period of time. The Branch maintained an interest in pursuing the future protection of Pemmican Island.
- Public consultation began on Turtle Mountain and Duck Mountain provincial parks to change land use categories in order to increase the amount of area protected in the parks.
- Remediation and restoration of natural vegetation work continued by Tundra Oil and Gas on the former oil and gas well sites at Lulu Lake in Turtle Mountain Provincial Park.

- A park planning process was initiated for three parks in the Northeast region, involving the expansion of park boundaries for Zed Lake, Burge Lake, and Pisew Falls provincial parks.
- Work continued on the restoration of tall grass prairie in the Cordgrass and Millennium sites in Beaudry Provincial Park.
- Continued to work to engage with local Indigenous people on the polar bear study area.
- Interim restrictions were put in effect for licensed trapping within provincial parks until a review of trapping activities in relation to public safety was completed.
- Invasive species management initiatives were undertaken in St. Malo Provincial Park (herbicide application for leafy spurge and 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:

- The Ecological Reserves Advisory Committee was dissolved and work began on drafting terms of reference and membership recommendations for a new Endangered Species, Ecosystems and Ecological Reserves Advisory Committee.
- Bats were monitored for white-nosed syndrome in Walter Cook Caves and Lake St. George Caves ecological reserves.
- A security gate was installed at a cave entrance in the Lake St. George Caves Ecological Reserve to protect the little brown bat hibernacula in Manitoba.
- Line Lake Fen's nomination as an ecological reserve in Duck Mountain Provincial Park, was reviewed and it was determined that a backcountry land use category under The Provincial Parks Act would be a more suitable designation.

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, while ensuring the main purposes of the park 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:

- Management plans were completed for Grand Valley, Criddle/Vane Homestead, Oak Lake, Rivers, Seton, and William Lake provincial parks in the Western region and Yellow Quill, Kinnow Bay and Sturgeon Bay provincial parks in the Central region.
- Work continued on management planning processes in the Eastern Region for Manigotagan River and Nopiming provincial parks, in the Northeast region for Burge Lake, Paint Lake, Pisew Falls, Sasagiu Rapids and Zed Lake provincial parks, and in the Northwest region for Little Limestone Lake Provincial Park.
- A management planning process was initiated for Grand Island and Goose Islands provincial parks in the Western region.
- Work continued 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.
- Ten year monitoring reports were completed for the Hayes and the Red Rivers which are designated Canadian Heritage Rivers.

Protected Areas Initiative

The Protected Areas Initiative 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 with direct or indirect 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 communities 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 Canada, Nature Conservancy of Canada, and Nature Manitoba.

In Manitoba, protected areas are land, freshwater, or marine areas identified for biodiversity conservation 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:

- Continued interdepartmental reviews 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.
- Began review of lands purchased through the Nature Conservancy of Canada's Manitoba Region Conservation Program Grant Funding Agreement for potential inclusion in the protected areas network.
- Reviewed Environment Act license proposals, Crown land circulars, and related items for proposed developments to assess possible implications on lands of interest to the Protected Areas Initiative. Maintained effective relationships with other governments, non-government organizations, and Indigenous organizations.

Development and Operations

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 budgeting and management of projects. This Unit also provides landscape architectural and project management capacity, overseeing the design and implementation of capital works projects within provincial parks. A major function of the Unit is the development of new facilities and improvements of existing facilities, ensuring parks have maintainable, operable, and accessible facilities that meet visitor expectations and functional requirements.

Key Results Achieved:

- Completed improvements to seasonal camping sites at William Lake Provincial Park.
- Initiated design for accessibility improvements at Pisew Falls Provincial Park.
- Construction was completed at Birds Hill Provincial Park's west gate including the definition of three traffic lanes, 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.

- A new entry road at Spruce Woods Provincial Park was constructed.
- Warranty work was completed on the Winnipeg Beach Seawall project. Work continued on the soccer field improvements associated with this project.
- Design work was completed for new campground offices at Spruce Woods and Asessippi Provincial Parks.
- Construction of a new yurt village at Tulabi Falls in Nopiming Provincial Park was completed.
- Design work was completed and a tender package prepared for wastewater facility improvements at Adam Lake in Turtle Mountain Provincial Park.
- 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 Wekusko Falls Provincial Park and Opapiskaw and Caddy Lake campgrounds in Whiteshell Provincial Park.
- An environmental license was drafted for the Grand Beach wastewater lagoon upgrade project.
- Construction was completed on a new water treatment plant at St. Malo Provincial Park matching federal funding dollars.
- Minor upgrades were completed at the Spruce Woods Provincial Park water treatment plant.
- Plumbing improvements were completed at the Nutimik shower building in Whiteshell Provincial Park.

Park Operations and Services

The Park Operations and Services Unit provides centralized support and financial coordination for park operations and the delivery of core services within provincial parks. The Unit coordinates the development of policy and procedures for park operations and ensures any regulatory requirements are implemented. The Unit supports regional operations, design and development, and cottaging and commercial development by providing financial analysis and coordinating budget decisions for operations planning, park improvements, and service delivery. This financial responsibility includes the administration, maintenance, and reporting of budgets for Parks Part B Capital, Parks Minor Capital, and Property Service Fees. Because these budgets are correlated to core service and impact the fees charged to cottage/commercial lease holders through the Park District Service Fee program, the Unit provides the analysis and financial administration for that program and manages the associated revenue stream.

Key Results Achieved:

- The Unit was formed in 2017/18 in response to re-organization, staffing changes, and identifying objectives. Some previous roles fell within the Development and Operations Unit, the Cottaging and Commercial Development Section, and Financial Services Branch. Some new roles were added to unit objectives in order to improve fiscal responsibility in the division with respect to park operations.
- The Unit worked with the Water Services Board on a new process for routine assessment of water treatment plants, implementing “qualified person” and “self-assessment” categories to replace the former “professional engineer” requirements on small systems. The Unit coordinated training for certified operators for the new system.
- Developed a new strategy for the prioritization of capital projects and a new system for capital planning in coordination with Financial Services branch.
- The Unit took over the Park District Service Fee Program administration roles and responsibilities due to the inherent correlation between that program and operations/infrastructure planning decisions.
- The Unit joined the Cottaging and Commercial Development Section to better represent Manitoba parks in ongoing consultations with the Manitoba Provincial Parks Cottage Owners Association and the development of a new model for Park Land Lease and Park District Service Fees collection from cottagers.
- The Unit coordinated equipment renewal and the inventory improvement program for all park operations, adding: two specialized beach cleaning machines for the removal of Zebra Mussel shells on Lake Winnipeg beaches, a new tractor and attachments for Grass River, new garbage packer trucks for Falcon Lake and Hecla, and a new multi-purpose work machine for Duck Mountain.

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. It 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, yurts, and group use facilities by providing fair and equitable access to provincial parks. The program ensures that both field and head office staff provides quality customer service. The Parks Reservation Service and Seasonal Camping Service are major components of the recreation programming unit.

Key Results Achieved:

- The Unit ensured delivery of recreation programming in Manitoba's provincial parks including night-stay and seasonal camping, cabins and yurts, group use, parks reservation service, and campground hosting.
- Reservations were made available through a call center, online and through 32 campground offices in 2017. There were three opening days for reservations. Cabin, yurt, group-use area, and Birds Hill campground reservations opened mid-March, followed by Whiteshell and Winnipeg Beach, and all other campgrounds opened on the first Monday in April.
- Paint Lake Campground opened 6 yurts in 2017. There are 69 yurts across 9 provincial parks, and 34 cabins in 2 provincial parks.
- Infrastructure improvements were seen at several campgrounds in 2017. Manipogo, Rainbow Beach and St. Malo campgrounds expanded their offering of electrically serviced sites. New family group-use campsites were developed at Rainbow Beach and Blue Lakes campgrounds within the existing group-use areas, and all showers were converted to pay showers at St. Malo campground.
- The department worked with the Canada Summer Games to host three sporting events at Birds Hill Provincial Park.
- Park programs and initiatives were promoted through daily tweets, Facebook posts, 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. Promotional items were distributed 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 45,365 visitor contacts at three provincial park beaches during summer 2017. The nature of contacts consisted of public inquiries, child supervision reminders to parents/guardians, and injury prevention education. BSOs responded to 7 major medical emergencies and 13 water rescues. Beach safety services are provided under service 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 experienced great success in intercepting thousands of risky behaviours from occurring over the years. However, three unfortunate and tragic incidents of drownings happened at Grand Beach Provincial Park and Birds Hill Provincial Park beaches in August 2016. Immediately following the 2016 incidents, the department conducted a review of the program and developed operational enhancements to strengthen an already effective program. In June 2017, the Beach Safety review document was made public, highlighting a continuing commitment to water safety programming by implementing enhancements in public education, emergency response, incident command, and operational functions. The review was positively received by the Manitoba's Chief Medical Examiner.
- The Minister issued a proclamation for National Drowning Prevention Week, calling attention to boating and water safety practices that are necessary when participating in summer recreational activities.
- 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. This international designation recognizes the beach's high standards of services related to environmental management, water quality, environmental education, and safety.
- 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 continued 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 new Canadians.

Interpretation

The Interpretation Program offers visitors a deeper understanding and appreciation of natural and cultural resources in the 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 Assistants provided supports at these parks.

- Interpreters at St. Malo Provincial Park continued to focus on Beach Smart program messaging to beach users.
- Interpreters at Grand Beach delivered programming at Winnipeg Beach in order to maintain the Blue Flag designations at both locations.
- Interpreters contacted approximately 57,713 visitors at interpreter led events and in interpretive centers and museums. The average individual program attendance increased by 30 per cent, demonstrating a strong interest and demand in interpretive programming. However, the number of contacts remains down about 40 per cent from the long term average, attributed to the continued reduction of park interpreter positions across the province since 2013.
- School programs were conducted in all seven 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 275 school programs to approximately 10,000 Manitoba students.
- Hosted three 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 program 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 eight trails in five parks.
- Updated self-guiding trail publications for four locations.
- Park Rewards Programs continued through children's activity booklets and the Passport to Adventure. These were available for distribution in every campground and at every interpretive event. Three children's activity booklets were available – Nature Detectives (ages 3-5), Junior Naturalists (ages 6-9) and Park Explorers (ages 10-12). The Passport to Adventure is available for everyone. To date, approximately 2,000 park visits have been prompted by the program since its inception in 2009.
- 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 centers.
- The Manitoba Parks Twitter channel was coordinated through the Interpretation Unit. A new Manitoba Parks Facebook page was launched in January 2018. Daily content focused on promoting recreation, interpretive programs, and park news.

Key Program Outputs:

Outdoor Recreation Programming	Amount
Number of visitors	5.2 million
Total Number of campsites*	6,126
Transient Campsites*	4,528 (4,060 available for reservation or 89.6%)
Transient Camping Nights	218,545
Seasonal Campsites (number does not include Permanent Trailer Village or Concessionaire campsites)*	1,528
Campgrounds offering reservation	44
Group Use Sites**	95
Family Vacation Cabins	34 (at 2 locations)
Yurts	69 (at 9 locations)
Reservations	74,370,318 (87% of camping stays in computerized locations reserve ahead)
Reservation Rate, compared to 2015/16	4,425 more reservations or 6% increase
Reservations made through Web	85%

* 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 the department mandate of “a two-year moratorium on all lease and service fees for cottages found within provincial parks.” In July 2016, the province announced a regulated two-year moratorium on previously projected increases to park land lease and service fees for cottages in provincial parks.
- In January 2018, government extended the July 2016 moratorium on lease and service fee increases for provincial park cottages, for an additional 2 years extending from July 2018 to July 2020.

- Revisions were made to the development application package for cottagers as the result of a lean workshop, creating an updated package to achieve a more streamlined review process.

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:

- 325 permits were issued for cottage construction or structural modification (April 1, 2017 – March 31, 2018).
- 94 vacation home leases were renewed in 2017, and 455 leases renewed in 2018. Each lease renewal required an onsite inspection.
- \$7.8 million revenue generated in land rent, service fees, permits, chief place of residence levy 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 park visitors.

Key Results Achieved:

- Cooperated with approximately 149 commercial operations like restaurants, stores, accommodations, golf courses, marinas, and concessions throughout Manitoba’s provincial parks.
- There were 44 special consideration organizations throughout Manitoba’s provincial parks.

**Table PRS.13
12.2(g) Parks and Protected Spaces**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	16,600	247.75		336	1
Other Expenditures	10,554		16,264	1,184	2
Grant Assistance	460		9,370	(1)	
			461		
Total 12.2(g)	27,614	247.75	26,095	1,519	

1. Over-expenditure is due to not having enough vacancies to meet the staff turnover allowance.
2. Over-expenditure is due to higher Crown Land and Property Agency service costs, replacement of equipment for Warehouse that burned down, higher volume of recycling and garbage, fire wood purchase (unbudgeted), 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.

Key Results Achieved:

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.

- The 2017 wildfire season started slow but accelerated rapidly in the last week of July with fire numbers going from 122 on July 22 to 559 for the wildfire season.
- Full response fires totaled 359, limited response totaled 200. 423 fires were caused by lightning, while 136 cases were human induced.
- Six communities were evacuated due to smoke and threat of fire.
- Value protection was once again a major part of the suppression operations on several remote fires as well as wildfires near communities. Wildfire Program staff worked with staff from the Office of the Fire Commissioner on several fires throughout the season.
- Manitoba Wildfire program was able to provide assistance to BC, NT, SK and Minnesota with personnel, aircraft and equipment early in the season. When the situation escalated, other agencies came to assist with personnel, equipment and airtanker resources.
- The weather pattern throughout the winter and spring resulted in drought conditions in the south.

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

As reported by the regions in weekly reports, the following statistics apply to human induced fires:

- 136 human-induced fires were reported.
- Fire investigation teams investigated 70 human induced fires.
- Human induced fire investigations resulted in 12 prosecutions and 26 warnings.

- Certified wildfire investigators investigated 21 human-induced fires. The statistics are as follows:

Human Induced Fires by Region		Investigated
Central	30	4
Western	7	2
Eastern	22	6
Northwest	10	4
Northeast	26	5
Total	95	21

Wildfire Causes	
Intentional	43
Accidental	25
Negligence	24
Unknown	3
Total	95

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.

Air Operations

- The 2017 wildfire season got off to a slow start due to cool wet weather in April.
- Single Engine Air Tanker (SEAT) aircrafts were activated for spring training on April 19th, then released after five days due to cool damp weather.
- The first 415 group was activated for alerts out of Winnipeg on April 28th.
- The first air tanker dispatch occurred on April 30th.
- Positioned a 415-group to southern base on May 1st.
- The first helicopter contract began on May 1st.
- Fire activity was mostly quiet throughout the province during the months of April, May and June. A large-scale fire in late May in the north forced the evacuation of the community of Red Sucker Lake.
- Frequency of fire picked up in early July and remained steady throughout the remainder of the season as several large fires forced the evacuation of numerous remote northern communities.
- The first air tanker group was released on September 18th, the second on 19th, and the final group was released on 20th subject to 24-hour call response.
- A 415- group was reactivated for short period in mid-October to respond to grass fires in the south.
- Manitoba had five helicopters on long-term contract for the 2017 season.
- Total aircraft expenditures were approximately \$19.4 million in 2017 compared to \$14.4 million in 2016 and \$16.9 million in 2015.

Aircraft Utilization Summary:

Fixed Wing Aircraft

	<u>2017</u>	<u>2016</u>
• <u>Air tankers / Birddogs / MGAS Otters</u>		
MGAS CL-215 / 415 hours flown:	885.1	480.1
MGAS Birddog hours flown:	482.1	262.7
Casual hires, Birddog / SEATs hours flown:	8.7	33.7
Casual hires, SEAT hours flown:	22.3	101.9
MGAS Otters, hours flown:	868.9	594.3

Rotor Wing Aircraft

	<u>2017</u>	<u>2016</u>
• <u>Helicopters / Long term contract:</u>		
Intermediate R/W hours flown:	526.6	384.5
Medium R/W hours flown:	1,251.5	732.8
• <u>Helicopters / Short term contract:</u>		
Light R/W hours flown:	142.1	14.0
Intermediate R/W hours flown:	2,234.5	796.4
Medium R/W hours flown:	851.1	439.7

Exports:

- 3 CL-415 group quick strikes to Ontario (two in July, one in August)
- 1 CL-215 Air tanker drop test to Ontario in June
- 6 CL-215 group quick strikes to Saskatchewan in July and August

Imports:

- 1 Ontario CL-415 group quick strike in August
- 1 CL-415 from Newfoundland (August 15th – Sept. 2nd)
- 1 CL-415 group from Ontario (August 31st – Sept. 13th)

Science and Technology

Public webpages were improved with a focus on better sharing of weather and fire information through the WeatherView and FireView mapping products. The public and news media found the pages useful in locating where the fires are currently burning in the province, as well as time and historical information. The maps and data are also being used by the Canadian Forest Service on their public website.

Site preparations were completed on the Cranberry Portage weather station site. Regular maintenance was done on existing sites with regional fire crews assisting with vegetative management.

Automation continued with the creation of new weather forecast products that display and compare key weather elements for the major numerical weather models. These products assist weather section staff in their daily forecasting for regional staff.

To assist in the prevention of forest fires through public education

- Developed and provided public displays, education materials, and advertising materials specific to Manitoba as public education tools in the thematic areas of wildfire awareness, wildfire preparedness, and fire danger.
- Analyzed regional and seasonal trends in human induced fires to ensure effective and efficient messaging.
- The Provincial Wildfire Prevention Committee met to discuss prevention initiatives based on trends in Manitoba's human induced fires to determine 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 program, including developing and implementing wildfire protection and hazard mitigation initiatives such as vegetation management plans for the forest surrounding communities and cottage subdivisions to mitigate the risks of wildfires.
- Attended the Assembly of Manitoba Chiefs' Manitoba First Nations Wildfire Preparedness Forum in Thompson.
- Discussed FireSmart concepts and initiatives with interested rural municipalities to introduce FireSmart concepts and the importance of preparedness planning.
- Worked on the development of a Community Wildfire Preparedness Plan, including a pre-response plan and sprinkler deployment plan for the city of Thompson in the Northeast Region.
- Developed a position to collect wildfire hazard assessment data for response plans in the Provincial Parks and periphery areas of the Northwest Region.
- 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 program and wildfire prevention initiatives.
- Continued direct public outreach activities involving children 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 tools.

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

Provincial Wildfire Training:

- 28 - Initial Attack Fire Fighters (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
- 40 - Initial Attack (Type I) Crew Leaders
- 25 - Type II Emergency Fire Fighters
- 10 - Type II Emergency Fire Fighter Crew Leaders
- 93 - Type III Emergency Fire Fighters
- 10 - Type III Emergency Fire Fighter Crew Leaders
- Wildfire program facilitated the development of a chainsaw instructor course

National and International Wildfire Training:

- Incident Command System training was contracted through the Office of the Fire Commissioner. 28 department employees were trained and certified to ICS 200 and/or ICS 300 ensuring compliance with national training standards for fireline supervisors.
- Membership in the Great Lakes Forest Fire Compact (GLFFC) facilitated participation by 10 employees in L-380 Fireline Leadership training in Hecla, MB.
- Three staff were nationally certified in Advanced Wildland Fire Behavior and one instructor assisted in the course delivery in Sault Ste. Marie, ON.
- Three department employees participated in a GLFFC delivery of the All-hazard Division Supervisor course provided by Minnesota in coordination with the Great Lakes Forest Fire Compact.
- Two department staff received Facilitative Instructor Training at the M410 course, delivered in Grand Rapids, MN, in coordination with GLFFC.
- One staff member participated in and evaluated an ICS Canada All Hazard Resource Unit Leader course through the Canadian Interagency Forest Fire Center (CIFFC) in Winnipeg.

- One staff member received Fire Behaviour Analyst training in Hinton, AB through CIFFC.

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.

Plans and proposals completed in 2017/18:

- 15 Hotsy® steamers were purchased for the Aquatic Invasive Species program locations within the province.
- An additional WFX-FIT trailer was purchased and outfitted for the Northeast Region to secure and move fitness equipment throughout the region.
- A trailer purchased in 2016 as a value protection unit was outfitted with shelving and equipment. All three regions now have the units to protect critical infrastructure and cottage subdivisions.
- Equipment was provided by both Wildfire Program and the Office of the Fire Commissioner to outfit a 53 foot semi-trailer value protection unit for joint use and increasing the province's value protection capability.

Imports and Exports

- One quick strike from Ontario with a CL415 air tanker group occurred in 2017.
- Imports from other Canadian agencies in 2017:
 - o One CL415 airtanker from Newfoundland on August 14
 - o 5/4p Type 1 Initial Attack personnel and Agency Representative from Northwest Territories on August 21
 - o 5/4p Type I Initial Attack personnel and Agency Representative from Ontario on August 29.
 - o One CL415 airtanker group from Ontario in late August 30
 - o 100 Sprinkler kits from Ontario on August 31
- Imports from United States through Great Lake Forest Fire Compact in 2017:
 - o 3/4p Type 1 Initial Attack personnel and Agency Representative from Minnesota on August 17
- Exports to other Canadian Agencies from Manitoba in 2017:
 - o One CL215 airtanker to Ontario for drop test purposes and three separate CL415 airtanker Group Quick Strike deployments into Ontario during June and July
 - o Two separate CL215 airtanker Group Quick Strike deployments into Saskatchewan in August along with one Helicopter Quick Strike
 - o One Air Attack Officer to Northwest Territories in July

- o 3/4p Type I Initial Attack personnel and Agency Representative to British Columbia in July
- o 50 Mark 3 Pump Kits and 1,000 lengths of 1.5” fire hose to British Columbia in July
- o Helicopter and Ignition Specialist and Mixer to Saskatchewan on August 28
- Exports to the United States through the Great Lakes Forest Fire Compact in 2017:
 - o Two separate deployments of Air Attack Officers to Minnesota, one in April and the second in May.

Table PRS.14

2017 - Number of Fires and Area Burned by Region and Cause

2017 CAUSE	Northeast		Northwest		Western		Central		Eastern		Province	
	# 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	24	8.7	3	0.7			1	0.1	11	8.7	39	18.2
settlement	14	594.9					2	229.6	4	6.7	20	831.2
woods operations	1	0.1									1	0.1
other industry	7	42.2	1	0.1					4	25.7	12	68.0
railroads												
public projects	1	0.1					1	0.1	3	8.5	5	8.7
incendiary	18	69.6	2	0.3	3	151.2	14	158.9	4	6.9	41	386.9
miscellaneous	4	0.6	1	6.2			1	0.1	10	23.0	16	29.9
agricultural							2	22.9			2	22.9
lightning	279	203,521.2	93	4,614.9	2	13.3	1	0.3	48	15,635.6	423	223,785.3
all causes	348	204,237.4	100	4,622.2	5	164.5	22	412.0	84	15,715.1	559	225,151.2

Note: In the 2017 fire season the MODIS satellite was used to detect 41 wildfires in the observation zone which accounted for a burned area of 24,531.2 hectares.

Table PRS.15

2017- Number of Fires and Area Burned by Priority Zone and Action Status

2017	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	198	55.31%	2870.3	24.23%	8	7.92%	152.6	0.33%	5	5.00%	31.3	0.02%	211	37.75%	3054.2	1.36%
YELLOW	21	5.87%	52.4	0.44%	1	0.99%	1	0.00%	2	2.00%	1505	0.90%	24	4.29%	1558.4	0.69%
GREEN	72	20.11%	5847.3	49.36%	49	48.51%	24508.6	53.23%	46	46.00%	57711.1	34.50%	167	29.87%	88067	39.11%
WHITE	67	18.72%	3075.9	25.97%	43	42.57%	21377.5	46.43%	47	47.00%	108018.2	64.58%	157	28.09%	132471.6	58.84%
ALL ZONES	358	100.0%	11845.9	100.0%	101	100.0%	46039.7	100.0%	100	100.0%	167265.6	100.0%	559	100.0%	225151.2	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 PRS.16
2017 - Area burned by Priority Zone

2017	Zone Area (ha.)	Hectares Burned	% of Zone Burned
Red	11,415,633.5	3,054.2	0.027%
Yellow	685,691.0	1,558.4	0.227%
Green	9,770,018.8	88,067.0	0.901%
White	23,081,244.9	132,471.6	0.574%
All Zones	44,952,588.2	225,151.2	0.501%

Figure 2
Number of Fires, 2001 - 2017

Number of Fires, 2001 - 2017

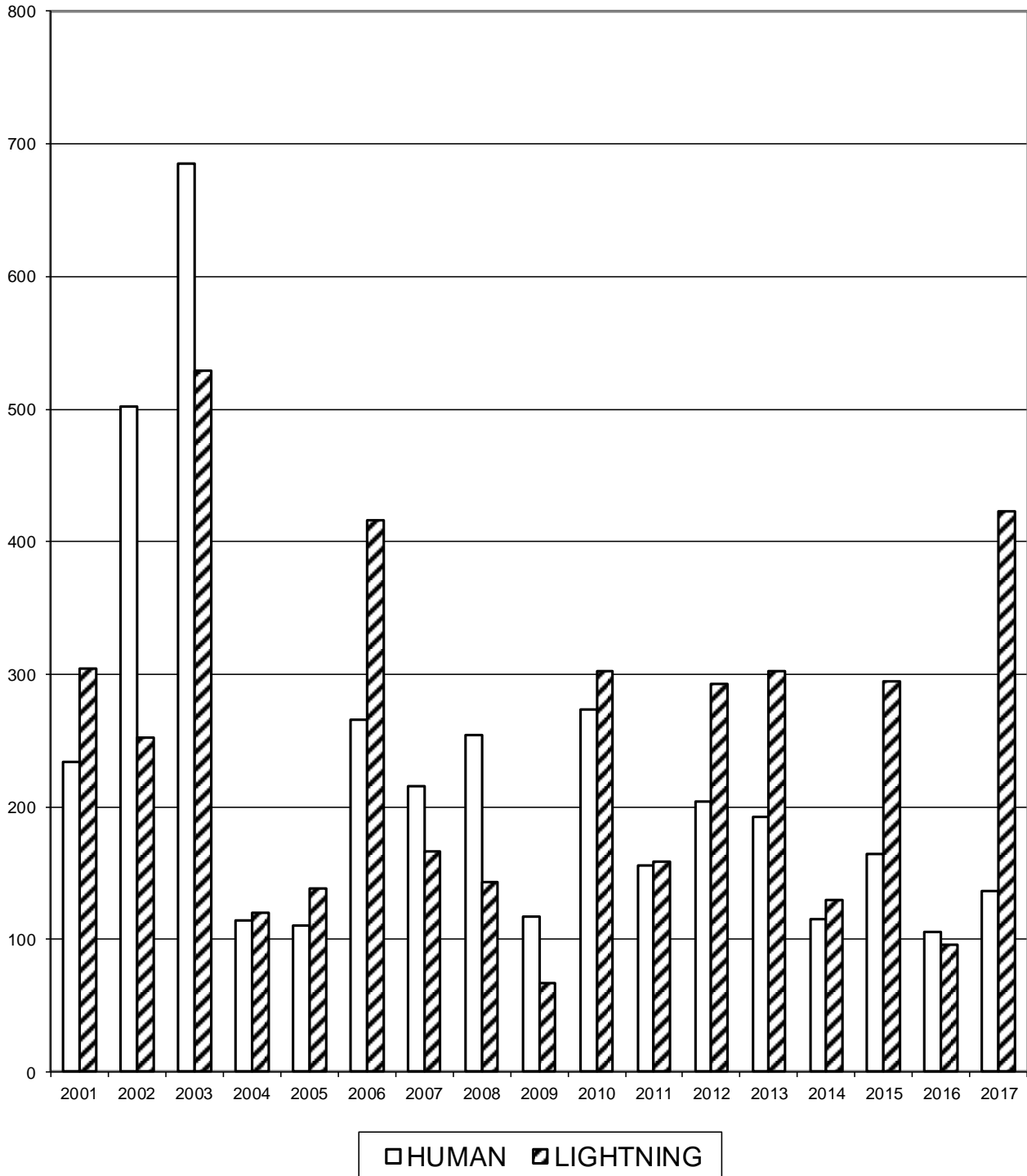


Figure 3
Area Burned 2001 - 2017

Area Burned (hectares) 2001 - 2017

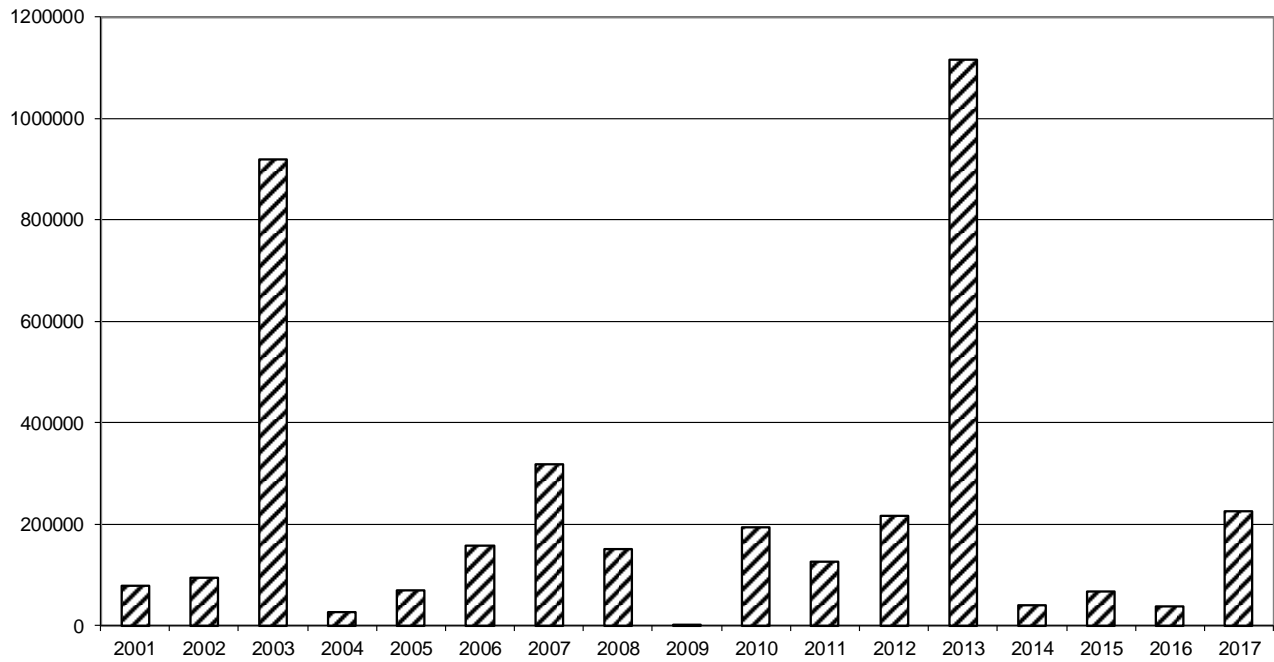


Table PRS.17
12.2(h) Fire and Emergency Response Program

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	11,015	65.25	6,807	4,208	
Other Expenditures	4,274		10,555	(6,281)	
Less: Recoverable from Emergency Expenditures	(488)		(500)	12	
Total 12.2(h)	14,801	65.25	16,862	(2,061)	1

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

ENVIRONMENTAL STEWARDSHIP

Divisional Administration

The Divisional Administration ensures the development, implementation and coordination of government-wide climate change programs and ensures the management and implementation of the environmental policy, program and enforcement functions for the department, and makes sure that environmental impacts of developments are evaluated. Also, it ensures the delivery of emergency response programming related to environmental emergencies.

Table ES.1
12.3(a) Divisional Administration

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	399	5.00	418	(19)	
Other Expenditures	46		44	2	
Total 12.3(a)	445	5.00	462	(17)	

Environmental Compliance and Enforcement

The purpose of the Environmental Compliance and Enforcement branch is to undertake inspection activities, enforce legislation to ensure regulatory compliance, and 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 might impact the environment by the release of pollutants and contaminants with a view to ensure compliance with Manitoba's environmental legislations.
- Enforced environmental legislation for ensuring compliance through education, negotiation, investigation, warnings, orders, offense notices, and long information. The legislation includes The Environment Act, the Dangerous Goods Handling and Transportation Act, The Contaminated 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

- One half of branch staff completed basic enforcement training with a new curriculum.
- Completed work on a manual for the training and evaluation of new staff.
- Conducted particulate air monitoring survey around the Mission Industrial Park.

Emergency Response

- The Environmental Emergency Response Program received over 1,800 calls to the Emergency Response 24-hour line, with 514 incidents handled directly by the Emergency Response Team and/or regional designates. The Emergency Response Coordinator received approximately 500 additional non-emergency enquiries related to the transportation of dangerous goods and environmental emergencies.
- The Environmental Emergency Response Program maintained operational readiness through a range of ongoing environmental emergency training events and exercises.
- The Environmental Emergency Response Program participated on the:
 - Canadian Council of Ministers of the Environment (CCME) Environmental Emergencies Working Group
 - Transport Canada's Transportation of Dangerous Goods Task Force and National Compliance Working Group
 - Advisory Committee member for the Multi-Partner Oil Spill Research Initiative, a sub-initiative of Canada's Oceans Protection Plan

**Table ES.2
Environmental Legislation Enforcement Summary 2017/18**

Legislation	Prosecutions	Warnings	Orders	Fines(\$)
Contaminated Sites Remediation Act	-	-	-	-
The Dangerous Goods Handling and Transportation Act	2	2	-	\$1,600.00
- Storage and Handling of Petroleum Products and Allied Products Regulation	2	12	-	\$2,594.60
- Dangerous Goods Handling and Transportation Regulation	-	-	-	-

Legislation	Prosecutions	Warnings	Orders	Fines(\$)
- Environmental Accident Reporting Regulation	-	3	-	-
The Environment Act	-	18	3	\$5,000.00
- Litter Regulation	3	12	-	\$ 2,949.26
- Onsite Wastewater Management Systems Regulation	15	55	-	\$8,715.60
- Livestock Manure and Mortalities Management Regulation	5	13	-	\$10,170.65
- Waste Management Facilities Regulation	3	31	-	-
Total	30	146	3	\$31,030.11

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

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,630	50.00	3,828	(198)	
Other Expenditures	793		860	(67)	
Total 12.3(b)	4,423	50.00	4,688	(265)	1

1. Under-expenditure is due to vacancies and reduction in discretionary spending.

Environmental Approvals

The Environmental Approvals branch is responsible to assess development proposals and issue environmental approvals ensuring 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 associated regulations.
- Ensured that hydroelectric development on Crown land complied with the provisions of The Water Power Act and Regulation.

- 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 the efficiency of approval processes and the effective use of resources.

Key Program Outputs

A summary of the reviewed, processed, and issued cases is provided in Table ES.4 below.

**Table ES.4
Environmental Approvals Activities**

Activities	2017/18	2016/17	2015/16
The Environment Act			
Project proposals received	75	62	79
Licences issued	69	99	71
Project proposals refused	0	0	0
Minor alterations requests processed	67	63	68
Revision requests to licences approved	42	51	35
Other reviews – licence not required	45	46	60
Site inspections, monitoring	151	165	153
Pesticide use permits issued	106	108	207
Post-seasonal reports received/compiled	143	149	164
Public complaints investigated	10	13	18
Incinerator registrations processed	0	0	0
Manure storage permits issued	21	20	24
Manure storage repair authorizations	6	5	10
Manure storage facilities registered	11	15	4
The Dangerous Goods Handling and Transportation Act			
Project proposals received	20	10	17
Licences issued	18	16	20
Minor alterations requests processed	6	6	7
Pre-licensing activities	12	8	12
Site inspections, monitoring	15	9	12
Petroleum storage operating permits issued	139	379	114

Activities	2017/18	2016/17	2015/16
Petroleum storage construction/alteration applications received and permits issued	51	113	124
Licensed petroleum technician applications received and permits issued	87	65	99
The Public Health Act			
Applications for certificates of approval processed	35	26	39
Water and Wastewater Operator Certification Regulation			
Certification examination	633	522	647
Plant classifications issued	50	342	123
Operators certificates issued	395	414	373

**Table ES.5
12.3(c) Environmental Approvals**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,308	38.00	3,293	15	
Other Expenditures	4,285		3,302	983	1
Recoverable from Environmental Liabilities	(84)		(193)	109	
Total 12.3(c)	7,509	38.00	6,402	1,107	

1. Over-expenditure is due mainly to the 5% inflationary increase in Environmental Liabilities for contaminated sites, in compliance with OAG's prior years' audit.

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 help 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

- Unveiled the Made-in-Manitoba Climate and Green Plan
- Undertook an extensive public engagement process introducing the Made-in-Manitoba Climate and Green 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, private sector, civil society, and other practitioners in support of climate change adaptation planning and building local-level resilience.
- Monitored and participated in strategic discussions and negotiations related to federal, provincial, territorial, regional, and international climate change policy, including:
 - Participation in the Pan Canadian Framework development.
 - Representation of Manitoba on Canadian Council of Ministers for the Environment – Climate Change committee, and its subcommittees including Approaches for Modelling Technological Change and Investments in Climate Change Mitigation Technology and Programs, Offsets, Emissions Projections, Inventories, Infrastructure Resilience and International Mitigation.
 - Partnership with Natural Resources Canada, and the Prairie Provinces of Saskatchewan and Alberta through the Prairies Region Adaptation Collaborative to investigate the impacts of climate change and enhance capacity for climate adaptation planning processes.
 - Representation of Manitoba on the Clean Growth Working Group.
- 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.
- 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 climate risk assessment and management practices to be considered in the business continuity planning process of the department, which included the development and implementation of the 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.

Ozone Depleting Substances Program

- Participated on the Federal-Provincial-Territorial Working Group on Ozone-Depleting Substances and Halocarbon Alternatives, and contributed to the implementation of 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 impacts on the stratospheric ozone layer.
- Ensured an effective and efficient regulatory framework, and managed an Appointment Agreement with the Manitoba Ozone Protection Industry Association (MOPIA) which allows the organization to administer key program activities, including the issuance of 5,478 service technician certificates and 532 secondary distributor permits.
- Enhanced environmental awareness and regulatory compliance with MOPIA hosting several industry program information and awareness sessions, and 11 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 five established provincial sites, providing hourly air quality data on 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 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/aq-health/>.
- 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 and its associated sub-groups and other air related programs under the Canadian Council of Ministers of the Environment (CCME).

- o Provided air quality information to partners and other stakeholders (e.g., Manitoba Health, Seniors and Active Living), and prepared annual reports regarding air quality and provincial compliance under Canada Wide Standards or Canada Ambient Air Quality Standards.
- Provided technical and policy support to a number of departmental activities, including:
 - o Management of releases from base metal smelters in Manitoba to protect local air quality
 - o Review of air quality matters related to license applications or license requirements, federal programs and national/international agreements.

**Table ES.6
12.3(d) Climate Change and Air Quality**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	919	10.00		59	
Other Expenditures	152		860	(74)	
			226		
Total 12.3(d)	1,071	10.00	1,086	(15)	

Sustainable and Green Initiatives

The branch is responsible for strategic planning support for the development of policy, legislation, and programs for departmental and governmental priorities and major sustainable and green initiatives. A major part of the branch’s current portfolio involves managing policies and programs related to waste diversion and recycling. The branch administers the Waste Reduction and Recycling Support Fund, collects landfill levies and supports waste diversion and recovery pilot projects and programs – including support to large-scale composting facilities. Related to this, the branch is responsible for the administration of the Waste Reduction and Prevention (WRAP) Act and associated regulations including providing regulatory oversight to twelve industry funded stewardship programs for recycling and safe disposal of designated end-of-life materials. The branch also promotes consensus building and consistency with governmental and departmental visions, goals and objectives.

The branch represents the department on interdepartmental, provincial, national, and international agencies, boards and committees. In addition, it also represents Manitoba on national forum for inter-governmental cooperation and on issues related to national and international environment and trade agreements.

The department is responsible for the administration and enforcement of 50 Acts and 144 accompanying regulations, plus additional responsibilities under federal statutes. The branch provides technical and analytical support to all branches with the interpretation of legislation

and supports the development of new Acts and/or regulations, or amendments. The branch is the lead in supporting the department's Executive Management Committee on departmental wide legislative priorities and initiatives including the Regulatory Accountability initiative.

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. The branch works with the regions and other branches of the department to support environmental protection and promote the sustainable use and development of Manitoba's natural resources.

The branch also supports sustainability-programming, practices, and is responsible for the administration of the Sustainable Development Innovations Fund.

Key Results Achieved:

- Co-led analytical and research work associated with the development of the Made-in-Manitoba Climate and Green Plan.
- Provided leadership and regulatory oversight to the stewardship programs for end-of-life materials designated in the WRAP Act regulations.
- The branch received, reviewed and conducted public consultation on three new stewardship program plans that expired in 2017. These plans were submitted by the Canadian Beverage Container Recycling Association (CBCRA), the Canadian Wireless Telecommunications Association (CWTA), and the Manitoba Association for Resource Recovery Corp. (MARRC).
- Continued to provide regulatory oversight and actively engage with the stewardship organizations and other key stakeholders on recycling, waste diversion and safe disposal of designated products. Participated in the waste management and diversion activities of the Canadian Council of Ministers of the Environment (CCME).
- Administered the Waste Reduction and Recycling Support levy and provided recycling rebates to eligible municipalities and Northern Affairs.
- Supported pilot projects, capacity building and research related to waste diversion, recycling, and administered the Manitoba Composts Support Payment (MCSP) program, providing incentive payments to municipal and commercial compost facilities participating in the program.
- 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.
- Monitored and provided analytical support related to the environment implications of interprovincial and international trade agreements including:
 - Newly completed agreements - Canadian Free Trade Agreement (CFTA), the New West Trade Partnership (NWTP)

- Ongoing agreements - GATT/WTO agreements, North American Agreement on Environmental Cooperation
- Agreements under negotiation and/or nearing ratification - Canada-European Comprehensive Economic and Trade Agreement (CETA), Trans-Pacific Partnership (TPP), updated North American Free Trade Agreement (NAFTA 2.0).
- Represented the department on negotiations to resolve Inuit and First Nation land claims in Manitoba.
- 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 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 reviews and assessments including ongoing tracking of changes in regulatory requirements, support and training of Regulatory Requirement Tracking Analysts, and supported other red tape reduction and government efficiency reviews.
- Supported other inter-governmental activities, such as coordination of department's efforts to collaborate and work with the Association of Manitoba Municipalities.
- Coordinated inter-governmental issues and provided analytical support to federal-provincial relations, including representing or supporting representatives of the department on the Council of the Federation, Western Premiers Council, Western Governors Association, and Canadian Council of Ministers of the Environment and sub-committees.
- Represented Sustainable Development on the Shoal Lake Working Group to ensure the implementation of the Tripartite Agreement.
- Organized 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. A total of 245 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.
- The twelve industry funded stewardship programs that operate under the Waste Reduction and Prevention Act regulations collectively diverted over 130 million kilograms of end-of-life materials from Manitoba landfills in 2017.

- A total of \$7,327,328.83 from the WRARS Fund was rebated to municipalities and Northern Affairs communities based on 73,926.924 tonnes of eligible recycling reported (62 kg/capita).
- Established a department Regulatory Accountability Baseline and the Regulatory Requirement Tracking Tool to track changes to regulatory requirements. Supported 21 Regulatory Requirement Tracking Analysts trained across the department in Regulatory Accountability reviews. See Regulatory Accountability section of the annual report for additional information.

Legislation

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

- Under **The Ecological Reserves Act**, amendments to the Ecological Reserves Designation Regulation (43/2017).
- Under **The Provincial Parks Act**, amendments to the Park Reserves Designation Regulation (57/2017; 58/2017).
- Under **The Forest Act**, amendments to the Provincial Forests Regulation (72/2017).
- Under **The Wildlife Act**, amendment to the Wildlife Fees Regulation (105/2017).
- **The Fisheries Amendment Act**, introduced to the House on March 15, 2017, and assented to on November 10, 2017.
- **The Red Tape Reduction and Government Efficiencies Act 2017**, introduced to the House on March 16, 2017, assented to on November 10, 2017. The Bill amended the following Acts under the purview of Sustainable Development:
 - o Dangerous Goods Handling and Transportation Act
 - o Drinking Water Safety Act
 - o Ecological Reserves Act
 - o Environment Act
 - o Fisheries Act
 - o Forest Health Protection Act
 - o Groundwater and Water Well Act
 - o Manitoba Natural Resources Development Act (repealed)
- **The Sustainable Watersheds Act (Various Acts Amended)** was introduced to the House on November 30, 2017. The Bill proposes amendments to the following Acts under the purview of Sustainable Development:
 - o Conservation Districts Act
 - o Water Protection Act
 - o Water Rights Act
 - o Manitoba Habitat Heritage Act

- **The Boards, Committees, Councils and Commissions Streamlining Act (Various Acts Amended or Repealed)** was introduced to the House on December 4, 2017. The Bill proposes amendments to the following Acts under the purview of Sustainable Development:
 - o Endangered Species and Ecosystems Act
 - o Ecological Reserves Act
 - o Forest Health Protection Act
- Under **The Environment Act**, amendments to the Livestock Manure and Mortalities Management Regulation (161/2017).
- Under **The Dangerous Goods Handling and Transportation Act** amendments to the Hazardous Waste Regulation (29/018).
- **The Red Tape Reduction and Government Efficiencies Act 2018**, introduced to the House on March 14, 2018. The Bill amends a number of statutes including The Dangerous Goods Handling and Transportation Act under the purview of Sustainable Development.
- **The Climate and Green Plan Implementation Act** was introduced to the House on March 15, 2018.
- **The Wildlife Amendment Act (Safe Hunting and Shared Management)** was introduced to the House on March 16, 2018.

**Table ES.7
12.3(e) Sustainable and Green Initiatives**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,979	23.00	1,971	8	
Other Expenditures	154		138	16	1
Grant Assistance	97		97	0	
Total 12.3(e)	2,230	23.00	2,206	24	

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). Also copies can be obtained from the Institute located at 111 Lombard Avenue, Suite 325, Winnipeg, MB R3B 0T4. The Institute can be contacted at 204-958-7700.

Table ES.8

12.3(f) International Institute for Sustainable Development

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Grant Assistance	1,013		1,013	0	
Total 12.3(f)	1,013		1,013	0	

Energy

The primary role of the Energy branch is to facilitate the sustainable development of Manitoba's energy resources and promote the wise use of energy. The branch focuses on four areas: electricity; energy for the built environment (heating/cooling); energy used for transportation; and energy efficiency/conservation.

The activities of the branch contribute to major capital investments in Manitoba and help Manitoba realize new clean, green economic opportunities by supporting low carbon growth opportunities.

Key Results Achieved:

The primary activities of the branch include: developing, analyzing and implementing provincial energy strategies and programs; providing business development support that leverages the province's green and low carbon electricity and facilitates the development of made-in-Manitoba sources of renewable energy; monitoring and analyzing national and global energy trends and promoting Manitoba's energy interests on the nation and international tables.

The branch also has responsibility to administer several Acts and associated regulations, including The Energy Act, The Energy Savings Act, The Gas Allocation Act, The Gas Pipeline Act, The Biofuels Act and The Renewable Energy Jobs Act.

The following provides a summary of activities for 2017/18:

Electricity

- More than 99 per cent of electricity generated in Manitoba is clean renewable power. An abundant supply of dependable electricity is anticipated when the 695 MW Keeyask generating station is completed in 2021, which will add approximately 4,400 GWh of renewable electricity annually to Manitoba Hydro's total supply. Energy branch is actively engaging with regional discussions on transmission interties (i.e., RECSI technical advisory and steering committee members) which aims to assist nearby jurisdictions in the transition to a sustainable non-emitting electricity generation portfolio. This would give Manitoba an opportunity to export more of its abundant supply of electricity to nearby jurisdictions. Staff also continue to develop opportunities for consideration to address the various recommendations made by the PUB's NFAT Panel, following the June 2014 Public Utilities Board's (PUB) Needs For and Alternatives To (NFAT) review regarding Manitoba Hydro's preferred development plan for new generation.

Wind Power

- Manitoba has 258 megawatts (MW) of installed wind capacity located in southern Manitoba. Pattern Energy Group owns and operates the 138 MW St. Joseph wind farm. The project is comprised of 60 wind turbines that can generate enough power to serve the needs of approximately 50,000 homes. Algonquin Power owns and operates the 120 MW St. Leon wind farm. The facility consists of 73 turbines and can generate enough power for over 40,000 homes.

- The department continued to provide support to Manitoba communities, Indigenous communities, and wind energy companies interested in developing and investing in wind energy projects in Manitoba.

Electricity Reliability

- The Manitoba Hydro Amendment and Public Utilities Board Amendment Act (Electricity Reliability) became effective on April 1, 2012. This Act mandates users, owners and operators of electric transmission and the electric generation owners and operators that are connected to the provincial grid (Manitoba Hydro and the Province's two wind farms) to adhere to electric reliability standards. Reliability standards that are developed by North American Electric Reliability Corporation (NERC) or Midwest Reliability Organization (MRO) and adopted for enforcement within the province and an associated compliance monitoring and enforcement for such standards are implemented through regulations that are periodically updated and submitted for approval by the Lieutenant Governor in Council. The Energy branch updates these regulations on behalf of the department of Crown Services in order to ensure that Manitoba's reliability regime remains in line with those in effect across North America and the continental electricity grid.

Off-Grid Communities

- There are four Indigenous communities in Manitoba that are not connected to the provincial electricity grid. They are all located in remote northern parts of the province and are serviced by winter roads. Their electricity is supplied by diesel-powered generation, while heating needs are met mainly by using petroleum-based fuels. Manitoba made it a priority to eliminate or reduce the use of fossil fuels for heating and electricity in these communities and replace them with renewable energy technology solutions.

Midwest Renewable Energy Tracking System (M-RETS)

- Energy staff continued to sit on the Board of Directors of this non-profit organization. Established in 2007 with the objective of tracking the environmental attributes of electricity generated from renewable sources, M-RETS is registered in the state of Wisconsin as a non-stock, non-profit organization. M-RETS tracks, verifies and issues Renewable Energy Certificates (RECs), and facilitates their trade so as to encourage renewable energy development in the Midwestern US and province of Manitoba. This mechanism facilitates the export of hydro and wind electricity to participating US jurisdictions.

Energy for the Built Environment

- Made-in-Manitoba green heat solutions help to reduce greenhouse gas emissions, leverage private investment for economic stimulus, provide local green jobs, and make the province energy self-sufficient. In Manitoba, building and water heating consumes roughly one third of energy use and represents the majority of emissions attributed to the operation of buildings. The majority of energy required to heat buildings throughout the province is imported, primarily fossil based, and accounts for several hundred million of annual economic outflow from the province.

- The decarbonization of thermal energy continued in Manitoba through the switching from fossil-based heat to green heat as available through local energy sources such as biomass, geothermal and solar heat. Provincial support was provided through tax credits and grants for the installation of green heat equipment in homes and businesses.
- The local geothermal industry supplied the majority of the equipment and installation services as well as provided approximately 200 direct jobs in Manitoba. For the period of 2017/18, approximately \$800,000 of incentives are estimated.
- Staff provided support to building owners, developers, communities, Hutterite colonies, and Indigenous communities in adopting green heat solutions within the built environment. Today Manitobans embrace green heat energy resources like geothermal and others throughout the province in residential and commercial buildings in both urban and rural areas.

Biomass Energy for Heat

- Energy staff worked with industry, building owners and Indigenous communities to support the update of biomass solutions in conjunction with other renewable energy solutions. The expanded use of biomass energy is anticipated to displace imported fossil fuels such as diesel or heating oil in Indigenous communities.

Energy Used For Transportation

- Transportation is Manitoba's largest source of carbon pollution, representing 39 per cent (over 8 megatonnes of CO₂e) of the province's total carbon output. Last year, Manitoba drivers consumed over 1.19 billion litres of diesel fuel and over 1.7 billion litres of gasoline. Most of the 2.89 billion litres in transportation fuels sales is imported into Manitoba, and this represented a substantial economic drain of money leaving the province.
- Encourage the use of low carbon transportation alternatives to help reduce Greenhouse Gas (GHGs) and lower operating costs. Main initiatives include low carbon biofuels blending requirements and encouraging the transition away from internal combustion engines and toward battery electric vehicles. Greenhouse gas emissions reductions linked to transportation fuel use vary from year to year. The branch monitors compliance with biodiesel and ethanol mandate requirements. In 2017/18, the total GHG emissions attributed to the use of biofuels is around 408,000 tCO₂e.

Biodiesel

- In 2017, the two per cent Biodiesel Mandate required the use of over 22.3 million litres of renewable fuels to be blended with diesel fuel sold in Manitoba with most of the ethanol manufactured by Husky Energy in the town of Minnedosa. Renewable content for diesel fuel is primarily biodiesel, but the use of Hydrogenation Derived Renewable Diesel is increasing. All fuel suppliers met the Biodiesel Mandate with a total reported sales volume of over 26.9 million litres. This compliance level of 2.25 per cent mitigated over 69,000 tonnes of greenhouse gas emissions from the transportation sector.

Ethanol

- In 2017, the eight and a half per cent ethanol mandate required over 138.6 million litres of ethanol to be blended with gasoline sold in Manitoba. All fuel suppliers that submitted a report met the ethanol sales mandate. However, the total reported sales volume was approximately 147.4 million litres. As reported, this compliance level mitigated almost 339,000 tonnes of GHG emissions from the transportation sector.
- Worked with new fuel suppliers to improve the reporting responses from obligated fuel suppliers.

Electric Vehicles

The Energy branch continues to monitor developing opportunities associated with electric vehicles. This included ongoing discussions with prospective new sites for public charging beyond the three existing cost-shared stations located at The Forks and Assiniboine Park Conservancy, and ongoing evaluations of electric vehicle economics and performance, especially related to cold-weather operation. The dedicated “Drive Electric Manitoba” internet portal on electric vehicles provides relevant information to Manitobans. Energy branch has contributed to national discussions on expanding the use of electric vehicles.

All-Electric Transit Bus Development and Demonstration

- This major international collaboration was first announced in April 2011 with an initial \$3.0 million development and demonstration project involving a partnership of the Government of Manitoba, Mitsubishi Heavy Industries (MHI), Manitoba Hydro, New Flyer Industries, and Red River College. The prototype bus completed extensive testing before entering limited-service operation in 2014. In November 2014, four new electric buses were added to regular Winnipeg Transit service, which brought in the City of Winnipeg and the Federal Government as partners. The electric buses will continue to operate until 2018.
- Manitoba and the City of Winnipeg invited Manitoba Hydro, New Flyer Industries, and Red River to form a Joint Task Force on Transit Electrification in late 2015 to examine the potential for broader electrification of transit within Winnipeg. The Joint Task Force Summary Report on Transit Electrification was completed and posted on the Manitoba Government website in March 2018.
- The Energy branch continued to co-chair the Taskforce, and provided administration and coordination support.

Energy Efficiency

- Manitoba remains committed to being a leader in energy efficiency. The PUB’s 2014 NFAT Panel recommended that demand side management (DSM) efforts be strengthened in Manitoba and that it be divested from Manitoba Hydro.
- In response to the PUB’s recommendation, and the commitment made in the 2016 Speech from the Throne to “introduce legislation creating a stand-alone energy efficiency agency

to help households and businesses reduce their energy needs, saving Manitobans money now and into the future”, Bill 19, The Efficiency Manitoba Act, was introduced in the Manitoba legislature on March 9, 2017. Bill 19 passed through all legislative stages, receiving Royal Assent on June 2, 2017. On January 25, 2018, The Efficiency Manitoba Act (excluding sections 37, 44 and 49) came into force establishing Efficiency Manitoba as a new Crown Corporation for the delivery of electricity and natural gas DSM programs and services in Manitoba.

- The department of Sustainable Development’s Energy branch provided support to Crown Services in drafting The Efficiency Manitoba Act.

Energy Efficiency Codes and Standards

- The branch continued to assist the Office of Fire Commissioner (OFC) in implementing new energy codes for buildings and homes.
- Continued to work on identifying energy-using products and equipment that merit provincial minimum energy performance standards (MEPS), which either go beyond federal minimum energy efficiency requirements or address gaps and delays in federal standards.

Energy Opportunities Office/Manitoba Energy Jobs Fund

- The Energy Opportunities Office was established to support companies that can take advantage of hydroelectric projects and other renewable energy projects that are under development in Manitoba. It is mandated to proactively promote both local business expansion as well as new investment opportunities in Manitoba’s growing clean energy economy.

Intergovernmental Energy Forums

- Worked with the federal government as well as other provinces and territories to ensure Manitoba’s interests are represented at intergovernmental discussions pertaining to energy resources and technologies.

Canadian Energy Strategy (CES)

- At the July 2015 meeting of the Council of the Federation (COF), Canada’s Premiers released the CES, which serves as a framework to foster greater collaboration between provinces and territories on energy issues. Since the fall of 2015, Manitoba held the Secretariat role and co-chairs along with Alberta, Newfoundland and Labrador, and New Brunswick.
- Premiers reviewed the second CES progress report in July 2017 at the COF summer meeting. Manitoba, supported by other CES co-chairs, continued to demonstrate the importance of the CES across four priority areas: delivering energy to people; technology and innovation (including reducing diesel use in remote communities); energy efficiency;

and climate change and transition to a lower carbon economy. Energy staff participated on each of the four inter-provincial committees formed to collaborate in these priority areas.

Energy and Mines Ministers Conference

- This annual forum provided an opportunity for Energy Ministers from across the country to meet with each other and with stakeholders to discuss the progress on common energy concerns and projects. Energy branch participated on several of the federal-provincial-territorial working groups on energy efficiency, electricity, energy technology and international energy collaboration. In addition, staff participated on special working groups related to other federal initiatives on energy awareness and women in the energy industry, and contributed to the annual report to Energy Ministers.

Pan-Canadian Framework on Clean Growth and Climate Change (PCF)

- Staff participated on several intergovernmental PCF working groups, including: zero emissions vehicles, clean fuel standard, and clean growth/clean technology.

Table ES.9
12.3(g) Energy

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	676	9.00	819	(143)	1
Other Expenditures	103		795	(692)	2
Total 12.3(g)	779	9.00	1,614	(835)	

1. Under-expenditure is due to vacancies.
2. Under-expenditure is due to delays of various projects.

WATER STEWARDSHIP AND BIODIVERSITY

Divisional Administration

Divisional Administration provides 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 WSB.1
12.4(a) Divisional Administration

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	194	4.00	290	(96)	1
Other Expenditures	290		260	30	
Total 12.4(a)	484	4.00	550	(66)	

1. Under-expenditure is due to vacancies.

Water Science and Watershed Management

The Water Science and Watershed Management branch consists of scientists and technical personnel, including hydrologists, limnologists, aquatic biologists, hydrogeologists, engineers, planners, 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;
- managing transboundary water issues that might have potential to affect the quality or quantity of waters that flow to Manitoba from upstream jurisdictions or are shared with neighboring jurisdictions;
- delivering an integrated framework for watershed-based policy and programming including ecological goods and services to ensure the health and resilience of Manitoba watersheds;
- providing advisory and planning services to the Conservation Districts Program under The Conservation Districts Act and implementing watershed-based planning under the provisions of The Water Protection Act;
- providing engineering design services to conservation districts to assist in their water management planning and water infrastructure work; and
- developing and implementing programs aimed at restoring the health of the Lake Winnipeg.

The branch delivers sound science-based watershed/aquifer management programs to ensure Manitoba's water resources are managed and protected in a sustainable manner, thus helping to reduce the impacts of flooding and drought, improve land management practices, protect water uses including for drinking and aquatic life, and improve water quality.

The branch provides technical, scientific and capacity-building support to a variety of stakeholder groups to improve water resource management and decision-making, and maintains effective relationships with other governments, non-government organizations, producer organizations, and Indigenous organizations.

The branch provides 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 well assessments, and Livestock Site Assessment applications.

The branch leads the management of inter-jurisdictional, inter-provincial and international water issues and opportunities related to surface and groundwater quality and quantity through participation on various boards, committees and task forces including:

- International Joint Commission's International Red River Basin Board and two of its Committees, Water Quality (co-chair) and Hydrology (co-chair).
- International Joint Commission's International Souris River Basin Board (Canadian co-chair) and its Aquatic Ecosystem Health and Hydrology Committees.
- International Joint Commission's International Rainy-Lake of the Woods Watershed Board and the Aquatic Ecosystem Health Committee.
- Prairie Provinces Water Board – Hydrology, Water Quality and Groundwater Committees.
- Canadian Council of Ministers of the Environment – Water Management Committee, Guidelines Project Team, and Groundwater sub-committee.
- Canada-Manitoba Memorandum of Understanding on Lake Winnipeg – Steering Committee.
- Red River Basin Commission Board of Directors.
- Assiniboine River Basin Initiative Board of Directors.
- Manitoba Drought Assessment Committee.

The branch is organized into four sections: Groundwater Management section, Surface Water Management section, Water Quality Management section, and the Watershed Planning and Programs 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:

- Work continued to implement the new Groundwater and Water Well Act and supporting general matters and well standards regulations:
 - An outreach program was completed to ensure key stakeholders understood and implemented the new legislation, and information was placed on the website updating the public on 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 documents on constructing and sealing wells in Manitoba.
- Participated in watershed and aquifer management programs, and supported regional water well surveys undertaken by conservation districts.
- Informed the public, conservation districts and other government agencies of groundwater conditions in many parts of the province.
- Provided information on groundwater quality in private wells to homeowners and advised on individual responsibilities for well maintenance.
- Provided expert hydrogeological support to other areas of the department, other departments, and interdepartmental committees.
- Provided technical support on matters related to groundwater quality including TCE (Trichloroethylene) in groundwater in the Rockwood Sensitive Area and nitrate contamination in Carberry.
- 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 private wells.
- 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.
- Carried out a well water-sampling program to evaluate the freshwater – saltwater boundary in the Carbonate aquifer, south of Winnipeg. Approximately 100 private wells were sampled and analyzed for salinity indicators. Home owners were provided with their water quality results and information on their wells and well education.

Key Program Outputs:

- Mailed a comprehensive well survey to more than 600 owners of recently drilled wells. Ninety-four responses were received from an online questionnaire and 70 wells were inspected and sampled.
- Twenty-four licenses were processed under The Ground Water and Water Well Act to drill water wells, closed loop systems, environmental and geotechnical wells in Manitoba. Conducted investigations on a number of complaints including flowing wells and otherwise nuisance wells.

- The groundwater-monitoring network consisted of approximately 850 monitoring sites located on major and minor aquifers of which 588 sites were equipped with daily water level recorders. Three monitoring sites were converted to 'real-time' stations. Groundwater quality representative of aquifer conditions was sampled at 38 select monitoring wells throughout the province.
- Approximately 900 newly drilled wells and 443 well sealing reports were added to the GWDrill database. Over 1,500 additional well reports were reviewed, updated or revised.
- An updated version of the water well report database used in environmental site assessment and site selection was provided to more than 25 industry or consulting companies. Thirty-seven requests for large water level data sets encompassing approximately 335 monitoring wells was provided to consulting or other agencies for various areas and time-periods.
- Technical support was provided to five conservation districts for conducting private well site assessments; almost 700 private wells were inventoried, and education materials provided to well owners.
- Groundwater information was supplied to consultants, students, 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, studies climate change effects on water resources, supports integrated watershed management planning and the sustainable use of surface water, and supports 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. Continued to select members of the stakeholder-based Red River and Assiniboine/Souris River Basin Drought Assessment Groups to obtain feedback on local drought conditions throughout the basin.
- Maintained and enhanced the Manitoba Drought Monitor website (www.manitoba.ca/drought) to provide up-to-date drought information to residents, stakeholders and government on current drought conditions. Interactive maps of drought

conditions, including streamflow and lake level percentile plots at 45 locations, were added to the site.

- Provided technical drought expertise for the Pembina Valley Water Cooperative Drought Management Plan Study.
- Continued collaboration with the Emergency Measures Organization to develop a drought response plan for Manitoba.
- Led the development of the Saskatchewan-Manitoba Drainage and Watershed Management Planning Committee, under the Saskatchewan-Manitoba Memorandum of Understanding on Water Management, including developing Terms of Reference, developing a work plan, and coordinating four teleconferences and a face-to-face meeting.
- 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. Reports included 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.
- Continued work on a drought preparedness assessment in the Roseau River watershed in tandem with the integrated watershed management planning process. Initiated a second drought preparedness assessment in the Boyne-Morris watershed.
- Represented Manitoba on the 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 from Sustainable Development and the federal Department of Fisheries and Oceans continued to develop a fish habitat model for the Red River to assess the impact of severe drought on various fish species.
- 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.

- Finalized a retention strategy for the Cooks creek watershed. Retention sites were identified, analyzed, and prioritized for implementation. Results were presented to the project management team for integrated watershed management.
- 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 the Drainage and Water Rights Licensing branch. 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.
- Maintained databases containing historical streamflow and water level information.
- Participated in the joint US-Canada Prioritize, Target, Measure Application (PTMApp) project on the Roseau River Watershed. Provided GIS and technical support in collaboration with Agriculture and Agri-Food Canada and the Minnesota Roseau River Watershed to provide Canadian GIS data and inputs for the Roseau River Watershed.
- Participated in the technical expert committee to support the AQUANTY project. Aquanty Inc. has been developing a complex hydrological model in the Assiniboine River Basin.

Key Program Outputs:

- Produced seven monthly reports and one annual report summarizing water availability and drought conditions across Manitoba in 2017/18 through the analysis of drought indicators and other data. Reports were made available on the Manitoba Drought Monitor Website, alongside streamflow percentile plots for select gauges, and water supply status for select reservoirs.
- Held one meeting with the Manitoba Drought Assessment Committee on November 6, 2017 to exchange information on water availability and drought conditions, and associated impacts.
- 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 15 sites. Completed low flow analysis for evaluating wastewater minimum flows for four 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.
- Provided technical and engineering services to conservation districts for a variety of water management issues and water infrastructure proposals. The section provided engineering services of varying degrees for 22 conservation district projects including a preliminary design for an enhanced outlet for Spence Lake and the hydraulic modelling analysis of Jumping Deer Drain.
- Provided technical and engineering analysis for approximately 31 drainage and water control works license applications or issues. Water supply analyses were performed for eight water use licensing applications or issues.
- Responded to hydrologic data analyses/interpretations 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 monitoring programs, managing and providing water quality data, information and technical advice to various client groups, responding in a timely manner to emergencies and emerging water quality issues, and developing policies and water quality standards, objectives and guidelines 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.
- Implemented the Canada-Manitoba Memorandum of Understanding respecting the Lake Winnipeg and its basin to facilitate a cooperative and coordinated approach to understand and protect the water quality and ecological health of Lake Winnipeg and its basin. Federal and provincial counterparts and partners continue working 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 2017. Winter water quality monitoring of the lake was completed in collaboration with Environment and Climate Change Canada.
- Monitored water chemistry and benthic invertebrates from numerous Manitoba streams, rivers, and lakes to assess the status and health of waterbodies across the province. Data was used to assess water quality impairments, derive nutrient loads, establish long-term

trends in water quality and quantify general water quality conditions with tools like the Water Quality Index.

- Monitored recreational water quality at beaches across the province and provided timely results to the public through the department website, posting 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.
- Completed 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.
- Acquired high quality laboratory analytical services 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, and regulation. More information is available at: 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. More information is available at: <http://gov.mb.ca/conservation/waterstewardship/wqmz/index.html>

Key Program Outputs:

- Water quality was monitored at approximately 65 long-term stations on 51 waterbodies across Manitoba during 2017/18 as part of the long-term water quality monitoring program. An additional 18 stations were monitored as 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 partnership with Conservation Districts, Environment and Climate Change Canada, 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 Lake Winnipeg monitoring programs.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2017 including 19 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 14 beaches in western Manitoba.

Approximately 38 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather's health.

- Reviewed 103 nutrient management plans of which 90 were registered for golf courses across Manitoba in 2017/18. Provided nutrient management zone information for 21 onsite wastewater management systems and reviewed an additional 15 site-specific soil survey reports for requesting rezoning of locations of onsite wastewater management systems mapped as nutrient management zone N4.
- Responded to over 100 water quality data and information requests from the public, consultants, industry, academia, non-governmental organizations, conservations districts, stewardship groups, students and educators, and other provincial and federal agencies in 2017/18.
- Provided assessments of status and trends in water quality and recommendations concerning improvements to surface water quality through the integrated watershed management planning process.

Watersheds Planning and Programs Section

The Watershed Planning and Programs section delivers an integrated framework for watershed-based policy and programming to ensure the health and resilience of Manitoba watersheds. The section 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.

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

In 2017/18, the section continued to 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 including consultation on transitioning conservation districts to watershed-based boundaries.
- Worked with Manitoba Agriculture on the development of a province-wide program called Growing Outcomes in Watersheds (GROW), 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 Cooks – Devils Creek Integrated Watershed Management Plan.
- Continued work with water planning authorities to develop five integrated watershed management plans with consideration to land and water management, conservation, drinking water quality and aquatic ecosystem protection.

Table WSB.2

12.4(b) Water Science and Watershed Management

Expenditures by Sub-appropriation	Actual 2017/18 \$ (000)	FTE	Estimate 2017/18 \$ (000)	Variance Over/(Under) \$ (000)	Expl. No.
Salaries and Employee Benefits	3,479	41.00	3,552	(73)	
Other Expenditures	889		919	(30)	
Total 12.4(b)	4,368	41.00	4,471	(103)	1

1. Under-expenditure is due to vacancies and reduction in discretionary spending.

Wildlife and Fisheries

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 diverse natural ecosystems helps restore 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.

Wildlife and Fisheries branch operates under the authority of The Wildlife Act, The Fisheries Act (Manitoba), The Endangered Species and Ecosystems Act, The Polar Bear Protection 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 the department including regional staff. Branch staff also represent Manitoba on many provincial, national, and international initiatives.

The branch initiated work on the following items related to the Premier's mandate letter to the Minister:

- 'Develop comprehensive harvest co-management strategies in consultation with Indigenous, Métis and licensed hunters and anglers to give local communities a greater voice and ensure long-term sustainability of our wildlife populations.'
- The branch initiated discussions on shared-management during meetings on unsafe hunting to build a new relationship between government and local interests to jointly manage big game species.
- 'Curtail unsustainable and unsafe hunting practices such as night hunting to keep all Manitobans safe.'
- The department conducted consultation and engagement meetings with 21 communities regarding unsafe practices such as night hunting. A Bill was drafted for introduction in the spring session to restrict night hunting in agro-Manitoba by subsistence hunters. The Bill enables the department to identify specific areas for subsistence hunting in agro-Manitoba under permit.
- 'Implement effective and innovative big game surveys to improve and increase the transparency of population data for managers.'
- Big game aerial survey results are posted from 2014-15 to present. The branch is now posting annual surveys on the Wildlife section of the website by June of each year.
- 'Develop and implement a credible strategy to secure certification of Manitoba's commercial fisheries.'
- The Sustainable Fisheries Unit further implemented 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 requested for eco-certification, and building more sustainable fishery management regimes for fisheries where no current consensus exists to move forward with eco-certification.

More information can be found about wildlife and fisheries activities at: www.gov.mb.ca/conservation/wildlife/index.html and www.manitobafisheries.com

Key Results Achieved:

Wildlife

- 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, and NatureServe Canada).
- A total of 64,946 hunting and trapping licences were sold resulting in revenue of \$3.2 million.
- Manitoba's 6,074 licensed and permitted trappers harvested an estimated \$2.01 million in raw fur from September 1, 2016 to August 31, 2017 (the last complete Fur Year with complete returns).
- A total of approximately 306,000 Big Game hunter days and 117,000 Game Bird hunter days were estimated based on 7.2 days per hunter.
- Approximately 2,295 of the 4,208 allocated big game licences were used by 235 licenced Resource Tourism Operators.
- Branch wildlife staff, along with regional wildlife staff, continued to engage Indigenous communities in regional moose recovery efforts for the western and eastern areas of the province.
- A preference survey was created to collect public input on a number of wildlife and fisheries topics.
- Staff from the Game, Fur and Human Wildlife Conflict section provided comments on numerous land use projects, especially those related to Manitoba Hydro and to all-weather road development in various parts of Manitoba.
- The Wildlife section continued to partner 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 \$200,000 of in-kind support to this half-million dollar project.
- The Wildlife section continued to partner with Memorial University of Newfoundland on research aimed at understanding habitat requirements of moose, particularly those that influence survival and reproduction.

- The Big Game Unit, in collaboration with Regional staff, conducted the following aerial big game surveys: moose in Game Hunting Area (GHA) 7, 17A and 26; elk in Duck Mountain (GHAs 18, 18A 18B 18C) and portions of GHAs 21, 25, and 25A, and GHA 35A; and gray wolf in GHAs 7, 13, 13A, 18, 18A, 18B, 18C, 21, and 21A. Funding for the GHA 26 moose survey was provided by the Fish and Wildlife Enhancement Fund.
- The Big Game Health Program Unit conducted an aerial Chronic Wasting Disease (CWD) risk assessment survey in GHA 13A and 18 along the Saskatchewan border. Over a period of six days, approximately 3,885 km² along the Saskatchewan border were surveyed to pinpoint potential CWD risk sites, and to identify wild cervid population clusters. In addition, aerial surveillance was used to search for illegal cervid feeding and baiting sites within the Bovine Tuberculosis Eradication and CWD surveillance zones.
- The Big Game unit and Big Game Health program met with the Manitoba Wildlife Federation, Manitoba Big Game Trophy Association, and the Seven Oaks, Southeastern, Southwestern and other local Game and Fish Associations to discuss further enhancements to prevent CWD from infecting Manitoba wild cervids.
- The Big Game Health program prepared and delivered annual program implementation plans for the Bovine Tuberculosis and CWD programs.
- The Big Game Health program analyzed 423 white-tailed deer, 74 elk, five mule deer, and 17 moose samples for signs of Bovine Tuberculosis, CWD, and other diseases. All samples revealed negative results for signs of reportable diseases.
- The Big Game unit continued with the winter severity index program to monitor and predict the effects of winter conditions on deer mortality. This program includes 22 monitoring stations throughout the deer range and many of these stations are operated by volunteers from stakeholder groups.
- The Big Game unit, in collaboration with regional staff, continued monitoring GPS-collared moose and wolf in eastern Manitoba, and collared elk in the southeast and the northern Interlake.
- The Big Game unit and Eastern Region staff continued to be involved with the Vita area cross border elk monitoring partnership with the Rural Municipality of Stuartburn, Nature Conservancy Canada, and Manitoba Hydro.
- The Big Game unit, in collaboration with Eastern Regional staff, continued to meet annually with Minnesota Department of Natural Resources to discuss ongoing management and research programs for the Vita/Caribou elk herd. Staff, continued monitoring 11 GPS collared elk in Manitoba. Students from Memorial University are also involved with this project.
- The Big Game unit continued to meet with the Western Regional Elk Board to discuss ongoing elk management concerns in GHAs 18, 18A, 13 and 13A.

- The Game Bird unit distributed survey instruments to hunters to estimate harvest of wild turkeys (spring and fall season), and Lesser Snow and Ross's geese (spring conservation season).
- The Game Bird unit and regional staff partnered with the Canadian Wildlife Service and U.S. governments within the Mississippi Flyway on migratory game bird population and harvest management programs. Staff participated in the woodcock singing ground survey, the May Breeding Pair Waterfowl and Habitat Survey, and banding of a variety of species of ducks and geese.
- The Game Bird unit banded 3,436 sub-arctic nesting Canada geese, 2,286 temperate nesting Canada geese, and 549 ducks. Recoveries of banded waterfowl were used to estimate harvest and survival rates, and monitor the effect of international regulation changes.
- The Game Bird unit deployed 137 geolocation devices and six satellite transmitters (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.
- The Game Bird unit developed proposals to amend hunting regulations for migratory game birds and wild turkeys. Regulatory changes include a one week extension in the fall season for waterfowl hunting, a March 1-10 Canada/Cackling goose season, a notice of intent to declare temperate nesting Canada geese as over-abundant, and spring and fall season extensions for wild turkeys.
- The Game Bird and Habitat unit 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 50 dancing grounds located throughout their range in Manitoba.
- 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. Five sites in western Manitoba and one site in eastern Manitoba received 221 wild turkeys, which were captured from several areas of high abundance. Since 2013, 501 wild turkey were trapped and transferred to new areas of Manitoba.
- The Game Bird unit partnered with Environment and Climate Change Canada to obtain 500 samples from ducks for testing for Avian Influenza Virus.
- The Game Bird unit collaborated with the University of Manitoba and Parks Canada agency to deliver several university and high school courses held at the Nester 1 Research Camp at Cape Churchill.

- The department and the Manitoba Trappers Association jointly delivered nine trapper education courses with added support from other organizations or companies. A total of 200 new trappers passed the mandatory trapper education exam in 2017/18.
- Fur bearing animal harvests were reviewed to ensure sustainability of populations. Harvest efforts were reduced in recent years because of poor travel conditions.
- Fur Bearer and Human Wildlife Conflict Management staff made presentations to youth, conservation and professional groups on trapping methods and research on fur bearing animals.
- Manitoba continued to work with the Manitoba Trappers Association in establishing criteria for new trapper education instructors and course content.
- The requirement for a Travelling Fur Dealer Licence was removed.
- Manitoba provided an assessment of badger and wolverine to Environment and Climate Change Canada, in response to its proposals to include Manitoba populations as “Special Concern” under the federal Species at Risk Act.
- Manitoba, in harmonization with all provinces and territories, required that traps used for killing river otter must now be certified as meeting the Agreement on International Humane Trapping Standards. This trade agreement ensures that European markets for Manitoba and Canadian fur remain open. Other fur bearer species already requiring certified humane traps include: beaver, fisher, lynx, marten, muskrat, and weasel.
- Participated on the board of directors for the Fur Institute of Canada (FIC). Manitoba provided program advice and technical support to the FIC’s trap testing program.
- Staff provided and assessed fur bearer harvest data for research and environmental impact assessments.
- Wildlife staff continued to cooperate with trapping organizations in establishing final criteria for trapping activities in provincial parks.
- The Problem Predator Removal program was delivered under an agreement with the Manitoba Trappers Association. In 2017/18, trappers responded to 23 requests and removed 71 coyotes, 12 wolves and 11 foxes that had attacked livestock.
- Game, Fur and Human-Wildlife Conflict section staff continued to co-chair the Livestock Predation Protection Working Group. This group, comprised of members from 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, continued their work to address livestock predation protection, including the development of a Livestock Predation Protection Status and Recommendations Report.
- The “Growing Assurance: Farmland Beaver Damage Control Program” was administered by Manitoba Agriculture and delivered by Manitoba Sustainable Development. In 2017/18, program participants included 51 municipalities, five Northern Affairs Communities, and

six pastures of the Association of Manitoba Community Pastures. Three Beaver Damage Control Workshops were delivered in chronic beaver conflict areas: Inglis, Pine River, and Grandview.

- The department continued to deliver the “Be Bear Smart” program intended to reduce the risk of conflicts with black bears. A summary of 2016/17 data indicated that of the 1,136 reports of human interactions with black bears: garbage was the most common attractant; scaring devices were deployed 84 times; 102 bears were relocated by the department; 76 bears were euthanized by the department; and 33 bears were reported killed by the public in defense of property.
- The branch continued to expand the “Be Bear Smart” program into “Wildlife Smart” program by providing information on reducing risks of conflict with other wildlife species. Staff delivered workshops on wildlife encounter safety training to reduce the risk of dangerous wildlife encounters, particularly for people working or recreating in remote areas. Fifty people were trained in 2017/18.
- Fur bearer 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.
- In 2017/18, ten pest management companies were authorized to address conflicts with certain wildlife species, particularly furbearers. Conflicts with more than 700 animals were addressed, with red squirrel and raccoon conflicts being the most common.
- The department continued delivery of the Waterfowl Crop Damage Prevention Program. Scaring efforts in agro-Manitoba included the deployment of 351 scare cannons, 14 scare effigies, and the issuance of six scare permits. Program activities in 2017/18 are estimated to have protected about 4,900 hectares of agricultural crops, with an estimated value of \$655,000.
- The ninth Annual Provincial Hunting Day was celebrated at the Brandon Gun Club on September 23, 2017. The Wildlife section, as part of the Manitoba Mentored Hunt Partnership, supported 22 mentored hunt events; 18 mentored waterfowl/game bird hunts and four mentored deer hunts, as well as several hunting skills day events.
- The Manitoba Wildlife Federation administered Manitoba’s Hunter Education Program on behalf of the department. In 2017/18, the program graduated 1,830 students, with courses being held in many communities across Manitoba. In addition, the Manitoba Wildlife Federation hosted the 2017 International Hunter Education Association Canada Annual General Meeting in Winnipeg.
- The Biodiversity unit continued 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 program to raise Poweshiek Skipperlings in captivity and release them to augment existing wild populations.

- 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 Biodiversity unit took the lead in the development of Boreal Woodland Caribou management unit/range action plans.
- The Manitoba Conservation Data Centre maintained information in Biotics on 13,039 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish, ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,342 species are endangered or of conservation concern. The database contains 83,427 observations and 49,624 mapped features based on species observations. Biotics data sets were used to review 132 Environment Act licence documents, and 705 other licence, permit, lease, and land sale requests.
- The Manitoba Conservation Data Centre received approximately 36,000 observations for potential inclusion in its species at risk database. Approximately 34,000 of these were reviewed and processed. Data included Bird Studies Canada, Manitoba Herp Atlas (reptiles and amphibians), the Tall Grass Prairie Preserve, Parks Canada Agency and Fisheries and Oceans Canada. Hundreds of volunteers contributed much of these data through citizen-science based programs.
- 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 that 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 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 Manitoba Conservation Data Centre, in partnership with a NatureNorth citizen science program, University of Winnipeg, and Guelph University carried out research to better understand the molecular genetics, range and distribution of the Eastern and Western Tiger Salamanders to further inform species assessments and conservation efforts.
- 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 229 requests for information from rare species database.
- The Manitoba Conservation Data Centre, in partnership with the Nature Conservancy of Canada and the Canadian Wildlife Federation, hosted a Canada 150 Bioblitz in the endangered alvar ecosystem in the Interlake.

- The Habitat Stewardship unit delivered the Mixed-grass Prairie Habitat Stewardship Project, which mowed 299 hectares (739 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 4,682 hectares bringing the total included in the Mixed-grass Prairie Inventory since 1989 to 203,739 hectares. The 2017/18 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.
- 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 served 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.
- 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 54 properties, totaling 3,510 hectares and monitoring continued for seven provincially listed species (five of which are also protected federally) and 14 provincially rare species. Submitted 78 observations for rare and endangered species to the Manitoba Conservation Data Centre.
- The Tall Grass Prairie Communities and Species at Risk Project resulted in the removal of 1.27 hectares of invasive species (leafy spurge and St. John's wort) and 0.4 hectares 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 selectively brush-mowed 2.04 hectares of small aspen trees and other shrubs where they encroached into prairie habitat supporting species at risk.
- The annual Tall Grass Prairie Day event was hosted at the Tall Grass Prairie Preserve on August 12, 2017, with 45 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 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 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 Wildlife Lands unit continued to partner with Ducks Unlimited Canada and the City of Winnipeg on the delivery of the Manitoba Purple Loosestrife Project.

Fisheries

- 1705 commercial net fishing licences were issued resulting in a revenue of \$43,922.50.
- Commercial net fishers delivered 12,152,407 kgs. of fish worth \$30,444,357.
- 63 commercial bait fishing licences were issued, including 30 licences that included live bait production, resulting in a revenue of \$12,735.
- Licenced bait fishers sold \$228,699 of live bait, \$1,064,551 of dead bait and \$35,596 of leeches in 2016/17 (2017/18 data will be available in the 2018/2019 report).
- 22 fish farm operators were licenced in 2017/2018 resulting in a revenue of \$330.
- Fish farm operators sold 139,100 fingerling rainbow trout and Arctic char combined and 53,496 kgs of fish products to market in 2016/17 (2017/18 data will be available in 2018/19 report).
- 193,212 recreational fishing licences were issued, including 20,796 free senior conservation licences, resulting in a revenue of \$3,946,543.71.
- The Sustainable Fisheries unit, Assessment Program interpreted 6,500 fish ageing structures for the Coordinated Aquatic Monitoring Program (CAMP) and the eco-certification projects.
- Manitoba achieved the proud distinction of having the first fisheries sustainably certified by the Marine Stewardship Council for Walleye and Northern Pike. These fisheries are in Waterhen Lake and reflect the stewardship of the Waterhen Winter Fishers of Skownan First Nation and the Métis settlement of Mallard. This year, the third annual surveillance audit was passed and outstanding conditions on the Northern Pike fishery were cleared with the development of an innovative harvest control rule developed in cooperation with the fishers.
- Partnerships with communities, commercial fishers, and regional staff allowed field data collection of five lakes where the communities and local fishers have entered into co-management with Sustainable Development to achieve sustainable fishing certification for their fisheries: Waterhen Lake, Chitek Lake, Inland Lake, Cedar Lake, and Little Limestone Lake.
- Co-management harvest plans were developed in partnership with local fishers and regional staff to meet third party sustainable fishing certification for fisheries prosecuted by Skownan First Nation, Mallard, Wuskwi Sipiik First Nation, Mosakahiken Cree Nation, and Chemawawin Cree Nation.
- Open marketing for Manitoba's commercial fisheries was implemented on December 1, 2017.
- The Sustainable Fisheries unit continued the Channel Catfish tagging study that has been ongoing in partnership with the University of Nebraska since 2013. By the end of the 2017

fiscal year, 16,000 catfish were tagged. One thousand and eighty tags were reported by anglers and commercial fishers from southern North Dakota and well north to the middle of Lake Winnipeg. Channel Catfish are the host species for the endangered Mapleleaf Mussel.

- The Sustainable Fisheries unit invited licensed commercial tourism outfitters and angling stakeholders to attend an open house to discuss issues and propose policy and management solutions to managing and sustaining a fully allocated fishery resource, especially as it relates to the regulation of hired guides, and on recording commercial tourism production.
- The Sustainable Fisheries unit initiated the process of discussion with Red River licenced commercial tourism operators, local Red River businesses, government officials, and those with a vested interest in the Red River Channel Cat fishery about proposed changes to fish marketing regulations pertaining to Channel Catfish.
- The Fisheries section continued developing and updating an interactive “Lake Information for Anglers” website to assist anglers in planning their next fishing adventure on recreational fishing water bodies.
- Forty-three scientific fish collection and 47 live fish handling permits, which also include Interprovincial fish movements, were issued.
- The Fisheries Science and Fish Culture section undertook the third year of a multi-year study assessing hatchery-reared Lake Sturgeon movement and behaviour in the Assiniboine River.
- The Fisheries Science and Fish Culture section undertook ongoing environmental review of fisheries impacts associated with the Keeyask Hydro electric Generating Station project and Manitoba Infrastructure’s Lake Manitoba and Lake St. Martin outlet channels project.
- The Fisheries Science and Fish Culture 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 Science and Fish Culture section continued work on a Lake Sturgeon conservation agreement between Canada, Manitoba and Manitoba Hydro.
- The Fisheries Science and Fish Culture section participated on a Canadian Council of Fisheries and Aquaculture (CCFAM) Task Group review of the 2018 proposed changes to the federal Fisheries Act. This task group acts as a venue for communication and cooperation between the Department of Fisheries and Oceans and provinces and territories regarding amendments to the Fisheries Act. The Task Group examines the proposed changes in Bill C-68, and how the amendments may be operationalized through policy/regulatory development and through departmental policy/programming/resources changes.
- Fisheries Science and Fish Culture section continued to work with the Canadian Food Inspection Agency (CFIA) - Aquatic Animal Health Program on the implementation of a

national fish health surveillance monitoring plan for Spring Viraemia of Carp and Whirling disease. CFIA tested 185 trout from the Whiteshell Hatchery for Whirling disease. All samples revealed negative results. Whirling disease was first reported in Canada in Johnson Lake, Alberta in 2016.

- Thirty-one aquatic invasive species permits issued to authorize the possession of an aquatic invasive species, in this case, for educational purposes. Three AIS exemption authorizations, and five transportation authorizations were issued.
- Whiteshell and Swan Creek hatchery targets for Walleye were met. Hatchery targets for salmonids (trout species) were surpassed. The production and distribution from the total fish hatchery system included:

Walleye Fry	45,000,000	± 30%
Trout (fingerlings and yearlings)	455,808	± 10%

The Aquatic Invasive Species (AIS) unit:

- Provided training on aquatic invasive species, federal and provincial legislation, and watercraft inspection to all front line Royal Canadian Mounted Police (RCMP) officers and the inland water transport instructors.
- Worked with the newly established Department of Fisheries and Oceans (DFO) Prairies Area AIS Unit and provincial counterparts in Saskatchewan and Alberta to set priorities and develop a work plan for the Federal Unit.
- Developed partnerships with interested cottage associations, municipalities, and other organizations, such as the Manitoba Métis Federation, Riding Mountain Biosphere Reserve and Sandy Lake Cottagers Association, to help raise awareness of AIS and work towards implementing voluntary watercraft inspection programs within their jurisdictions.
- Began development of the certified service provider program.
- Provided comprehensive training on aquatic invasive species, federal and provincial legislation and watercraft inspection to all conservation officers and new park patrol officers and supplemental training to returning park patrol officers.
- AIS staff continued to participate on an inter-branch committee (including Manitoba Hydro) and a Western Province and Territory working group that examines pesticide registration and use for users (including rural municipalities and Indigenous communities) whose water supply is invaded with AIS.
 - o With direction from Health Canada’s Pest Management Regulatory Agency, the Minister of Sustainable Development authorized, through the delegated authority under the federal Aquatic Invasive Species Regulation, the use of chlorine for Manitoba Hydro to treat facilities impacted by zebra mussels.

- o Continued to work with staff from Health Canada's Pest Management Regulatory Agency to inform interested persons on the federal requirements to register possible zebra mussel control products for use in Canada.
- Provided presentations and training to the public, target groups, organizations, community groups, provincial and federal government departments including the Manitoba Float Plane Council, cottage associations, Science Teachers' Association of Manitoba, and Mid-Canada Marine Powersports Dealers Association. Staff participated in trade shows to provide information regarding the status, distribution of species, how to slow the spread of species such as zebra mussels to offset ecological and economic costs to the province and discussed adaptation to communities around Lake Winnipeg that are either being impacted, or that could be impacted, by the presence of zebra mussels.
- Distributed outreach material to all Sustainable Development regional and district offices, campgrounds and provincial parks, Travel Manitoba regional tourism centres, and interpretive centres such as Fort Whyte Alive and Oak Hammock Marsh.
- Sent 75 letters directly to water-garden companies in Manitoba notifying them of the AIS Prohibited Species List to ensure they are not selling any illegal species.
- Continued its watercraft inspection program. Watercraft inspectors, six decontamination units (five trailer-pulled units and one stationary unit) were deployed at strategic highway pinch points (Headingley, Eriksdale, The Pas, and Swan River) and high traffic boat launches (Selkirk and Grand Rapids). The program ran from early-June to late October. In the 2017 season, more watercraft inspections (9,889) and decontaminations (1,050) were conducted than in the previous two years combined. Five mussel fouled watercraft were intercepted which is also up from previous years. Watercraft from 26 states and 6 provinces/territories were inspected.
- Monitored 95 waterbodies in Manitoba for zebra mussels. Samples were taken in partnership with Regional Operations, Water Science and Watershed Management branch, Swan Valley Sport Fish Enhancement, Manitoba Hydro (North-South Consultants), Lake Winnipeg Research Consortium, Department of Fisheries and Oceans (Science and AIS Prairies Area Unit), and Riding Mountain National Park.
 - o Ninety-one non-invaded waterbodies were sampled throughout Manitoba based on watercraft movement, proximity to invaded waterbodies, and opportunistic sampling events.
 - o With the exception of Whirlpool Lake, no zebra mussel veligers, adults, or environmental DNA were detected. Where water samples were collected for veliger analysis, the samples were also analyzed for the presence or absence of spiny waterflea. No spiny waterflea were found in waterbodies where they were not already known to occur (e.g. Lake of the Woods, Winnipeg River, and Lake Winnipeg). The new detection at Whirlpool Lake in Riding Mountain National Park was an environmental DNA detection. No veligers or adult zebra mussels were confirmed.
 - o Following the suspect zebra mussel detection in Singush Lake, the Aquatic Invasive Species unit effectively implemented a rapid response protocol. The AIS unit worked

with regional staff and cottagers to implement a containment strategy and prevent any potential movement of zebra mussels out of Singush Lake. The containment strategy continued in 2018 and will likely be in place until 2020 until such time the lake can be verified to be invaded or free of zebra mussels. The lake was monitored throughout the open water season and no zebra mussels were detected.

- o Following up on the detection of two single zebra mussel veligers found in Cedar Lake in 2015, thirty zebra mussel veliger samples were collected in 2017 to confirm their presence and determine the extent of the infestation. No zebra mussel veligers or settled zebra mussels were detected.
- o Lake Winnipeg, a zebra mussel invaded waterbody, was monitored through the summer and fall to document this species' spread and establishment into the channel and north basin. Results indicated that zebra mussel veligers and adults are now within the channel and the southern portion of the north basin.
- o No further monitoring occurred on the Red River, a zebra mussel invaded water body, as veligers were found throughout the Canadian portion of the river.

**Table WSB.3
12.4(c) Wildlife and Fisheries**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,331	64.35	5,011	(680)	1
Other Expenditures	2,137		2,241	(104)	2
Grant Assistance	874		874	0	
Northern Fisherman's Freight Assistance	410		410	0	
Total 12.4(c)	7,752	64.35	8,536	(784)	

1. Under-expenditure is due to vacancies.
2. Under-expenditure due to reduction in discretionary spending.

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. See detail on project accomplishments under Biodiversity, Habitat, and Endangered Species Section.

Table WSB.4
12.4(d) Habitat Enhancement Fund

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Other Expenditures	45		45	0	
Total 12.4(d)	45		45	0	

The Fish and Wildlife Enhancement Fund

The Fish and Wildlife Enhancement Fund (FWEF) is established under the authority of The Fish and Wildlife Enhancement Fund Act and its Regulation (57/2014). The purpose of FWEF is to support 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. FWEF derives its revenue from levy on angling, hunting and trapping licences and the Water Stewardship Advisory Board Secretariat provides overall management and administration support to the Fund. Two subcommittees, comprised of representatives from angling, hunting, trapping, and conservation organizations review proposals and make funding recommendations on fish and wildlife enhancement initiatives.

Fish Enhancement

The Fish Enhancement Subcommittee met twice (May 2017 and October 2017) to review 45 projects.

Key Results Achieved:

Grant funding of \$1,125,218.50 to support the following 24 initiatives:

- FLIPPR Lakes – Trout Assessments and Lake Management – \$44,000 to assist in assessing trout populations in stocked lakes and working to develop lake management plans in the Southwest Parkland Region.
- McIntyre Anglers Program Spring/Summer/Fall 2017 – \$6,900 to assist students in learning about the diversity of ecosystems in the greater Winnipeg area.
- Trap and Gill Netting Assessment of Fish Communities in Dauphin Lake – \$2,060 to assess fish communities in Dauphin Lake through trap and gill netting.
- Angler Lake Information and Bathymetry Project – \$79,868 to conduct sonar and bio-analysis surveys on angling water bodies to gather bathymetry data, assessment of stock and attribute data for water body angling data sets.
- Silver Beach Aeration Project – \$21,830 to support the installation of an aeration system.
- Shell River Fish Passage Monitor/Assessment – \$25,000 to monitor and assess the recently constructed fish passage over the Shell River Weir.
- Pelican Lake Spawning Shoals Installation – \$24,350 to install spawning shoals in Pelican Lake to establish a more sustainable Walleye fishery.
- Lake Winnipeg Small Fish Survey Analysis – \$56,000 to analyze the small-bodied fish community in Lake Winnipeg to provide information on the juveniles of recreationally targeted fish stocks and the forage base related to this fishery.
- Investigating Black Crappie Populations to Enhance and Manage the Fishery in Manitoba – \$62,300 to conduct a study of multiple aspects of Black Crappie populations in Manitoba to support and enhance management and angling opportunities for this species in local recreational waterbodies.

- Icelandic River Fish and Habitat Assessment – \$24,000 to assess the quantity and quality of fish spawning and rearing habitat in the Icelandic River.
- Aquatic Ecosystems Sustainability Initiative at Acadia Junior High – \$4,990.50 to provide ecosystem based learning tools and programming that will aid in creating future environmental stewards of aquatic ecosystems.
- Lake Winnipeg Creel Survey, Year 2 – \$38,000 to conduct a winter creel survey to provide data on catch rates, angler effort, and angler satisfaction that will aid in setting goals for the fishery and for comparison on past and future usage.
- Fish Regulation Signs – \$1,800 to assist in preventing the spread aquatic invasive species by developing and installing education awareness angling signs.
- Bathymetric Mapping – \$3,900 to conduct bathymetric/contour mapping of lakes in the Roblin area to support future fish habitat enhancement initiatives.
- Parkland Trout Fisheries Angling Maps Sign Installation – \$1,760 to install bathymetric maps at access points of popular trout angling destinations in the Parkland region.
- Lake Winnipeg South Basin Quota Purchase - \$400,000 to develop a commercial fishing free zone at the south end of Lake Winnipeg that will aid in reducing Walleye mortality rates and improve the sustainability of the fishery. This initiative helps reducing the by-catch of Channel Catfish and Lake Sturgeon, the latter a recovering species at risk.
- Channel Catfish Commercial Fishery Compensation – \$22,000 to enhance the Red River trophy Channel Catfish fishery and to reduce degradation of the species due to increased commercial fishing related mortality.
- Physiological Effects of Catch and Release on Adult Lake Sturgeon – \$57,500 to conduct a study on stress responses of angled lake sturgeon.
- Comprehensive Recreational Fisheries Projects in the North Parkland – \$125,875 to improve angling and fisheries management of local recreational waterbodies.
- Discovering Angling Opportunities in the Parkland – \$22,450 to compile angling to create a user-friendly portal to access Parkland angling information.
- Parkland Trout Fisheries Trap Nets – \$5,000 to conduct seasonal fish stock inspections, monitor fish stock health, and quality of fish stock populations with a fish-friendly trap net, which will help to improve angling and fisheries management of local recreational waterbodies.
- Lake Winnipeg Basin Fish Movement Study – Data Collection and Analysis – \$56,000 to conduct a study on changes in fish behaviour, movement patterns, and habitat use and to identify possible detriments to recreational fisheries. The Lake Winnipeg ecosystem is subject to multiple stressors (nutrient influx, introduction of aquatic invasive species, climate change, and commercial and recreational fishing pressures) which may affect the

Walleye and Channel Catfish populations, and subsequently the stability and dynamics of the recreational fishery.

- Fisheries Assessment Program Technical Support – \$35,000 to support technical work on fish age and other assessment programs. Data is used to generate fish stock information to manage recreational and commercial fisheries in the province.
- 2nd Youth Fly Fishing Educational Camp in the Parkland Region/Rosburn - \$4,635 to support Youth Fly Fishing Educational Camp, which will provide youth with knowledge and interest in recreational angling in local waterbodies.

The FWEF also provided funding 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 costs related to hatchery staff salaries; 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 September 2017. The winning artwork entitled “The Hunter”, painted by Linda Barringer, was unveiled at Oak Hammock Marsh Interpretive Centre and became the stamp image on the 2018 recreational angling licence.

Wildlife Enhancement

The Wildlife Enhancement Subcommittee met twice (August 2017 and March 2018) to review 28 projects.

Key Results Achieved:

Grant funding of \$518,131.00 to support the following 16 initiatives:

- You Can Make a Difference Caribou for the Future Phase II: Grade 7-12 Poster/Prose Contest – \$5,000.00 to increase public awareness and support for the conservation of barren-ground caribou across the Beverly and Qamanirjuaq caribou ranges.
- Game Hunting Area (GHA) 26 Moose Survey – \$114,930.00 to conduct a survey to clarify moose population trends and develop models for projecting population outcomes under various hunting-harvest strategies.
- Moose Ecology in the Duck Mountains – \$13,720.00 to conduct a moose survey in Duck Mountains Provincial Park that will investigate seasonal movement patterns, habitat selection and calving rates, which will aid in determining how moose use the landscape throughout the year.
- Movements and Habitat Selection of the Cape Churchill Caribou Population – \$55,000.00 to map distribution and movements of the Cape Churchill Caribou herd.
- Wild Boar Sounder Trapping - \$18,912.00 to facilitate and protect wildlife habitat for native species.

- Whiteshell Trappers' Museum Public Education Program - \$5,000.00 to inform and educate on animal populations and how modern trapping fits into managing populations.
- Wildlife Regulations Researcher - \$30,000.00 to assist with cross-jurisdictional research towards improving the sustainability and management of the province's wildlife populations.
- Water Retention Project on the Gerald W Malaher WMA - \$5,159.00 towards repair of dam that will assist in re-instatement of ecosystem and increase of wildlife diversity.
- Chronic Wasting Disease Education and Outreach - \$11,000.00 to provide education and outreach materials that will provide greater understanding of the disease and its potential impacts.
- Manitoba Important Bird Areas Program Wetland IBAs Outreach - \$3,690.00 to assist with education and outreach workshops that deliver monitoring and identification training.
- Netley-Libau Marsh Restoration Pilot Project and Feasibility Study - \$20,000.00 to support feasibility study examining impact on fisheries, plant restoration and enhancement of habitat.
- Elk Habitat Selection and Reproductive Success in Manitoba's Human-Modified Landscapes -\$57,000.00 to assist in understanding habitat and use of information to influence population growth.
- Evaluating Human Influence on Nutritional and Psychological Stress of Manitoba Elk - \$24,500.00 to assist with management of population health.
- Habitat Use and Distribution of Moose in Game Hunting Area 21A - \$52,120.00 to inform on the seasonal distribution and habitat use of the moose population and provide wildlife managers with information to protect and enhance key habitats and use of the population.
- Investigating Potential Causes of Active Fox Decline in Northern Manitoba - \$51,000.00 to obtain information that will assist in predicting future population trends and potential disease patterns.
- Spring Migration Chronology of Canada Geese and Cackling Geese – Graduate Student Support - \$20,700.00 to assist with obtaining better understanding of migration that will inform wildlife management decision making.

Fish Enhancement Fund*

Closing Fund Balance (March 31, 2018) \$2,007*
 *(thousands of dollars)

Wildlife Enhancement Fund*

Closing Fund Balance (March 31, 2018) \$952*
 *(thousands of dollars)

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 the ecological integrity and overall health of each watershed is protected by empowering local district boards to make decisions that will have positive impacts for present and future generations.

Manitoba provides annual grants to support conservation district operation and programming in thematic 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 2017/18, provincial grants totaling \$5,312,000 were provided as follows:

Alonsa	\$ 290,000
Assiniboine Hills	\$ 316,000
Cooks Creek	\$ 301,000
East Interlake	\$ 300,000
Intermountain	\$ 268,000
Kelsey	\$ 155,000
Lake of the Prairies	\$ 200,000
La Salle Redboine	\$ 222,000
Little Saskatchewan River	\$ 200,000
Pembina Valley	\$ 359,500
Seine-Rat River	\$ 378,000
Swan Lake Watershed	\$ 225,000
Turtle Mountain	\$ 303,000
Turtle River Watershed	\$ 426,000
Upper Assiniboine River	\$ 270,000
West Interlake Watershed	\$ 200,000
West Souris River	\$ 203,500
Whitemud Watershed	\$ 695,000
Total:	\$ 5,312,000

The annual budgets and activities of the eighteen conservation districts are overseen and directed by Watershed Planning and Programs section staff within Water Science and Watershed Management branch.

**Table WSB.5
12.4(e) Conservation District and Watershed Assistance**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Other Expenditures	5,312		5,312	0	
Total 12.4(e)	5,312		5,312	0	

Office of Drinking Water

The Office continues to monitor the construction and operation of licensed public and semi-public water systems, implement a progressive risk based enforcement strategy, facilitate water system compliance with regulatory requirements and address long-term boil water advisories, and improve educational materials and technical support to private water system owners.

Key Results Achieved:

- Amendments to The Drinking Water Safety Act included:
 - Adding discretionary powers to reduce the frequency of water system assessments where it is safe and reasonable to do so;
 - Eliminating the need to submit a permit application for minor water system alterations; and
 - Eliminating laboratory emergency reporting requirements for standards that do not present an immediate health risk.
 - The Office developed and conducted training for operators of small seasonal water systems on the new checklist-based process for Assessments of Water System Infrastructure and Water Sources. The Office also updated the assessment checklists in response to feedback from clients, and developed internal procedures for reviewing checklist assessments submitted by water system owners.
- Worked with provincial Public Health Inspectors to eliminate overlap in the regulation of Food Handling Establishments with independent water systems, clarify responsibilities, reconcile data, and develop and implement a rapid registration and interim licencing process. These efforts brought approximately 200 additional semi-public water systems into the regulatory framework within a few months, with 183 new semi-public water system operating licences issued.
- In fulfilment of the responsibilities associated with the construction and operation of licensed public and semi-public water systems in FY 2017/18, the Office of Drinking Water:
 - Issued 50 public and four (4) semi-public water system construction permits under The Drinking Water Safety Act;
 - Completed 13 post-construction inspections for major water system upgrade projects;
 - Undertook 30 pre-approval site visits to smaller systems to provide advice on low-cost options available to improve compliance and drinking water safety;
 - Issued 12 new public water system operating licences, 73 renewals, nine (9) amendments and nine (9) revocations, bringing the total number of licensed public water systems to 484;
 - Issued 56 new semi-public water system operating licences, 27 renewals, six (6) amendments and 12 revocations, bringing the total number of licensed semi-public water systems to 460;

- Monitored raw and treated water quality for 434 public water systems and 553 semi-public water systems;
- Completed 200 routine and unscheduled on-site inspections of public water systems and 116 inspections of semi-public water systems;
- Issued 376 public water system report cards (annual audits);
- Reviewed water system infrastructure assessment reports for 29 public and five (5) semi-public water systems;
- Reviewed eight (8) public water system compliance plans outlining steps that public water system owners intend to take to bring their water system into compliance with microbiological, chemical, and physical standards;
- Approved two (2) compliance plans;
- Took enforcement action to address the most critical non-compliance issues associated with bacteriological and disinfection standards, including:
 - Issuance of 14 warnings and one (1) ticket; and
 - Laid charges against three (3) water systems by long-form information, a more formal process that summons the accused to court directly.
 - Two of the three cases remain ongoing. The third case resulted in a conviction and greatly-improved compliance. This system is now off boil water advisory.

- Major project reviews completed in 2017/18 include regional water supply and treatment systems for Gimli and Russell-Binscarth, a secondary water supply and treatment system for Steinbach, and major upgrades at St. Malo Provincial Park, Glenella and Shoal Lake.

- The Office provided technical support to water system owners and operators through developing guidelines for membrane turbidity monitoring and direct integrity testing; conducting tracer studies to determine baffling factors for chlorine contact tanks; and reviewing performance reports and pilot studies for acceptance of new ultraviolet (UV) disinfection, trihalomethane (THM) control and membrane filtration technologies suitable for small systems.

- The Office developed and published several concise, easy-to-read Operational Guidelines to assist public and semi-public water system owners and operators in interpreting and provide advice on best practices. Operational Guidelines published to date include guidance on:
 - Well Head Assessments - and Well Head Assessment Form
 - Seasonal Systems - Start-up and Shut down Procedures
 - Operating a Semi-public Water System
 - Collecting Bacteriological Water Samples
 - Interpreting Water Quality Results
 - Understanding Bacteriological Compliance
 - Emergency Reporting
 - Corrective Actions
 - Disinfection and Turbidity Requirements; and
 - Water Advisories.

- Continued to work with Manitoba Health, Seniors and Active Living to implement proposed changes to the Guidelines for Canadian Drinking Water Quality for lead, manganese, and cyanobacterial toxins in drinking water. Several community water system owners participated in testing the voluntary tap water quality monitoring protocol for lead in drinking water developed last year. Where concerns were identified, the Office worked with the communities and regional Medical Officers of Health to develop targeted communication strategies to advise affected residents of potential concerns and how to address them.
- In support of the new guideline for cyanobacterial toxins in drinking water, the Office worked with provincial partners to develop visual inspection and monitoring forms for public and semi-public water system operators, and guidance for operators and internal procedures for regional drinking water officers on how to respond to algal blooms. The Office provided field test kits to water system owners to evaluate their effectiveness in monitoring for cyanobacterial toxins; and issued three (3) drinking water avoidance advisories to private water system owners in response to identified blue-green algae (cyanobacteria) concerns.
- In support of the private water system program, the Office:
 - Coordinated and funded private well bacteria sampling programs with six (6) Conservation Districts throughout Manitoba;
 - Compiled and reviewed 2,327 private well bacteriological test results submitted through provincial private well subsidy program;
 - Responded to 828 telephone inquiries from concerned private water system owners;
 - Presented well sampling recommendations and drinking water safety information to Oak Lake Aquifer Management Board and Turtle Mountain Conservation District Water Well Workshop; and
 - Worked with partners in Health, Seniors and Active Living, Agriculture and Sustainable Development's Contaminated Sites Unit to conduct private well sampling or communicate with potentially impacted private water system owners on drinking water safety issues.
- In support of other provincial programs, the Office:
 - Reviewed and commented on 116 Environment Act proposal / licence submissions;
 - 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 (MWWA); and
 - Made multiple presentations at the Manitoba Water and Wastewater Association's annual conference.
- The Office updated counts of regulatory requirement associated with amendments to The Drinking Water Safety Act and supporting regulations; identifying substantial reductions in regulatory burden for water system owners and operators while still maintaining a robust and effective regulatory program to help ensure safe drinking water for all Manitobans.

**Table WSB.6
12.4(f) Office of Drinking Water**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,356	28.00	2,471	(115)	1
Other Expenditures	620		645	(25)	
Total 12.4(f)	2,976	28.00	3,116	(140)	

1. Under-expenditure due to vacancies.

Drainage and Water Rights Licensing

This branch, formerly the Drainage and Water Control Works Licensing branch, is responsible for administering and enforcing The Water Rights Act as it relates to water control works and water use and diversion.

Water control works include construction and maintenance of private and municipal surface and subsurface drainage, dams and works causing changes to water flow direction or volume.

Water use for municipal, agricultural and industrial purposes such as town water supplies, irrigation and manufacturing is apportioned and authorized under The Water Rights Act. The Water Use Licensing Section of the branch is responsible for administration and enforcement of the Act related to water use.

Drainage Section

Authorization and enforcement of The Water Rights Act related to water control works is the responsibility of the Drainage Section of the branch. The need for authorization of water control works is intended to determine and mitigate impacts resulting from construction of water control works. Section staff include Water Resource Officers, Senior Water Resource Officers, and Geographical Information Systems Operator.

Key Results Achieved:

- Licensing – the Drainage Section received 1,437 new applications and issued 750 licenses. Staff responded to 54 formal drainage complaints.
- Enforcement – A total of 37 tickets and charges were issued under The Water Rights Act. An additional 58 warnings were issued for unauthorized water control works. A total of five ministerial orders were issued to address ongoing impacts of unauthorized water control works.

Water Use Licensing Section

Under the authority of The Water Rights Act, this section processes applications that request the allocation of surface water or groundwater for municipal, agricultural (e.g., livestock), industrial, irrigation, and other purposes. The primary duties of this program include: (1) effectively allocating water for beneficial uses while ensuring the protection of the interests of all Manitobans, and potentially directly affected third parties; (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 Use Section staff also respond to requests to divert water for short term purposes. The section is comprised of hydrogeologists, licensing technologists, water resource specialist and database and analytics technologists.

Key Results Achieved:

- Number of valid and subsisting water use licences was the highest on record (1,368).

- Number of applications for new projects waiting approval was the lowest on record (139).
- Number of applications for renewal, transfer or amendment waiting approval continued to decline (77).
- Invoices for water use charges issued to 'Industrial' and 'Other' users totaled \$61,678 (up 0.73 per cent from 2016/17).
- In January 2017, the Drainage and Water Rights Licensing branch held a continuous improvement lean management event on the drainage licensing application process. Several action items were identified to improve the overall process. Many of these action items were implemented to reduce wait times experienced by applicants.
- The Sustainable Watersheds Act was introduced on November 30, 2017. In association with The Sustainable Watersheds Act, amendments to The Water Rights Act allows a streamlined registration process for low-risk/low-impact projects such as culvert replacements, maintenance of drains. Regulation development is currently underway to describe the types of projects that could proceed through this streamlined registration process.

Table WSB.7

12.4(g) Drainage and Water Rights Licensing

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,189	30.00	2,403	(214)	
Other Expenditures	383		526	(143)	
Total 12.4(g)	2,572	30.00	2,929	(357)	1.

1. Under-expenditures in Salaries due to vacancies and reduction in discretionary spending.

Water Stewardship Initiatives

Water Stewardship Initiatives section 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, and fisheries.

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 protect and restore wetlands including continuing an inventory of wetlands, and to monitor for pharmaceuticals in surface waters. 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 for efforts to eco-certify the province's fisheries. It also supported the fisheries co-management board on Lake Winnipeg, and 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 helped manage transboundary water issues between the United States and Canada and between Canadian provinces, helping facilitate the inclusion of local stakeholders in water governance. 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 the Manitoba Eco-Network's Water Caucus.

Table WSB.8
12.4(h) Water Stewardship Initiatives

Expenditures by Sub-appropriation	Actual 2017/18 \$ (000)	FTE	Estimate 2017/18 \$ (000)	Variance Over/(Under) \$ (000)	Expl. No.
Grant Assistance	654		672	(18)	
Other Expenditures	140		94	46	
Total 12.4(h)	794		766	28	1.

1. Over-expenditures is due to payment of Northwest Area Water Supply Project legal obligations.

Forestry and Peatlands

The Forestry and Peatlands branch serves to maintain and enhance benefits for Manitobans 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 all regions to ensure that the programs and services are delivered consistently across the province.

The branch is organized into 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 sectors.

Timber Administration Program

This program administers timber harvesting, provides cutting authorities, and monitors harvest volumes. The program tracks commodity timber prices, sets Crown Timber dues rates, 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, Softwood Lumber, and Oriented Strand Board (OSB) continued to be high throughout 2017/18. This, combined with the strong United States (US) dollar, had Standard Distance Kraft dues rates ranging from \$5.77 to \$6.76 cubic metres (m³). Standard Distance Softwood Lumber dues rates ranging from \$3.44 to \$6.98/m³ and OSB Standard Distance dues rates ranging from \$4.22 to \$10.65/m³. Newsprint dues remained at base rates throughout 2017/18.
- In total, 1,350,038 m³ of Crown timber was harvested in Manitoba and \$5,377,748 in revenue was collected from Timber Dues and Charges in 2017/18. Overall volume and revenue increased in 2017/18. Volume reported by all Electronic Data Transfer (EDT) mills was up and timber dues increased during 2017/18.
- Jack Pine Budworm salvage continued in the north interlake area. There was over 287,000 m³ of wood delivered from the north Interlake area.

- 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.
- The program 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. Additionally, branch staff on these committees contributed to national CCFM publications in 2017, such as, the “The State of Canada’s Forest” Annual Report, and “A Forest Bio-economy Framework for Canada”.
- In 2016, the US Department of Commerce launched a Countervailing Duty (CVD) Investigation into the import of softwood lumber from Canada. In coordination with representatives from Growth, Enterprise and Trade, the branch continued to stay engaged with the government of Canada and our provincial counterparts with respect to the ongoing softwood lumber trade dispute.

Wood Measurement Program

This program ensures that Manitoba’s scaling methods are consistent with national standards, provides wood measurement training and licensing, calculates scaling factors for determination of net volumes, and monitors industry wood measurement programs. The program makes sure that 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 is required for the measurement of harvested Crown timber. At the end of the reporting period, there were 71 licensed scalers recorded in Manitoba.
- Worked with regional forestry staff to collect scaling data to update mass conversion factors, undersize and defect percentages for various mills in Manitoba.
- Hosted a scaler’s licence training course in Swan River for individuals requiring a new scalers licence. There were nine participants.

Forest Management Planning Program

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

Key Results Achieved:

- Canadian Kraft Paper Inc. (CKPI) submitted a two-year Operating Plan that was approved in October 2017 to allow for Section 35 Consultation.

- Annual meetings with Louisiana Pacific and CKPI occurred in December 2017.
- The FML#3 Steering Committee continued to work on the development and submission of a new Forest Management Plan.

Renewal Program

This program ensures 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 maintains tree improvement seed orchards.

Key Results Achieved:

- In 2017, the renewal program contracted the planting of 2,118,000 trees on approximately 1,060 ha of Crown land. This was accomplished through five tendered contracts.
- Renewal surveys were conducted on 1,011 ha of renewal blocks, 284 hectares (ha) of hardwood blocks, and 727 ha of softwood blocks. Of the hardwood renewal areas surveyed, 251 ha achieved the provincial regeneration standards. Free to Grow (FTG) surveys were performed on 2,733 ha of softwood dominated forest stands. The surveys indicated 2,138 ha achieved the provincial FTG standard for softwood leading renewal blocks.
- A total of 62 hectoliters of Black Spruce and Jack Pine cones were collected in 2017 for future renewal efforts across the province. There were 14 seed orchards for jack pine, white spruce, and black spruce and 27 associated family tests across the province.

Forest Practices Program

The program coordinates the development of various forest practices guidelines. The Forest Practices committee is comprised of representatives from other branches and departments of the Manitoba government and the forest industry.

The approved guidelines are available online:
www.gov.mb.ca/sd/forestry/practices/guidelines.html

Peatlands Management Program

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

Key Results Achieved:

- In 2017, 1,846,776 m³ of peat was harvested in Manitoba and \$221,613.18 was collected in revenue from peat royalties and charges.
- Ten peat-harvesting companies continued to hold 22 peat harvest licenses in Manitoba.
- Monitored and updated active harvest areas to reflect 2017 aerial imagery.
- The Peat Harvest Licensing Guide, Peatlands Management Plan Guidelines, and Peatlands Recovery Plan Guidelines were published in September 2017.
- The branch continued to support peatland restoration research conducted by the Peatland Ecology Research Group from the Université Laval.
- The branch continued to develop a provincial peatlands inventory and maintained a significant peatlands inventory.

Crown-Indigenous Consultation Program

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

Key Results Achieved:

- Completed consultation for Canadian Kraft Paper Industries (CKPI) 2017-2019 Operating Plan.
- A Consultation Steering committee, formed in September 2017, met regularly to discuss details of proponent engagement and Crown-Consultation for the FML-3 long-term Forest Management Plan (FMP). Branch staff maintained regular communication with LP to advise the company on Indigenous Engagement for their long-term FMP.
- Regional Foresters met regularly with Misipawistik Cree Nation to provide updates on the current outbreak of Jack Pine Budworm (JPBW) and explain pest management activities occurring in the region and in nearby areas of the community.
- Continued discussions with the Manitoba Métis Federation (MMF) to develop a consultation process with the Métis on various forestry operating plans.
- Met with Fisher River Cree Nation to provide further information on Interlake peat harvesting and to explain the specifics of Berger Peat Moss Ltd.
- Continued to work towards an Indigenous-led forest industry development on the east side of Lake Winnipeg (formerly known as Forest Management License #1).
- Participated on the department's Crown-Indigenous Consultation Working Group.

- Collaborated with Indigenous and Northern Relations (INR) to test an electronic database tool designed to track department's Indigenous engagement and crown-consultation efforts.
- Worked closely with Contracts and Grants branch as part of a "LEAN" process to streamline the administrative application process for Crown-Aboriginal Consultation Funding Agreements (CACPF).

Indigenous Engagement and Reconciliation Program

This program focus is on meaningful engagement and reconciliation activities with Indigenous peoples and communities. The program participated in a variety of workshops to learn, share knowledge and forest information. The program builds capacity and Indigenous awareness within the branch.

Key Results Achieved

- Sponsored and attended the Indigenous Mapping Conference in Winnipeg, September 2017. The event welcomed hundreds of Indigenous people from across Canada, including representation from one third of the Indigenous communities in Manitoba. Discussions with conference participants helped develop the framework for this program.
- Introductions and contacts were made within the National Aboriginal Land Managers Association (NALMA) and the provincial organization Manitoba Indigenous Land Managers (USKE). In February, branch staff introduced the program and shared forest information with many land managers at the annual USKE meeting hosted by Swan Lake First Nation in Headingley. NALMA offered to share and distribute information with all USKE members for the province upon request.
- The branch participated as a member on the Sustainable Forest Management Committee. Community meetings lead by Canadian Kraft Paper Industries were held in The Pas.
- Delivered forest education to Indigenous youth in the spring of 2018. Participated in Dakota Ojibway Tribal Council 2nd annual Tipi Teachings for grades 6, 7, 8 in Waywayseecappo and Portage la Prairie. Over 250 youth were engaged. Participated in Career Day at Sapotawayak Cree Nation with other staff. Photos of forestry and related activities were used to start discussions and engage over 75 youth from K-12.
- Participated in Reconciliation activities with Indigenous people. In January 2018, staff participated in the "Residential School to Reconciliation Gathering" in Winnipeg. As a result, an Indigenous awareness component was added to the annual branch meeting. A consultant presented the "The History of the Indigenous People". This activity supports the Truth and Reconciliation Commission of Canada Calls to Action #57.

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

This 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:

- Started a machine learning pilot project to evaluate alternative approaches to determine forest lands inventory attributes using imagery and statistical algorithms with ground truth data.
- Acquired imagery this year from a variety of sensors covering over 780,000 hectares of Crown land across Manitoba. This imagery tracked the response to the budworm outbreak in the Interlake Region and provided other valuable information for planning operations for next year.

Imagery Purpose	Area (ha)
Harvest Operations	384,295.2
Interlake Budworm	248,282.8
Inventory Demo	141,122.6
Peatlands	10,127.8
Total	783,828.4

- In response to a series of cumulative impacts in the Pineland Forest section, an Inventory Demonstration area was established to test new inventory approaches and to assess the cumulative impact on a portion of the forest in this region.
- Acquired and delivered 92 photo-plots from this year and delivered 95 photo-plots acquired from previous years in collaboration with the National Forest Inventory (NFI) section of the Canadian Forest Service. Completed the re-measurement and delivery of 12 NFI ground plots (11 helicopter access).

Coordinated Geographic Information System (GIS) Support Program

This program provides the branch with GIS support, data management, data analysis, mapping, and new technology support. GIS support may also be provided upon request to other branches.

Key Results Achieved:

- Created and improved the Dutch Elm Disease (DED) mobile web maps, an information dashboard and an automated approach to generating community reports for the branch. Developed web maps and apps for the City of Morden staff to access their DED data in near real-time.
- Created a mobile data collection workflow for field services. Continued to explore new interactive approaches to visualizing forest inventory data.
- Created a Community Forest Tree Inventory spatial database to record the location and condition of Manitoba community trees.
- Acquired and processed satellite imagery and other datasets used for Random Forest machine learning forest/peat inventory modelling.
- Provided GIS support to activities associated with the wood supply for Forest Management License 3; supported GIS database updates for harvest depletions, fires and silvicultural activities; continued with the digitization of historical forest inventory data; and provided GIS work for the Assiniboine Delta Aquifer.
- ArcGIS online story maps and other online story contributions:
 - ‘Canada’s Managed Forests’, developed in collaboration with the Canadian Council of Forest Ministers Data Task Team.
 - ‘Smart Digital Strategies for Sustainable Forest Management’, an online story in ESRI ArcNorth News.

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), 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:

- Analyzed the wood supply for part of Forest Management Unit (FMU) 4, a plantation area in Aspen Parkland section.
- Completed the wood supply report for FMUs 11 and 12 of the Mountain Forest Section. A base case for wood supply was developed for FMU 13.

- Provided a wood supply summary of forest resources for the east side of Lake Winnipeg for a forest economic development review, incorporating current land base changes like the World Heritage Site selection.
- Collaborated with the Wildlife branch on the research and evaluation of moose habitat in FMU 13 for FML #3 20-year Forest Management Plan development.
- 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.
- Conducted a tree re-measurement campaign to monitor tree survival, growth and eco-physiologic performances at three Jack Pine assisted migration experimental sites in the Pineland forest section in southeastern Manitoba. Data was added to previous years measurement data for analysis and reporting.
- Worked in partnership with scientists from the National Forest Carbon Sink Committee (NFSC) of the Canadian Forest Service (CFS) to complete provincial forest carbon budget modeling and analyses of the forest sector emissions and mitigation projections.
- Collaborated with Lakehead University, the University of Manitoba, and other partners in developing a 3 year research proposal to assess global change impacts on timber resources availability in central Canada and the economic implication. In spring 2017, the proposal was submitted to NSERC and was approved for funding in fall 2017.
- Collaborated with scientists from the Saskatchewan Research Council, CFS, and other partners in developing of a 2 year research proposal titled “Northern Prairie Forests Integrated Regional Climate Change Assessment”. In fall 2017, the proposal was submitted to NRCan and was approved for funding in early 2018.
- Collaborated with the University of British Columbia’s Biometeorology and Soil Physics group and the Canadian Wood Fiber Center in Edmonton to monitor ecosystem carbon sequestration in conjunction with soil and climate variables (e.g., net radiation, precipitation, soil moisture content, wind speed, soil and air temperature) using the Eddy-Covariance method at a hybrid poplar experimental plantation at Cooks Creek, near Birds Hill.

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, sustaining yield projections and assessing 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 2017/18 reporting period, 69 plots were re-measured and 3 new plots were established.
- Completed an analysis of the field volume sampling data from 13 plots, collected from Scots pine and Jack Pine dominated plantations in FMU4, and developed yield curves to assist in determining sustainable harvest levels for the plantations.
- Continued the pilot study to use the Random Forest machine learning approach to impute forest inventory attributes for Forest Management Unit (FMU) 69.
- Designed a sampling program to collect field data from 95 temporary sample plots in Highrock forest section to validate outputs from the Random Forest pilot study.
- Sampled 43 of 99 temporary sample plots selected in Nelson Forest Section to collect data that are required for further validation of Manitoba-Variant Growth and Yield Prediction System.

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. A total of 124 ground plots (37 Spruce Budworm, 85 Jack Pine Budworm) were surveyed and 6,754 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 2017, while a severe population of Jack Pine Budworm was detected in the Interlake.
- Monitoring for the invasive Emerald Ash Borer (EAB) continued with 38 green sticky traps placed at high-risk locations across the province. In 2017, EAB was detected in Winnipeg. Manitoba responded jointly with the Canadian Food Inspection Agency and the City of Winnipeg. Manitoba provided training and education to municipalities, communities, industry, and the public. All communities were encouraged to participate in monitoring efforts and supplement trap placements.
- Monitoring for the invasive European gypsy moth continued throughout Manitoba in 2017. Low numbers were observed for the majority of 127 sampled areas. However, a ground application of pesticide was applied within the RM of Lac du Bonnet to eradicate a persistent growing population. Treatment was deemed successful.
- 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 might be spreading invasive forest pests.

- Under the new Invasive Species Campaign “Stop the Spread” materials were distributed to provincial parks and 10 different events around Manitoba delivering the message “Protect Manitoba’s Trees - Don’t Move Firewood”.

Urban Forestry Program

The program works closely with Manitoba communities in managing, protecting, and enhancing their urban forest resources. The program administers The Forest Health Protection Act and the Arborist Regulation for tree care workers.

Key Results Achieved:

- Delivered the Dutch Elm Disease (DED) management program for 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 2017, detection surveys marked a total of 5,052 DED infected trees.
- Distributed approximately 200,000 seedlings to educational organizations, communities and provincial parks at events including the Canada 150 Celebration and National Tree Day.
- Continued to work with the Provincial Heritage Tree Program partners, Trees Winnipeg and the Manitoba Forestry Association (MFA), to promote Manitoba’s Heritage Trees and maintain an online database.
- Public outreach continued, with attendance at events, such as the Royal Manitoba Winter Fair, Arbor Day, Eco Day and Enviro Expo. Staff participated in Envirothon events with the MFA.
- Provided support and forest information for the regional and provincial Envirothon competitions. The Envirothon is an environmental education program for grades 9-12. The department supported this program jointly with Agriculture and Education with a \$25,000 annual grant. Indigenous participation in this program increased.

**Table WSB.9
12.4(i) Forestry and Peatlands**

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,911	39.00	4,551	(640)	1
Other Expenditures	7,907		5,838	2,069	2
Grant Assistance	43		50	(7)	
Forest Regeneration Stock	345		345	0	
Total 12.4(i)	12,206	39.00	10,784	1,422	

1. Under-expenditure is due to vacancies.
2. Over-expenditure is due to payment to eliminate the accumulated deficit of Pineland Forest Nurseries Special Operating Agency.

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 R0E 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.

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 SDIF.1

12.4(j) Recoverable from Sustainable Development Innovations Fund

Expenditures by Sub-appropriation	Actual 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Less: Recoverable from Sustainable Development Innovations Fund	(2,410)		(2,410)	0	
Total 12.4(j)	(2,410)		(2,410)	0	

Costs Related to Capital Assets

Costs related to Capital Assets 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 2017/18 \$(000)	FTE	Estimate 2017/18 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
(a) General Assets					
(1) Amortization Expense	1,962		2,153	(191)	
(2) Interest Expense	1,167		1,344	(177)	
(b) Infrastructure Assets					
(1) Amortization Expense	5,513		5,617	(104)	
(2) Interest Expense	6,347		6,780	(433)	
Total 12.5	14,989		15,894	(905)	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:

- Air quality monitoring equipment was acquired to enhance the department's environmental monitoring capacity (air, water and soil) in support of the provincial Environmental Emergency Response Team. The department is named as the prime responding agency for Environmental Emergencies in Manitoba's Emergency Plan.
- Machinery and equipment purchases also included beach cleaners for Lake Winnipeg, garbage refuse packers, a tractor with loader attachments, and a utility terrain vehicle in order to maintain service delivery.
- Continued development of Water Licensing and Land Assessment System (WALLAS). WALLAS is an information management system that administers Water Rights Use and Water Control Works and Drainage licenses required under The Water Rights Act and Regulation.

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:

- Completed upgrades to the Caddy Lake Water Treatment plant.
- Upgrades to the West Hawk Lake Water Treatment System were completed. The project was initiated in response to concerns from local businesses of poor water quality and a decreasing capacity of the system's supply wells.
- The St. Malo Water Treatment Plant was completed under the federal co-funded Clean Water and Wastewater Fund (CWWF).
- Completed minor upgrades to the Spruce Woods Water Treatment Plant.
- Vegetation restoration of tall grass prairie at Beaudry Provincial Park was completed. The restoration included integrated weed management, seedbed preparation and thatch removal, soil testing, seeding, post-seeding weed control, stand assessment and monitoring, and reinforcement planting of weak populations.

- The West Gate Improvements project at Birds Hill Provincial Park was finished. The project involved upgrades to the original 1960's concrete structure, adding a new lane for processing visitor traffic, information signage, and landscaping.
- Continued work on the new Yurt Village at Tulabi Falls Campground in Nopiming Provincial Park.
- Completed electrification improvements and campsite enhancements to modernize amenities at Cache Lake Campground in Duck Mountain Provincial Park.

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 funding initiatives and programs. These designated programs align with departmental priorities, as well as other government initiatives. The SDIF supports Manitoba based programs, projects or initiatives 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, 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. SDIF programs help address various environmental issues, including:

- Waste reduction and prevention;
- Climate change; and
- Natural resource conservation.

Fund Management

The Sustainable and Green Initiatives branch, in partnership with the Climate Change and Air Quality branch and the Financial Services branch, provides overall management and administrative support to the fund, including responding to inquiries and reporting.

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

During 2017-2018 the SDIF supported projects and programs under the following categories:

- Sustainability Initiatives – Open Category

- Manitoba Climate Change Initiatives

Sustainability Initiatives – Open Category

Sustainability Initiatives – Open Category provided support to recycling and waste reduction activities in Manitoba as municipalities, businesses, communities and other organizations continued to seek ways to manage solid waste materials and protect the environment.

Key Results Achieved:

Grant funding of \$562,457.51 to support the following initiatives:

- \$100,000 grant 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 Manitoba communities, businesses and schools.
- \$462,457.51 grant to Multi-Material Stewardship Manitoba (MMSM) to support the Newspaper Recycling Agreement which supported the newspaper industry stewardship obligations to MMSM for packaging and printed paper.

Manitoba Climate Change Initiatives

The Manitoba Climate Change Initiatives category provided support for 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. Manitoba released its new *Climate and Green Plan* with the aim of reducing its GHG emissions. Outcomes of these initiatives include information and data helping to inform government decision making. Adaptation outcomes include improved knowledge and capacity of key stakeholders from governments (municipal and provincial), business, natural resource and infrastructure sectors, Indigenous organizations and communities to understand risks, opportunities and vulnerabilities and develop adaptation plans in line with the Climate and Green Plan as well as enhanced collaboration and partnerships with various sectors.

Key Results Achieved:

Grant funding of \$923,000 to support the following initiatives:

- \$100,000 to Green Action Centre to coordinate and deliver climate friendly active transportation initiatives related to active transportation and green driving public education and outreach.

- \$100,000 to Manitoba Eco-Network Inc. 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 emissions and promotes changes necessary to live more sustainable and climate-friendly lifestyles.
- \$3,000 to Turtle Lodge to support Onjisay Aki “A Changing of the Earth” International Summit on Climate Change in Manitoba bringing Indigenous people together from North and South America.
- \$200,000 to Prairie Climate Centre, University of Winnipeg, to support the expansion of its climate atlas and climate services as part of a research to knowledge program providing governments, businesses, and other practitioners with reliable information to facilitate adaptation planning and resiliency.
- \$100,000 to International Institute of Sustainable Development to explore the potential for a multi-provincial/federal agreement for a new Prairies Region Climate Service Centre. This collaboration improves access to climate science and increase climate services regionally in the context of a national model. The centre supports data products being turned into knowledge that can be applied by decision makers on a local scale.
- \$20,000 to Prairie Regional Adaptation Collaborative for enhanced sustained engagement with Indigenous communities and organizations in Manitoba to understand how their traditional knowledge of the land and water is essential to ensuring resiliency in a changing climate.
- \$20,000 to EnviroEconomics to update greenhouse gas emission and economic modelling for a Made-in-Manitoba carbon pricing plan using a Computable General Equilibrium Model that was previously constructed specifically for Manitoba.
- \$380,000 to Manitoba Sustainable Development in support of engagement for the Made-in-Manitoba Climate and Green Plan released on October 27, 2017. Engagement included communications, social media campaign, and video productions to help stakeholders and the public better understand the policy and institutional contexts of the new plan, as well as key actions and expected benefits to Manitobans from its implementation. These videos are currently located on Manitoba’s Climate and Green Plan website.

Recovery for Departmental Programs

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 providing operating funds for the delivery of the North American Waterfowl Management Plan in Manitoba.

Table SDIF.2**Summary of SDIF Supported Projects and Programs**

Project Categories	Amount Expended
Sustainability Initiatives – Open Category	\$562,457.51
Manitoba Climate Change Initiatives	\$923,000.00
Recovery for Departmental Programs	\$2,410,000.00
Total	\$3,895,457.51

Table SDIF.3**SDIF Five Year Expenditure Summary (\$000)**

For years ending March 31, 2014 - March 31, 2018

APPROPRIATION	Actual/Adjusted Expenditures				
	2013/14	2014/15	2015/16	2016/17	2017/18
Sustainable Development Innovations Fund	3,400.0	3,399.0	3,879.0	4,400.0	3,895.0
Total	3,400.0	3,399.0	3,879.0	4,400.0	3,895.0

Sustainable Development Integration

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

The following activities continued throughout 2017/18:

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:

- Birds Hill Provincial Park celebrated its 50th anniversary with an official ribbon cutting and tree planting ceremonies with dignitaries such as the Manitoba Lieutenant Governor and the Minister of Sustainable Development in attendance. It hosted the 2017 Canada Summer Games bike and triathlon events. Hundreds of spectators and participants attended the well-organized sporting events. The Prairie Love Festival (yoga festival) held an event in Birds Hill for the first time and saw well over 1,000 visitors. Birds Hill Park and Folk Fest received a Manitoba Tourism Award for partnership. Two new life jacket kiosks were built to enhance the Beach Safety Program and to supply lifejackets to visitors of all ages who plan to go swimming. Tree Bay also received an electrical site upgrade to 50-amp service. Birds Hill Beach introduced accessible Mobi-Mats that provided a lightweight non-slip portable roll-out beach access pathway for individuals of all abilities, including pedestrians, wheelchair users, and strollers.

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:

- In 2017, the Forest Renewal Program contracted the planting of 2,118,000 trees on approximately 1,060 ha of Crown land, accomplished through five tendered contracts. Renewal surveys were conducted on 1,011 ha of renewal blocks, 284 ha of hardwood blocks, and 727 ha of softwood blocks. A total of 62 hectoliters of Black Spruce and Jack Pine cones were collected in 2017 for future renewal efforts across the province. There

were 14 seed orchards for Jack Pine, White Spruce and Black Spruce, and 27 associated family tests across the province.

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; and
- 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 within the various geographical and ethnic groups in Manitoba, including Indigenous people to facilitate equitable management of Manitoba's common resources.

Examples:

Delivered forest education to Indigenous youth in the spring of 2018. SD staff participated in Dakota Ojibway Tribal Council 2nd Annual Tipi Teachings for grades 6, 7, 8 in Waywayseecappo and Portage la Prairie. Over 250 youth were engaged; staff participated in Career Day at Sapotaweyak Cree Nation.

Representing the Government of Manitoba, the Pimachiowin Aki Corporation, the Government of Ontario, and four First Nations (Bloodvein, Little Grand Rapids, Pauingassi, and Poplar River) continued to lead the nomination for inscription of a 29,040 km² World Heritage site to the United Nations Educational, Scientific and Cultural Organization (UNESCO) as Canada's first mixed site and associative cultural landscape.

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:

- SD staff continued monitoring for Spruce and Jack Pine Budworm. A total of 124 ground plots (37 Spruce Budworm, 85 Jack Pine Budworm) were surveyed and 6,754km aerial defoliation surveys were flown and mapped to determine population levels in support of management planning. Elevating populations of Spruce Budworm were observed in 2017, while a severe population of Jack Pine Budworm was detected in the Interlake. SD staff monitored the invasive European gypsy moth throughout Manitoba in 2017. Treatment was deemed successful.

- 59 Manitoba beaches were monitored for *Escherichia coli* and algal blooms during the summer of 2017 including 19 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 14 beaches in western Manitoba. 38 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather health. SD staff responded to over 100 water quality data and information requests from the public, consultants, industry, academia, non-governmental organizations, conservation districts, stewardship groups, students and educators, and other provincial and federal agencies in 2017/18.

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:

- Manitoba achieved the proud distinction of having the first sustainable fisheries certified by the Marine Stewardship Council for Walleye and Northern Pike. These fisheries are in Waterhen Lake and reflect the stewardship of the Waterhen Winter Fishers of Skownan First Nation and the Métis settlement of Mallard. A third annual surveillance audit passed and the outstanding conditions on the Northern Pike fishery were cleared with the development of an innovative harvest control rule developed in cooperation with the fishers.
- SD staff monitored 95 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), Lake Winnipeg Research Consortium, Department of Fisheries and Oceans (Science and AIS Prairies Area Unit), and Riding Mountain National Park.

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:

- Forest Renewal program contracted the planting of 2,118,000 trees on approximately 1,060 ha of Crown land, accomplished through five tendered contracts. Renewal surveys were conducted on 1,011 ha of renewal blocks, 284 ha of hardwood blocks, and 727 ha of softwood blocks. Of the hardwood renewal areas surveyed, 251 ha achieved the provincial regeneration standards. Free to Grow surveys were performed on 2,733 ha of softwood dominated forest stands. The surveys indicated 2,138 ha achieved the provincial standard for softwood leading renewal blocks. Also, a total of 62 hectoliters of Black Spruce and Jack Pine cones were collected in 2017 for future renewal efforts across the province. There were 14 seed orchards for jack pine, white spruce and black spruce and 27 associated family tests across the province.

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:

- Representing the Government of Manitoba, the Pimachiowin Aki Corporation, the Government of Ontario, and four First Nations (Bloodvein, Little Grand Rapids, Pauingassi, and Poplar River) continued to lead the nomination for inscription of a 29,040 km² (2.9 million ha) World Heritage site in eastern Manitoba and northern Ontario. Pimachiowin Aki nomination was revised and resubmitted after being referred back by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Pimachiowin Aki would be Manitoba's first World Heritage site and Canada's first mixed site and associative cultural landscape. Less than 1 per cent of all World Heritage sites are in the mixed site - cultural landscape category.

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:

- A total of 64,946 hunting and trapping licences were sold resulting in revenue of \$3.2 million. Manitoba's 6,074 licensed and permitted trappers harvested an estimated \$2.01 million in raw fur from September 1, 2016 to August 31, 2017. A total of approximately 306,000 big game hunter days and 117,000 game bird hunter days were estimated based on 7.2 days per hunter. Approximately 2,295 of the 4,208 allocated big game licences were used by 235 licenced Resource Tourism Operators.

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:

- SD staff delivered the Dutch elm disease management program for 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 2017, detection surveys marked a total of 5,052 Dutch elm infected trees.
- SD staff distributed approximately 200,000 seedlings to educational organizations, communities, and provincial parks at events including the Canada 150 Celebration and National Tree Day.

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:

- GeoManitoba created new public facing web applications to support department's business decisions and the release of information to the public through interactive web maps: waste management including recycling depots and landfills, agriculture soils and weather tracking, commercial fish production, flooding information, drought monitoring, and Manitoba Infrastructure culvert inventory verification.
- SD staff delivered forest education to Indigenous youth in the spring of 2018, and participated in Dakota Ojibway Tribal Council 2nd Annual Tipi Teachings for grades 6, 7, 8 in Waywayseecappo and Portage la Prairie. Over 250 youth were engaged. SD staff participated in the "Residential School to Reconciliation Gathering" in Winnipeg.

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:

- Co-management fisheries harvest plans were developed in partnership with local fishers and regional staff to meet third party sustainable fishing certification for fisheries prosecuted by Skownan First Nation, Mallard, Wuskwi Sipiik First Nation, Mosakahiken Cree Nation, and Chemawawin Cree Nation.

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:

- The twelve industry funded stewardship programs that operate under the Waste Reduction and Prevention Act regulations collectively diverted over 130 million kilograms of end-of-life materials from Manitoba landfills in 2017.

- A total of \$7,327,328.83 from the Waste Reduction and Recycling Fund was rebated to municipalities and Northern Affairs communities based on 73,926.924 tonnes of eligible recycling reported (62 kg/capita).
- \$100,000 grant awarded to support Green Action Centre's Waste Reduction Services, including Environmental Information Services, the Compost Action Project, Environmental Speakers Bureau, and the coordination and promotion of Waste Reduction Week. 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.
- \$462,457.51 grant awarded to Multi-Material Stewardship Manitoba to support the Newspaper Recycling Agreement, which supported the newspaper industry stewardship obligations for packaging and printed paper.

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:

- SD granted \$100,000 to International Institute of Sustainable Development to explore the potential for a multi-provincial/federal agreement for a new Prairies Region Climate Service Centre. This collaborative effort improves access to climate science and increase climate services regionally in context of a national model. The centre supports data products being turned into knowledge that can be applied by decision makers on a local scale.
- SD contributed \$200,000 to Prairie Climate Centre, University of Winnipeg to support the expansion of its climate atlas and climate services as part of a research program to provide governments, businesses, and other practitioners with reliable information to facilitate adaptation planning and resilience. SD contributed \$20,000 to Prairie Regional Adaptation Collaborative for enhanced sustained engagement with Indigenous communities and organizations in Manitoba to understand how their traditional knowledge of the land and water is essential to ensuring resilience in a changing climate.
- SD contributed \$20,000 to EnviroEconomics to update greenhouse gas emission and economic modelling for a Made-in-Manitoba carbon pricing plan using a Computable General Equilibrium Model that was previously constructed specifically for Manitoba.

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 exists 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:

- GeoManitoba updated and maintained ArcGIS Online, the Manitoba Land Initiative and the internal GIS data library to enable access to geospatial information for internal and public use. Key datasets included cadastral data, LiDAR datasets, Assiniboine River Valley Wetland Inventory, Geographical Names, Forestry 2016 Fire Data, Protected Areas, Provincial Parks, Wildlife Management Areas, Treaty Land Entitlement, Manitoba Municipal Boundaries, Highway Inventory, and Road Network. GeoManitoba also created new public facing web applications to support departmental business decisions and the release of information to the public through interactive web maps.
- GeoManitoba achieved \$0.9 M in cost recoveries for survey services to provincial government departments and agencies. Major clients included the Departments of Infrastructure, Sustainable Development, and Indigenous and Northern Relations. The Canadamapsales.com website received 1,272 orders across North America and internationally. This included the sale of maps, 127 annual park passes, and 441 orders for Water and Wastewater Operator Certificates, and provided the public and clients the opportunity to purchase and pay for more departmental products and services through the internet.

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 landfill from Government of Manitoba owned or leased facilities occupied by the department.

Examples:

- The Environmental Emergency Response Program received over 1,800 calls to the Emergency Response 24-hour line, with 514 incidents handled directly by the Emergency Response Team and/or regional designates. The Emergency Response Program received approximately 500 additional non-emergency enquiries related to the transportation of dangerous goods and environmental emergencies.

- Air Quality unit 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.

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:

- Energy unit encouraged the use of low carbon transportation alternatives to help reduce greenhouse gas (GHG) and lower operating costs. Main initiatives include low carbon biofuels blending requirements and encouraging the transition away from internal combustion engines and toward battery electric vehicles. Greenhouse gas emissions reductions linked to transportation fuel use vary from year to year. The branch monitors compliance with biodiesel and ethanol mandate requirements. In 2017/18, the total GHG emissions attributed to the use of biofuels was around 408,000 tCO₂e.
- Climate Change Program 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. The unit 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. It managed provincial program to prevent the release of pollutants contributing to climate change and impacting the stratospheric ozone layer.

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) Reducing 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, increasing the proportion of environmentally preferable products and environmentally preferable services used by the department.

Examples:

- SD continued to provide support to Manitoba communities, Indigenous people and wind energy companies interested in developing and investing in wind energy projects in Manitoba. More than 99 per cent of electricity generated in Manitoba is clean renewable

power. An abundant supply of dependable electricity is anticipated when the 695 MW Keeyask generating station is completed in 2021, adding approximately 4,400 GWh of renewable electricity annually to Manitoba Hydro's total supply. Manitoba has 258 megawatts (MW) of installed wind capacity located in southern Manitoba. Pattern Energy Group owns and operates the 138 MW St. Joseph wind farm.

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 people 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:

- In 2017, 1,846,776 m³ of peat was harvested in Manitoba and \$221,613.18 was collected in revenue from peat royalties and charges, and ten peat-harvesting companies continued to hold 22 peat harvest licenses in Manitoba.
- Partnerships with communities, commercial fishers, and regional staff allowed field data collection of five lakes, where the communities and local fishers entered into co-management with Sustainable Development to achieve sustainable fishing certification for their fisheries: Waterhen Lake, Chitek Lake, Inland Lake, Cedar Lake, and Little Limestone Lake. Eco-certification leads to enhanced reputation and economic development.

Revenue and Expenditure Summaries

**Table RE.1
Reconciliation Statement**

\$(000s)	
DETAILS	2017-18 ESTIMATES
2017-18 MAIN ESTIMATES	\$150,356
MAIN ESTIMATES AUTHORITY TRANSFERRED FROM:	
Enabling Appropriation	
• Internal Service Adjustments	7,045
2017-18 ESTIMATE	\$157,401

Table RE.2

Revenue Summary by Source

For the year ended March 31, 2018 with comparative figures for the previous year

Actual 2016-17	Actual 2017-18	Increase (Decrease)	Source	Actual 2017-18	Estimate 2017-18	Variance	Expl. No.
OTHER REVENUE:							
281	565	284	Clean Environment Commission Cost Recovery	565	100	465	1.
976	536	(440)	Cottaging Initiative	536	732	(196)	2.
843	770	(73)	Environment Fees and Sundry	770	615	155	3.
2,167	2,492	325	Fisheries Fees and Sundry	2,492	1,915	577	4.
4,584	5,806	1,222	Forestry Fees and Sundry	5,806	4,139	1,667	5.
291	297	6	GeoManitoba Fees and Sundry	297	321	(24)	
2,200	1,462	(738)	Land Information Sales and Fees	1,462	1,962	(500)	6.
18,067	18,544	477	Parks Fees	18,544	17,672	872	7.
5,948	6,648	700	Regional Operations Fees and Cost Recovery	6,648	5,320	1,328	8.
120,572	116,851	(3,721)	Water Power Rentals	116,851	110,920	5,931	9.
125	123	(2)	Water Resources Sundry	123	121	2	
3,298	3,132	(166)	Wildlife Sundry	3,132	3,169	(37)	
59	77	18	Translation Services Fees and Sundry	77	212	(135)	10.
449	274	(175)	Sundry	274	300	(26)	
159,860	157,577	(2,283)	Subtotal	157,577	147,498	10,079	
GOVERNMENT OF CANADA:							
0	325	325	Clean Water and Wastewater Fund	325	525	(200)	11.
30	30	0	Ecosystem Monitoring Network	30	30	0	
77	77	0	Minority Language Education and Second Language Instruction	77	77		
25	0	(25)	Waterfowl Crop Damage Prevention	0	25	(25)	12.
132	432	300	Subtotal	432	657	(225)	
159,992	158,009	(1,983)	Total	158,009	148,155	9,854	
233	185	(48)	French Language Services	170	0	170	
8	25	17	Sale of Government Assets	25	0	25	

Explanation Number:

1. Higher revenue due to the recoveries from Manitoba Minnesota Transmission (completion) and Regional Cumulative Effects Hearings.
2. Lower revenue due to fewer sales of Cottage lots on Crown Lands in 2017/18.
3. Higher revenue primarily due to higher Environmental Licence Proposal Fee applications, certification fees and Environmental Remediation.
4. Higher revenue primarily due to increased public interest in ice fishing and angling.
5. Higher revenue primarily due to increase in timber sales, forest management, forest renewal charges, general permits and higher volume of peat harvested.
6. Lower revenue due to lower Land Sales and lower demand for permits and leases combined.
7. Higher revenues for Parks fees due to favorable camping weather conditions and collection of Camping, Land use permits/licenses and park vehicle permits fees in 2017/18.
8. Higher Regional Operations Fees and Cost Recovery revenue due to providing assistance to out of province forest fire suppression (British Columbia Emergency Fires and Indian and Northern Affairs).
9. Higher revenue due to high inflows and reduction in outflow from Lake Winnipeg to address high water levels on Split Lake.
10. Lower revenue mainly due to lower Translation Services demand.
11. Lower revenue due to no revenue received from the Spruce Woods Water Treatment project. Agreement expired.
12. Lower revenue due to delay in approval of the federal/provincial agreement.

Table RE.3

Expenditure Summary

For fiscal year ended March 31, 2018 with comparative figures for the previous year.

Estimate 2017/18	Appropriation	Actual 2017/18	Actual 2016/17	Increase (Decrease)	Expl. No.
12-1 Finance and Crown Lands					
42	(a) Minister's Salary	41	51	(10)	
	(b) Executive Support				
693	Salaries and Employee Benefits	620	737	(117)	1.
182	Other Expenditures	141	115	26	
	(c) Administration & Financial Services				
3,534	Salaries and Employee Benefits	3,699	3,717	(18)	
946	Other Expenditures	1,042	1,224	(182)	2.
	(d) Clean Environment Commission				
309	Salaries and Employee Benefits	316	562	(246)	3.
151	Other Expenditures	504	437	67	
	(e) GeoManitoba				
3069	Salaries and Employee Benefits	2,467	2,542	(75)	4.
940	Other Expenditures	791	758	33	
(1,601)	Less: Recoverable from other appropriations	(1,244)	(1,067)	(177)	5.
	(f) Lands				
1,498	Salaries and Employee Benefits	1,451	1,576	(125)	6.
3,890	Other Expenditures	4,280	4,858	(578)	7.
134	Grant Assistance	134	189	(55)	
	(g) Indigenous Relations				
443	Salaries and Employee Benefits	307	327	(20)	
261	Other Expenditures	93	175	(82)	8.
	(h) Francophone Affairs Secretariat				
2,850	Salaries and Employee Benefits	2,804	2,604	200	9.
985	Other Expenditures	949	1,046	(97)	10.
(235)	Less: Recoverable from other appropriations	(205)	(235)	30	
	(i) Manitoba Status of Women Secretariat				
622	Salaries and Employee Benefits	555	568	(13)	
185	Other Expenditures	154	203	(49)	
130	Grant Assistance	127	80	47	
19,028	Total 12-1	19,026	20,467	(1,441)	
12-2 Parks and Regional Services					
	(a) Headquarters Operations				
2,839	Salaries and Employee Benefits	3,447	3,203	244	11.
888	Other Expenditures	887	845	42	
	(b) Northwest Region				
2,579	Salaries and Employee Benefits	2,553	2,524	29	
442	Other Expenditures	442	445	(3)	
	(c) Northeast Region				

Estimate 2017/18	Appropriation	Actual 2017/18	Actual 2016/17	Increase (Decrease)	Expl. No.
3,341	Salaries and Employee Benefits	3,161	3,359	(198)	12.
833	Other Expenditures	994	1,005	(11)	
	(d) Central Region				
4,606	Salaries and Employee Benefits	4,588	4,459	129	13.
1,048	Other Expenditures	1,055	1,047	8	
	(e) Eastern Region				
4,759	Salaries and Employee Benefits	4,458	4,915	(457)	14.
777	Other Expenditures	765	795	(30)	
	(f) Western Region				
4,941	Salaries and Employee Benefits	5,054	4,908	146	15.
899	Other Expenditures	888	910	(22)	
	(g) Parks and Protected Spaces				
16,264	Salaries and Employee Benefits	16,600	16,593	7	
9,370	Other Expenditures	10,554	10,888	(334)	16.
461	Grant Assistance	460	460	0	
	(h) Fire and Emergency Response Program				
6,807	Salaries and Employee Benefits	11,015	11,264	(249)	17.
10,555	Other Expenditures	4,274	4,521	(247)	18.
(500)	Less: Recoverable from Emergency Expenditures	(488)	(500)	12	
70,909	Total 12-2	70,707	71,641	(934)	
	12-3 Environmental Stewardship				
	(a) Divisional Administration				
418	Salaries and Employee Benefits	399	399	0	
44	Other Expenditures	46	43	3	
	(b) Environmental Compliance and Enforcement				
3,828	Salaries and Employee Benefits	3,630	3,755	(125)	19.
860	Other Expenditures	793	733	60	
	(c) Environmental Approvals				
3,293	Salaries and Employee Benefits	3,308	3,286	22	
3,302	Other Expenditures	4,285	409	3,876	20.
(193)	Less: Recovery from Environmental Liabilities	(84)	(103)	19	
	(d) Climate Change and Air Quality				
860	Salaries and Employee Benefits	919	908	11	
226	Other Expenditures	152	175	(23)	
	(e) Sustainable and Green Initiatives				
1,971	Salaries and Employee Benefits	1,979	2,066	(87)	21.
138	Other Expenditures	154	140	14	
97	Grant Assistance	97	97	0	
1,013	(f) International Institute for Sustainable Development	1,013	1,013	0	
	(g) Energy				
819	Salaries and Employee Benefits	676	970	(294)	22.
795	Other Expenditures	103	330	(227)	23.

Estimate 2017/18	Appropriation	Actual 2017/18	Actual 2016/17	Increase (Decrease)	Expl. No.
17,471	Total 12-3	17,470	14,221	3,249	
	12-4 Water Stewardship and Biodiversity				
	(a) Divisional Administration				
290	Salaries and Employee Benefits	194	316	(122)	24.
260	Other Expenditures	290	186	104	25.
	(b) Water Science and Watershed Management				
3,552	Salaries and Employee Benefits	3,479	3,729	(250)	26.
919	Other Expenditures	889	961	(72)	27.
	(c) Wildlife and Fisheries				
5,011	Salaries and Employee Benefits	4,331	4,546	(215)	28.
2,241	Other Expenditures	2,137	2,208	(71)	29.
874	Grants Assistance	874	924	(50)	
410	Northern Fisherman's Freight Assistance	410	410	0	
45	(d) Habitat Enhancement Fund	45	45		
5,312	(e) Conservation District and Watershed Assistance	5,312	5,312	0	
	(f) Office of Drinking Water				
2,471	Salaries and Employee Benefits	2,356	2,273	83	30.
645	Other Expenditures	620	600	20	
	(g) Drainage and Water Rights Licensing				
2,403	Salaries and Employee Benefits	2,189	2,029	160	31.
526	Other Expenditures	383	468	(85)	32.
766	(h) Water Stewardship Initiatives	794	1,432	(638)	33.
	(i) Forestry and Peatlands				
4,551	Salaries and Employee Benefits	3,911	3,983	(72)	34.
5,838	Other Expenditures	7,907	3,210	4,697	35.
50	Grant Assistance	43	43	0	
345	Forest Regeneration Stock	345	799	(454)	36.
(2,410)	(j) Less: Recoverable from Sustainable Development Innovations Fund	(2,410)	(2,410)	0	
0	(k) Pineland Forest Nursery	0	0	0	
34,099	Total 12-4	34,099	31,064	3,035	
	12-5 Costs Related to Capital Assets				
	(a) General Assets				
2,153	(1) Amortization Expense	1,962	2,016	(54)	
1,344	(2) Interest Expense	1,167	1,197	(30)	
	(b) Infrastructure Assets				
5,617	(1) Amortization Expense	5,513	5,151	362	37.
6,780	(2) Interest Expense	6,347	5,567	780	37.
15,894	Total 12-5	14,989	13,931	1,058	
157,401	TOTAL EXPENDITURES	156,291	151,324	4,967	

Estimate 2017/18	Appropriation	Actual 2017/18	Actual 2016/17	Increase (Decrease)	Expl. No.
B.12 Capital Investment					
(a) General Assets					
0	(1) Information Technology Projects	355	142	213	38.
3,439	(2) Other Equipment and Buildings	700	1,576	(876)	39.
(b) Infrastructure Assets					
11,510	(1) Parks Infrastructure Projects	1,213	7,537	(6,324)	40.
240	(2) Crown Land and Cottage Lot Development	0	200	(200)	41.
250	(3) Other Infrastructure	0	0	0	
15,439	TOTAL B.12 CAPITAL INVESTMENT	2,268	9,455	(7,187)	

Explanations:

1. The decrease is due to lower severance payments.
2. The decrease is due to lower legal costs and Licenses printing costs.
3. The decrease is due to lower costs related to nature of hearings (Manitoba Minnesota Transmission and Regional Cumulative Effects).
4. The decrease is due to higher vacancies in 2017/18.
5. The decrease is due to recoveries related to Survey projects completed and billed in 2017/18.
6. The decrease is due to a position eliminated for 2017/18 fiscal year.
7. The decrease is due to lower grant-in-lieu of taxes payments and fewer cottages were brought up to "look-up" stage in 2017/18 than in 2016/17.
8. The decrease is due to lower grants awarded for traditional land use planning.
9. The increase is due to general salary increase and severances paid.
10. The decrease is due to lower operating costs due to vacancies.
11. The increase is due to higher Workers Compensation charges in 2017/18.
12. The decrease is due to higher vacancies in 2017/18.
13. The increase is due to the general salary increase in 2017/18 and higher severances paid.
14. The decrease is due to higher vacancies in 2017/18.
15. The increase is due to the general salary increase in 2017/18 and higher severances paid.
16. The decrease is due to lower write off of assets and savings due to the Lakeland Hecla Golf Management operating contract that ended in 2016/17.
17. The decrease is due to vacant positions.
18. The decrease is due to higher unserviceable days for Fire Program resulting in lower operating costs.
19. The decrease is due to vacancies.
20. The increase is due to an increase in Environmental Liabilities inflationary increase related to contaminated sites, in compliance with OAG's prior years' audits.
21. The decrease is due to vacancies.
22. The decrease is due to vacancies and staff secondments.
23. The decrease is due to delays in Energy consulting projects in 2017/18 and legal counsel due to transfer of Energy program to Sustainable Development mid-year in 2017/18.
24. The decrease is due to vacancies.
25. The increase is due to higher legal fees.
26. The decrease is due to vacancies.
27. The decrease is due to fewer emergency samples required due to no flooding and discretionary spending.

Estimate 2017/18	Appropriation	Actual 2017/18	Actual 2016/17	Increase (Decrease)	Expl. No.
28.	The decrease is due to vacancies.				
29.	The decrease is due to discretionary spending and grant payment made in 2016/17, which did not occur in 2017/18.				
30.	The increase is due to severance payments and general salary increase.				
31.	The increase is due to severance payments and general salary increase.				
32.	The decrease is due to discretionary spending.				
33.	The decrease is due to higher payments of Northwest area water supply project legal obligations in 2016/17.				
34.	The decrease is due to vacancies.				
35.	The increase is due to payment to eliminate the accumulated deficit of Pineland Forest Nurseries Special Operating Agency.				
36.	The decrease is due to higher seeding purchase in 2016/17 for Forest Regeneration Tree Renewal Program.				
37.	The increase is due to large volume of infrastructure assets under construction completed and capitalized in 2016/17 resulting in an increase of year-one amortization and interest costs on all those projects in 2017/18.				
38.	The increase is due to completion of Information Technology project WaLLas.				
39.	The decrease is due to reduction in equipment purchases deferred to future years.				
40.	The decrease is due to reduction in Parks infrastructure projects deferred to future years.				
41.	The decrease is due to Crown Land cottage lots deferred to future years.				

Table RE.4

Five Year Expenditure and Staffing Summary by Appropriation

For years ending March 31, 2014 – March 31, 2018*

	2013/14		2014/15		2015/16		2016/17		2017/18	
	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)
Administration and Finance	200.79	21,470	198.75	19,867	192.00	21,077	189.00	20,467	179.00	19,026
Parks and Regional Services	664.40	70,606	644.10	69,498	640.10	70,800	636.10	71,641	630.35	70,707
Environmental Stewardship	146.00	15,612	143.00	14,804	139.00	14,770	142.00	14,221	135.00	17,470
Water Stewardship & Biodiversity	244.35	33,728	238.35	31,650	227.35	31,075	218.35	31,064	206.35	34,099
Costs Related to Capital Assets		11,805		43,607		12,815		13,931		14,989
Total Appropriations	1,235.54	153,221	1,224.20	179,426	1,198.45	150,537	1,185.45	155,324	1,150.70	156,291

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

Performance Reporting Table 2017/18

The following section provides information on key performance measures for the department for the 2017/18 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.

Your comments on performance measures are valuable to us. You can send comments or questions to 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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
The number of 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	2017/18 was the second year of CIRP. The program is completed over one fiscal year.	16 Sustainable Development staff participated in the program and received their certificate.	CIRP will be offered as long as it is approved by Executive Management Committee (EMC) to educate more staff in the department. Certificate holders are used as resources for Indigenous relations in their branches as they have the education to make decisions about programs, policies and initiatives within their program areas.	The program was approved for its third year and 17 department staff are currently participating. CIRP was nominated for a Service Excellence Award for the 2016/17 year.

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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
	Indigenous Relations to staff within the department to enhance one of the department's top three priorities – Reconciliation with Indigenous peoples in Manitoba.				
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 establish good relationships with First Nations.	As of 2016 co-managed areas have been established with 10 First Nation groups totaling approximately 14.6 million hectares.	Approximately 17.9 million hectares of Crown land is co-managed or discussions are occurring with First Nations.	Amount of Crown land under co-management and with approved land use plans continues to increase.	Approximately 2.1 million hectares of the 14.6 million hectares were approved with land use plans within the East Side Traditional Use Planning Area.
The availability of high quality outdoor recreation opportunities and experiences for	It is important to measure the expansion of available recreational	The baseline year is 2004/05–225 improved campsites	Construction began on 6 yurts at Tulabi Falls Campground in Nopiming	From 2004/05 through 2017/18, a total of 1124 camping improvements were implemented.	The province has made significant commitments with respect to increasing camping and cottaging opportunities for Manitobans.

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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
Manitobans; measured by: <ul style="list-style-type: none"> - Number of improved campsites made available (e.g., washrooms, showers). - Yearly occupation rates of all campsites. 	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.	were made available to Manitobans that year.	Provincial Park. Construction began on converting 11 basic sites in William Lake campground to electrical service. The total number of sites went from 20 down to 11 to improve the layout and accommodate larger camping units. The average campsite occupancy was 37.0% which is up 1.6% from 2016/2017.	Increasing campsite occupancy.	St. Ambroise campground remains closed but open for day use.
Number of cottage lots made available to Manitoba's Cottage Lot Program. <ul style="list-style-type: none"> - Includes lots offered for sale 	Availability of recreational properties is important to government and Manitobans because it provides	The baseline year is 2004/05 inception of the Cottage Lot Program. The initial commitment	An estimated 1,402 cottage lots were made available since 2004. Approximately 34 lots were sold or leased through the	Manitobans and non-residents continue to express interest for cottage lots in Manitoba through the Cottage Lot Program.	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 increased since this change and approximately 109 cottage lots were selected.

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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
and for lease through the Program.	recreational opportunities and has potential to stimulate economic benefits (for municipal authorities, and Indigenous communities).	was to create 1,000 cottage lots. Government committed to another 1,000 lots in 2007.	First-Come First-Served inventory in 2017/18.		
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 \$77.5 million as of March 31, 2018.	Recorded value of environmental liabilities would decrease as sites are remediated, and environmental quality would increase as a result. The financial liability would 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.

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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 biodiversity in each of Manitoba's ecoregions.	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 of conservation agency-owned private land.	Since 1990, the area of protected lands increased from 350,000 hectares to 7,188,000 hectares, as of March 31, 2018.	

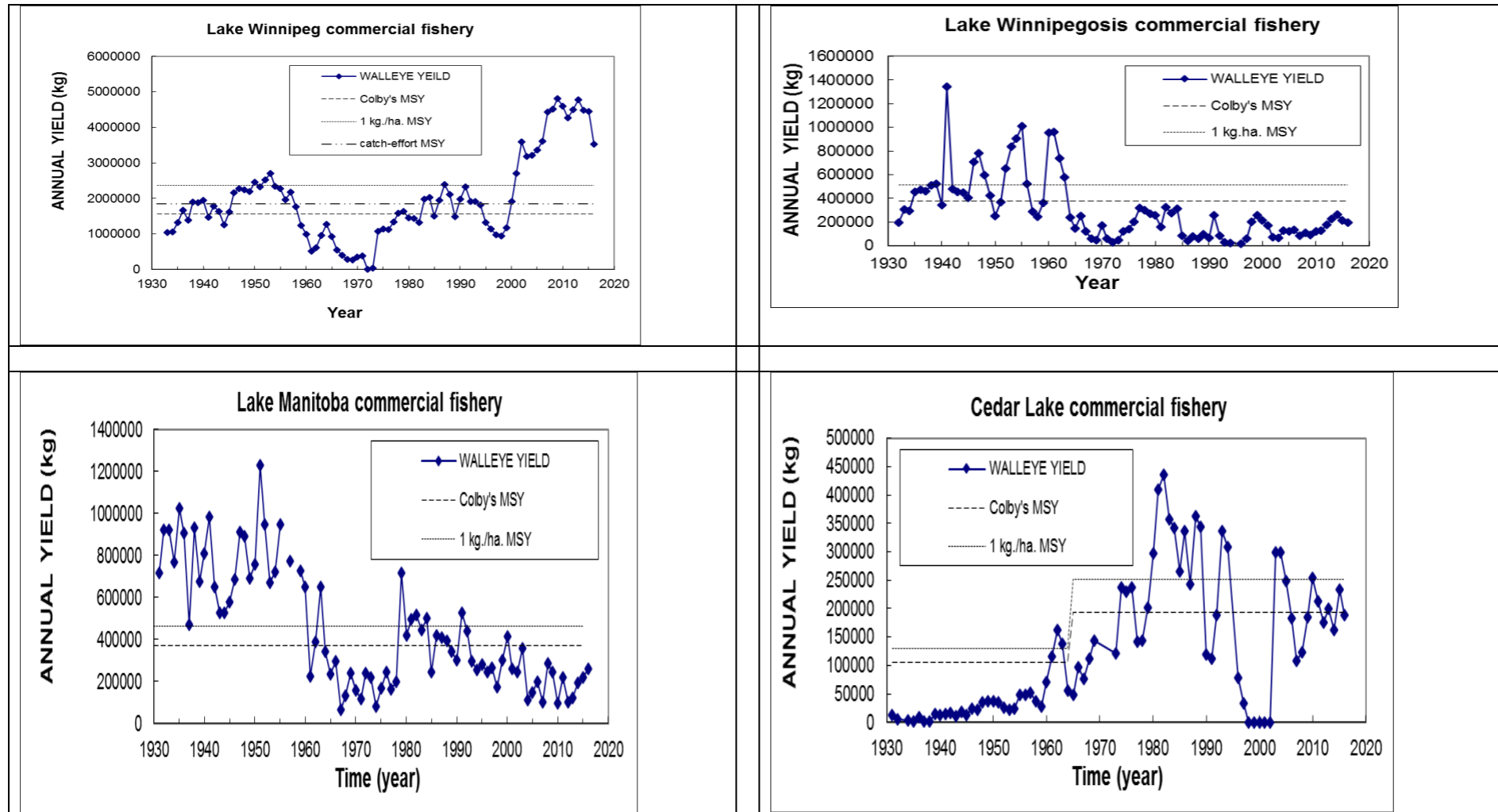
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The number and type of forestry co-management agreements in place, projects or developments undertaken by Indigenous communities or number of contacts with communities or companies.	Provides an indication of the level of economic development opportunities in the forest sector for Indigenous communities.	The baseline year is 2008/09.	<p>5 contracts trees planted for a contract value of \$867,985.</p> <p>Working with several Indigenous communities regarding community awards for timber harvesting.</p> <p>Two Commercial Community awards:</p> <ol style="list-style-type: none"> 1. Opaskwayak Cree Nation 19,000 m³ hardwood – expires March 31, 2020. 2. Hollow Water First Nations – 5,000 m³ softwood – expires March 31, 2019. 	Increasing involvement in all area of forest renewal.	Forestry branch continues to explore opportunities to engage Indigenous communities' involvement within the provincial forest inventory program.

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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
			<p>3. Two Non-commercial community Northlands Denesuline First Nation 500 m³ hardwood – expires</p> <p>4. Hollow Water First Nations – 2,500 m³ softwood – expires March 31, 2019.</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>		

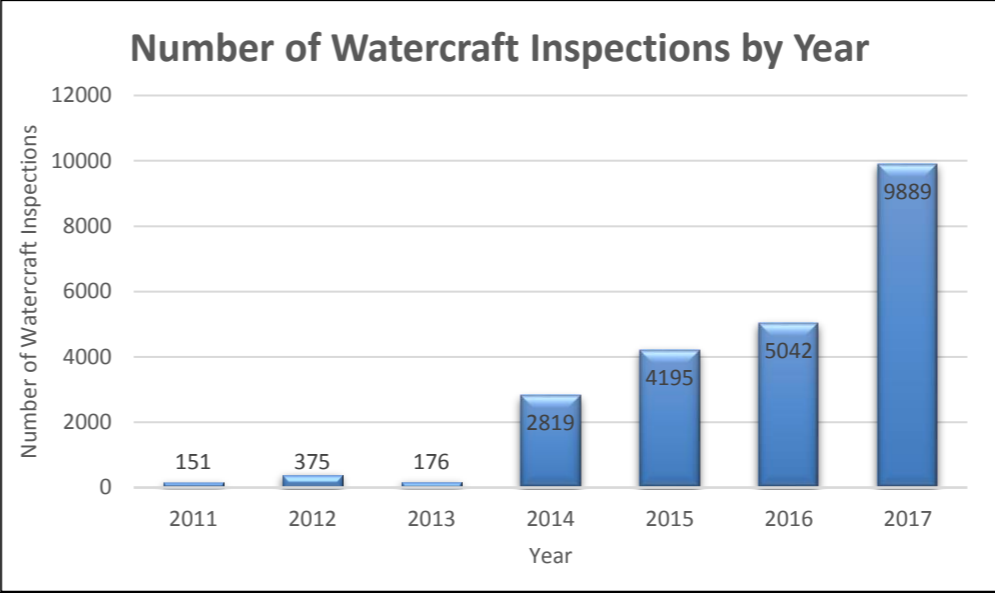
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<p>The status of fish stocks was measured by comparing the commercial production of the most economically valuable fish species against Maximum Sustainable Yield (MSY). These comparisons were made for four large commercial fisheries: Lake Winnipeg, Lake Manitoba, Lake Winnipegosis and Cedar Lake.</p>	<p>It is important to measure the status of 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>The baseline used for management purposes is MSY and historic annual catch.</p>	<p>See walleye production and MSY graphs, below.</p> <p>Current walleye and mixed species quotas are:</p> <p>Lake Winnipegosis – 263,320 kg (walleye)</p> <p>Lake Manitoba – 907,200 kg (walleye, sauger)</p> <p>Cedar Lake – 496,600 kg (walleye, sauger, goldeye, whitefish) – tolerance: not more than 300,000 can be walleye</p> <p>Lake Winnipeg – 6,623,000 kg</p>	<p>Lake Winnipegosis – production of Walleye showed signs of recovery.</p> <p>Lake Manitoba – production experienced long term decline in walleye and sauger; however, recent years revealed increase in pike and carp deliveries.</p> <p>Cedar Lake –stabilized production over past 10 years.</p> <p>Lake Winnipeg – Walleye and Lake Whitefish landings remain somewhat unpredictable despite season extension for fourth straight year.</p>	<p>Lake Winnipegosis – The department continued to implement rehabilitation strategies as part of overall stock recovery efforts.</p> <p>Lake Manitoba – 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>Cedar Lake –Fishery continues to be adjusted, in accordance with the management plan.</p> <p>Lake Winnipeg – Monitoring efforts on Lake Winnipeg will continue with annual stock monitoring activities.</p>

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 2017/18 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
	MSY and annual production contribute to the establishment of quotas for each lake.		(walleye, sauger, whitefish)		

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)
Number of watercraft inspected for aquatic invasive species (AIS).	Demonstrates the number of watercraft that are being strategically intercepted and inspected for aquatic invasive species. Each inspection is both an opportunity to 1) educate watercraft owners about AIS, and the legal requirements and, 2) intercept watercraft that are either carrying, or deemed to be a high risk for carrying, an AIS. These watercraft are then decontaminated stopping	Baseline: Summer 2011 – 151 watercraft inspections were conducted.	During the 2017 open water season, 9,889 inspections were conducted across the province. This was more than the previous two years combined (4,195 and 5,042 in 2015 and 2016 respectively).	The number of inspections increased significantly since 2011. Prior to the introduction of zebra mussels into Lake Winnipeg, watercraft inspections were limited to a single team of two summer students operating at high traffic border crossings on weekends. Since then, the program expanded and now employs 18 staff operating at 6 stations throughout the province. The numbers for 2018 are expected to increase due to an earlier start of the season. In subsequent years, if the program continues to operate with the same number of stations and staff, the number of inspections is expected to remain similar.	

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)																
	the potential to spread AIS to another water body.			 <table border="1" data-bbox="1177 362 2171 950"> <caption>Number of Watercraft Inspections by Year</caption> <thead> <tr> <th>Year</th> <th>Number of Watercraft Inspections</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>151</td> </tr> <tr> <td>2012</td> <td>375</td> </tr> <tr> <td>2013</td> <td>176</td> </tr> <tr> <td>2014</td> <td>2819</td> </tr> <tr> <td>2015</td> <td>4195</td> </tr> <tr> <td>2016</td> <td>5042</td> </tr> <tr> <td>2017</td> <td>9889</td> </tr> </tbody> </table>	Year	Number of Watercraft Inspections	2011	151	2012	375	2013	176	2014	2819	2015	4195	2016	5042	2017	9889	
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Compliance with AIS legislation, specifically with removing drain plugs when transporting watercraft overland and stopping at mandatory watercraft inspection stations.	This metric demonstrates awareness of the aquatic invasive species legislation and shows the percentage of boaters that are following the law and doing their part to prevent the spread of AIS.	<p>The AIS legislation came into force November 2015. Therefore, these metrics were first measured during the 2016 open water season.</p> <p>In 2016, 67% of boaters were compliant with the drain plug</p>	In 2017, drain plug compliance increased to 76% and stopping compliance increased to 81%.	Compliance rates are expected to increase over time as more people become aware of the legal requirements.	The Program is currently working on the development of set fines for ticketable offences under the AIS legislation. This is expected to increase compliance by imposing monetary penalties on those who break the law.																

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)
		provision and 66% of boaters were compliant with stopping at the mandatory inspection stations.			
Effectiveness of the Waterfowl Crop Damage Prevention Program is being measured using a ratio of compensation dollars saved compared to prevention expenditures.	Conducting an annual cost-benefit analysis of the program helps to determine if the program continues to be effective or if changes are required.	2013/14: 4.65	2017/18: 6.02	Increasing program effectiveness.	The ratio of the estimated dollars saved in waterfowl crop damage compensation, compared to the dollars spent on the Waterfowl Crop Damage Prevention Program increased over time, indicating an increase in program effectiveness. This improvement resulted from reduced program expenditures in less effective program areas and a greater effort focused on program areas where the greatest impact can be achieved.
Effectiveness of the Problem Predator Removal Program is being	Conducting an annual analysis of the program helps to determine if the program continues to be	2007/08: 0.13	2017/18: 0.05	Decreasing program effectiveness.	The ratio of the number of problem predators removed under the program compared to the number of compensation claims made for livestock

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measured using a ratio of the number of problem predators removed under the program compared to the number of compensation claims made for livestock predation.	effective or if changes are required.				predation decreased over time, indicating reduced program effectiveness. Program managers are reviewing the program to determine what is causing this trend, and if it can be reversed.
Effectiveness of the Bear Smart Program is being measured using a comparison of the most recent 5-year average of black bear-human interaction reports and the 5-year average before program implementation.	Conducting an annual analysis of the program helps to determine if the program continues to be effective or if changes are required.	2006/07-2010/11: 0.20	2012/13-2016/17: 0.27	Increasing program effectiveness	A comparison of the 5-year average number of human-black bear interaction reports before the introduction of Bear Smart and in the most recent 5-year timeframe for which data was available, shows that the average number of annual reports received by the department decreased over time. This decrease in interaction reports is despite the fact that the black bear population is believed to have remained stable while at the same time the human population and human activity

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					in wilderness areas increased. These factors combine to indicate increasing program effectiveness.
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 2017/18, 22 IWMPs were completed to-date in Manitoba. 4 additional plans are currently in initial development 1 additional plan is currently in development of the second iteration of the plan.	N/A	Each year, the number of integrated watershed management plans (completed and initiated) increases.	In 2017-18 the Cooks – Devils Creek Integrated Watershed Management Plan was completed. No new integrated watershed management plans were initiated.
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 parameters were tested at many rivers, streams and lakes since the early 1970s. The Water Quality Index was calculated for 36 stations since 1992.	The latest data available is for 2017. Within the Prairie Ecozone, the CCME Water Quality Index Value was 75 or of “fair” quality. Within the Boreal Plains, the CCME Water Quality Index	The Water Quality Index in Manitoba remain 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

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			<p>Value was 85 or of “good” quality.</p> <p>Within the Boreal Shield Ecozone, the CCME Water Quality Index Value was 99 or of “excellent” quality.</p>		<p>promoting the reduction of nutrient loading via personal and collective action. The department is also working with upstream jurisdictions to protect, maintain and improve, the quality of water flowing into Manitoba.</p>

CCME Water Quality Index for Manitoba

<p style="text-align: center;">Prairie Water Body Average CCME Water Quality Index</p>	<p style="text-align: center;">Boreal Plains Water Body Average CCME Water Quality Index</p>
<p style="text-align: center;">Boreal Shield Water Body Average CCME Water Quality Index</p>	<p>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.</p> <p>The Water Quality Index yields a number between 0 and 100 that is indicative of the overall water quality.</p> <p>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.</p> <p>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.</p> <p>Fair: (CCME WQI Value 65-79) - water quality is usually protected but occasionally threatened or impaired; conditions sometimes depart from natural or desirable levels.</p>

	<p>Marginal: (CCME WQI Value 45-64) - water quality is frequently threatened or impaired; conditions often depart from natural or desirable levels.</p> <p>Poor: (CCME WQI Value 0-44) - water quality is almost always threatened or impaired; conditions usually depart from natural or desirable levels.</p>
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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 2017/18 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</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 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</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, maximum/minimum temperature variations).</p> <p>For more information, see the Office of Drinking Water website at: http://www.gov.mb.ca/waterstewardship/drinking_water/index.html</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"> • Permitting helps ensure that minimum engineering and construction standards are met or exceeded. • Licensing, inspections, water quality monitoring and enforcement help ensure that minimum operational performance and water quality standards are met.

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apply to their system.			to chemical standards.		Activities focus on public health protection, and maintenance of water quality and public confidence.
Waste diversion Tonnage of waste diverted away from landfills for recycling and safe disposal.		2012: Manitoba's regulated recycling programs diverted 109,000 tonnes of material from landfills.	2014: Manitoba's regulated recycling programs diverted approximately 130,583 tonnes of waste material to recycling and proper disposal systems.	After an initial increase, total waste diverted by regulated recycling programs began to level-off in recent years.	<p>The department is currently exploring options to expand the categories of products and materials included in the province's extended producer responsibility model as well as opportunities to make recycling programs more accessible to rural, remote and northern communities. Such expansions helps to divert additional materials from landfills.</p> <p>Waste generation on a per capita basis needs to be considered to assess the relative performance of recycling and diversion efforts. The department will look into revising the indicator in the future.</p> <p>Producer responsibility organization program annual reports: www.manitoba.ca/sd/wastewise/annual-rpts.html</p>

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Organics tonnage diverted away from landfills for composting.	Reducing the amount of organic waste going to landfills reduces waste disposal costs, saves landfill space and generates environmental, social and economic benefits.	2010: 19,672 tonnes of organics diverted (Statistics Canada).	2015: 57,659 tonnes of organic waste was diverted to compost facilities. 2016: 56,724 tonnes of organic waste was diverted to compost facilities.	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.	
Recycling tonnages reported to the WRARS Program based on quantity of materials diverted from waste disposal facilities.	Reducing the amount of waste going to landfills reduces waste disposal costs and generates environmental and social benefits, including business opportunities.	2010: 68,937 tonnes of recycling reported by municipalities (65 kilograms per capita).	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). 2017: 73,923 tonnes of recycling reported by municipalities and Northern Affairs communities (62 kilograms per capita).	The amount of materials being recycled is increasing.	Producer responsibility organization program annual reports: www.manitoba.ca/sd/wastewise/annual-rpts.html

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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). 2017: 743 kilograms per capita (916,054 tonnes of waste).	The amount of waste landfilled per capita is decreasing.	
Production of interactive web maps and applications.	To provide Manitobans access to geospatial information about government initiatives and priorities relating to public health, environmental protection and stewardship, and economic development. Web maps communicate information in an easy-to-use, interactive format.	First public interactive web map created January 2016	Six new interactive web map applications were published to the public.	Increasing.	<p>Drinking Water Advisories http://www.gov.mb.ca/waterstewardship/odw/public-info/boil-water/water_advisories_in_mb.html</p> <p>Rural Health Care Facilities https://www.gov.mb.ca/health/hst/care.html#care</p> <p>Emergency Measures Services – Current & Future States https://www.gov.mb.ca/health/hst/program.html#ems</p> <p>Flood Information – River Conditions & Forecasts http://www.gov.mb.ca/mit/floodinfo/index.html#daily_river_conditions</p> <p>Drought Monitoring https://www.gov.mb.ca/waterstewardship/water_info/drought/index.html#tab3</p> <p>AgriMaps - Current Weather Viewer</p>

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					http://www.gov.mb.ca/agriculture/weather/current-weather-viewer.html WasteWise – Where to Recycle in Manitoba http://www.gov.mb.ca/sd/wastewise/ecodepot.html Look North https://www.gov.mb.ca/looknorth/index.html
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 2016-17 : 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>Other 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>

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	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>In 2016/17 :</p> <p>Ads - newspaper and magazines – 9</p> <p>Promotional article – 3</p> <p>Display/exhibits – 14</p> <p>Presentations – 16</p> <p>Web resources – 1 (websites, tweets, or online directories)</p> <p>New outreach information produced: posters, stickers, bags, kozies, signs</p>	About the same.	<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. www.gov.mb.ca/stothespread/fis/stop-spread</p> <p>The new forest invasive, cottony ash psyllid, was added to the webpage.</p>

Regulatory Accountability and Red Tape Reduction

Manitoba Sustainable Development is committed to implementing the principles of regulatory accountability as set out in [The Regulatory Accountability Act](#). The department works to achieve balance with regulatory requirements, identify the best options for them, assess their impact and incorporate them in department activities, programs and in the development of all regulatory instruments.

A regulatory requirement is a requirement in a regulatory instrument for a person to take an action in order to

- access a program or service offered by the government or a government agency;
- carry on business; or
- participate in a regulated activity.

Regulatory accountability provides a framework to create a transparent, efficient and effective regulatory system. Red tape reduction aims to remove the regulatory requirements that are unclear, overly prescriptive, poorly designed, redundant, contradictory or antiquated. Not all regulatory requirements create red tape.

Regulatory Requirements

	Baseline (April 1, 2016)	2016/17 (March 31, 2017)	2017/18 (March 31, 2018)
Total number of regulatory requirements	70,747	70,174	71,882

	2016/17 from baseline	2017/18 from baseline
Net change in total number of regulatory requirements	-573	1,135
% change	-0.8%	1.6%

Note: The information in the tables above includes that of any Special Operating Agencies or other agencies that report to the Minister.

Achievements

Since April of 2016, the department's achievements in reducing regulatory requirements and eliminating red tape included:

- Amendments to the following statutes under the omnibus 2017 Red Tape Reduction and Government Efficiencies Act (passed on November 10, 2017):

- Dangerous Goods Handling and Transportation Act – removal of licence requirement for facilities that collect and/or burn used oil that meet specified standards set in regulation. Act amendments and new regulations came into effect on March 15, 2018.
- Ecological Reserves Act– removed a five-year reporting requirement.
- Environment Act – removal of prohibitions respecting construction or expansion of manure storage facilities for hog operations.
- Fisheries Act – aligning five-year reporting period with the reporting period outlined under The Wildlife Act.
- Ground Water and Water Well Act – removal of un-proclaimed provisions pertaining to drilling machines.
- Drinking Water Safety Act –amendments included:
 - adding discretionary powers to reduce the frequency of water system assessments where it is safe and reasonable to do so;
 - eliminating the need to submit a permit application for minor water system alterations; and
 - eliminating laboratory emergency reporting requirements for standards that do not present an immediate health risk.
- Forest Health Protection Act – removal of Arborist Licences requirements to come into effect in 2018-19.
- Associated amendments to regulations, policies and forms corresponding to the act amendments listed above that further reduced unnecessary and cumbersome requirements while maintaining a high level of environmental protection and oversight.
- A two-day kaizen event organized for streamlining the administration and reporting requirements of \$5.312 M in provincial grants provided to 18 conservation districts. As a result of the event, new reporting process and templates for Conservation Districts helps reducing the administrative burden and workloads of department staff without sacrificing grant accountability for the Conservation Districts program.
- The Office of Drinking Water took the following steps that resulted in a reduction of 927 regulatory requirements and 51 duplications:
 - Implemented changes to the Act and regulations in a manner that reduced cost and complexity for stakeholders with the introduction of:
 - Updated Terms of Reference for Engineering Assessments
 - Streamlined source-specific Assessment Checklists for qualified person assessments and self-assessments
 - Updated guidelines for hiring engineering consultants and qualified persons
 - Internal guidelines for reducing the frequency of assessments
 - Direct system-specific communication to water systems on their new requirements
 - Training for water system owners and operators on the checklist assessment process and

- Information bulletins for consultants and qualified persons on the new assessment processes.
- Updated the Drinking Water Quality Standards Regulation and Drinking Water Safety Regulation to ensure Manitoba's regulatory framework continued to reflect national guidelines and industry best practice, and achieve public health protection goals with efficient use of private and public resources. This included such things as:
 - Updating Manitoba's Drinking Water Quality Standards to bring them in line with national guidelines at minimal cost to water system owners;
 - Streamlining the process for Assessments of Water System Infrastructure and Water Sources - significantly reducing costs to system owners while still ensuring assessments continue to function as an efficient and effective regulatory tool;
 - Increasing flexibility in the application of standards to seasonal water systems; and
 - Eliminating mandatory compliance plan requirements.
- In cooperation with Environmental Approvals branch, streamlined the process and time required for Technical Advisory Committee reviews of Environment Act licence applications and enforcement of facility classification and operator certification requirements.
- Working with Public Health Inspectors, eliminated overlap in the regulation of Food Handling Establishments with independent water systems; reconciled data management systems; and established efficient cooperative registration and interim licensing processes that rapidly brought approximately 200 systems under the regulatory framework.
- Clarified regulatory requirements through the development of concise, easy-to-read Operational Guidelines that provide direction to water system owners and operators on requirements and advice on best practices, such as:
 - Monitoring and Reporting for Public and Semi-public Water Systems;
 - Seasonal Water Systems Start-up and Shut-down Procedures;
 - Emergency Reporting;
 - Well-head Assessments; and
 - Disinfection Requirements.
- Developed fact sheets and targeted communication materials for private well owners to clarify recommendations for ensuring the safety of water from private wells. Produced three on-line videos, viewed almost 80,000 times, to support private well owners in managing risks to their wells.

The Public Interest Disclosure (Whistleblower Protection) Act

The Public Interest Disclosure (Whistleblower Protection) Act came to 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 2017/18.

Information Required Annually (per Section 18 of The Act)	Fiscal Year 2017/18
The number of disclosures received and the number acted on and not acted <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

2017/18 Agencies, Boards and Commissions

Sustainable Development

Beverly-Qamanirjuaq Caribou Management Board
Certification Advisory Committee
Conservation Agreements Board
Conservation District Boards*
Conservation Districts Commission*
Ecological Reserves Advisory Committee
Endangered Species Advisory Committee
Fish and Wildlife Enhancement Fund and Committee*
Freshwater Fish Marketing Corporation Board*
Heritage Trees Review Committee
Manitoba Habitat Heritage Corporation
Manitoba Hazardous Waste Management Corporation Board*
Manitoba Round Table for Sustainable Development
Manitoba Water Council
Manitoba's Clean Environment Commission
Resource Tourism Appeal Committee*
Whiteshell Advisory Board

The Minister is also responsible for:

Manitoba Women's Advisory Council
Francophone Affairs Advisory Council

ABC's with an asterisk() are comprised of external/stakeholder and government appointments.*

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<u>PRS.1</u>	T.I.P. Calls by Region 2017/18	<u>ES.6</u>	Expenditure, Climate Change and Air Quality
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List of acronyms used in this report

(CAMP)	Coordinated Aquatic Monitoring Program
(CCME)	Canadian Council of Ministers of the Environment
(CIRP)	Certificate of Indigenous Relations Program
(DED)	Dutch Elm Disease
(FML)	Forest Management Licence
(FMU)	Forest Management Unit
(FLS)	French Language Services
(FTE)	Full Time Equivalent
(FWEF)	Fish and Wildlife Enhancement Fund
(GHA)	Game Hunting Area
(GHG)	Green House Gas
(GPS)	Global Positioning System
(LAC)	License Advisory Committee
(LiDAR)	Light Detection and Ranging
(MLI)	Manitoba Land Initiative
(NGO)	Non-government organization
(OHM)	Oak Hammock Marsh
(PUB)	Public Utilities Board
(OPCN)	O-Pipon-Na-Piwin Cree Nation
(TLE)	Treaty Land Entitlement
(UAV)	Unmanned Aerial Vehicle
(UNESCO)	United Nations Education, Scientific and Cultural Organization
(WRAP)	Waste Reduction and Prevention
(WMA)	Wildlife Management Area
(WRARS)	Waste Reduction and Recycling Support