

Manitoba Conservation and Water Stewardship

Conservation et Gestion des ressources hydriques Manitoba

**Annual Report
2015-2016**

**Rapport annuel
2015-2016**

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Online version available at http://www.gov.mb.ca/conservation/annual-reports/con_reports/index.html



**MINISTER OF
SUSTAINABLE DEVELOPMENT**

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

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

Your Honour:

I am pleased to present you with the Annual Report for Manitoba Department of Conservation and Water Stewardship for the fiscal year ending March 31, 2016.

The Annual report describes the Department's significant achievements in fulfilling its mandate of protecting the environment, while facilitating sustainable resource development and appropriate wildlife management for the benefit of all Manitobans.

I hope that the information in this report demonstrates the positive results of our ongoing work to protect, preserve and sustain our beautiful province, for Manitobans today and for future generations.

Respectfully submitted,

"Original signed by"

Cathy Cox
Minister





Sustainable Development

Deputy Minister
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The Honourable Catherine Cox
Minister of Sustainable Development
Room 314, Legislative Building
Winnipeg, MB R3C 0V8

Dear Minister:

I am pleased to present you with the Annual Report of the Manitoba Department of Conservation and Water Stewardship for the fiscal year ending March 31, 2016. The Annual Report provides an overview of activities carried out by the Department in 2015/16.

The Department is committed to delivering quality programs and services to protect our environment and foster sustainable economic activities. The Department balances the diverse interests of Manitobans to help ensure a prosperous and environmentally-conscious economy.

The management of Manitoba's environment and natural resources includes a wide range of responsibilities and opportunities for the Department. It is to the collective credit of the talented and dedicated staff that the Department provides quality programs and services for the protection of our environment. We look forward to continuing this positive momentum in the years to come. It is a privilege to submit this report on the achievements of the Department and its partners for 2015/16.

Respectfully submitted,

"Original signed by"

Grant Doak



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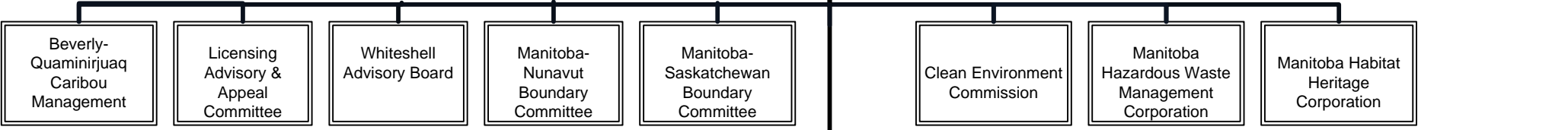
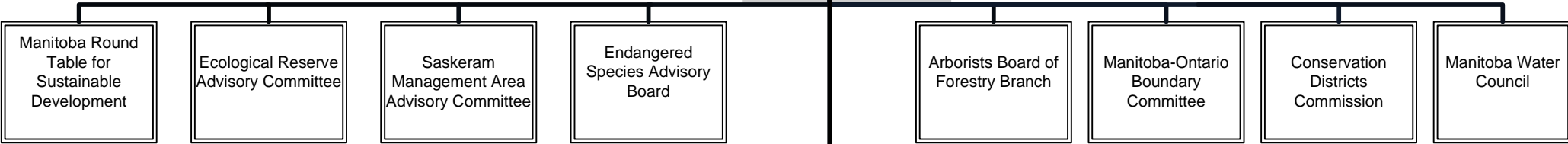
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Manitoba Conservation and Water Stewardship Organization
Chart as at March 31, 2016

Minister
Tom Nevakshonoff



Deputy Minister
Grant Doak

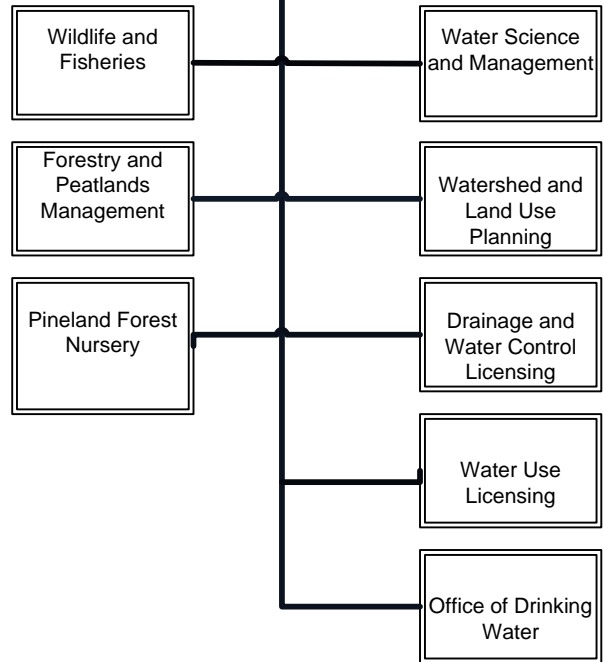
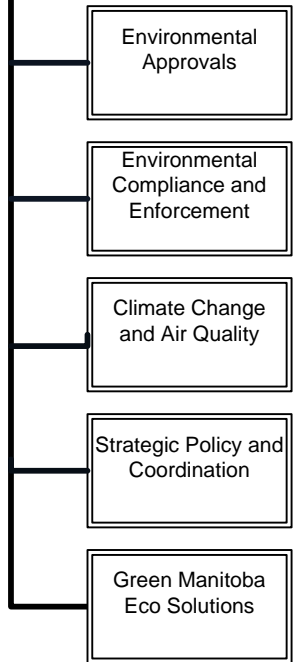
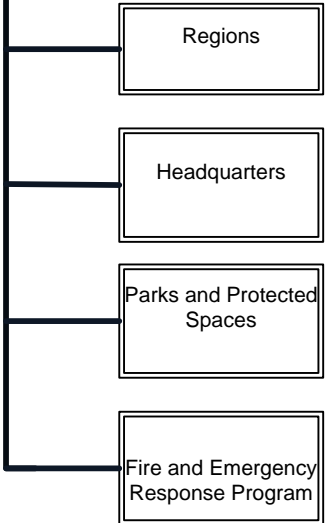
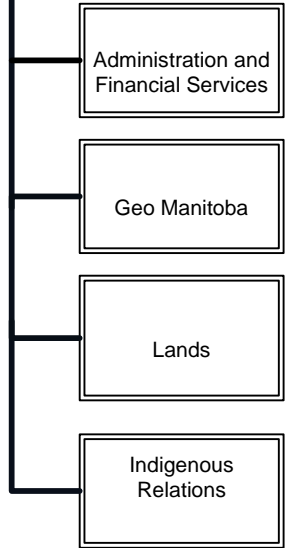
Corporate Crown Land Policy

Assistant Deputy Minister
Finance and Crown Lands
Matthew Wiebe

Assistant Deputy Minister
Parks and Regional Services
Bruce Bremner

Assistant Deputy Minister
Environmental Stewardship
Jocelyn Baker

Assistant Deputy Minister
Water Stewardship & Bio Diversity
Bruce Gray



Highlights

Finance and Crown Lands Division:

Designed, approved and managed the *Certificate of Indigenous Relations Program (CIRP)* for the Department. CIRP is a departmental initiative created as a result of the 2015 Truth and *Reconciliation Commission Report recommendations* and is intended to provide internal training on Indigenous Relations to staff within the Department to enhance one of the department's top three priorities – Reconciliation with Indigenous communities in Manitoba. The Certificate of Indigenous Relations Program will improve the interface between the Crown and Indigenous community, and assist the Crown to further their relationship and work toward more meaningful outcomes for programs and services.

Successfully designed and implemented the Indigenous Resources Intranet Site. This site is designed for staff to have easy access to Indigenous Resources on various topics including: Engagement, Consultation and Accommodation, Education Opportunities, Reconciliation, Rights, Maps and Land use planning, Community Information, current news, and Culture and Tradition.

Chaired the 'Truth and Reconciliation Commission Call to Action' committee for the Department. The Department received 7 Calls to Action pertaining to the Department's mandates. The committee has begun to address and implement these.

Negotiated a process to renew and expand a Memorandum of Understanding between the Department and the Treaty Relations Commission of Manitoba.

Parks and Regional Services Division:

Hecla Provincial Park hosted the first annual T3 Canadian Forces Base 17 Wing Triathlon, which received high praise from the athletes and general public.

At St. Norbert Provincial Park, a Grand Re-opening of the Historical Bohemier House was held in conjunction with the Fort Gary Historical Society. The Bohemier House had been closed to the public for six years while asbestos remediation was undertaken and the related interior and exterior repairs were conducted.

Central Region wildlife staff continued development of the Tillenius Trail, located in Clematis Wildlife Management Area, in cooperation with the Watchable Wildlife Program (Tourism Manitoba). This trail is the newest birding trail to be added to Manitoba's Pine to Prairie Birding trail system and provides visitors with the opportunity to see a variety of parkland birds and other wildlife. In addition, it commemorates the accomplishments of renowned Manitoba wildlife artist, Clarence Tillenius, whose family homesteaded in the area.

Regional staff were involved in the creation of the Special Conservation Area located at the St. Andrews Locks to protect pelicans from harm caused by fishing gear that has either been discarded or lost while sport angling.

Five (5) new ecological reserves were designated (Cedar Bog, Piney, St. Labre Bog, Ste. Anne Bog and Woodridge Ecological Reserves) and Lewis Bog Ecological Reserve was expanded.

A campsite reservation system was introduced for the back country boat access sites on Shoe Lake.

Two park reserves received permanent designation as Kinnow Bay Provincial Park and Sturgeon Bay Provincial Park.

In December 2015 Pelican Islands Park Reserve was permanently designated as Pelican Islands Ecological Reserve.

Six new short-haul backcountry campsites were developed at Tulabi Falls campground and were added to the Parks Reservation Service. These short-haul sites were implemented for the novice backcountry hiker or for those who have a limited amount of time.

Winter public programming was offered every month at Birds Hill, Spruce Woods and Whiteshell Provincial Parks with interpretive programs being offered on winter recreation trails and in the interpretive centres.

Environmental Stewardship Division:

Released 'Manitoba's Climate Change and Green Economy Action Plan' targeting reduction of Manitoba's greenhouse gas emissions by one third below 2005 levels by 2030, one half by 2050, and achieving carbon neutrality by 2080 following wide-ranging stakeholder consultations.

Released Green and Growing Manitoba's Commitment to Green Jobs document, and developed new partnerships and initiatives with organizations to collaboratively take action on climate change supported through a \$5 million climate fund. The branch established a Memorandum of Understanding with Ontario and Quebec on cooperating on cap and trade to reduce greenhouse gases.

Water Stewardship and Biodiversity Division:

Released the 'Manitoba Drought Management Strategy' and the drought monitor web site (www.manitoba.ca/drought)

Collaborated with Minnesota, North Dakota and the Canadian federal government on a first of its kind survey of water quality, algae and benthic invertebrates along the international Red River in the US and Canada. Sample collection methods and timing were coordinated across the three jurisdictions including the use of a new method for attached algae sampling.

The Department successfully met all conditions of certification under the Marine Stewardship Council to maintain the Waterhen Lake Walleye and Northern Pike commercial gillnet fishery's internationally recognized sustainable certification status by successfully passing the 1st annual surveillance audit of the fishery.

Watershed Planning: Completed 3 new integrated watershed management plans

Released an interactive map to the website that allows the public to identify the location of drinking water advisories and obtain related information.

The Peatlands Stewardship Act was proclaimed on June 15, 2015, promoting a balanced approach between protecting peatland ecosystems and responsible harvesting by industry.

Monitoring for the invasive Emerald Ash Borer (EAB) continued with 34 green sticky traps placed at high-risk locations across the province. Communities were encouraged to participate in monitoring efforts and supplement trap placements. While not detected in Manitoba, the Province collaborated with the Canadian Food Inspection Agency on a project to determine the presence of a wasp (*Cerceris fumipennis*) that preys on beetles in the same family as EAB. These wasps have been used to detect new infestations of EAB in other areas.

The new provincial heritage tree program was launched on October 1, 2015. The program has been developed in partnership with the Manitoba Forestry Association and Trees Winnipeg. The launch took place at the Argyle School (formerly the Point Douglas School) in Winnipeg. Three trees, including the prominent cottonwood at the Argyle School, were officially recognized as heritage trees during the launch.

Faits saillants

Division des finances et des terres domaniales

Création, approbation et gestion du *certificat du programme des relations avec la communauté autochtone* pour le ministère. Lancée en réponse aux *recommandations du rapport de la Commission de vérité et réconciliation* de 2015, cette initiative ministérielle a pour objet d'offrir au personnel du ministère une formation pour mieux répondre à l'une des trois grandes priorités ministérielles, à savoir la réconciliation avec les communautés autochtones du Manitoba. Le certificat du programme des relations avec la communauté autochtone permettra d'améliorer les rapports entre l'État et la communauté autochtone et aidera l'État à approfondir les relations et à tendre vers des résultats plus significatifs à l'égard des programmes et des services.

Conception et mise en place avec succès du site Intranet sur les ressources autochtones. Ce site est conçu de façon à permettre au personnel d'accéder rapidement aux ressources autochtones ayant trait à divers sujets : participation, consultation et accommodement, possibilités d'éducation, réconciliation, droits, cartes et aménagement du territoire, information communautaire, sujets d'actualité, culture et tradition.

Accession à la présidence du comité mis sur pied en réponse à l'appel à l'action de la Commission de vérité et réconciliation au nom du ministère. Le ministère a reçu sept appels à l'action relevant de ses mandats, que le comité a commencé à examiner et à mettre en œuvre.

Négociation d'un processus en vue de renouveler et de prolonger un protocole d'entente entre le ministère et la Treaty Relations Commission of Manitoba.

Division des parcs et des services régionaux

Le parc provincial d'Hecla a accueilli la première édition du triathlon annuel de la 17^e escadre de la base des forces canadiennes T3, qui a été hautement apprécié par les athlètes et le public en général.

Au parc provincial de Saint-Norbert, a eu lieu la grande réouverture de la maison ancestrale de la famille Bohémier, de concert avec la Fort Gary Historical Society. La maison Bohémier était fermée au public depuis six ans, le temps de procéder à l'enlèvement de l'amiante ainsi qu'à des rénovations intérieures et extérieures.

Le personnel responsable de la faune dans la région du Centre a poursuivi son aménagement du sentier Tillenius, qui se trouve dans la zone de gestion de la faune de Clematis, en association avec le Programme d'observation de la faune (Tourisme Manitoba). Ce sentier est le tout dernier à s'ajouter au Sentier international d'observations des oiseaux Pine to Prairie du Manitoba, qui permet aux visiteurs d'observer une multitude d'oiseaux des parcs et d'autres animaux sauvages. Le sentier commémore aussi les réalisations de l'artiste animalier de renommée internationale Clarence Tillenius, dont la famille possédait une propriété dans le secteur.

Le personnel régional a joué un rôle dans la création de la zone de conservation spéciale située au barrage-écluse de St. Andrews, afin de protéger les pélicans contre les dommages causés par le matériel de pêche abandonné ou perdu par des pêcheurs sportifs.

On a désigné cinq (5) nouvelles réserves écologiques (Cedar Bog, Piney, marais de Saint-Labre, marais de Sainte-Anne et Woodridge) et agrandi la réserve écologique de Lewis Bog.

On a établi un système de réservation des emplacements de camping du lac Shoe (terres reculées), accessibles par embarcation.

Deux réserves de parc ont obtenu en permanence la désignation de parc : le parc provincial de la Baie-Kinwow et le parc provincial de la Baie-Sturgeon.

En décembre 2015, la réserve de parc des Îles-Pelican a obtenu en permanence la désignation de réserve écologique des Îles-Pelican.

On a créé et intégré au service de réservation des parcs six nouveaux emplacements de camping à court terme aux chutes Tulabi. Ces emplacements s'adressent aux nouveaux randonneurs dans les terres reculées ou à ceux qui disposent d'un temps limité.

Les parcs provinciaux de Birds Hill, de Spruce Woods et du Whiteshell proposent tous les mois une programmation hivernale à l'intention du public, comprenant des programmes d'interprétation sur les sentiers récréatifs hivernaux et dans les centres d'interprétation.

Division de la gérance de l'environnement

Publication de *Manitoba's Climate Change and Green Economy Action Plan*, un plan d'action sur le changement climatique et l'économie verte qui propose de réduire les émissions de gaz à effet de serre du Manitoba à la moitié de ce qu'elles étaient en 2005, à la suite de vastes consultations auprès des intervenants.

Publication de *Green and Growing Manitoba's Commitment to Green Jobs* (Vert et prospère : engagement du Manitoba à créer des emplois verts) et création de nouveaux partenariats et initiatives de pair avec des organismes dans le but de lutter conjointement contre le changement climatique, qui bénéficient d'un appui de 5 millions de dollars provenant du Fonds d'action pour le changement climatique. La Division a également établi un protocole d'entente avec l'Ontario et le Québec portant sur un système de plafonnement et d'échanges afin de promouvoir la réduction des gaz à effet de serre.

Division de la gestion des ressources hydriques et de la biodiversité

Adoption de la « stratégie de gestion de la sécheresse pour le Manitoba » et création du site Web rendant compte de la surveillance de la sécheresse http://www.gov.mb.ca/waterstewardship/water_info/drought/index.html

Collaboration avec le Minnesota, le Dakota du Nord et le gouvernement du Canada à une toute première enquête sur la qualité de l'eau, les algues et les invertébrés benthiques le long de la rivière Rouge aux É.-U. et au Canada. Les trois administrations ont coordonné leurs méthodes et leurs périodes de collecte des échantillons, y compris l'adoption d'une nouvelle méthode d'échantillonnage des algues enracinées.

Le ministère a rempli toutes les conditions de certification du Marine Stewardship Council pour maintenir la validité de sa certification de pêche durable reconnue mondialement pour la pêche commerciale au filet maillant du doré jaune et du grand brochet au lac Waterhen, en réussissant avec succès le premier contrôle de surveillance annuel de la pêcherie.

Planification relative aux bassins versants : élaboration de trois nouveaux plans de gestion intégrée des bassins versants.

Affichage d'une carte interactive sur le site Web permettant au public de savoir où trouver des avis sur la qualité de l'eau potable et d'obtenir des renseignements afférents.

Le 15 juin 2015, proclamation de la *Loi sur la protection des tourbières*, qui préconise une approche équitable entre la protection des écosystèmes des tourbières et la récolte responsable par l'industrie.

Poursuite de la surveillance de l'agrile du frêne, avec la mise en place de 34 pièges collants verts dans des emplacements à risque élevé à la grandeur de la province. Les collectivités étaient encouragées à participer aux efforts de surveillance et à placer des trappes supplémentaires. La Province a collaboré avec l'Agence canadienne d'inspection des aliments à un projet visant à déterminer s'il y a présence d'une guêpe (*Cerceris fumipennis*) qui s'attaque aux insectes de la même famille que l'agrile du frêne. Ces guêpes, dont la présence n'a pas été détectée au Manitoba, sont utilisées pour détecter de nouvelles infestations d'agrides du frêne dans d'autres régions.

Le nouveau programme de mise en valeur des arbres remarquables a été lancé le 1^{er} octobre 2015. Le programme est le fruit d'un partenariat avec la Manitoba Forestry Association et Trees Winnipeg. Le lancement a eu lieu à l'école Argyle (l'ancienne école de Point Douglas) à Winnipeg. Trois arbres, dont l'imposant peuplier de l'école Argyle, ont été reconnus officiellement comme des arbres du patrimoine à l'occasion du lancement.

FINANCE AND CROWN LANDS

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

Minister's Salary

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

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	38	1.00	37	1	
Total 12.1(a)	38	1.00	37	1	

Executive Support

This area comprises support staff in the offices of the Minister and Deputy Minister of Conservation and Water Stewardship.

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 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	734	9.00	712	22	
Other Expenditures	152		182	(30)	
Total 12.1(b)	886	9.00	894	(8)	

Administration and Financial Services

Administration and Financial Services is comprised of the following sections:

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

Administration and Comptrollership provides executive, financial and administrative direction, fleet vehicle coordination, office accommodation, parking administration, environmental impact file searches, advice, guidance and administration related to procurement, contracts and grants and overall comptrollership leadership.

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

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

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

Key Results Achieved:

- Formalized the department approach to analyzing existing operations and expanding a continuous improvement and lean management practice across the organization, as a means to realize financial and program efficiencies and improve services offered by the department.
- Built an interactive mapping tool for anglers, specific to angling lakes – that shows bathymetric data, fish stock assessment data, largest fish caught by angling, and fish stocking records.
- Built an interactive questionnaire for residents of the Province to assist the Department's efforts in the identification of native and invasive pests, which will assist in the response to outbreaks.

Detailed information regarding *The Freedom of Information and Protection of Privacy Act*, including information specific to Conservation and Water Stewardship, can be found in the FIPPA Annual Report at: http://www.gov.mb.ca/chc/fippa/annual_reports/pdf/2014_report.pdf.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,988	59.00	4,040	(52)	
Other Expenditures	1,048		957	91	
Total 12.1(c)	5,036	59.00	4,997	39	

Corporate Crown Lands Policy

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

Key Results Achieved

Corporate Crown Lands Policy (CCLP) engaged with various departments to streamline administrative processes for dispositions under *The Crown Lands Act*, including sales and non-agricultural leases of Crown land, by using a Lean Management process improvement method. CCLP revised policies, updated documents and developed guidance materials to support the implementation of process improvements. Guidelines were also developed for streamlining administrative processes regarding the sale and re-transfer of trust lands to municipalities and local government districts.

Improvements to overall coordination and harmonization of Crown land management and administration were achieved through interpretive, analytical and developmental work in various areas such as employee Crown land acquisition policies, disposition of surplus Provincial land policies, pricing policies related to Crown Lands and Property Agency services, sale agreements, and circulation processes. Assistance was provided in the development of various service agreements for Crown Lands and Property Agency (CLPA) with its client departments.

CCLP provided secretariat and advisory services to the Lands Committee of Deputy Ministers and the Crown Lands Assistant Deputy Ministers Committee regarding Crown land related policies, programs, planning and legislative matters. It also maintained the respective policies and procedures manual which is used extensively by various departments and Bloc Planning Committees (BPCs) for Crown land use planning, administration and management.

Work continued on a multi-year project involving the coordinated internal review of Crown land related policies and legislation with various departments under the general guidance of the Lands Committee of Deputy Ministers. CCLP also participated in several inter-departmental committees and working groups to represent Government interests in Crown land policy.

Key Program Outputs

Review and analysis of 49 proposed sales, transfers and exchanges of Crown land were completed for consideration by the Lands Committee of Deputy Ministers prior to seeking Cabinet or Ministerial approvals.

As Chair of the Crown Lands Assistant Deputy Ministers Committee, responded to 10 requests for review of denied applications for Crown land sales, leases and permits and reviewed 14 proposed designated areas of Crown land. The Committee also approved land use classification coding changes proposed by the regional BPCs.

Table AF.8
12.1(d) Corporate Crown Land Policy

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	341	3.00	302	39	
Other Expenditures	25		16	9	
Total 12.1(d)	366	3.00	318	48	

Clean Environment Commission

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

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

Table AF.9
12.1(e) Clean Environment Commission

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	397	3.00	379	18	
Other Expenditures	335		433	(98)	1
Total 12.1(e)	732	3.00	812	(80)	

1. Under expenditure related to Lake Winnipeg Regulation 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, to provide a revitalized approach to support delivery, acquisition and management of geospatial information for all Manitoba government departments. This includes providing leadership in the Province's use of GIS technology and specialized geomatics capabilities, stewardship for corporate GIS datasets and to centrally coordinate the development of GIS capacity for the Province, including:

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

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

Key Results Achieved:

- Achieved \$1,022,973.21 in cost recoveries for survey services to provincial government departments and agencies. Major clients included the Departments of Infrastructure and Transportation, Conservation and Water Stewardship, and Aboriginal and Northern Affairs.
- Northern and Eastern regions – approximately 55 legal survey projects initiated by new requests or verification surveys of old files. These various projects throughout Manitoba included but weren't limited to retracement surveys and survey monument restoration, several Provincial Trunk Highway (PTH) and Provincial Road (PR) public road survey plans, water control survey plans, public road closings, Notable projects included: Centerport CCW Phase 1, south perimeter PTH 75 to Wilkes retracement and PTH 1 East West Hawk Lake to Richer retracement
- Prepared legal (land) descriptions for disposition of Crown land and/or interest therein – for Crown Lands and Property Agency, Mines and Petroleum Branches.
- Prepared boundary plans to define the limits of administrative areas such as wildlife management areas, ecological reserves, provincial parks, aboriginal traditional lands and land planning areas/zones. Notable work included Pembina Valley PP enlargement, Moose Lake PP enlargement, Moose Conservation Area 6 new Ecological Reserves and Lockport Dam Special Conservation Area
- Continued to provide marker posts to Manitoba land surveyors free of charge for protection of survey monuments of the Township Survey System (165).
- Responded to requests for land and control survey information (88).
- Issued survey instructions/examined plans of survey for approval on surveys for the disposition of Manitoba Crown lands. This included the approval of Treaty Land Entitlement (TLE) Selection Sites. (90 individual projects). Notable projects included various TLE site surveys and Bipole Transmission line plans.
- Provided control survey services for Light Detection and Ranging (LiDAR) ground truthing in the Cooks Creek capture area.
- Readjusted the Manitoba Spatial Reference Network to the latest realization of NAD83 (CSRS) and to the new Canadian Geodetic Vertical Datum of 2013.
- Updated the province wide digital parcel inventory to ensure currency of Manitoba's parcel data.

- Continued the development of a seamless digital reference grid that approximates the location of townships, sections and quarter-sections of the Dominion Government Survey System throughout southern and northern Manitoba. This product is essential for meeting public sector requirements for a general purpose land grid that supports GIS applications.
- Created daily and weekly composites using N.O.A.A AVHRR satellite data for the Canadian Crop Assessment Program (CCAP) and also for the Canadian Global Change Program. This project generates 15K a year in revenue.
- Together with the Canadian Space Agency, provides CWS with Radarsat 1 imagery used to map flooded areas in Manitoba.
- Mapping Woodland Caribou Habitat in Manitoba in conjunction with the Manitoba Model Forest and CWS Wildlife and Fisheries Branch.
- Produced land use and land cover maps of Agro-Manitoba for the Agri-Environment Services Branch. This activity is on-going using remote sensing technology and Landsat 8 satellite imagery. Data was also provided to the Manitoba Habitat Heritage Corporation to supplement their peat land inventory.
- Lake depth maps for lakes in Manitoba and Ontario were updated and produced to include the Universal Transverse Mercator grids and coordinates. Geographic mapping produced and provided customized mapping for the general public, private sector companies and other government agencies/departments maintained and updated the base maps of Manitoba.
- The Distribution Centre is the second largest distributor of Topographic maps in Canada, selling 24,387 maps directly or through the 150 dealers in Manitoba, Ontario and the north central United States.
- The Canadamapsales.com website received 1,138 orders from across North America and internationally. This included the sale of maps, 91 Annual Park Passes, and 258 orders for Environment's Water & Wastewater Operator Certificates, providing the public and clients the opportunity to purchase and pay for more departmental products and services through the internet.
- A Vexcell photogrammetric scanner was used to scan air photo negatives to transition government's Air Photo Library into a digital format. In 2015/16, 1,931 air photo products were produced and sold to the general public and government agencies.

Conducted GIS analyses and specialty mapping products were created for the following program areas: Watersheds and Ecosystems, Métis Hunting Areas, Dutch Elm Disease Reporting Database, Wildlife Management Areas, Park Management Maps including updating the Proposed Areas of Special Interest (enduring features database) with Eco Regions, location of Parks Capital assets, Royal Canadian Mounted Police (RCMP) Mapbook, Treaty Land Entitlement, School Division Boundaries, Conservation Districts updates, Waste Management, FireSmart program web mapping, Ecological Reserve Boundaries, National Hydrography Network, Game Hunting Areas, LiDAR data inventory, creation of contours from LiDAR data, and GIS data library updates and maintenance.

- The Manitoba Land Initiative website was updated with new geospatial datasets. This site has 17,967 registered users accessing land based data information.
- Compiled digital topographic data, topologically structured, for Forestry Branch in the Nelson River Block.
- Provided topographical data, imagery and mapping support to multiple agencies involved in compensatory land claims
- An enterprise wide inventory of spatial data was conducted in preparation of implementing a central repository with data accessibility features. Upon completion of the repository, all but sensitive data will be served through this Open Data Spatial Portal to Manitoba staff and the public.

Enterprise standards for the creation of geospatial data and metadata were developed. These standards will set the basis for loading of spatial information into the central repository that will be accessible through Manitoba's Open Data Spatial Portal.

Table GE.1
12.1(f) GeoManitoba

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,330	50.00	3,273	(943)	
Other Expenditures	732		960	(228)	
Less: Recoverable from Other Appropriations	(1,031)		(1,621)	590	
Total 12.1(f)	2,031	50.00	2,612	(581)	1.

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

Lands

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

Manitoba's provincial Crown lands comprise approximately 40.5 million hectares. The Branch is responsible for provincial and regional level management and control of provincial Crown lands that are governed under *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 in consideration of multiple land and resource needs, the delivery of the Treaty Land Entitlement, Cottage Lot, and Manitoba Geographical Names programs and overseeing transactions administered through the Crown Lands and Property Agency (a special operating agency of the Manitoba Government).

Provincial and Regional Land Management and Planning

Responsible for managing of 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 uses and applications, are applied.

It is responsible for approving conditions for the use of Crown Land and the subsequent management of conditions in collaboration with departmental staff.

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-Aboriginal 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.

As a member of the interdepartmental regional Bloc Planning Committees (BPCs), branch staff is responsible for the land use coding database, provides support to the Crown Lands Assistant Deputy Ministers Committee.

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 as appropriate.
- Reduced processing time of quarry permit and lease reviews and one day event permits on Crown land.
- A total of 1,209 operational land use code changes were reviewed by the Block Planning Committee's to ensure compatible long term land and resource use.
- A total of 107 reviews including municipal development plans (35) zoning by-laws (52), road opening and closings and other municipal reviews (20) were conducted.
- A total of 1,262 applications including requests for Crown land allocations and assignments (244), proposals under *The Environment Act* (49), quarry permits and leases (962), oil and gas sales (4), oil and gas battery (1), pipeline (1), and order in council designations (1) were reviewed and responded to.

Indigenous Land Programs and Cottage Lot Program

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

- Provides technical assistance to First Nations, Canada, the Treaty Land Entitlement Committee and provincial government departments with respect to land transfer expertise, tracking and records management. Ensure department staff continues to be updated on the legal obligation and implementation process associated with Treaty Land Entitlement fulfilment.
- Expedites the transfer of Crown land selected or Crown interests in other land acquired by 29 First Nations in accordance with their respective Treaty Land Entitlement agreements.

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

Entitlement Acres	Total Selected	Reserve Land Set Apart	Percent Complete	Acres Required to Complete
1,144,331	1,009,502	561,072	49%	583,259

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

Entitlement Acres	Total Selected	Reserve Land Set Apart	Percent Complete	Acres Required to Complete
282,123	29,701	13,885	5%	268,238

(Note: 1 acre = 0.404685 hectares)

Delivers the Government's cottage lot development initiative, identifying sites and assessing their potential for cottage lot development. Ensures lots developed are disposed 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 quality of life for Manitobans through the availability of Crown land recreational cottage lots.

Key Results Achieved:

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

In the past year, approximately 58 lots have been allocated either through the Cottage Lot Draw Program or the First Come First Served Cottage Lot Program. The Cottage Lot Program produces economic activity through lot sales, construction, purchasing of goods and services and recreational spending. These activities create opportunities for local employment, First Nations and new business start-ups which help to grow the local economy.

Traditional Area Planning and World Heritage Site Nomination

- Administers planning area designations and land management plans proposed by First Nations for approval by the Government 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 five First Nations (Bloodvein, Little Grand Rapids, Pauingassi, Pikangikum, and Poplar River), leads the nomination for inscription of a 33,400 km² (3.3 million ha) World Heritage site in eastern Manitoba and

northern Ontario. The Pimachiowin Aki nomination was submitted to the United Nations Educational, Cultural and Scientific Organization (UNESCO) on January 26, 2015.

- This is a new nomination, following deferral of the initial bid by the World Heritage Committee (WHC) in 2013. The WHC decision to defer Pimachiowin Aki generated international interest in addressing the challenges posed by mixed (cultural and natural) nominations and indigenous cultural landscapes. More effective evaluations are expected as a result of enhanced collaboration, communications and joint reporting and recommendations by the Advisory Bodies to the WHC.
- The Pimachiowin Aki nomination and the land management plans are integral to boreal forest protection, eco-cultural tourism development, climate change mitigation and adaptation, and conservation of woodland caribou habitat, and stand as proud examples of collaboration between First Nations and the Government of Manitoba.

Key Results Achieved:

- Land management plans approved under *The East Side Traditional Lands Planning and Special Protected Areas Act*, at the request of the Poplar River, Pauingassi, Little Grand Rapids and Bloodvein First Nations, continued to provide direction for the management, use and sustainable development of more than 20,000 km² (2.0 million ha) 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 four First Nations. Staff of Lands Branch, Indigenous Relations Branch, Wildlife Branch, Parks Branch and Regional Services represents the Government of Manitoba on these boards.

The section continued to provide advice and logistical support to the Pimachiowin Aki Corporation throughout the nomination evaluation process, including a field mission by UNESCO's advisors (August 23 to September 1, 2015), and responses to requests by UNESCO's advisors for additional information (September to November 2015).

- In collaboration with staff of Parks and Protected Spaces Branch, the section contributed to a development plan for a boat launch and parking facility on provincial Crown land at the all-season road connection to the Bloodvein First Nation community. The contract was publically tendered, and awarded in 2015. The target date for completion of the facility is August 1, 2016.

Manitoba Geographical Names Program

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

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

Key Results Achieved:

- Advanced Manitoba's Commemorative Names Project's through two projects: 1. commemoratively naming geographical features to honour those who sacrificed their lives during the First World War; and 2. in honour of Peace Officers and First Responders who lost their lives in the line of duty.
- Continued to maintain and disseminate the Manitoba Geographical Names Data Base ensuring the utilization of Manitoba's authoritative toponymic data via multiple digital and hardcopy formats.
- Provided high quality client service to Manitobans as Manitoba's provincial names authority. This year, the MGNP completed 11 new Geographical Name Decisions.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,165	15.00	1,165	0	
Other Expenditures	5,413		4,655	758	1.
Grant Assistance	234		234	0	
Total 12.1(g)	6,812	15.00	6,054	758	

1. Over-expenditure is due to payments of grant to Nature Conservancy of Canada and grant in-lieu of taxes.

Indigenous Relations

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

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

The Branch continues to play an instrumental role in the Crown's Indigenous Consultation processes. One of the foremost objectives of consultation is to reconcile the relationship between the Crown and Indigenous people through engagement. The Indigenous Relations Branch 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:

- Developed and coordinated natural resource policy issues associated with First Nations, Metis and other Indigenous communities.
- Participated in Crown-Indigenous consultation processes related to Moose Management Closures as well as other Crown-Indigenous consultation processes.
- Participated as requested in the review of existing legislation, policy and programs and recommended amendments as required in accordance with the Treaties, Natural Resources Transfer Agreement, the Constitution of Canada and Supreme Court decisions.
- Developed and maintained formal and informal communication mechanisms between the Department and Indigenous communities, such as the Wabonong Nakaygum Okimawin Council on the East Side of Lake Winnipeg.
- 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.
- Discussed with Indigenous leaders, communities and individuals, the formation of dialogue forums and communication processes between the Department and Indigenous communities.
- Continued dialogue with Indigenous resource users as requested by communities.
- Responded swiftly to the Truth and Reconciliation Commission Calls to Action recommendations to ensure department understanding, training and compliance is meaningful.

Table AF.6
12.1(h) Indigenous Relations

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	398	5.00	424	(26)	
Other Expenditures	321		472	(151)	1.
Total 12.1(h)	719	5.00	896	(177)	

1. Under-expenditure is due to timing of grants payment.

PARKS AND REGIONAL SERVICES

Regional Support Services

2015/16 Objectives and 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 104 full-time Conservation Officers (CO) was completed by Regional Training Officers and department's peer Firearms Instructors.
- Four new CO Recruits attended the Western Conservation Law Enforcement Academy in Candle Lake, Saskatchewan. The 14-week Conservation Law Enforcement Academy included training in firearms, emergency driving, defensive tactics (DT), and investigations. An additional officer was hired who had previously attended Atlantic Police Academy.
- Training for 26 new hire seasonal Park Patrol Officers (PPO) was conducted by Regional Training Officers and departmental peer instructors and held at the Canadian Mennonite University. This provided the PPOs certification for park enforcement, safety, and security duty. In addition, returning seasonal staff, both PPO's and Park Patrol Captains (PPC) were recertified in Defensive Tactics and leadership courses.
- 4 COs were certified and trained as new Defensive Tactics Instructors to complement the existing 4 peer instructors for training CO's and Park Patrol's in arrest, and control tactics.
- Central training was conducted for 104 field COs. This included training in High Risk Vehicle Stops, DT recertification, scenario based training, Aquatic Invasive Species (AIS), case file management, Conservation Officer Act review and an update on pertinent legislation and departmental enforcement responses.
- Holster Transition for all COs was implemented utilizing peer trainers (Basic Firearms Instructors - BFI).
- Alco-test training was completed for some departmental and full time staff.
- Firearms development for BFIs was conducted (pistol and rifle platforms).
- Amended and updated several Operational Directives and Safe Work Procedures to reflect changes and new CO standards
- Special Investigations Unit team participated in undercover operations to catch poachers and to curb the significant black market wildlife parts trade.
- Set new standards for emergency equipment on CO vehicles.
- K-9 unit participated in several search and rescue operations, illegal hunting, fishing busts, and public education in school programs. New training for K-9 units to detect zebra mussels was undertaken.

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 issues such as authorities of Conservation Officers and legislative changes. New legislation in the form of the *Conservation Officer Act* was proclaimed in October 2015.
- Participated as a member of the Canadian Natural Resource Law Enforcement Chiefs Association.
- Participated in the formation of Manitoba Rabies Central with Manitoba Health and Manitoba Agriculture and Rural Development to form a new provincial rabies reporting and sampling system made necessary when Federal government divested themselves of those responsibilities.
- Continued to work with the Wildlife Enforcement Division of Environment Canada and the United States Fish and Wildlife Service on cross border investigations. Successful prosecutions in joint operations were achieved.
- Continued to work with Manitoba Fire Program throughout the province with COs providing logistical support during wildfire fighting operations.

- Participated in the Western Canadian Law Enforcement Academy (WCLEA) for the delivery and training of 23 new recruits from Alberta, Saskatchewan, and British Columbia.

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

- Worked with the Wildlife and Fisheries Branch on developing a Restitution Bill to assess values for fish and wildlife against convicted wildlife violators. As well, several amendments were made to strengthen the Wildlife Act, including increasing fines..
- Contributed monthly stories to new Central Communications project for release to local media. Stories highlight the work of Conservation Officers such as apprehending illegal hunting and fishing violators, rescuing wildlife, and aiding in search and rescue operations.

Specialized enforcement needs such as detailed investigations, covert operations, forensic lab services, and canine detection are developed sufficiently 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 numerous districts with electronic surveillance equipment targeting illegal harvesting practices as well as implemented the use of specialized surveillance equipment allowing for remote activity monitoring to aid in detection of illegal harvest, movement, and commercialization of fish, wildlife, and resources.
- A 2-year covert Investigation relating to the illegal sale of wildlife, namely selling and possessing elk meat, in the rural municipality of South Norfolk conducted during 2013 and 2014 was concluded in the courts by way of a guilty plea and resulted in \$10,000 in fines. Another 2-year covert Investigation relating to the illegal sale of wildlife, namely parts of a wild animal, in the Winnipeg area conducted during 2013 and 2014 was concluded in the courts by way of guilty plea and resulted in \$1,000 in fines.
- A 2-year covert Investigation relating to the illegal sale of fish in the Winnipeg area conducted during 2010 and 2011 was concluded in the courts by way of guilty plea and resulted in \$1,300 in fines. A 3 year covert investigation relating to the illegal harvest and possession of wildlife in the Manigotagan area, including the conservation closure area, resulted in 17 charges under *The Wildlife Act* & Regulations being laid against 3 individuals. The case is currently before the courts.
- A 2-year covert investigation relating to the illegal sale of fish in the Manigotagan area resulted in 4 charges against 2 individuals. The case is currently before the courts.
- A 3-year covert investigation relating to the illegal sale of fish in the Selkirk area conducted from 2013 to 2015 resulted in 2 charges against one individual. The case is currently before the courts.
- A 1 year covert investigation relating to the illegal sale of fish in the Rural Municipality of Alexander conducted in 2015 resulted in 3 charges against one individual. The case is currently before the courts.
- One of the canine units, Canine Fauna (K9-4) was retired due to health issues and a new canine, Hunter was acquired and trained through the Winnipeg Police Services 16-week Canine Program.
- Two Canine teams were used throughout the province on a variety of compliance checks and investigations of illegal fishing and hunting activities. This included 8 decoy operations, 47 night hunting patrols, 30 occurrences of searching for evidence in non-confined and confined areas, 13 occurrences of searching vehicles, 2 occurrences of searching for suspects, and 5 occurrences providing assistance on the execution of search warrants.
- The Canine Teams conducted 9 public education programs in schools and at public meetings throughout the province.
- The Canine handlers are trained Wildfire Investigators and the teams responded to 9 investigations of human caused wildfire.
- District Officers utilized the services of a Forensic Laboratory for Firearm analyses in 2 investigations of Wildlife offences to corroborate evidence obtained.
- District Officers utilized the services of a Forensic Laboratory for DNA analyses in 4 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 forest fires.
- See Tables RO.1 and RO.2.

Table RO.1 T.I.P. Calls by Region 2015/16									
Region	Number of Calls					Number of Prosecutions			
	Fish	Wildlife	Other	Fire	Total	Fish	Wildlife	Other	Total
Central	134	84	20	1	239	29	2	2	33
Western	20	118	10	0	148	0	7	1	8
Eastern	14	88	24	0	126	0	1	4	5
Northwest	5	8	3	0	16	0	0	0	0
Northeast	1	0	1	0	2	0	0	0	0
Unknown	3	4	0	0	7	0	0	0	0
Total	177	302	58	1	538	29	10	7	46

Table RO.2 T.I.P. Calls by Year 2006/07 to 2015/16 (excluding Fire)										
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Total Calls	364	312	300	319	317	311	358	310	392	538
Information	11	6	6	25	32	13	15	45	8	113
Actioned	261	192	153	156	129	161	247	146	216	221
Prosecutions	28	18	22	23	20	14	31	20	20	46
Warnings	15	1	5	6	6	9	8	3	10	18

Table RO.3 Common Violations under <i>The Provincial Parks Act</i>				
Offence	Prosecutions	Warnings	Total Offences	Evictions
No Park Vehicle Entry Permit	2,971	0	2,971	0
Cause Disturbance	38	64	102	236
Parking Violations	76	18	94	1
Disobey Officer/Sign/Permit	46	29	75	5
Camp w/o Permit/Prohibited	15	15	30	1
Unlawful Vehicle Operation	35	16	51	21
Possess Fireworks	10	1	11	3
Have Liquor Where Prohibited	33	9	42	50
Fail to Control Pet / On Beach	10	13	23	0
Fire w/o Permit/Unattended Fire	3	0	3	0
Fail to Maintain Campsite	6	17	23	0
Damage Pollute Park Property	8	3	11	0
Hunting/Firearm Violations	8	0	8	1
Other	1	5	6	0
Total	3,260	190	3,450	318

Table RO.4 Common Violations under <i>The Wildlife Act</i>			
Offence	Prosecutions	Warnings	Total Offences
Hunt/Trap/Guide W/O Licence / Licence Infractions	34	37	71
Hunt From or Have Loaded Firearm in Vehicle	66	4	70
Tagging/Transport/Import/Export Infractions	13	17	30
Hunt Prohibited Area/Private Land W/O Permission	53	8	61
Hunt or Discharge Firearm From Road	27	1	28
Equipment Infractions	46	30	76
Hunt for Remuneration / Illegal Sale of Wildlife	6	8	14
Night Hunting / Dangerous Hunting	27	4	31
Abandon/Waste Game	3	3	6
Bait Infractions	15	6	21
Possess Illegally Taken / Prohibited Wildlife	21	4	25
Hunt or Trap Out of Season	12	2	14
Other	6	8	14
Total	329	132	461

Table RO.5 Common Violations under <i>The Fisheries Act (Canada), and The Fisheries Act (Manitoba)</i>			
Offence	Prosecutions	Warnings	Total Offences
Equipment Infractions	623	92	715
Licence Infractions	255	229	484
Exceed Limits	289	55	344
Transportation Infractions	20	21	41
Illegal Sale / Possession of Fish	25	21	46
Wastage of Fish	4	2	6
Fish During Closed Time / Closed Area	29	51	80
Live Bait Infractions	16	4	20
Other	4	8	12
Total	1,265	483	1,748

Table RO.6**Comparison of Wildlife, Fisheries, Parks and Migratory Birds Prosecutions 2006/07 to 2015/16**

Fiscal Year	Wildlife	Fisheries	Parks	Migratory Birds
2006-07	289	547	1,559	18
2007-08	244	595	1,537	23
2008-09	234	802	1,636	13
2009-10	256	786	*448	9
2010-11	306	722	*455	11
2011-12	308	904	*381	24
2012-13	352	894	1,371	14
2013-14	316	800	1,670	26
2014-15	239	959	2,182	6
2015-16	329	1,265	3,260	14

*Years where no Park Vehicle Passes were required

Table RO.7**Record of Violations Occurring 2015/16**

Acts	Prosecutions	Warnings	Total Offences
Crown Lands Act	20	26	46
Environment Act	14	6	20
Endangered Species & Ecosystems	1	0	1
Forest Act	5	21	26
Forest Health Protection Act	2	3	5
Fisheries Act (Canada)	948	185	1,133
Fisheries Act (Manitoba)	317	298	615
Freshwater Fish Marketing Act	0	1	1
Highway Traffic Act	9	2	11
Liquor and Gaming Control Act	138	69	207
Migratory Birds Convention Act	14	11	25
Off Road Vehicle Act	39	41	80
Provincial Parks Act	3,260	190	3450
Resource Tourism Operators Act	0	5	5
Wildfires Act	19	40	59
Wildlife Act	329	132	461
Total	5,115	1,030	6,145

Total Fines: \$439,534 for 2015/16

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

- Hunter-Killed Livestock Program compensates livestock owners for animals deemed accidentally shot by licensed hunters during an open big game season. Claims are investigated by Conservation Officers and occasionally by RCMP. This year, two claims qualified for compensation totalling \$4,388. Program activity for the past ten years is illustrated in Table RO.8.

Table RO.8 Hunter-Killed Livestock Compensation 2006/07 to 2015/16				
Year Paid	Claims	Claims Paid	Total Paid	Average Paid
2006-07	2	1	\$2,600	\$2,600
2007-08	9	6	\$3,624	\$604
2008-09	4	2	\$1,087	\$543
2009-10	4	2	\$1,777	\$888
2010-11	4	0	\$0	N/A
2011-12	2	2	\$2,100	\$1,050
2012-13	0	N/A	N/A	N/A
2013-14	0	N/A	N/A	N/A
2014-15	3	2	\$3,922	\$1,961
2015-16	2	2	\$4,388	\$2,194

Table RO.9 Problem Wildlife Occurrences 2015/16							
Species	Region						% of Total
	NE	NW	E	C	W	Total	
Beaver	2	9	25	37	11	84	3%
Black Bear	238	285	346	300	255	1,424	49%
Polar Bear	360	0	0	0	0	360	12%
Big Game	0	2	15	31	26	74	2%
Wolf	16	6	47	27	15	111	4%
Migratory Birds	6	4	10	72	71	163	6%
Other*	30	27	94	358	205	714	24%
Total	652	333	537	825	583	2,930	100%

*Other includes coyote, fox, raccoon, skunk, etc.

Table RO.10 12.2(a) Regional Support Services

Expenditures by Sub-appropriation	Actual 2014/15 \$(000)	FTE	Estimate 2014/15 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,273	34.95	3,171	102	1
Other Expenditures	879		913	(34)	
Total 12.2(a)	4,152	34.95	4,084	68	

1. Over expenditure is due to Workers Compensation costs.

Northwest Region

The Northwest Region has a Regional Office located at The Pas, and 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.

Communication and Consultations are ongoing with 19 Indigenous and Northern Communities on government decisions or actions that could potentially affect the communities, or infringe upon Treaty and Aboriginal Rights.

The Region encompasses a diverse landscape that includes parts of Manitoba's lowlands, an inland delta along the Saskatchewan River and Canadian shield natural regions. The boreal forest is dominated by lakes, and rivers, largely in a natural state and its lands made up of predominately seven species including black and white spruce, jack pine, tamarack, white birch, balsam poplar, trembling aspen and scattered pockets of eastern white cedar.

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

The region is home to world-class angling with many of the Manitoba records caught on the lakes and rivers including Pike, Walleye, Goldeye, Tullibee, Rainbow Trout, Burbot, Lake Whitefish and Lake Trout. Of the top five Angling Records for various species for 2015; the NW Region held 16 of the Provincial records. The largest recorded Lake Trout by weight in Manitoba was caught in October of 1930 at 63.5 lbs, and held the world title for some 30 years.

The regions parks provide a scenic natural setting with modern conveniences, great camping, fishing, canoeing and boating opportunities. Staff delivers services, programs, and security to the many visitors at Clearwater Lake, Bakers Narrows, Grass River, and Wekusko Provincial Parks, which includes seven (7) campgrounds: Bakers Narrows, Gyles, Iskwasum, Reed, Wekusko Falls, Campers Cove, and Pioneer.

Due to the values-at-risk associated with towns and communities and with timber values, the region's wildfire management and suppression program is 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.

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

- The District focus of fire prevention and education within the northern communities has resulted in stabilizing the number of man caused fires. There remains an increased emphasis on fire investigations and cost recovery of significant human caused wildfires.
- Infrastructure improvements such as developing a sustainable and safe drinking water supply for the Wekusko wildfire base and Wekusko Falls campground were initiated with completion expected in 2016.
- Problem wildlife control in communities, towns and cities continues to be actioned by Conservation Officers as black bear, wolf and coyote encounters with humans continues to be high.

Wildfire suppression activities.

- The Northwest Region experienced a very active wildfire season with a total of 86 fires, of which 73 were caused by lightning and 13 were human induced, with a total of 22,852 hectares burned. This activity was representative of the extreme wildfire season that all of western Canada experienced.
- As a result of internal surveys in 2013 and 2014 management has focused on the issues identified by the fire crews and is aggressively training to assist with initial attack success and a cost effective delivery of the program.
- Wildfire Crews from Quebec, Michigan and Wisconsin assisted with wildfire suppression efforts utilizing the Canadian Interagency Forest Fire Centre (CIFFC) and the Great Lakes Forest Fire Compact (GLFFC) to share resources.

Fisheries:

- Staff continues 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 tagging program was completed to assess lake sturgeon recruitment in the Saskatchewan River.
- A total of 49,100 trout were stocked in 2015. Rainbow trout, brook trout, brown trout and tiger trout were stocked in existing stocked trout waters.

- The Clearwater Lake Spawn Camp operated a lake trout spawning operation, 16,000 lake trout eggs were collected that were to eventually stocked throughout Manitoba.
- 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 actions plans to combat the spread of aquatic invasive species (AIS) and in particular zebra mussels started in 2015. Zebra Mussels were detected in Cedar Lake and as a result, an extensive monitoring plan has been implemented to track any further spread.
- Staff continues to meet with commercial fisher associations to update administration plans and work towards the development of sustainable fisheries management plans.
- Staff administered and licenced 42 commercial baitfish blocks and 3 fish farming licences throughout the Region.

Wildlife:

- Development of action plans for boreal woodland caribou, listed as threatened provincially and federally, continues to occur for all caribou management units across the region. Management units of high conservation concern will be completed first (Naosap, Partridge Crop, Interlake, Wabowden).
- Caribou monitoring continues across the region and information collected will aid in the development of action plans. Staff work with and received funding assistance from local industries, resource management boards, and other departments for ongoing monitoring projects on several caribou ranges throughout the region (The Bog, Naosap, Kississing, William Lake, and Wheadon). These monitoring projects determine caribou movements and habitat requirements. Data collected aids in identification of critical habitat, core use areas, establishes mortality rates, herd stability and allows us to direct and accommodate industrial development within the areas.
- Aerial surveys were conducted to estimate moose and wolf populations in Game Hunting Areas (GHA) 8 and 11. For GHA 8, preliminary results indicate a similar population to previous surveys. This is thought to be below capacity for the GHA and discussions with local communities and First Nations are ongoing. This was the first time GHA 11 has been surveyed and the results will provide baseline data for ongoing monitoring.

Angler and hunter compliance.

- Conservation Officers checked approximately 3735 anglers, 551 hunters, and 45 commercial fishers for compliance resulting in 185 enforcement actions.
- As a result of additional Game Hunting Area closers for moose in other areas of the province, officers reported a continual increase in licensed and subsistence moose hunting activity within the region.
- Conservation Officers reported a notable increase in numbers of guests from the United States and other provinces, especially Saskatchewan during their closed season in April, that frequent the region to recreationally fish in the many lakes and rivers.
- Roadside moose kills from the highways in the winter months was still an issue in the region though the number of kills were down from previous years. Simulated moose decoy operations and patrols continued to help deter this activity.

New initiatives to effectively reduce illegal traffic in fish and wildlife.

- Aggressive and dedicated enforcement work focusing on possible illegal trafficking in fish continues with officers conducting several business, special dealer and commercial fisher compliance checks.
- Conservation Officers report an increase in activity by way of social media sites advertising sale of fish without the required permits and illegal sale wildlife to the public. Monitoring and investigations continue in this area.

Control of park rowdiness and reduced level of related public complaints; increase in the level of visitor satisfaction within Provincial Parks.

- Canada's Parks Day resulted in excellent attendance and an increase in visitor satisfaction. In working cooperatively with the wildfire program a static display set up at The Pas Airport in Clearwater Lake Provincial Park and the Flin Flon Airport for Bakers Narrows Provincial Park was well received this year. In addition, various other Canada's Parks Day activities also occurred in Bakers Narrows, Clearwater Lake, Grass River and Wekusko Provincial Parks.
- Improvements were made to park infrastructure including upgrades replacing roofing on several buildings; replaced pit privies, and constructed 3 additional Yurts at Campers Cove, and campsite expansion in Iskwassum Lake campground.
- Park rowdiness and complaints were addressed by Park Patrol and local Conservation Officers that worked during busier times, assisted the public when requested, and conducted patrols and compliance checks as needed. Park safety and security remains a primary focus in the region.

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

- Regional and District staff continues to participate as provincial representatives on the Cedar Lake, Cormorant, Opaskwayak Cree Nation, and Moose Lake Resource Management Boards. Opaskwayak Cree Nation and the Province signed a new 20-year Joint Management Agreement to jointly manage the natural resources and develop a land use plan for the traditional territory.
- Staff continues to hold annual Cottage Association meetings, attend Chief and Council meetings, Rural Municipality and City/Town meetings when requested, and attend all meetings requested by the sportsmen's groups to provide assistance and information.
- Districts/regional staff continues to hold presentations in the local schools and university on fire prevention, resource management, bear smart program, career days and other special requests. Staff also continues to participate in community events representing the department.
- Staff participates with joint initiatives working directly with other departments or branches to assist with effective community relations. One of the main focuses was moose populations within the region with continuing meetings and public information sessions with the northern communities.
- Staff continues to chair the Northwest Region Woodland Caribou Research and Management Committee which has representation from our northern communities, industry, environmental and other resource user groups.

Regional concerns are considered before land is allocated.

- The Northwest Regional Integrated Resource Management Team (IRMT) reviews and provides consolidated regional comments on timber harvesting mitigations, complex work projects, sales, leases, general permits, assignments, and lease renewal applications. The IRMT also reviews and comments on all Regional Licence Advisory Committee requests, exploration proposals, road development, Environment Act Licensing, quarry applications and work permit applications.

- The management and allocation of Crown land and Resources in the NW Region, to very diverse and competing users becomes at times very complex due to its nature.
- District Conservation Officers issue numerous work permits under *The Crown Lands Act* for construction projects, industrial operations within and during the burning permit area under *The Wildfires Act*. Work permits are used to mitigate the negative impacts of an activity to the Environment and as a method of ensuring that the proponents are made aware of local and regional concerns and requirements.
- The region is continuing to review wild rice allocations, and has a Provincial Wild Rice Committee; and continues to work on policy to standardize the review of wild rice applications and assignments.
- Recently due to the market conditions there has been a down turn in the exploration mining sector for which Crown land work permits are issued. Due to conditions exploration companies continue to be involved to a greater degree in low impact exploration including claim staking, soil sampling, line cutting, mapping, and geological reconnaissance. Two new mines, Lalor and Reed continue to be in operation in the Snow Lake area.
- The Region continues to identify crown land available for potential commercial and recreational development.

Other Notable Highlights

- Right of away clearing of Bipole III east of Snow Lake to the regional boundary near the junction of Highways 10 and 60 was completed this winter. Tower anchor foundations were installed along the line in preparation of towers going up next season. District and Regional staff developed and issued work permits to Manitoba Hydro for construction camps, access roads, and surveying of the transmission line location. Many compliance inspections occurred and reports submitted to identify any areas that required additional work and ensured the conditions of the Environment Act Licence and Manitoba Hydro's Environmental Protection Plan were followed.
- A Consultation process was offered to 15 communities to review Tolko's operating plan with additional notices offered to various communities regarding small forestry related projects not covered by Tolko's plan.
- A total of 21 new work permits and 65 extended work permits were issued by staff for logging, road construction, and silviculture operations in the April 2015 to March 2016 period. Approximately 237,000 m3 of timber was delivered to Tolko from crown land in the Northwest Region of which 205,000 m3 conifer and 32,000 m3 of aspen within the region. The region supervised the planting of 448,000 trees throughout the cutovers in the region. 44 timber inspection reports were done by regional and district staff in the April 2015 to March 2016 period.

Table RO.11
12.2(b) Northwest Region

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,450	37.75	2,517	(67)	
Other Expenditures	444		447	(3)	
Total 12.2(b)	2,894	37.75	2,964	(70)	

Northeast Region

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

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

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

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

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

The 2015 wildfire season started out wet. The region had dried out by mid-June when wildfires picked up resulting in an average number of wildfires and area burned. A total 211 wildfires burned 38,442 hectares. Of the 211 wildfires, 150 were caused by lightning and 61 were human caused. 144 wildfires were actioned and extinguished, 43 wildfires received limited action, and 24 were no action.

The Northeast Region issued 216 burning permits, with 132 being issued from the Norway House District.

Delivery of the FireSmart Program continued. Development continued on the Pre-response Plan for Paint Lake Provincial Park and was completed for the Burge Lake Pre-response Plan in Lynn Lake District. Initial Attack Wildfire Crews helped with the cleanup of dead trees in the campgrounds and around the parks. Wildfire Prevention was another priority with the staff participating in Canada Day Parades, Nickel Days, Treaty Days, and numerous school presentations with appearances by Smokey Bear.

Angler and hunter compliance.

- Conservation Officers checked 1281 anglers, 680 hunters, and 51 commercial fishermen for compliance.
- Worked to maintain effective community relations; particularly working towards greater involvement, participation, and cooperation of Indigenous people in resource management, and effective liaison with organized angling and hunting groups, and park user groups.

Minimize the number of complaints related to problem wildlife.

- There were 351 occurrences for the 2015 polar bear season; this was the highest on record since the start of the Polar Bear Alert (PBA) program.
- Churchill PBA staff handled a total of 77 polar bears. The ice release for the 2015 season was between November 24th and 26th, when there was enough ice to support polar bears travelling on the ice.

- There were no problem polar bears dispatched this season, however 2 Cubs of the Year (COYS) were sent to the Leatherdale International Polar Bear Conservation Centre after a female was accidentally dispatched at the Churchill Northern Study Centre.
- Polar bear surveys completed during the 2015 season included the Fall Coastal Survey and March Den Emergence Survey. All coastal surveys dating back to 1970 have now been compiled and will be analyzed to determine changes to distribution, abundance and vital rates of the western Hudson Bay sub-population.
- District Occurrence Reports recorded 238 black bear complaints, as well as 2 beaver and 16 wolf complaints.

Regional concerns are considered before land is allocated

- The Integrated Resource Management Team (IRMT) reviewed and provided comments on 63 Crown Land applications, 146 Casual Quarry Permits applications, 17 Environmental Licence reviews/applications, and 117 Work Permits
- 193 Timber Permits were issued. Approximately 137,576 cubic metres of softwood and hardwood was harvested in the Thompson and Wabowden Districts for Tolko Manitoba. 34,960 trees were planted on Timber Sale harvest areas and Mine Site rehabilitation projects in Lynn Lake District.
- Manitoba Hydro's Bipole III right-of-way clearing was completed within the Region and a small number of towers were erected. Inspections were carried out by Conservation Officers on a regular basis. Gillam, Thompson, and Wabowden districts were the key areas.
- Manitoba Hydro's Keeyask Generation Project continued with completion of the South Access road right of way (ROW), temporary camps, and work on burrow pits and quarry pits. The initial coffer dam construction was completed.
- Regional staff participated on the Churchill Marine Observatory project, Churchill Cottage Lot program, and South of 60 Inuit Land Claim committees.

Other Notable Highlights

- The annual Manitoba Trappers Association Fur Table was attended by 139 trappers throughout the north selling furs. Again this year there were four buyers at the Fur Table, with sales of wild fur pelts near \$250,000. Marten was the species most sold; 3418 marten sold at an average of \$65 a pelt for a sum of \$222,000.
- Sales of Barren Ground Caribou tags were very high for the 2015/16 season. Most of the non-resident tags were sold, and all of the resident tags for both fall and winter were completely sold out. There is a very strong demand for these licences. The Qamanirjuaq Caribou herd did not enter into Manitoba until late fall, with most hunters on the fall range not able to fill their tags. The caribou that did enter into Manitoba did so in late fall and only migrated as far as the community of Tadoule Lake. There was a high harvest of caribou by hunters from both Manitoba and Saskatchewan in a concentrated area near the community of Tadoule Lake, which continued up until the snow was gone in the spring. Sustainable Development staff did extensive patrols during this time and harvest by subsistence hunters in that area was nearly 5,000 caribou.
- A confirmed illegal grizzly bear kill was investigated in the Lynn Lake district. The case remains before the court.
- The Beverly Qamanirjuaq Caribou Management Board (BQCMB) held its annual meetings in Regina and Winnipeg. The BQCMB continues to work towards the conservation of both herds for the people that rely on caribou.
- Attended the Dene gathering between the Manitoba Dene and the Athabasca Denesuline of Saskatchewan. The mandate of the meeting was to come to agreement on hunting practices and inter-jurisdictional respect between the two provinces.

- Continued monitoring Boreal Woodland and Coastal Tundra Ecosystem Caribou throughout the region.
- Community meetings were held in a number of Indigenous and northern communities relating to both caribou and moose management.
- Extensive patrol coverage was completed during the fall moose season throughout remote inland lakes. Moose numbers throughout most of the region remain in good numbers.
- Game Hunting Area 9A was converted into a Conservation Moose Area with only one tag between two hunters.
- 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 Wapisi Caribou Committee, Beverly and Qamanirjuaq Caribou Management Board, Northeast Woodland Caribou Advisory Committee, Churchill Northern Studies Centre Board, Nelson River Sturgeon Board, Kischi Sipi Namao Committee, Southern Indian Lake Environmental Monitoring Committee, Coordinated Aquatic Monitoring Program Working Group, and Keeyask Fisheries Regulatory Review Committee as well as participated in community consultation meetings for the proposed Polar Bear Provincial Park.
- The Southern Indian Lake commercial fishery continued to underproduce. Production remained at about 10% of the average over the preceding two decades. Efforts to identify environmental issues contributing to this problem continued. The primary issue is below normal growth rates for Lake Whitefish in the north basin, traditionally the main producer for this lake.
- Lake Sturgeon populations in the upper Nelson River continued to improve. Monitoring by the Nelson River Sturgeon Board shows sturgeon arising from natural reproduction continue to add to the population upstream of Kelsey. Studies conducted in partnership by Manitoba Hydro and the Sturgeon Board have shown that stocked yearlings further upstream near Cross Lake and Norway House exhibit excellent growth and survival.
- This was the second year operating with a Waste Transfer Station at Paint Lake Provincial Park. It was also the second year operating with the new Water Treatment Plant.

Table RO.12
12.2(c) Northeast Region

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,445	44.95	3,249	196	1
Other Expenditures	1,021		838	183	2
Total 12.2(c)	4,466	44.95	4,087	379	

1. Over-expenditure due to costs related to Enforcement issues.
2. Over-expenditure due to higher expenses for the Parks Polar Bear surveillance program.

Central Region

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

Provincial Park Operations, Maintenance and Improvements

- Hecla Provincial Park hosted the first annual T3 Canadian Forces Base 17 Wing Triathlon, which received high praise from the athletes and general public. In preparation for the event significant road repairs were completed. Staff installed a new burn cell at the waste transfer station to comply with environmental regulations and research was undertaken in relation to installing a fish composting facility which, when completed, will be the first in the Central Region. The Grassy Narrows Marsh Boardwalk was rebuilt and ongoing work was undertaken on historical buildings within the Hecla Village.
- Watchorn Provincial Park was opened for one whole season after being destroyed by flooding in the fall of 2010 and 2011. A new campground office was built and design work was completed for a dike to protect the park from high water, and for a ground water lift station to remove water from the park after heavy rains.
- Grand Beach Provincial Park enhanced their recycling operations on West Beach and in the campground in partnership with Canadian Beverage Container Recycling Association. The campground service building roof was removed and replaced. Park staff built and installed a non-modern restroom at the Brokenhead Ecological Reserve Interpretive Trail. Design work began for a new sewage lagoon and related infrastructure. Working with Parks Branch staff, commercial concessions leases were renewed. Trail work was undertaken to improve a Trans Canada Trail connection on the west side of the park.
- Birds Hill Provincial Park operated for the first season with the new expanded beach and lake. The west side of the lake was expanded by approximately 25% leading to the beach being expanded by approximately 30%. Two new water treatment plants became operational; one in Group Use 2 and the other in the Folk Festival concert site. In selected bays, ongoing upgrades of electrical services from 30 to 50 amps are being completed to accommodate the increasing demands of modern camping units. Expansion of the Maintenance Shop was completed and upgrades to the West Gate to improve traffic flow off of PTH 59 began.
- At Stephenfield Provincial Park, the existing shower facilities were upgraded and the new shower and restroom facility was completed, and opened to the public.
- The sea wall at Winnipeg Beach Provincial Park was destroyed during a severe wind storm on the 2015 May long weekend. Planning and design work for the new sea wall led to recommended approaches for installing steel sheet piling and the expansion of beach areas. This engineered design is intended to dissipate wave energy during storms, reduce erosion along the beach, and benefit beach goers with expanded beach areas. Proposed designs were presented to the public at an open house hosted by the Town of Winnipeg Beach in November 2015. Public feedback was predominantly positive with many concerns expressed with the lack of new beach development in the northern section of the park. Adjustments to the design were made to address these concerns and to provide an expanded beach area. Work to construct the new sea walls and beach areas began in January 2016.
- At St. Norbert Provincial Park, a grand re-opening of the historical Bohemier House was held in conjunction with the Fort Gary Historical Society. The Bohemier House had been closed to the public for six years while asbestos remediation was undertaken, and the related interior and exterior repairs were conducted.

- Both Winnipeg Beach and Grand Beach were again awarded Blue Flag designation. Blue Flag is an internationally recognized eco-label symbolizing clean and well-managed beaches and marinas worldwide.
- The replacement of aging play structures continued throughout the region with new play structures being installed at both Stephenfield and Lundar Provincial Parks. At Grand Beach, a natural play structure was installed on the site of the former Surf Club.
- Regional and District Park Supervisors continued working with Branch staff to initiate or complete many Minor and Part B Capital infrastructure improvements, as well as, flood remediation.

Wildlife Management and Programming

Public Outreach

- The Narcisse Snake Dens, located in the Narcisse Wildlife Management Area (WMA), continue to be a popular wildlife viewing site, with approximately 20,000 visitors touring the area annually. Interpretive services are provided by three interpretive staff of the department and volunteer members from the Manitoba Herptocultural Society. The Snake of Narcisse website was improved to provide video updates of snake activity at various times during the viewing season.
- Central Region wildlife staff continue to oversee the use of the Chatfield Field Station, which provides important housing and accommodations for snake scientists that visit the site annually to conduct their research. The Field Station also provides accommodations for various graduate students and their research technicians throughout the year.
- Central Region wildlife staff co-chairs the Oak Hammock Marsh (OHM) Working Group and is the designated secretary for the working group. The OHM Working Group is comprised of local landowners, non-government organizations and government staff that meet once a year to discuss issues of mutual interest and concern as they relate to the management of the OHM WMA.
- Grant's Lake Working Group is comprised of local landowners, NGO's and government staff that meet once a year to discuss issues of mutual interest and concern as they relate to the management of the Grant's Lake WMA and Game Bird Refuge. Wildlife staff co-chairs each meeting and is the designated secretary for the working group.
- Central Region wildlife staff organized and participated in numerous mentored hunting and trapping programs. These mentored programs provide young and first-time hunters and trappers a safe and fun introduction to our outdoor heritage. In 2015, these mentored activities included: the Oak Hammock Marsh mentored youth waterfowl hunt; the mentored youth trapping program at Oak Hammock Marsh; the wounded veterans' mentored waterfowl hunt at Oak Hammock Marsh; and the women's mentored muzzleloader hunt near Stuartburn.
- In cooperation with the Watchable Wildlife Program (Tourism Manitoba), Central Region wildlife staff continued development of the self-guided trail and interpretive infrastructure at Grant's Lake WMA, including the completion of the first phase of trail development and parking lot upgrades.
- Central Region wildlife staff continued development of the Tillenius Trail, located in Clematis Wildlife Management Area, in cooperation with the Watchable Wildlife Program (Tourism Manitoba). This trail is the newest birding trail to be added to Manitoba's Pine to Prairie Birding trail system and provides visitors with the opportunity to see a variety of parkland birds and other wildlife. In addition, it commemorates the accomplishments of renowned Manitoba wildlife artist, Clarence Tillenius, whose family homesteaded in the area.

Wildlife Habitat

- Phase II of the OHM infrastructure renewal project commenced in 2015. Over \$325,000 was spent to replace failed water control structures and pipes to ensure optimal water management at OHM WMA. Central Region wildlife staff oversaw the procurement and purchase of all materials and supplies for this project. Installation is planned for 2016/17.
- Wildlife staff assisted with monitoring and maintaining the four carp exclusion sites on Clandeboye Bay at Delta Marsh WMA. Unfortunately, a late spring wind storm damaged parts of the dike containment system and carp were able to get past the screen and into the marsh. Wildlife and Fisheries Branch staff

coordinated the repairs this past winter. Despite partial exclusion of the carp, Delta Marsh continues to show improvements.

- Regional wildlife staff participated in the development of the St. Andrews Lock and Dam Special Conservation Area. This area was designed with the purpose of protecting American White Pelicans from entanglement in fishing line, as well as, increasing public awareness of this issue which is prevalent across Manitoba.

Wildlife Surveys/Monitoring

- Central Region wildlife staff continue to participate in annual provincial bird surveys:
 - Wildlife staff participated in the provincial Sharp-tailed Grouse Lek Surveys. Seven leks located throughout the southern Interlake were surveyed in April.
 - Wildlife staff members were again assigned a Woodcock survey route near Lundar and it was surveyed in April.
 - Wildlife staff members were assigned a nocturnal owl survey route near Riverton and it was surveyed in March.
- Wildlife staff prepared a proposal to conduct a population survey for white-tailed deer in GHA 31 near Manitou. The proposal was formally presented to the Provincial Big Game Management Committee for consideration and it was given the go ahead for February 2016. Unfortunately, a lack of snow and warm conditions resulted in poor survey conditions and this survey was cancelled.
- Central Region wildlife staff assisted the Eastern Region in conducting a moose survey in GHA 26 and a white-tailed deer survey in GHA 35. Sharing of staff resources between Regions and the Wildlife Branch is critical during big game surveys as no region has the resources necessary to complete a full survey without assistance.
- Central Region wildlife staff once again assisted in the annual provincial Canada goose banding program. Almost 1,000 geese were banded in early July at a variety of locations in Winnipeg and Portage La Prairie. Another 4,400 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 helps provincial wildlife staff determine annual recruitment, harvest rates, and migration patterns throughout the continental flyway.

Wildlife Conflict – Crop Depredation

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

Indigenous Community Engagement

- Central Region wildlife staff met with Chief and Council of the Skownan First Nation to discuss and gain support for a population and range study of the North Interlake elk herd that inhabits the communities' traditional use area. A Band Council Resolution was provided by Chief and Council supporting this proposed research.
- The Mantagao Lake Wildlife Management Area Working Group, which includes members of the Peguis First Nation, held three meetings to plan and deliver developments that will improve access and camping facilities at this popular local recreational area.

Wildlife Resource Use

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

Other Notable Highlights

- Chitek Lake Provincial Park and surrounding area is home to Manitoba's free range Wood Bison population. In March 2016, Regional Wildlife staff accompanied Wildlife Branch staff and Gypsumville Conservation Officers in deploying salt blocks to the Bison to help ensure their long term health by providing vital minerals not available in nature. Additionally, Regional Wildlife staff conducted a survey flight and a minimum count of 174 bison was obtained.

Forestry and Peat Lands Management and Programming

- In August, 2015, a severe infestation of Jack Pine Budworm (*Choristoneura pinus pinus* (Freeman)) was identified in the Twin Rivers/Dancing Point area. There were no signs of infestation detected in previous Forest Health Survey Flights in 2013 and 2014. Therefore this outbreak is believed to be in the initial stages of a three to four year cycle. An estimate of 3,000 hectares of mature to over-mature Jack Pine stands have shown moderate to high levels of infestation. Harvest plans were developed to target these areas of higher concentrations in order to reduce budworm population and wildfire potential. Due to contractor availability and mild winter conditions only 41 hectares was harvested in the 2015/2016 winter season. Regional forestry staff plan to monitor the budworm's population and spread while facilitating increased levels of harvesting.
- The focus of consultation processes has been on the Jack Pine Budworm infestation area, which involved meetings and discussions requested with four local communities. Various informal meeting and discussions with First Nation and Indigenous communities have occurred with forestry staff to provide updates on forestry activities in the region.
- A total area of 51 ha was harvested by Quota Holders in the Central Region within in Forestry management Unit (FMU) 40 (82%) and FMU 41 (18%). This area does not include the harvested area associated with Jack Pine budworm salvage.
- There was 163 Personal Use Timber permits were issued in designated cutting areas within the Central Region.
- The regional forestry renewal program included 26 hectares of scarification used to promote natural regeneration of Jack Pine in the Rosenberg area. The collection of Jack Pine cones were completed and will be used for growing seedlings in future years. The verification of forest prescriptions were conducted for the tree plant scheduled in the spring of 2016/17.
- Regional forestry staff continue to work with Forestry and Peatlands Management Branch staff to protect and conserve Crown Peatlands while providing for sustainably-managed commercial development. There are four active commercial peat harvesting areas located in the Central Region.

Fisheries Management and Programming

Public Outreach

- Central Region fisheries staff worked with the Rural Municipality of Grahamdale to establish a stocked trout fishery in the Steep Rock quarry pits. Work continues to move forward from both sides to ensure the pits can support a landlock trout fishery.
- Staff worked with the local Game and Fish Clubs surrounding Lake Minnewasta to better enhance the Lake's sport fishery. Lake Minnewasta attracts anglers from all areas of Manitoba seeking a variety of species, such as largemouth bass, black crappie, and large walleye. Staff monitored the lake's access points to determine angling pressure and propose new regulations to protect this fishery.
- Staff worked with North Dakota and Minnesota government staff to explain the purpose and scope of the Red River channel catfish tagging study and to include them in ongoing and future studies by supplying tags and tagging guns.
- Regional staff reviewed Licensing Advisory Committee applications, environmental licensing proposals, land-use applications, water control works licences, resource allocation requests, development proposals, and scientific collection permit applications.

Fisheries Surveys/Monitoring

- Staff assisted with programming initiatives conducted by the Swan Creek Walleye Hatchery. Walleye are collected and stripped of their eggs and milt and incubated inside the hatchery until they hatch. This year, the hatchery raised approximately 34 million walleye fry which were stocked in lakes around Manitoba, of which 14 million were stocked within the Central Region.
- Staff conducted the annual Lake Winnipeg Spawn Monitoring at Hecla Bar. Spawn testing is used to determine the progress of spawning walleye. Once female Walleye reach 80% spawned out, the Lake Winnipeg Commercial Season is opened two days later.
- Staff conducted its annual 6-week index netting program on Lake Winnipeg to assess lake fish populations. Sample sites include Balsam Harbor, Hecla, Frog Bay, Matheson Island, Dauphin River, and Grand Rapids. A total of 64 index nets were set and a total of 5,400 walleye, sauger, and lake whitefish samples were collected.
- Working with students from the University of Lincoln Nebraska, staff assisted with the Red River Channel Catfish Tagging Program. The sampling crew tagged catfish on the Red River from Lake Winnipeg to the Emerson. A toll free number is setup for anglers to call and report tagged catfish. This information is gathered to determine and assess catfish populations and also provides information on seasonal and annual movement patterns. It is estimated that channel catfish populations on the Lower Red River range between 200,000 to 300,000 fish.
- Staff assisted Wildlife and Fisheries Branch staff with the Zebra Mussel Monitoring program, by providing assistance with the deployment and retrieval of substrate samplers. Staff also assisted with veliger sampling on Lake Winnipeg and Lake Manitoba.
- Staff conducted the annual Lake Manitoba Index Program to assess lake fish populations. Due to unforeseen circumstances, only 2 of 4 intended index sites were completed; Manipogo and Steep Rock - for a total of 22 Index nets sampled.
- Staff also conducted the Annual Lake Waterhen Index Program. Sampling Protocols follow those of which are determined by the Marine Stewardship Council in order to maintain the Eco-certification status for Lake Waterhen.
- Staff conducted its winter sampling program on Chitek Lake to monitor fish stocks and to determine whether natural spawning occurs annually in the Lake.
- Staff worked to support and collaborate with Manitoba Hydro and the company's Coordinated Aquatic Monitoring Program (CAMP) for Lake Winnipeg.

Commercial Fishing

- Central Region fisheries staff managed four large Commercial Fisheries: Lake Winnipeg; Lake Manitoba; Lake St. Martin; and Lake Waterhen. Staff also manage the Lake Carp Fisheries and the Delta Marsh Carp Exclusion Fishery as well as assisting with the Spring Creek Mullet Fishery. Staff managed numerous Experimental Fisheries throughout the region.
- Approximately, 2,000 commercial licenses are issued to Commercial Fishers annually in the Region. Commercial fishers issued 5,500 Trade Records and 1,500 load slips. These records are returned by fishers and then tabulated in a database for production and tracking purposes.
- Staff also processed 250 Lake Winnipeg Quota Transfers. Staff also processed 30 License transfers from Lake Manitoba and Lake St. Martin.
- Staff monitored the Whitefish Optimization Program. With Department initiated changes to the program, staff worked to keep fishers informed on changes as the season progressed.
- Staff attended meetings with the Lake Winnipeg Co-management board and provided recommendations for changes to the commercial fishery. Staff also attend Lake Winnipeg area meetings to answer questions and provide updated changes to the Lake Winnipeg Commercial Fishery.

- Central Region fisheries staff worked to maintain and provide up-to-date production reports to enforcement staff.

Recreational Fishing

- Central Region staff work with various game and fish clubs and their representatives to provide information and address and make changes to angling regulations for lakes within their areas.
- Central Region Staff issued 52 Competitive Fishing Event Permits. Most permits issued are for the Red River and Lake Winnipeg. Permits are issued to local game and fish clubs, organizations, businesses and for requested citizen events (e.g., family reunions)
- Staff initiated efforts to monitor recreational fishing pressure across the region.

Crown Lands Management and Programming

- The Inter-departmental Regional BLOC Planning Committee continues to review and update operational Crown land use codes to improve long-term land and resource use and reduce land use conflicts, and supports the Crown Lands Assistant Deputies Ministers Committee. A review of codes and associated maps has been initiated across the Region.
- Staff members throughout the Region are responsible for the management, administration and enforcement of Crown land through communication with the public, issuance of permits, completion of site inspections, and dealing with compliance issues.
- Improvements in process have been made with Mineral Resources to streamline the issuance of Casual Quarry Permits for gravel contractors. The Region has updated the pre-cleared list to reduce the amount of time required for regional review of new applications.
- The Region participates in the review and development of Crown land policy documents that provides better direction to staff and improve the quality of service delivery to the public.

Regional concerns are considered before land is allocated.

- Land use allocations are reviewed by the Region's Integrated Resource Management Team (IRMT) to ensure regional natural resource issues and operational considerations are included. This is accomplished through the review of various circulars (e.g., sales, leases, permits, assignments, development plans, municipal by-laws, Environment Act proposals, environmental pre-screening.)
- A First Nation Assessment, including reviews in accordance with existing Treaty Land Entitlement Agreements, continues for all Crown Land disposition applications within the Region that may impact Treaty and Indigenous Rights.

Compliance and Enforcement Activities

- Enforcement actions were up 28.6% from the previous year. Prosecutions increased by 15.5%, written warnings increased by 88.6% and evictions decreased by 5%. The Regional Enforcement Strategy which focuses Conservation Officer's time towards targeted areas with high resource use activity and high resource consumption continues to identify a high number of violations and the need for an increased enforcement effort.
- Regional staff responded to 2,343 district occurrence reports from the public related to parks safety and security, problem wildlife, and resource related complaints. In addition, staff provided representation on behalf of the department and professional advice to a large number of public, industry, and interest groups on forestry, wildlife, Crown lands, parks, and other resource concerns and issues.
- Staff undertook 1,635 enforcement actions resulting in 930 prosecutions, 528 written warnings, and 177 evictions from provincial parks. These actions were primarily in response to public complaints on regulatory resource issues, and park safety and security concerns.

Combined efforts of multiple COs working together focusing on specific resource use concerns result in increased productivity and public awareness.

- In response to the Central Region Enforcement Strategy, enforcement efforts were directed to Regional priorities of park safety and security, commercial fishing and sport fishery enforcement. Commercial businesses offering fish for sale within the Region continue to be inspected as new locations are identified.

Extensive investigations have been conducted involving large volumes of fish being sold from legally and illegally harvested sources. The Regional Enforcement Strategy has been revised for 2016/17 with specific goals and objectives, improved organization, and increased data tracking to assist in evaluating and adjusting future plans. The overall goal is to provide adequate CO staff to meet the compliance needs of high public use and high public resource consumption areas.

Proactive enforcement to identify problems before they occur is reducing rowdy behavior resulting in fewer public complaints and an increase in the level of visitor satisfaction.

- Park rowdyism, public safety, and security remain priority issues requiring the primary attention of the Region's resources. Liquor free camping in Birds Hill and Grand Beach Provincial Parks, and the continued efforts to prohibit liquor on the May long weekend has greatly reduced complaints of unacceptable behavior in our park campgrounds.
- Evictions in the provincial parks within the Region were down by 5% from the previous year which is the third year in a row that a reduction has occurred. A significant portion of this reduction can be attributed to the added measures taken to identify and address potential problem situations before they become a problem, thus allowing problematic sites to curb their activities so that an eviction is not required.

Maintaining effective community relations creates greater involvement, participation, and co-operation of First Nation and Indigenous people, organized sportsmen's and user groups in addressing resource management issues.

- Regional Wildlife and Fisheries and Operations staff continue to participate in a working group with members of Peguis First Nation, Fisher Game and Fish Association and the RM of Fisher to address and resolve access concerns to Mantagao Lake located within the Mantagao Lake Wildlife Management Area.
- Regional staff members were involved in the creation of the Special Conservation Area located at the St. Andrews Locks to protect pelicans from harm caused by fishing gear that has either been discarded or lost while sport angling. Enforcement efforts have continued into the new year to ensure that sport angling is prohibited within the designated area. Consultation with public concerned about the protection of pelicans and sport anglers was a key ingredient into determining the extent of the area to be protected.
- Regional enforcement staff members are now active participants in the Lake Winnipeg Co-Management Board. Discussions on enforcement efforts involving commercial fishers were previously not part of the Board meeting. The change now allows Area Representatives to bring forward enforcement concerns so that they can be discussed to develop consistent understanding and application in all areas of Lake Winnipeg.

Education is the first response to complaints related to problem wildlife.

- The number of problem wildlife and non-regulatory wildlife related complaints (825) in the Region was 20% lower than the previous year. Winnipeg continues to receive the highest number of complaints. Even though the Winnipeg District staff no longer responds to raccoon complaints within the City, they continue to provide educational information to the public on how to address problems created by raccoons. The Region's staff members provide education to the public for all problem wildlife complaints on ways to prevent occurrences and removal of attractants remains to be the most effective way to co-exist with wildlife.
- The number of black bear complaints in the Region decreased by approximately 15% (300) from the previous year. Grand Beach and Hodgson Districts accounted for 61% of all complaints in the Region. The increased urbanization of the wooded area along the east side of Lake Winnipeg in the Grand Beach District and the lack of Outfitters east of Peguis First Nation in the Hodgson District are contributing factors for the high number of complaints. The Bear Smart Program continues to be an effective tool in educating the public on ways to reduce and remove attractants that create human-black bear conflicts.

Central Region Wildfire Program based out of Gypsumville

- The Gypsumville District operates with two Initial Attack Crews and is the main base of operations for all wildfire suppression activities in the Central Region. Thirty fires were the result of human caused activity, which continues to be the main concern.
- Staff coordinated the initial attack of a major fire in the Northwest Region located south of Highway 60. Numerous Central Region staff members were involved in the successful suppression.

Table RO.13
12.2(d) Central Region

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,209	66.05	4,547	(338)	1
Other Expenditures	1,085		1,050	35	
Total 12.2(d)	5,294	66.05	5,597	(303)	

1. Under-expenditure is due to vacancies.

Eastern Region

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

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

Hunter and Angler Compliance Levels

- Natural Resource Officers conducted 1,036 big game, 39 upland game bird, 103 migratory bird, 7,885 angler, 318 Snopass, and 10 work permit inspections in the region. In addition, there were four decoy wildlife operations, 92 park evictions, and 451 cottage inspections conducted within parks.

Fire Management

- The region experienced a total of 105 wildfires, with a total of 2,344.5 hectares being burnt within the region. 42 of these fires were deemed to be human caused and 63 were started by lightning.

Wildlife Management

- A Moose survey of Game Hunting Area (GHA) 26 and a white-tailed deer survey of GHA 35 were completed.
- Global Positioning System-collars were placed on a number of elk to determine the seasonal ranges of the Vita (cross-border) elk herd.
- GPS-collaring continues to be used to investigate wolf-moose relationships in GHA 26.
- A recruitment survey of Owl-Flintstone woodland caribou herd was completed

Regional Forestry Management

- Staff continued to be involved with 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.
- A bark beetle infestation has been identified in the region. In response staff began developing Fire Smart harvest patterns around local communities to reduce the threat that wildfires may pose in the area.
- 85% of the Annual Allowable Harvest- 250,000 m³ of timber was harvested in 2015/16.

- Forest renewal operations included the planting of 1.6 million trees and the mechanical site preparation of approximately 1,000 hectares for future reforestation.

Parks and Park Operations

- The Moose Lake Provincial Park boundary was amended to include an additional 92 hectares of land.
- Five new ecological reserves were designated (Cedar Bog, Piney, St. Labre Bog, Ste. Anne Bog and Woodridge Ecological Reserves) and Lewis Bog Ecological Reserve was expanded in the region...
 - The Lac du Bonnet park maintenance shop was upgraded with spray foam insulation.
 - Back country short haul campsites were added to the Tulabi Falls campground
 - Preparations to construct six Yurts at Tulabi Falls Campground began with construction anticipated to be completed in the fall of 2016.
 - A campsite reservation system was introduced for the back country boat access sites on Shoe Lake.
 - Construction of a modern washroom and shower building in the Betula Lake campground was completed and will be operational in 2016.
 - Construction of a modern washroom and shower building in the Falcon Lakeshore campground was completed and will be operational in 2016.
 - A new sewer lift station was completed and water lines replaced in the Falcon Lakeshore.campground
 - A tender to refurbish the Falcon Lake mall building was awarded with construction beginning late in the year.
 - A new playground structure was installed in the Falcon Lake campground
 - A Site Source Water Study to provide water to the West Hawk town site was completed and the design of water supply system and necessary upgrades was initiated.
 - A design to upgrade the Water Treatment plant at Caddy Lake was completed as a necessary step in the development of a future tender for the project.
 - A waste water treatment plant at the Brereton Lake campground was completed and put into operation.
 - A Water Treatment plant at the Opapiskaw campground was completed and is now operational.
 - New wells were drilled to provide a water supply at Otter Falls.
 - The development of a waste water treatment facility at Moose Lake Provincial Park was completed and is anticipated to be put into commission in the spring of 2016.
 - Camp site electrification upgrades continued in St. Malo provincial park,
 - A new washroom and shower building was constructed in the Sunset Shores area of St. Malo provincial park.
 - Beach Smart public programming was launched in St. Malo with the reintroduction of a Park Interpretive Program.

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

- Natural Resource Officers from the Eastern region continued to conduct dedicated patrols throughout GHA 26 to ensure compliance with the moose conservation closure. Staff detected an increase in illegal activity, however for the most part the closure has been respected. To date the Department's efforts continue to be well received by the public and stakeholders.
- Construction of a new Regional Fire Centre and District Initial Attack Base in Lac Du Bonnet was completed and the centre put into operation. The Lac du Bonnet location is centrally located to provide effective regional forest fire protection and suppression coordination for eastern and central Manitoba. This includes the Whiteshell, Nopiming, Hecla and Atikaki Provincial Parks, which include many homes and cottages.

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

- Regional and District staff regularly participated as provincial representatives at meetings with Indigenous groups and communities. Some of these regular meetings include:
 - Resource Stewardship Board meetings with Poplar River, Bloodvein, Little Grand Rapids, and Pauingassi FNs.
 - The Eastern Region Model Forest Moose Management Committee which includes representatives from Indigenous groups, industry, and various other stakeholders.
 - Meetings with indigenous groups in the consultation process regarding the development of the East Side and Freedom Roads
- 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.
- Throughout the region staff continued to meet regularly with the Manitoba Trappers Association, Manitoba Wildlife Association and other user and special interest groups.
- Natural Resource Officers coordinated trapper education courses in remote First Nations communities
- Regional and District staff continued to meet regularly with the Whiteshell cottagers Association, the Falcon-West Hawk Chamber of Commerce, and various other cottage associations and special interest groups to discuss park operations & maintenance and park safety & security issues.
- Regional and District staff met with local fire departments, First Nations Communities, RM councils, and railway companies to pre-plan for forest fire prevention and suppression operations.

Minimize the number of complaints related to problem wildlife.

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

Regional concerns are considered before land is allocated.

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

Other Notable Highlights

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

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,818	71.60	4,737	81	
Other Expenditures	789		792	(3)	
Total 12.2(e)	5,607	71.60	5,529	78	

Western Region

The Western Region is an extremely diverse area that encompasses a range of land based development and activities from urban centres to extensive agricultural and industrial development to remote undeveloped natural habitat. The region reaches from the United States border on the south to the northern end of Lake Winnipegosis and

is geographically divided in half by Riding Mountain National Park. It was formerly two regions, South West Region and Western Region, and while functioning as one region much of the administration and management is completed by two distinct sub-regions.

The region contains the majority of the Rural Municipalities in the province, and is the second most populated area of the province. Agricultural land use is predominant in the region while the northern sub-region supports a significant portion of the province's forestry industry. As a result of agricultural land use, there is more human-wildlife interaction resulting in more problem wildlife issues (beaver, coyote, and elk depredation). It is also home to 6 of the 7 known elk populations in the Province and attracts significant numbers of resident and aboriginal (First Nation and Métis) hunters. The region contains well-known natural topographic features in the form of the Spruce Woods sand dunes, Turtle, Riding, Duck, and Porcupine Mountains, as well as, Lake Winnipegosis. In addition, Lake of the Prairies is one of the premier walleye fishing areas in the province. Recreational and Commercial use of natural resources are a major economic stimulus in the region. There are 21 provincial parks in the region. The region contains the majority of outfitters in the province. Virtually all of the oil and gas activities in Manitoba occur in the southwest part of the region where the majority of the listed Species at Risk occur in Manitoba. The western region is also the only region with a major military base, CFB Shilo. Conservation staff serves as members of the Shilo Environmental Advisory Committee.

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

During the 2015/16 fiscal year, the administration of Wildlife, Fisheries, Lands and Forestry branch staff in the region transitioned from the branches to the region.

2015/16 Key Results Achieved:

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

- Several Conservation Officers (COs) were deployed to other Regions to assist with wildfire operations, including wildfire investigations.
- Western Region Forestry staff completed cut block mitigation with forestry companies with allocations in the region and with smaller operators on fuel wood harvests. Forestry staff assisted schools with environmental education and worked with youth on tree plantings. (more detailed information in Forestry Branch section of annual report).
- Western Region Fisheries staff:
 - Stocked 18,900,000 walleye fry, 4,223 juvenile and adult walleye, 410 northern pike, and 306,900 salmonids in approximately 80 waterbodies throughout the Western region to supplement natural recruitment and diversify angling opportunities.
 - Assisted local angling groups with electro-fishing and trap netting in North Steeprock and Bell lakes in the Procupine Provincial Forest, Beautiful Lake walleye transfer and spring trap netting and walleye telemetry on Vermillion Reservoir.
 - Completed year one of trap netting study on Singush Lake to assess fish community and tag fish for estimating population of walleye and pike and rates of growth.
 - Completed annual index netting on Lake of the Prairies, Dauphin Lake and Lake Winnipegosis (CAMP) commercial sampling on Lake Winnipegosis and Dauphin lakes, and completed the annual Dauphin Lake walleye spawning monitoring.
 - Conducted lake sturgeon research on the Assiniboine River as part of fish population assessments.
 - Initiated the process for a Sustainable Fisheries Management Plan for Swan Lake with Wuskwi Sipiik First Nation and the Swan Lake Commercial Fisher's Association.
 - Started work on the development of a Sustainable Fisheries Management Plan for Dauphin Lake.
 - Worked with Wildlife and Fisheries Branch to develop an implementation plan for deploying an Aquatic Invasive Species Zebra Mussel containment plan and monitoring plan within the Region.
 - Consulted with Treaty 2 and other Indigenous and Metis communities concerning proposed spring conservation measures for the walleye stocks on 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.

- In 2015, the vacant Western Region Crown Lands Manager position was filled to maintain continuity for addressing Crown land issues. During the 2015/16 fiscal year, the manager completed review of close to 40 reviews related to Crown land administration, legislation, policies, procedures, and guidelines.

Angler and hunter compliance.

- COs conducted 1325 big game, 24 upland game bird, 121 migratory bird, 5,456 angler, 22 Snopass, and 153 domestic fishing compliance checks. COs also undertook 159 timber operation inspections in the region. As a result of these compliance checks, there were 237 charges laid and 155 warnings issued.

The spring Dauphin Lake and tributary walleye closure continues to be in effect during the spring spawning period. 452 First Nation fishers and 87 Metis fishers were checked while engaged in fishing during the closure. Cos spent 326 man-hours patrolling for compliance, which resulted in 24 written warnings for various offences. No major enforcement issues were encountered and cooperation was good from most First Nations and Métis fishers.

- First Nation and Métis hunters and fishers continue to be very active in the Western Region. 226 First Nations fishers and 329 First Nations hunters were checked and Conservation Officers checked 301 Métis fishers and 156 Métis hunters.
- In October 2015, GHA 29 and 29A were added to the list of GHAs closed to moose hunting. As the closure started after the majority of moose hunting was completed for the season there were no enforcement issues.
- COs continue to conduct decoy and night operations to ensure compliance with Wildlife legislation. Four trucks were seized in the Western Region as a result of night operations. Numerous decoy and night-time operations were conducted in all areas of the region with a focus on areas that have a moose conservation closure, or where evidence of illegal or unsafe hunting practices were present.

Control of park rowdiness and reduced level of related public complaints; increase in the level of visitor satisfaction within provincial parks.

- The May long weekend liquor-free camping program was again in-place, resulting in high level of visitor satisfaction throughout all campgrounds in the Region.
- Camping opportunities at Rivers Provincial Park were enhanced with the conversion of some existing campsites to offer electricity and water.
- A new sewage lagoon and lift station improvements were completed in line with the redevelopment plan for Spruce Woods Provincial Park.
- In the Fall of 2015, more armoring and flood protection was added along the Assiniboine River bank to protect the campground roads and infrastructure in Spruce Woods Provincial Park.
- The south entrance road into Kiche Manitou at Spruce Woods Provincial Park was designed, and construction started in 2015 allowing for a second access to the campground outside of the flood zone.
- In the Fall of 2015, construction started at Blue Lakes Campground in the Duck Mountains Provincial Park. Electrical improvements were made to 58 sites and camp sites were upgraded for larger camping units. This resulted in more camping opportunities for the public in both seasonal and transient camping.
- In Fall 2015, construction was complete at Manipogo Provincial Park where 24 camping sites received aesthetic and electrical improvements. This yielded more camping opportunities for the public in both seasonal and transient camping.

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

- The evolution of the Métis harvest rights issue continues to provide resource challenges to COs in the region since a higher number of Metis people are exercising their right to harvest fish and wildlife. Consultation continued with rights based groups to foster greater involvement in the decision making process and to seek greater levels of cooperation.
- A Moose Conservation Closure was implemented in GHA's 18, 18A, 18B, 18C, 13, 13A, 14, 14A in August 2011 in response to declining moose populations throughout the North half of the Region. This was implemented following extensive consultation with First Nations, Métis communities, West Region Tribal Council, and local user groups. Swan Valley Moose Management Committee was formed representing 12

different stakeholders from the north half of the region. Development of a Moose Recovery Strategy continues pending winter aerial population surveys that did not take place in 2015/16 as planned due to poor snow conditions.

- Conservation Officers attended youth hunts, Emergency Preparedness displays, attended resource user functions (trappers' meetings, commercial fisher meetings, seasonal campground draws, big game awards nights, junior rifle clubs, and the Manitoba Wildlife Federation Annual Convention), and participated in local Envirothons. Swan River Cos assisted with the Swan Valley Sport Fishing Enhancement Association's annual fundraising banquet and fish fry.
- Department staff worked with the Oak Lake Cottage Association and the Oak Lake Natural Areas Playground committee in the establishment of a new playground at Oak Lake Provincial Park. Construction began in 2014 and is slated for completion in 2016.

Minimize the number of complaints related to problem wildlife.

- 536 occurrence reports regarding problem wildlife were received by district offices in the region. This represents a significant decrease over the previous year. Many of these complaints continue to be coyote/livestock related especially in the south portion of the region. Staff continue to educate producers in methods to minimize livestock or crop loss to problem wildlife. A cougar was killed in an accidental capture by a trapper in the Duck Mountain area.
- Staff educated the public in Bear Smart practices.

Other Key Results Achieved

- Flooding occurred in 3 Provincial Parks in 2014. Efforts were made in the fall of 2014 to start the restoration process, 2 out of the 3 campgrounds were completely open for the 2015 season. Restoration of Spruce Woods Provincial Park lower campground has been ongoing since and, through the combined efforts of district, regional and branch staff, it was re-opened in 2015. Restoration is nearing completion in Manipogo and Rainbow Beach. For Spruce Woods Provincial Park, full restoration and redevelopment will occur in four stages with the final stage to occur in 2020. This new development is intended to increase camping site inventory and allow for more camping opportunities.
- A major rainstorm and heavy rains occurred in 2012 in Aseissippi Provincial Park, which contributed to slumping of the main park access road. Repairs were made in July 2012, but further slumping occurred, which caused the road to be closed in the fall 2012. Ongoing efforts by branch, regional and district staff have resulted in development of alternative access to the park. The road reconstruction project started and was completed in the fall of 2014. In 2015, a few remaining tasks were completed and the slope was monitored, as it will be in coming years, to ensure slope movement doesn't pose a threat to the integrity of the road.
- Conservation Officers conducted restaurant inspections throughout the region for compliance with The Fisheries Act and regulations regarding the possession and sale of freshwater fish, mainly walleye. This is an ongoing initiative intended to educate the public and restaurant owners and to curb the illegal sale of freshwater fish species within Manitoba.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,717	70.80	4,968	(251)	1
Other Expenditures	876		901	(25)	
Total 12.2(f)	5,593	70.80	5,869	(276)	

1. Under-expenditure is due to vacancies.

Parks and Protected Spaces

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

Key Results Achieved:

- Generated \$17.0 million in revenue by persons using the parks for personal enjoyment, commercial and general use.
- Park visitation exceeded 5 million visitors with cabin, yurt, group use and campsite reservations numbering 68,846.
- There was a continued focus on environmental infrastructure including water and wastewater systems and investments focussed on back to basics with the replacement and upgrading of existing park facilities.
- Released Places to Keep: Manitoba's Protected Areas Strategy. The consultation document sought the public's input on the goal to increase the protected areas in Manitoba from the current 11% to 17% of the province by 2020.
- Manitoba's protected areas network was expanded by permanently protecting more than 104,950 hectares through designation of a new wildlife management area, seven new or expanded ecological reserves, and an expanded provincial park. Three interim protected park reserves were permanently protected as provincial parks (2) and ecological reserve (1).

Administration Section

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

Key Results Achieved:

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

Planning and Protected Areas Section

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

Over the 2015/16 year, staff from the section participated in additional programs both internal to the branch and programs of other agencies. Examples include:

- Participation on the Canadian Council of Ecological Areas Board of Directors;

- Review of *Environment Act* Licence proposals, Crown land circulars and related items for proposed developments to assess possible implications on lands of interest to or administered by the Branch (provincial parks, park reserves, ecological reserves, areas of special interest, proposed protected areas); and
- Consultation with stakeholders and the public to advance park system planning, and management planning.

Park System Planning and Ecology

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

Key Results Achieved:

- Two park reserves received permanent designation as Kinnow Bay Provincial Park and Sturgeon Bay Provincial Park.
- The expansion of Moose Lake and Pembina Valley Provincial Parks was completed.
- Consultations for the permanent designation of Grand Island, Goose Islands and Pemmican Island Park Reserves as provincial parks commenced.
- Work began on the restoration of tall grass prairie in the Cordgrass and Millennium sites in Beaudry Provincial Park.
- Assessment and identification of sand dunes in Spruce Woods Provincial Park to reactivate natural movement of the dunes was completed. A reactivation plan was developed.
- Tundra Oil & Gas ceased all oil production at Lulu Lake in Turtle Mountain Provincial Park. Remediation plans are being developed to restore the natural vegetation and landscape.
- Polar Bear Provincial Park study area discussions continued with Indigenous communities. A report on the second round of public engagement was published.
- Interim restrictions continued to be in effect for licensed trapping within provincial parks until a review of trapping activities in relation to public safety and public consultation on proposed changes to trapping in parks is completed.
- A Memorandum of Understanding (MOU) was signed with Skownan First Nation regarding Chitek Lake Anishinaabe Provincial Park. The MOU reflects the parties' understanding of the park designation and highlights commitments to work cooperatively, such as, in the development of a park management plan, and to explore options for boundary expansions.

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:

- Three new members were added to the Ecological Reserves Advisory Committee and the terms of two members terms were renewed. In December 2015 Cedar Bog, Piney, Ste. Anne Bog, St. Labre Bog, and Woodridge Ecological Reserves were designated and Lewis Bog Ecological Reserve was expanded.
- In December 2015, Pelican Islands Park Reserve was permanently designated as Pelican Islands Ecological Reserve.
- Consultations with Nisichawayasihk Cree Nation continued toward the protection of Partridge Crop Hill as a protected area.

- Annual operating plans for Louisiana Pacific and Mountain Quota Holders were reviewed to ensure that harvesting and renewal operations were consistent with regulations and licensing, and that impacts on ecological reserves were reduced.

Management Planning

The Planning and Protected Areas Section is responsible for preparing park management plans, developing park policies and facilitating resource management projects. Development of management plans for individual provincial parks is a requirement of Section 11 of *The Provincial Parks Act*. Management plans address topics such as park use, landscape protection, and recreational development, and ensure that the main purposes of the park are considered when land-use decisions are made. They provide details on what land uses are appropriate and ensure that new activities or developments are compatible with the long-term management of the park.

Key Results Achieved:

- Work continued on a management planning process for parks in the Western Region, including Grand Valley, Criddle/Vane Homestead, Oak Lake, Rivers, Seton, and William Lake Provincial Parks.
- Work continued on a management planning process for Manigotagan River and Nopiming Provincial Parks, with public consultations held for the review of draft plans.

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:

- The section continued to fulfill CHRS obligations such as the preparation of annual monitoring reports for each of Manitoba's Heritage Rivers.

Protected Areas Initiative

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

Currently, 7.1 million hectares (or 11.0% per cent of Manitoba) are protected. This includes two national parks, 30 ecological reserves, all or parts of 39 provincial parks and interim protected park reserves, all or parts of 51 wildlife management areas, parts of two provincial forests, parts of four traditional use planning areas, and private lands owned by Ducks Unlimited of Canada, Nature Conservancy of Canada, and Nature Manitoba. Protected areas are land, freshwater, or marine areas where logging, mining, oil and gas exploration and development, hydroelectric development, exploring for and harvesting peat, and other activities that may significantly and adversely affect habitat are legally prohibited.

Key Results Achieved:

- Manitoba's protected areas network was expanded by permanently protecting more than 104,950 hectares through designation of a new wildlife management area, seven new or expanded ecological reserves, and one expanded provincial park. Three interim protected park reserves were permanently protected as two provincial parks and one ecological reserve.

- Concluded protected area planning work in Phase 1 of the Saskatchewan River Delta planning area with the designation of Red Deer Wildlife Management area and the expansion of Lake Winnipegosis Salt Flats Ecological Reserve.
- Released 'Places to Keep: Manitoba's Protected Areas Strategy'. The consultation document sought the public's input on the goal to increase the protected areas in Manitoba from the current 11% of the province to 17% of the province by 2020.
- Contributed to national reports on the expansion of Manitoba's protected areas network.
- Agreement. Grant funding from the Department contributed to conservation programming, helped to deliver on objectives to conserve and protect important habitats and areas of ecological significance.
- Reviewed *Environment Act* Licence proposals, Crown land circulars, and related items for proposed developments to assess possible implications on lands of interest to the PAI. Maintained effective relationships with other governments, non-government organizations, and Indigenous organizations.

Development and Operations Section

The Development and Operations Section provides development direction, site planning, and public facility design and mapping. The Unit is also responsible for coordination of the Parks Capital budget and management of infrastructure projects throughout the park system, including the coordination of the Provincial Camping Initiative. This section also provides landscape architectural, and project management capacity, overseeing the design and implementation of capital works projects within provincial parks. A major function of this team at present is the development of new and the improvement of existing facilities.

Development

Key Results Achieved:

- Work was completed on the beach expansion project at Birds Hill Provincial Park including construction of an expanded lake and beach area, new playground, new volleyball courts, improved pathway connections and site amenities.
- Work was initiated on West Gate improvements at Birds Hill Provincial Park.
- Work was completed on the new Piping Plover Plaza natural playground at Grand Beach Provincial Park.
- Completed partnership with the Friends of Upper Fort Garry to support the park development of Upper Fort Garry Provincial Heritage Park, and the grand opening of the park was celebrated.
- Continued partnership with the Winnipeg Folk Festival to support water system improvements at the Group Use Two area in Birds Hill Provincial Park.
- Design work continued on the Grand Beach Wastewater Lagoon Upgrade project.
- Repairs and improvement works continued at Spruce Woods Provincial Park as a result of the significant damage from the 2011 and 2014 flood events. Construction was initiated on a new entry road, internal road system improvements, and new lift stations and a new force main to connect to the new sewage lagoon.
- Campground electrification improvements and campsite enhancements continued at St. Malo Provincial Park.
- Campground electrification improvements and campsite enhancements were initiated at the Blue Lake campground in Duck Mountain Provincial Park.
- Design was completed and construction was initiated on the Winnipeg Beach seawall upgrade at Winnipeg Beach Provincial Park.
- In the fall, four new yurts were installed at Campers Cove in Clearwater Provincial Park and one new yurt was added to the yurt village at Spruce Woods Provincial Park. Construction was initiated on a new yurt village at Tulabi Falls in Nopiming Provincial Park.
- Work continued on the Paint Lake Provincial Park yurt project.
- Construction was completed on new washroom shower buildings at Stephenfield and St. Malo provincial parks, as well as, in Falcon and Betula campgrounds in Whiteshell Provincial Park.

- Construction of an entry structure and interpretation components along the boardwalk at Brokenhead Wetland Interpretive Trail was completed, and a grand opening was celebrated.
- Design work continued for a water treatment system at Brereton Lake.
- Water treatment plant upgrades continued at Grand Beach and Moose Lake Provincial Parks and Opapiskaw Campground in Whiteshell Provincial Park. New water treatment upgrades were initiated at Caddy Lake in Whiteshell Provincial Park and in Wekusko Falls Provincial Park.
- A new roof was installed on the campground service building at Grand Beach Provincial Park.
- Construction was initiated on roof and siding upgrades on the mall at Falcon Lake in Whiteshell Provincial Park.
- New playground equipment was installed at Falcon Lake in Whiteshell Provincial Park.
- Design work was initiated for wastewater facility improvements at Rivers Provincial Park and Adam Lake in Turtle Mountain Provincial Park, as well as, for a new truck haul facility in the south Whiteshell area.

Operations

This new unit works closely with the regional park superintendants to ensure consistency in park operations between regions and to provide assistance in evaluating, researching, and developing policies and procedures regarding a variety of subject areas relative to park operations.

Recreation and Education Services

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

Recreation Programming

The Recreation Programming Unit is responsible to provide recreational opportunities that are diverse in scope through camping, cabins, and yurts, and group use facilities through fair and equitable access to provincial parks. The program must ensure that both field and head office staff provides quality customer service. The Parks Reservation Service and Seasonal Camping are major components of Recreation Programming.

Key Results Achieved:

- Ensured delivery of the recreation programming in Manitoba's provincial parks including nightly and seasonal camping; cabins and yurts; group use; Parks Reservation Service; and Campground Host.
- Reservations were made available through a call centre, on-line and through 32 campground offices in 2015. There are two opening days for reservations. Cabin, Yurt, Group-Use area, and Birds Hill Campground reservations opened mid-March and all other campgrounds opened on the first Monday in April. There are 59 yurts across 8 provincial parks, and 34 cabins in 2 provincial parks.
- Six new short-haul backcountry campsites were developed at Tulabi Falls campground and were added to the Parks Reservation Service. These short-haul sites were implemented for the novice backcountry hiker or for those who have a limited amount of time. Similarly, backcountry sites on the Shoe Lake water route were added to the Reservation Service as each of the sites can easily be reached by boat from the launch. Due to the short travel distance, these two locations lend themselves to site specific reservations, which is the foundation upon which the current reservation system is built. Park programs and initiatives were promoted through, news releases, and handouts. Information included opening and closing dates, Free Park Entry on select weekends, May longweekend liquor-free camping, and the Parks Reservation Service. Also included was the distribution of promotional items to community events, non-profit organizations, and youth groups. A parks own Twitter channel was launched in 2015. Daily tweets were still vetted by Communications Services.
- There were 2 campgrounds that offered a limited quantity of liquor-free campsites for the entire camping season. Two bays (67 campsites) are located in Birds Hill and three bays (72 campsites) are located in Grand to provide

liquor free camping opportunities for those who are seeking a more family-oriented camping experience. The initiative continues to receive mixed reviews from the public.

- St. Ambrose Provincial Park campground remained closed as the land base has not recovered from the flood in 2011. The beach was open for day-use.

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 28,300 visitor contacts at three provincial park beaches during summer 2015. About half of the visitor contacts involve BSOs educating parents/guardians of supervisory responsibilities of children while visiting the beach. Public inquiries and injury prevention education comprise most of the remaining contacts. BSOs responded to 14 “major” medical emergencies and three water rescues. 2015 was the final year of five-year beach safety services agreements with two Manitoba companies - Criti Care EMS Inc. at Birds Hill Provincial Park, and Emergency Rescue Response Services at Grand Beach and Winnipeg Beach Provincial Parks.
- The Birds Hill Provincial Park lake and beach were expanded by approximately 30%, resulting in extra staffing and equipment requirements. Additional safety resources for the expanded service area were provided.
- Grand Beach (West Beach) and Winnipeg Beach (Main Beach) were re-certified under the Blue Flag program. The Blue Flag is a highly respected and recognized international eco-label that symbolizes clean and well-managed beaches and marinas. The international designation recognizes the beach’s high standards of service related to environmental management, water quality, environmental education, and safety and services.
- St. Malo Provincial Park initiated the “Beach Smart” water safety program at Main Beach and Sunset Shores Beach. Programming includes park interpreters delivering water safety messaging focusing on child supervision, swimming within a person’s limits, and swimming in designated areas. Additional initiatives include life preserver ring stations with emergency alarms, enhanced aquatic weed mitigation efforts and beach maintenance reporting, and installation of an automated external defibrillator at the nearby campground office. Life jacket loan kiosks at both beaches continue to experience high use, especially by young children.

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

Interpretation

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

Key Results Achieved:

- Delivery of the field program included 3 year-round interpreters at Birds Hill (52 weeks), Spruce Woods (48 weeks) and Whiteshell (51 weeks) provincial parks, and 8 seasonal interpreters. Programs were presented at Birds Hill, Grand Beach, Hecla/Grindstone, St. Malo, St. Norbert, Spruce Woods, and Whiteshell Provincial Parks. In addition, Green Team Interpretive Assistant members provided assistance at these parks.
- Two seasonal park interpreter positions were moved back to St. Malo Provincial Park this year with a focus on Beach Smart messaging, which includes daily roving of the beach areas to promote beach safety.

- Interpreters contacted approximately 40,000 visitors at interpreter-led events and in interpretive centres and museums. This was an increase of about 30% over the last year, attributed to the return of seasonal interpreter positions at St. Malo and no flooding impacts on park visitation. However the number of contacts remains down about 55% from the long-term average, attributed to the continued reduction of park interpreter positions across the province.
- School programs were conducted in all 7 locations in June and over the fall, winter, and spring at Birds Hill, Spruce Woods, and Whiteshell. Programs correlated to the Manitoba Education School Curriculum. Provided 275 school programs to approximately 7,000 Manitoba students.
- Hosted 3 workshops for science and social studies teachers as part of October in-service and development days, focusing on getting students in all grades into provincial parks. Hosted additional two workshops in February promoting winter opportunities for education and recreation in provincial parks.
- Continued partnership with 'Leave No Trace Canada' to promote low-impact activities in provincial parks and incorporated 'Leave No Trace' principles into interpretive programming and trail refurbishment.
- Annual trailhead refurbishment initiative saw new trailhead structures and signs erected for 12 trails in 4 parks.
- Updated self-guiding trail publications for eight locations.
- The Heritage Properties Program was coordinated in Manitoba's Provincial Parks including building assessment and restoration work at Hecla/Grindstone, Whiteshell, and St. Norbert.
- The children's activity booklet program saw a major reduction in number of redemptions, as not as many booklets were distributed due to the loss of interpretive programs across the province. Only 200 booklets were redeemed, compared to the previous annual average of 1,500. Booklets were available for distribution in every campground and at every interpretive event.
- The Provincial Park Passport to Adventure program also saw a major reduction in number of redemptions for the second year, as not as many booklets were distributed and not as many stamps available due to the loss of interpretive programs across the province. Only 20 passports were redeemed this year, compared to the previous annual average of 50. To date, over 1,900 park visits have been prompted by the program since its inception in 2009. Passport booklets were available for distribution in every campground and at every interpretive event.
- Winter public programming continued in popularity at Birds Hill, Spruce Woods and Whiteshell provincial parks with interpretive programs being offered on winter recreation trails and in the interpretive centres. Programs were offered every month in the three year-round locations, with an emphasis on several programs every weekend in February to coincide with free park entry.
- A Manitoba Parks Twitter channel is coordinated through the Interpretation Unit. Daily content focused on promoting recreation, interpretive programs, and parks news.

Key Program Outputs:

Outdoor Recreation Programming	Amount
Number of visitors	5.0 million
Total Number of campsites*	6,172
Transient Campsites*	4,591 (4,104 available for reservation or 89%)
Transient Camping Nights	207,264
Seasonal Campsites (number does not include Permanent Trailer Village or Concessionaire campsites)*	1,527
Campgrounds offering reservation	44**
Group Use Sites***	95
Family Vacation Cabins	34 (at 2 locations)
Yurts	59 (at 8 locations)
Reservations	68,843 (87% of camping stays in computerized locations reserve ahead)
Reservation Rate, compared to 2014/15	5,985 more reservations or 9.5% increase
Reservations made through Web	83%

* campsites closed due to flooding not included.

** Kiche Manitou campground offered reservations but was closed due to flooding in 2014.

***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 neighbours. 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 were also issued by CLPA for commercial fish camps, wild rice cultivation, trapline cabin construction, hay and grazing, scientific research, and mineral claim-staking and exploration.

Key Results Achieved:

- February 2016 marked the third year in which invoices were issued as part of the 5-year phase-in for park district service fees and 10-year phase-in for Crown land rent for cottages in provincial parks. Rent was paused at the 2015 level.
- The first extensive revisions to *The Cottager's Handbook* in a decade have been prepared for review by department staff prior to planned consultation with cottage associations throughout the province.

Vacation Home Lot Development Program

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

Key Results Achieved:

- 278 permits were issued for cottage construction or structural modification.
- 62 leasehold inspections were carried out.
- \$7.2 million revenue generated in land rent, service fees, permits, and lot development fees.

Commercial Operations

This unit manages relations with private-sector business operators to ensure high-quality services for visitors.

Key Results Achieved:

- Approximately 139 commercial operations provide such services as restaurants, stores, accommodation, golf courses, marinas, and beach concessions throughout Manitoba's provincial parks.

There are 44 Special Consideration Organizations

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	16,148	248.75	15,560	588	1
Other Expenditures	11,135		9,882	1,253	2
Grant Assistance	460		461	(1)	
Less: Recoverable from Rural Economic Development Initiatives	(472)		(472)	0	
Total 12.2(g)	27,271	248.75	25,431	1,840	

1. Over-expenditure due to Parks Services fees and the Cottage Watch program.
2. Over-expenditure due to Parks Maintenance costs, Hecla golf course operations agreement, higher Crown Land and Property Agency costs, and Beach Safety program.

Fire and Emergency Response Program

Objectives

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 2015 wildfire season was near average in terms of number of fires reported at 459 and below average hectares burned at 68,132. Full response fires totaled 373, limited response at 55 and no action at 31.
- Dry conditions and high wildfire danger levels in mid-April necessitated the implementation of travel restrictions in south eastern and western Manitoba. High wildfire danger levels also necessitated the implementation of burning restrictions north western Manitoba. Lightning ignited 80 new wildfires over a period of four days at the end of June. The majority of the northwest portion of the province experienced dry conditions under an upper ridge that dominated the weather pattern for most of July creating extreme fire behaviour and suppression difficulties. Frequent rain events began mid August allowing crews to make progress on containment of large fires.

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

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

- 156 Human Caused Wildfires were reported.
- All 156 Human Caused wildfires were investigated, 62 were investigated further by trained Wildfire Investigators. Here follows the statistics:

Human Caused Wildfires by Region		Investigated
Central	30	8
Western	11	4
Eastern	44	23
Northwest	12	4
Northeast	59	23
Total	156	62

Cause Determined	
Intentional	73
Accidental	38
Negligence	36
Unknown	9
Total	156

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

- First air tanker dispatch occurred on April 17, 2015.
- Single Engine Air Tanker (SEAT) aircraft, provided by Manitoba's agricultural aviation industry, was activated for spring training earlier than anticipated due to lack of scoop-able water for provincial skimmer fleet.
- SEAT group was hired in late June for a 24-day period to supplement Manitoba's CL-215/CL-415 aircraft.
- Availability of rotor wing and Air Tankers was limited during busy periods due to the fire activity in Western Canada.
- MGAS CL-215/415 groups were released progressively through September, 2015
- Manitoba had 5 helicopters on long-term contracts.

- Total aircraft expenditures were approximately \$16.9 million in 2015 compared to \$6.5 million in 2014 and \$35.3 million in 2013. This represents 8772.8 flight hours in 2015 (3579.2 hrs in 2014).

Aircraft Utilization Summary

Air Tankers / Birddogs	2015	2014
MGAS CL-215/415 hours flown	897.5	451.9
MGAS Birddog hours flown	494.3	278.7
Casual Hires – SEATs hours flown	255.4	32.4

Fixed Wing	2015	2014
MGAS Otters	778.8	701.1

Helicopters – Long Term Contract	2015	2014
Intermediate Hours flown	534.1	443.1
Medium Hours flown	1268.2	868.3

Helicopters – Short Term Contract	2015	2014
Light Hours flown	403.6	5.6
Intermediate Hours flown	3432.6	487.1
Medium Hours flown	708.3	311

Science and Technology

- Research and development continues on integrating additional sensor platforms to existing and future data loggers used by the Wildfire Program. Required maintenance and repair was conducted at Wildfire Program weather stations.
- Annual snow surveys were conducted through forested areas of the province, which showed a clear moisture deficit and possible drought setting up due to low precipitation levels which began in August 2014. This persisted through the winter into the spring of 2015.
- Manitoba has played a key role nationally with the CIFFC Data Integration Project with the goal of producing a national data sharing framework and standard. A minimum dataset has already been defined and Manitoba is already feeding daily fire information directly via an automated process.
- The Wildfire Program continues to improve fire location maps available on the public web page with plans to create a fire map viewer that will work across all platforms, and be available for smart phones, tablets, and computers. This project called Fireview is expected to be completed and available to the public for the 2016 fire season.

To assist in the prevention of forest fires through public education.

- Development and application of public displays and advertising materials to promote wildfire awareness, wildfire preparedness, and fire danger in particular throughout Manitoba.
- Analysis continued on regional and seasonal trends in human caused wildfires to ensure effective and efficient messaging.
- FireSmart meetings were conducted with other Branches and stakeholders to promote the benefits of developing and implementing Wildfire Protection and Hazard Mitigation Plans. These plans would include the implementation of vegetation management plans for the forested areas surrounding communities and cottage subdivisions to mitigate the risks of wildfires.

- Worked on the development of pre-response plans and sprinkler deployment plans for the Paint Lake Provincial Park area in the Northeast Region.
- Work continued with Rural Municipalities an effort to introduce FireSmart concepts into mitigation plans after damaging weather events.
- Maintenance on FireSmart demonstration sites continued at Falcon Lake Riding Stables, Falcon Lake District Office, Manitoba Forestry Association's Hadashville site, and the RM of Victoria Beach.
- Assistance was provided to stakeholders including other branches, the Office of the Fire Commissioner, Manitoba Hydro, local government, and the Sandilands Forest Discovery Centre by supporting or promoting their efforts in areas of wildfire hazard mitigation, public education, and community protection. The Wildfire Program encourages local adoption and championing of FireSmart and wildfire prevention initiatives.
- Continued direct public outreach and public education opportunities through various audiences including children's groups, cottage associations, outdoor users, etc.
- Maintained and updated the Manitoba Wildfire Program Restriction page as and when required, ensuring accurate information is being displayed for public use.

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

Fireline training included:

- 60 Type II Emergency Fire Fighters were trained and certified
- 12 new Type II Emergency Fire Fighter Crew Leaders were trained and certified
- 400 Type III Emergency Fire Fighters were trained and certified
- 63 Type III Emergency Fire Fighter Crew Leaders were trained and certified
- 34 new Initial Attack Crew Members (Type I) were trained and certified to the Canadian Interagency Forest Fire Centre (CIFFC) Exchange Standards. Including, I-100, Hover Exit, 23 Workplace Hazardous Materials Control Program (WHMIS), Transportation of Dangerous Goods (TDG), and Chainsaw Safety and Certification
- 20 individuals were trained and certified to the Type I Crew Leader level
- 5 Wildfire Investigators participated in the FI-210 course update and Railroad Investigation course in Duluth, MN
- 5 WFX-Fit Evaluators were trained
- 5 Individuals successfully completed the Advance Wildfire Behavior Course
- 5 Individuals completed the L-380 Fireline Leadership course in Dryden, ON
- 2 staff completed the M-410 Facilitative Instructor course
- 7 individuals participated in introductory Safety Officer training
- 4 Individuals completed intermediate Safety Officer training in Hinton, AB
- 2 staff participated in All-hazard Safety Officer training through the Canadian Inter Agency Forest Fire Centre
- Additional training provided included First Aid/CPR, Transportation of Dangerous Goods, WHMIS, chainsaw and various online courses.

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 2015/16:

- Aquatic Invasive Species (AIS) is prevalent in many water bodies in Manitoba. A protocol for decontaminating fire equipment and helicopter water buckets has been developed along with initial purchase of high pressure steamers required to decontaminate equipment.
- Aquatic Invasive Species (AIS) tags and flagging tape identifying contaminated equipment has also been developed and issued to regions. A training presentation for dealing with AIS is also currently under development and will be presented to all field staff.

- A name and logo change to reflect Manitoba Wildfire Program occurred with visual identity changes being made to vehicles, signs and other items displaying the name and logo.

Imports and Exports:

- One quick strike from Ontario with a CL415 air tanker group and one Saskatchewan helicopter and initial attack crew quick strikes occurred in 2015.
- Imports from other Canadian agencies in 2015:
 - Two 20-person Type 1 Sustained Action crews and two Agency Representatives from Quebec on July 2, 2015
 - Two Safety Officers from Ontario On July 1, 2015
 - Five 4-person Type I Initial Action crew and Agency Representative from Quebec on July 17, 2015
 - Assistance provided by Ontario on repair of Mark 3 pumps used on fire suppression activities in western provinces
- Imports from Great Lakes Forest Fire Compact agencies in 2015:
 - 26 Type 2 initial attack personnel and Agency Representative from Wisconsin on July 2, 2015
 - Cessna 310 Bird Dog Aircraft and Air Attack Officer from Minnesota on July 14, 2016
 - Seven 4-person Type 2 initial attack crews and Agency Representative from Minnesota on July 17, 2015
 - Three 4-person Type 2 Initial Attack crews from Michigan on July 17, 2015
 - Two 5-person Type 2 Initial Attack crews from Wisconsin on July 17, 2015

**Table R0.17
2015 - Number of Fires and Area Burned by Region and Cause**

2015 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	10	1,094.7	3	5.8	3	8.1	1	0.1	12	447.6	29	1,556.3
settlement	19	26.6	3	4.2	2	462.3	7	747.9	4	23.2	35	1,264.2
woods operations									2	77.0	2	77.0
other industry	3	0.3	1	6.5	3	108.4	1	1.0	4	0.4	12	116.6
railroads			2	411.4					2	58.6	4	470.0
public projects							1	5.6	2	26.2	3	31.8
incendiary	24	32.6			5	1,687.0	20	815.4	12	271.3	61	2,806.3
miscellaneous	5	3.5	2	402.5	2	4.7			4	0.4	13	411.1
agricultural			1	39.0	1	1.5	3	4.8			5	45.3
lightning	150	37,284.8	74	22,462.4	6	133.3	2	32.7	63	1,439.8	295	61,353.0
all causes	211	38,442.5	86	23,331.8	22	2,405.3	35	1,607.5	105	2,344.5	459	68,131.6

Note: In the 2015 fire season the MODIS satellite was used to detect 9 wildfires in the observation zone which accounted for a burned area of 5322.5 hectares.

**Table R0.18
2015- Number of Fires and Area Burned by Priority Zone and
Action Status**

2015	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	233	62.47%	27421.7	84.83%	1	3.23%	0.1	0.00%	8	14.55%	3007.9	10.27%	242	52.72%	30429.7	44.66%
YELLOW	18	4.83%	1034	3.20%	1	3.23%	1600	24.55%					19	4.14%	2634	3.87%
GREEN	80	21.45%	3446.7	10.66%	7	22.58%	147.2	2.26%	19	34.55%	5465.7	18.66%	106	23.09%	9059.6	13.30%
WHITE	42	11.26%	424.3	1.31%	22	70.97%	4768.9	73.19%	28	50.91%	20815.1	71.07%	92	20.04%	26008.3	38.17%
ALL ZONES	373	100.0%	32326.7	100.0%	31	100.0%	6516.2	100.0%	55	100.0%	29288.7	100.0%	459	100.0%	68131.6	100.0%

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

Table R0.19
2015 - Area burned by Priority Zone

2015	Zone Area (ha.)	Hectares Burned	% of zone burned
Red	11,415,633.5	30,429.7	0.267%
Yellow	685,691.0	2,634.0	0.384%
Green	9,770,018.8	9,059.6	0.093%
White	23,081,244.9	26,008.3	0.113%
All Zones	44,952,588.2	68,131.6	0.152%

Figure 2

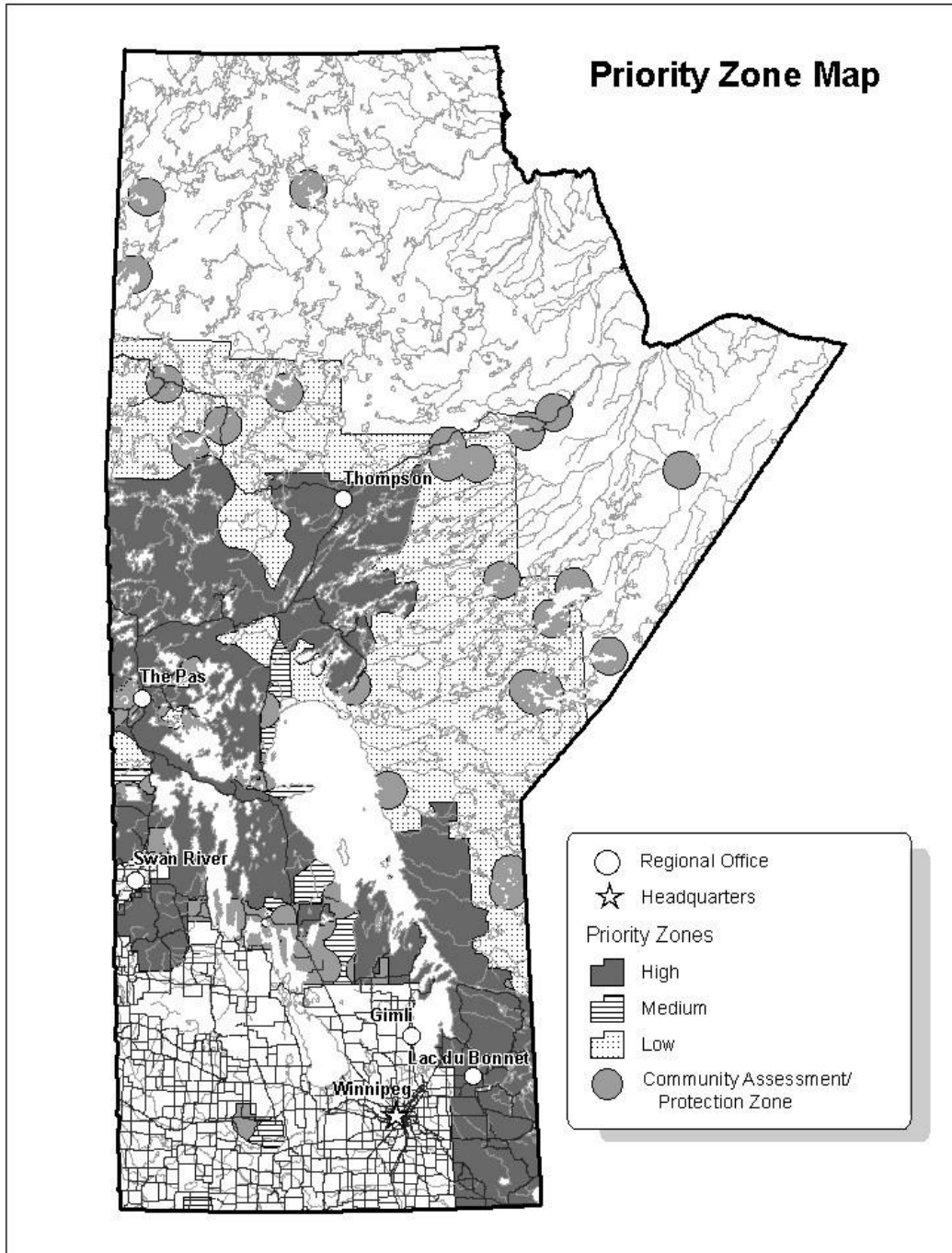


Figure 3

Number of Fires, 2001 - 2015

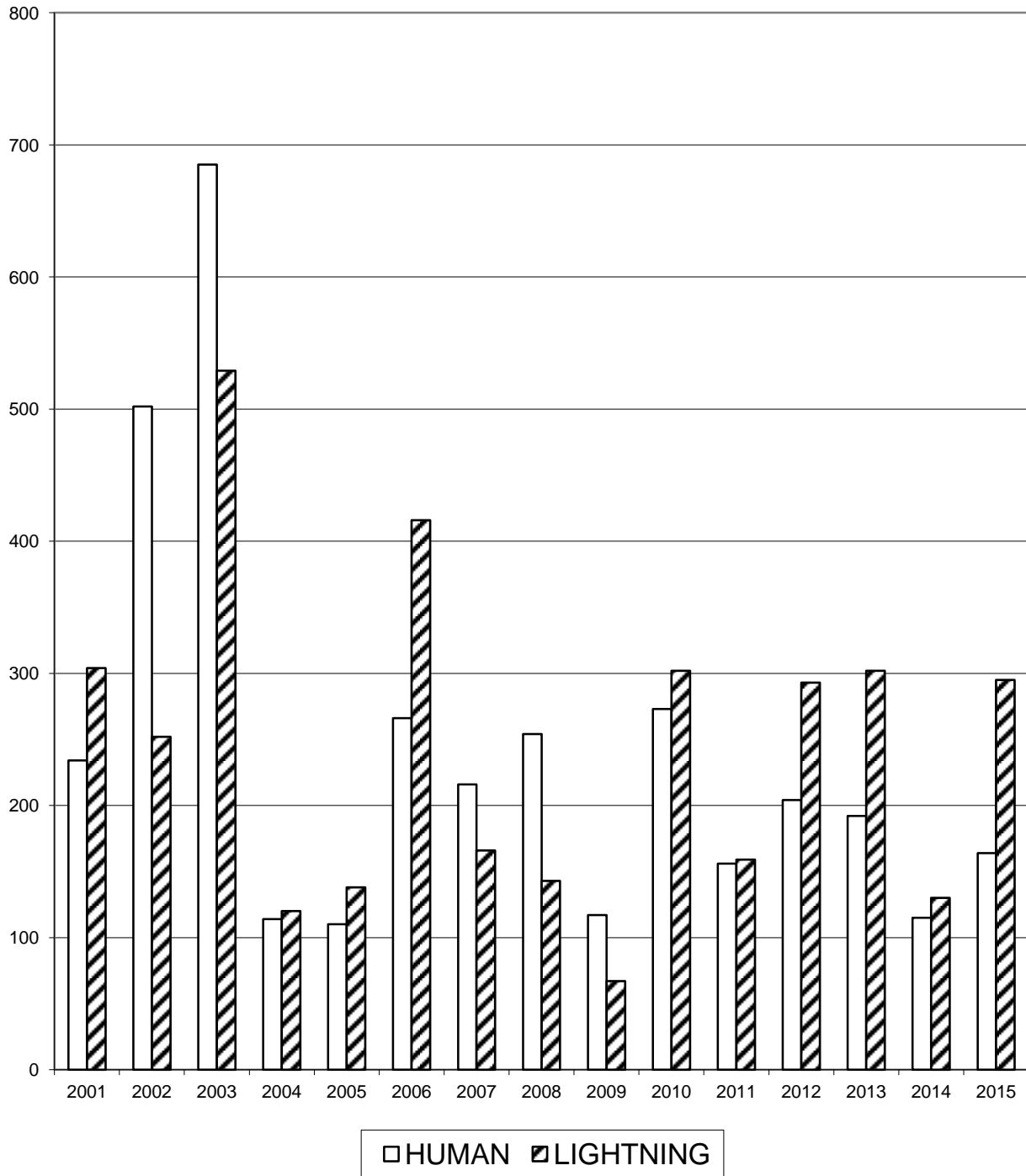


Figure 4

Area Burned 2001 - 2015

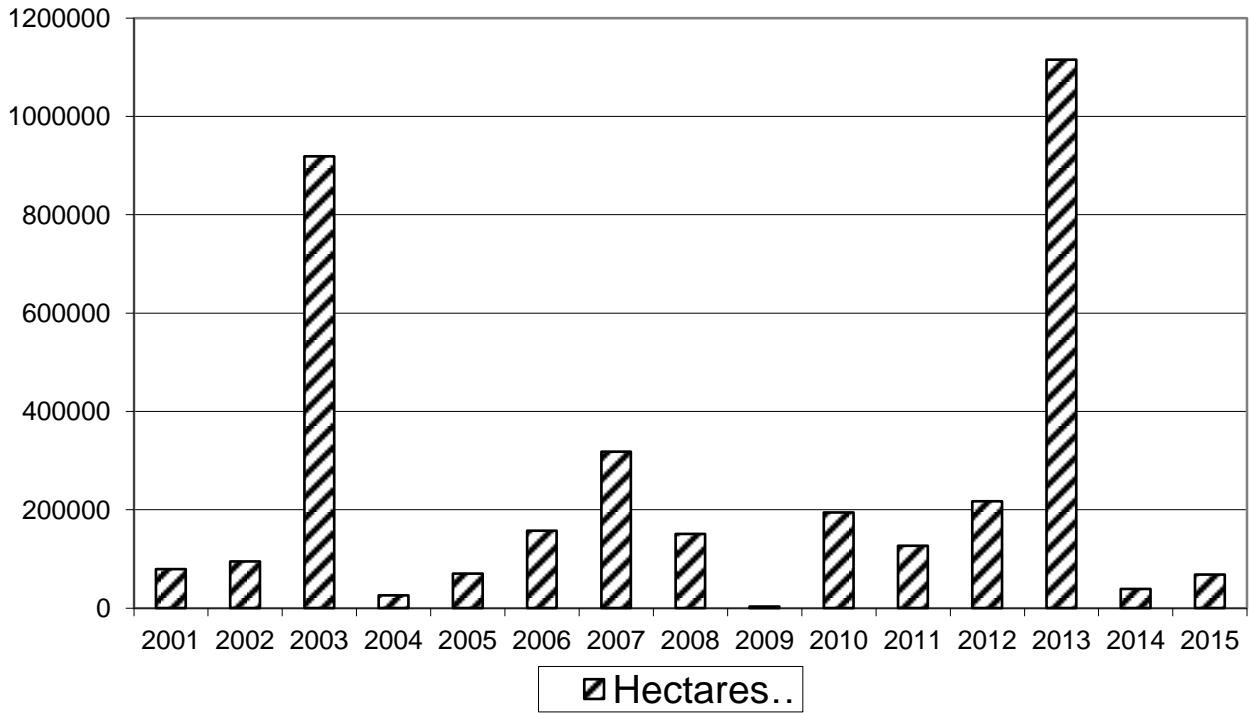


Table RO.20
12.2(h) Fire and Emergency Response Program

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	11,226	65.25	6,705	4,,521	
Other Expenditures	4,325		10,562	(6,,237)	
Less: Recoverable from Emergency Expenditures	(500)		(500)	0	
Total 12.2(h)	15,051	65.25	16,767	(1,716)	1.

1. Under-expenditure due to vacancies, and lower expenditures for Air Services.

ENVIRONMENTAL STEWARDSHIP

Divisional Administration

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

Table ES.1
12.3(a) Divisional Administration

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	389	5.00	389	0	
Other Expenditures	52		50	2	
Total 12.3(a)	441	5.00	439	2	

Environmental Compliance and Enforcement

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

Key Results Achieved:

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

20152016 Key Program Outputs:

Environmental Compliance

- Filed an Order to pay costs for approximately \$250,000 against a composting operation in the RM of Macdonald to recover the province's expenditures removing odour producing compost from the operating site.
- Provided regulatory oversight for the dismantling of the Lord Selkirk II cruise ship at Selkirk.
- Implemented compliance activities for the Non-Essential Pesticides Use Regulation.

Emergency Response

- The Environmental Emergency Response Program received over 1800 calls to the Emergency Response 24-hour line, with 557 incidents handled directly by the Emergency Response Team and/or regional designates. The Emergency Response Coordinator received approximately 200 additional non-emergency enquiries related to dangerous goods and emergency response.
- Emergency Response members participated in the development of the Environmental Emergency Annex as part of the Manitoba Emergency Plan, and participated in the Canadian Council of Ministers of the Environment (CCME) Jurisdictional Review of the Environmental Emergencies Programs, Assessing the State of Environmental Emergency Preparedness in Canada. CCME Project No. 569-2015. The Emergency Response Coordinator participated in Transport Canada's Emergency Response Task Force to examine expanding the Emergency Response Assistance Plan (ERAP) requirement to crude oil and other Class 3 Flammable Liquids
- The Emergency Response Team is also an active participant in Manitoba's capacity to respond to Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) threats.

**Table EO.1
Environmental Legislation Enforcement Summary 2015/16**

Legislation	Prosecutions	Warnings	Orders	Fines(\$)
<i>Contaminated Sites Remediation Act</i>			4	
<i>The Dangerous Goods Handling and Transportation Act</i>	1	1	4	31,492.50
- Storage and Handling of Petroleum Products and Allied Products Regulation	12	12		6,499.21
- Dangerous Goods Handling and Transportation Regulation	66			20,698.80
<i>The Environment Act</i>	16	20	28	673.65
- Litter Regulation	1	9	1	203.80
- Onsite Wastewater Management Systems Regulation	10	50		8,491.11
- Livestock Manure and Mortalities Management Regulation	1	81	1	
- Waste Disposal Grounds Regulation	1	7	2	
- Notice and Reporting Regulation		1		
Total	109	181	36	35,892.92

**Table EO.2
Suspensions or Variations under *The Environment Act 2015/2016***

Date	Licensee	Purpose
April 30, 2015	TC Transcontinental Printing	Request to bypass pollution control equipment while repairs were conducted
June 5, 2015	RM of West Interlake	Request lagoon discharge outside of normal discharge time window.
July 6, 2015	Imperial Oil	Request storm water containment pond discharge due to exceedence of pond capacity.
August 4, 2015	Vale Manitoba	Request water retention discharge due to heavy rain event.
August 7, 2015	Imperial Oil	Request storm water containment pond discharge due to exceedence of pond capacity.
September 4, 2015	Imperial Oil	Request storm water containment pond discharge due to exceedence of pond capacity.
October 27, 2015	Town of Morris	Request lagoon discharge without meeting discharge criteria (total coliform).
October 28, 2015	Town of Wabowden	Request lagoon discharge due to hydraulic capacity concerns.
October 29, 2015	Shady Lane Hutterite Colony	Request lagoon discharge outside of normal discharge time window.
October 29, 2015	Marble Ridge Hutterite Colony	Request lagoon discharge outside of normal discharge time window.
October 30, 2015	RM of Fisher	Request lagoon discharge outside of normal discharge time window.
November 3, 2015	Camp Arnes	Request lagoon discharge without meeting discharge criteria (total coliform).
November 4, 2015	RM of Coldwell	Request lagoon discharge outside of normal discharge time window.
November 10, 2015	Town of Altona	Request lagoon discharge without meeting discharge criteria (phosphorus).
November 13, 2015	Airport Holding Co.	Request lagoon discharge outside of normal discharge time window.

Date	Licensee	Purpose
November 17, 2015	Community of Duck Bay	Request lagoon discharge outside of normal discharge time window.
December 3, 2015	TC Transcontinental Printing	Request to bypass pollution control equipment while repairs were conducted.
December 16, 2015	TC Transcontinental Printing	Request to bypass pollution control equipment while repairs were conducted.
December 18, 2015	Town of Wabowden	Request lagoon discharge due to hydraulic capacity concerns.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,731	54.00	3,731	0	
Other Expenditures	811		921	(110)	1
Total 12.3(b)	4,542	54.00	4,652	(110)	

1. Under expenditure to cover Step Salaries costs.

Environmental Approvals

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

Highlights and Sustainable Development

- Managed the regulatory processes for applications for new and existing developments to ensure they were thoroughly assessed in accordance with *The Environment Act*, *The Dangerous Goods Handling and Transportation Act*, *The Contaminated Sites Remediation Act* and supporting regulations.
- Administered programs related to impacted and contaminated sites, petroleum storage facilities, solid waste, hazardous waste, wastewater, and livestock manure and mortalities.
- Facilitated public participation in the environmental assessment processes.
- Developed licence and permit terms and conditions that regulate construction and operation activities in an environmentally sustainable manner.
- Continued to improve website information. Some guidance documents were updated and the posting of additional information following the issuance of licences was standardized.
- The Branch initiated several detailed reviews of approval processes to improve the efficiency of the process and the effective use of resources.
- Updates were made to several regulations administered by the Branch. Under *The Environment Act*, these included the Waste Management Facilities Regulation, the Water and Wastewater Facility Operators Regulation, and the Classes of Development Regulation. Under *The Dangerous Goods Handling and Transportation Act*, the Hazardous Waste Regulation replaced three previous regulations.
- One third of projects licenced during the year were industrial, and many of the remaining projects were for municipal infrastructure projects in the areas of water supply and treatment, wastewater treatment, and solid waste disposal. Several upgraded water or wastewater treatment facilities were also licenced for provincial parks and Hutterite colonies, and a small number of provincial highway or bridge upgrades were licenced.
- The Branch and Manitoba Hydro completed a regional cumulative effects assessment of hydroelectric development in the Nelson, Burntwood and Churchill River systems, in response to earlier recommendations from the Clean Environment Commission. A Phase-2 report on the assessment was issued in December 2015.

Key Program Outputs

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

Table EA.1

Environmental Approvals Activities

Activities	2015/16	2014/15	2013/14
<i>The Environment Act</i>			
Project proposals received	79	57	65
Licences issued	71	61	64
Project proposals refused	0	0	0
Minor alterations requests processed	68	56	54
Revision requests to Licences approved	35	28	17
Other reviews – licence not required	60	39	41
Site inspections, monitoring	153	138	147
Pesticide Use Permits Issued	207	214	205
Post Seasonal Reports received/compiled	164	195	194
Public complaints investigated	18	9	13
Incinerator Registrations processed	0	2	5
Manure Storage Permits Issued	24	23	39
Manure Storage Repair Authorizations	10	4	20
Manure Storage Facilities Registered	4	10	29
<i>The Dangerous Goods Handling and Transportation Act</i>			
Project proposals received	17	12	18
Licences issued	20	10	14
Minor alterations requests processed	7	3	2
Pre-Licensing activities	12	13	11
Site inspections, monitoring	12	15	16
New Petroleum Storage Operating Permits issued	114	36	57
Petroleum Storage Construction/Alteration applications received and permits issued	124	80	86
Licensed Petroleum Technician applications received and permits issued	99	79	22
<i>The Public Health Act</i>			
Applications for Certificates of Approval processed	39	42	53
Water and Wastewater Operator Certification Regulation			
Certification Examination	647	606	511
Plant Classifications Issued	123	32	146
Operators Certificates Issued	373	370	280

Table EA.2
12.3(c) Environmental Approvals

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,106	34.00	3,106	0	
Other Expenditures	468		432	36	
Recoverable from Environmental Liabilities.	(168)		(193)	25	
Total 12.3(c)	3,406	34.00	3,345	61	

Climate Change and Air Quality

The Climate Change and Air Quality Branch fosters inclusiveness, cooperation and the sharing of knowledge that motivates Manitobans to change behavior and build a low-carbon economy that is resilient to a changing climate. The Branch seeks to advance processes that reduce ecological impacts to our air, water and land. 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 the principles and guidelines of sustainable development are applied where possible.

Key Results:

Climate Change

- Released 'Manitoba's Climate Change and Green Economy Action Plan' targeting reduction of Manitoba's greenhouse gas emissions by one third below 2005 levels by 2030, one half by 2050, and achieving carbon neutrality by 2080 following wide-ranging stakeholder consultations.
- Released Green and Growing Manitoba's Commitment to Green Jobs document linking the green economy to other Provincial strategic initiatives such as training standards and the Manitoba Skills Strategy.
- Developed new partnerships and initiatives with organizations to collaboratively take action on climate change supported through a \$5 million climate fund.
- Developed indicators for the measurement and tracking of the green economy and green jobs.
- Prairie Climate Centre was supported and established to provide climate information and tools to municipal governments, the private sector, civil society, and other practitioners in support of climate change adaptation planning.
- Supported development of the Prairie Climate Atlas, providing enhanced awareness on climate change for Manitoba and the Prairies through baseline data on climate trends and geospatial maps and other visual products.
- Monitored and participated in strategic discussions and negotiations related to federal, provincial, territorial, regional, and international climate change policy, including:
 - building and funding for sector and regional based adaptation initiatives.
 - partnering with Natural Resources Canada and the Prairie Provinces through the Prairies Region Adaptation Collaborative to investigate the impacts of climate change and enhance capacity for climate adaptation planning processes.
- Communicated Manitoba's ongoing climate change mitigation, adaptation and green economy efforts to the public, and worked with externally funded organizations that undertake climate change activities on behalf of Manitoba.
- Provided research, agreements and agenda support for the Manitoba delegation to the Paris Conference of the Parties International Climate Change conference, along with other participants of the Canadian delegation.
- Established a 'Memorandum of Understanding' with Ontario and Quebec on a 'cap and trade system' to promote reduction of greenhouse gases.
- 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.

- Ensured that effective risk assessment and management practices inform the development and implementation of provincial climate change policies and programs by continued early phase implementation of a department wide climate change risk assessment project.
- Tracked Manitoba's provincial greenhouse gas emissions inventory using Canada's National Inventory Report; quantified reductions resulting from government policies and programs, and reported progress toward Manitoba's reduction targets.

Waste Minimization

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

Ozone Depleting Substances Program

- Participated on the Federal Provincial Working Group on Controls Harmonization for Ozone Depleting Substances and Other Halocarbons; and provided a key role in implementing Canada's National Action Plan to control, reduce and eliminate use of ozone depleting substances and other halocarbons in Manitoba.
- Managed provincial program to prevent the release of pollutants contributing to climate change and impacting the stratospheric ozone layer.
- Ensured an effective and efficient regulatory framework, and managed an Agreement with the Manitoba Ozone Protection Industry Association (MOPIA) which allows the organization to administer key program activities, including the issuance of 5,505 service technician certificates and 514 secondary distributor permits.
- Enhanced environmental awareness and regulatory compliance with MOPIA hosting several industry program information and awareness sessions and 12 one-day environmental awareness training courses for Manitoba refrigeration and air conditioning service technicians. Further information on

MOPIA is available at www.mopia.ca.

Air Quality Management

- Delivered provincial programs and services to manage or prevent the impact of pollutants released to the atmosphere.
- 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 is used to provide an hourly Air Quality Health Index forecast for the cities of Winnipeg and Brandon.
- Fulfilled provincial obligations as required by the existing Federal/Provincial/Territorial Memorandum of Understanding for the implementation of the National Air Pollution Surveillance (NAPS) program. This included submission of Manitoba's quality-assured air quality data to the Canada-Wide Air Quality Database.
- Operated and maintained the publicly accessible air quality website for display of near real-time and historical ambient air quality levels from the provincial air quality monitoring system. <http://www.gov.mb.ca/conservation/envprograms/airquality/index.html>
- Represented Manitoba in national discussions and negotiations regarding air quality management. This included the continued development of the federally-led new Air Quality Management System (AQMS) and its associated sub-groups and other air related programs under the Canadian Council of Ministers of the Environment (CCME).
- Provided technical and policy support to a number of departmental activities, including:
 - Management of releases from base metal smelters in Manitoba to protect local air quality
 - On-going monitoring activities to assess acidic deposition
 - Review of air quality matters related to license applications or license requirements, federal programs and national/international agreements.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,013	12.00	1,013	0	
Other Expenditures	283		242	41	
Climate Change Initiatives	979		1,000	(21)	
Total 12.3(d)	2,275	12.00	2,255	20	

Strategic Policy and Coordination

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

The Branch leads the coordination of intergovernmental issues, and is the department's liaison with the Federal-Provincial Relations Branch, and the Canada, US, and International Relations Branch. This involves the coordination of Manitoba's participation on Federal, Provincial, and Territorial committees, including providing support for the Canadian Council of Ministers of the Environment(CCME).

Represents the Department on interdepartmental, provincial, national, and international agencies, boards and committees. The Branch also represents Manitoba on national forums for inter-governmental cooperation and on issues related to national and international environment and trade agreements contributing to Manitoba's role and voice in national discussions on environmental protection in Canada.

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

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

Key Results Achieved:

- Continued to oversee and monitor implementation of commitments contained within *Tomorrow Now – Manitoba's Green Plan* the government's eight-year strategic plan for protecting the environment while ensuring a prosperous and environmentally conscious economy. The plan sets out over 130 actions, led by numerous government departments around five key priorities.
- Continued to lead the development of a comprehensive, cross-government Boreal Strategy based on the commitment made in *TomorrowNow*. The Boreal Strategy is intended to improve coordination among existing and future management efforts and initiatives across all of the North, while ensuring the sustainable development and protection of key environmental areas. The Branch gathered and evaluated feedback from a Boreal Summit that was held in The Pas in February 2015 that brought together 88 representatives from Indigenous communities, industry, municipalities, academia, non-governmental organizations, and all levels of government.
- 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. In 2015-2016, Manitoba completed a one year term as President and Chair of CCME. Branch staff supported the Minister and Deputy Minister in their duties, and led the planning of a successful Council of Ministers meeting in Winnipeg in June. Branch staff continued to lead the cumulative effects work and provide support to other working groups.

- Represented Manitoba on the intergovernmental committee for the North American Agreement on Environmental Cooperation, and monitored trade developments with respect to environment implications of the Agreement on Internal Trade (AIT), the GATT/WTO agreements, the ongoing Canada-European Comprehensive Economic and Trade Agreement (CETA), and Trans-Pacific Partnership (TPP) negotiations.
- Represented the Department on negotiations to resolve Inuit and First Nation land claims in Manitoba.
- Responded to concerns regarding Off-Road Vehicle (ORV) management in Manitoba and worked with municipal government, interest groups and organizations in the development of a pilot project to designate a trail in south eastern Manitoba.
- Provided secretariat support to the Manitoba Round Table for Sustainable Development, its task groups and committees chaired by the Minister. The Round Table is an advisory body to the provincial government, which provides advice and support to decision makers. Provided logistical support to the Manitoba Excellence in Sustainability Awards program.
- Provided secretariat and analytical support to the Licensing Advisory Committee (LAC), the Administrator of Resource Tourism and the Resource Tourism Appeal Committee (RTAC) on matters relating to the regulation of resource tourism in Manitoba, as well as providing policy support on resource tourism policies and programming. The LAC is an advisory body which makes recommendations to the Administrator of Resource Tourism on the licensing of outfitters and the permitting of their facilities for the purposes of hunting, fishing and ecotourism activities. The RTAC is the appeal body for decisions made by the LAC.
- Provided secretariat and research services to the Manitoba Water Council, a statutory body under *The Water Protection Act* that provides advice to the Minister of Conservation and Water Stewardship on water policies, programs, plans, and legislation needed to achieve the Department's vision, mission and priorities. The Water Council continued to assist the Department with the Surface Water Management Strategy as its public conduit for external partners by Ministerial assignment of lead to the Surface Water Advisory Team. The Council also put forward advice to the Minister on water efficiency strategic issues; the integration of watershed planning into local community awareness and planning; and improving communication and outreach of water initiatives.
- Co-led the development of "Manitoba's Climate Change and Green Economy Action Plan", and "Green and Growing – Manitoba's Commitment to Green Jobs", working with other branches and departments to produce these documents for public release in fall 2015.
- Consulted with stakeholders and developed draft legislation to protect environmental rights (*The Environmental Rights Act*).
- Coordinated and evaluated a new car sharing initiative for Department employees.

Key Program Outputs

- The Licensing Advisory Committee held six regularly scheduled meetings. A total of 270 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.

Legislation

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

- **The *The Peatlands Stewardship and Related Amendments Act*** was proclaimed and came into force on June 15, 2015 except sections 8-16 and 30.
- **The *Conservation Officers Act*** received Royal Assent on June 30, 2015 and was proclaimed to come into force on October 1, 2015.
- **The *Water Protection Amendment Act (Aquatic Invasive Species)*** received Royal Assent on June 30, 2015 and was proclaimed to come into force on November 2, 2015.
- **The *Wildlife Amendment and Fisheries Amendment Act*** received Royal Assent and proclaimed on November 5, 2015 except sections 7, 8, 9, 17 and 19 which are to come into force September 1, 2016.
- **The *Fisheries and Wildlife Amendment Act (Restitution)*** was proclaimed to come into force on August 31, 2015.
- **The *Groundwater and Water Well Act*** was proclaimed to come into force on January 1, 2017 except subsections 6(d)(i) and (ii), 10(a), sections 12, 14 to 9 and 33, subsections 50(2) and (3), and 86(3)(f).
- **The *Surface Water Management Act (Amendments to various Acts to protect lakes and wetlands)*** was introduced into the House on November 24, 2015 and died on the order paper on March 15, 2016.
- **The *Environmental Rights Act*** was introduced into the House on March 2, 2016 and died on the order paper on March 15, 2016.
- New Peatlands Stewardship Regulation (82/2015) and Peatlands Practices Committee Regulation (83/2015) under **The *Peatlands Stewardship Act***.
- New Endangered and Threatened Ecosystems Regulation (70/2015) under **The *Endangered Species and Ecosystems Act***.
- New Conservation Officers Regulation (155/2015) under **The *Conservation Officers Act***.
- New Aquatic Invasive Species Regulation (173/2015) under **The *Water Protection Act***.
- New Hazardous Waste Regulation (195/2015) under **The *Dangerous Good Handling and Transportation Act***; repeal of Classification Criteria for Products, Substances and Organisms Regulation (282/87), Generator Registration and Carrier Licencing Regulation (175/87), and Manifest Regulation (139/88).
- New Groundwater and Water Well Regulation (214/2015) and the Well Standards Regulation (215/2015) under **The *Groundwater and Water Well Act*** to come into force on January 1, 2017.
- New Waste Management Facilities Regulation (37/2016) and Repeal of the Waste Disposal Grounds Regulation (150/91) under **The *Environment Act***.

Twenty-six amending regulations were registered during the reporting period, amending 21 existing regulations including:

- Under **The *Environment Act*** to:
 - Water and Wastewater Facilities Operators Regulation (209/2015)
 - Classes of Development Regulation (39/2016)
- Under **The *Provincial Parks Act*** to:
 - Provincial Parks Designation Regulation (123/2015) and (212/2015)
 - Park Reserves Designation Regulation (210/2015)
 - Park Fees Regulation (46/2016)
- Under **The *Wildlife Act*** amendments to:
 - Designation of Wildlife Lands Regulation (172/2015), (197/2015), (203/2015), and (213/2015)
 - Wildlife Protection Regulation (120/2015)
 - Hunting Seasons and Bag Limits Regulation (135/215)

- Moose Conservation Closure Regulation (170/2015)
- Trapping of Wild Animals Regulation (176/2015)
- Use of Wildlife Lands Regulation (225/2015)
- General Hunting Regulation (25/2016)
- Wildlife Fees and Royalties Regulation (36/2016)
- Wildlife Damage Compensation Regulation (58/2016)
- Hunting Areas and Zones Regulation (61/2016)

- An amendment to the Gypsy Moth Response Zone Regulation (50/2015) under **The Forest Health Protection Act.**
- An amendment to the Off-Road Vehicles Regulation (67/2015) under **The Off-Road Vehicles Act.**
- An amendment to the Threatened, Endangered and Extirpated Species Regulation (69/2015) under **The Endangered Species and Ecosystems Act.**
- An amendment to the Provincial Snowmobile Trail Regulation (193/2015) under **The Crown Lands Act.**
- Amendments to the Ecological Reserves Designation Regulation (198/2015) and (211/2015) under **The Ecological Reserves Act.**
- An amendment to Special Waste (Shredder Residue) Regulation (38/2016) under **The Dangerous Goods Handling and Transportation Act.**

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

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,843	22.00	1,843	0	
Other Expenditures	183		157	26	
Grant Assistance	97		96	1	
Total 12.3(e)	2,123	22.00	2,096	27	

Green Manitoba and Eco Solutions

Green Manitoba was established as a Special Operating Agency (SOA) April 1, 2006. The Agency operates within the Department of Sustainable Development. Since its inception, Green Manitoba has functioned as a catalyst, knowledge portal and service delivery agent for government departments and a wide range of public and private sector organizations to help create a greener and cleaner Manitoba.

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

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

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 at 111 Lombard Avenue, Suite 325, Winnipeg, MB R3B 0T4. The Institute can be contacted at 204-958-7700.

Table IISD.1

12.3(f) International Institute for Sustainable Development

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Grant Assistance	1,013		1,013	0	
Total 12.3(f)	1,013		1,013	0	

WATER STEWARDSHIP AND BIODIVERSITY

Administration

Staff provided 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 oversees funding, negotiates and administers contracts, and monitors efficiency and effectiveness of program results and resources.

Table WS.1

12.4(a) Divisional Administration

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	388	5.00	388	0	
Other Expenditures	249		240	9	
Total 12.4(a)	637	5.00	628	9	

1. Over expenditure is due to Zebra Mussel clean-up program.

Water Science and Management

Administration

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

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

The Branch is organized into three sections: The Groundwater Management Section, Surface Water Management Section, and Water Quality Management Section. Services are provided to the public, local governments, other units within the department, other Manitoba provincial government departments, and other provincial, federal, and international governments. The Water Science and Management Branch delivers strong, scientifically-based programs to ensure Manitoba's water resources and environment are managed and protected in a sound and sustainable manner, including the protection of human health and property.

The Branch represents on numerous inter-departmental, provincial, national, and international boards and committees including the following:

- 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 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
- Canada-Manitoba Memorandum of Understanding on Lake Winnipeg – Steering Committee
- Red River Basin Commission Board of Directors
- Assiniboine River Basin Initiative Board of Directors
- Lake Friendly Stewards Alliance Steering Committee
- Manitoba Drought Assessment Committee

The Branch provides technical and scientific support to a variety of stakeholders including other government agencies, conservation districts, universities, public, etc. and responds to thousands of telephone and written requests for information and advice from the private and public sectors.

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

In 2015/16, the branch developed an Indigenous engagement strategy to support the development of meaningful ongoing relationships with Indigenous communities and groups. Implementation is ongoing.

Groundwater Management

The Groundwater Management Section is responsible for evaluating, monitoring, and protecting the province's groundwater resources. Major activities in 2015/16 include: administering *The Ground Water and Water Well Act*; undertaking studies to map the occurrence and quality of groundwater; monitoring groundwater quality and water levels and storing this information in databases.

Key Results Achieved:

- The Groundwater and Water Well (General Matters) Regulation and the Well Standards Regulation were developed to support the new *Groundwater and Water Well Act*. Consultation was carried out with the public and various stakeholder groups including well drilling professionals, the Manitoba Water Well Association, the Manitoba Geothermal Energy Alliance and the Association of Manitoba Municipalities (AMM).
- In support of the new *Groundwater and Water Well Act*:
 - an outreach program was developed to work with stakeholders to ensure they understand and implement the new legislation and to inform the public as to how the new legislation relates to both new and existing well owners. As part of the program the Department began work on education, compliance and enforcement materials that will be required in advance of the *Act* coming into force on January 1, 2017; and
 - discussions continue with stakeholders regarding implementation and management of well driller certification. The Manitoba Water Well Association received a grant through the Water Stewardship Initiatives to assist with the development of a business case for a program for the certification of well drillers.
- Through participation on watershed and aquifer management programs and through support for regional water well surveys being undertaken by Conservation Districts, the public, and other government agencies have become more informed of groundwater conditions in many parts of the province and homeowners have been made aware of the water quality from their well and individual responsibilities for well maintenance.
- Groundwater information was compiled and summarized in several parts of the province to support integrated watershed or aquifer management plans. Reviews and updates were made to the Fisher River and Dauphin Lake; support was provided for the Saskatchewan-Carront River watershed and drinking water vulnerability assessments in the Whitemud and West Interlake watersheds.
- Staff from the Section continued their participation in the implementation of aquifer management plans for the Oak Lake, Assiniboine Delta and Winkler aquifers.
- Information on aquifer properties and water quality continued to be collected for the re-evaluation of the Assiniboine Delta aquifer including conducting pumping tests on monitoring wells and analyses of pumping test results.
- Data clean-up and mapping of flowing well and high static water conditions was initiated.
- Groundwater and stream flow monitoring continued in south eastern Manitoba in the Sandilands Provincial Forest near Marchand. The work is being undertaken to improve the understanding of local groundwater conditions, interaction of shallow groundwater and surface water, and responses of wetlands to wet and dry weather cycles and changing groundwater levels.
- Monitoring continued near Woodlands and Kleefeld to study groundwater levels and groundwater chemistry; new monitoring was installed near Carman and technical support was provided to Conservation Data Centre (Wildlife and Fisheries Branch) regarding water levels, locations of springs and selection of search areas for *Cypripedium candidum* and other endangered plants based on groundwater hydrology.

- Work continued on the compilation of hydrogeological information, mapping of aquifers and development of a three dimensional geological model for the Brandon – Turtle Mountain region. The geological model builds upon previous activities in the area including drilling programs and geophysical surveys.
- An aquifer mapping study of the Gull Lake region was initiated. This included field verification and locations of wells and incorporating approximately 800 well into a geologic mapping process.
- The Department continues to promote its 'Well Aware' booklet that contains information for Manitoba well owners on groundwater and well basics, well construction and maintenance, well sealing, water testing and treatment options. The booklet is available in both official languages on the government website (http://www.gov.mb.ca/waterstewardship/groundwater/well_aware.html). Hardcopies of the booklets are distributed through the Groundwater Management Section, the Office of Drinking Water, and Conservation Districts. Well drillers are also providing copies to owners of new water wells.
- Technical support was provided on matters related to well water quality including TCE (Trichloroethylene) in groundwater in the Rockwood Sensitive Area.
- Technical support was also provided to the Office of Drinking Water for GUDI (groundwater under the direct influence of surface water) screening of public/semi-public well water systems, and for private wells. Technical support was provided directly to three conservation districts for conducting private well site assessments. Six conservation districts inventoried and sampled over 700 private water 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.

Key Program Outputs:

- Twenty-eight licenses were processed under *The Ground Water and Water Well Act* to drill water wells in Manitoba. The Well Drilling Liaison Officer provided regular communication between the well drilling industry, Manitoba homeowners and other government branches and departments. The officer also investigated a number of complaints including flowing wells and otherwise nuisance wells. In addition, the officer provided support to other areas of the department in their groundwater investigations.
- The groundwater monitoring network continued operation. The network consists of approximately 800 monitoring sites located on major and minor aquifers of which about 600 sites are equipped with water level recorders capable of continuous water level recording. Groundwater quality representative of aquifer conditions was sampled at 45 select monitoring wells throughout the province.
- Over 5,000 well reports were reviewed and then updated or added to the GWDrill database including approximately 1,200 newly drilled wells. Examination and data corrections for verifying flowing well conditions was completed. Approximately 650 groundwater chemistry analyses were also entered into the database and 152 sealed well reports were updated or added. Daily water level information that was collected from the observation well network was also entered in the Hydata database.
- An updated version of the water well log data base that is used in environmental site assessment and site selection were provided to 15 industry or consulting companies and licensed well drillers.
- Groundwater level information was supplied to consultants, industry, municipal officials, and private individuals upon request. Information on expected groundwater conditions and water well construction at specific locations was provided to water well drillers and the public upon request.

Surface Water Management

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

Key Results Achieved:

- Released the 'Manitoba Drought Management Strategy' and the drought monitor web site (www.manitoba.ca/drought)
- 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 regular water availability and droughts conditions reports for Manitoba through analysis of precipitation, stream flow, groundwater, lake levels, water supply reservoir and on-farm water supply conditions.
- Continued the development of precipitation, stream flow and groundwater indicators to monitor drought conditions in Manitoba.
- Provided information to the North American Drought Monitor, and Agriculture and Agri-Food Canada for updating the monthly Regional Drought Map.
- Investigated and reported on inter-jurisdictional, inter-provincial and international water issues and opportunities, such as surface water management and the equitable sharing of water, through participation on various committees and task forces.
- Represented Manitoba on the International Joint Commission's Lower Pembina River Task Force to identify and oversee overall technical work related to finding a scientific solution to flooding within the Lower Pembina River Basin.
- Participated on the Red River Basin Commission Water Supply Working Group which is developing an inter-jurisdictional drought preparedness, water conservation and communication strategy for the Red River Basin.
- Assessed Manitoba's low flow vulnerability on the Red River, including leading a team of hydrologists and biologists 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 being developed by watershed planning authorities. Similar technical and engineering services were provided to conservation districts for a variety of water management problems and water infrastructure proposals, as well as for the capital works program planning process in conservation districts that manage large, trunk drainage waterway infrastructure.

- Initiated a Retention Strategy for the Roseau River Watershed.
- Worked with East Interlake Conservation District to develop advanced GIS layers for watershed management including hydro-conditioning LiDAR data.
- Provided technical support for the 2015 Shellmouth Dam operations.
- Provided expert technical support/advice to the Department's climate change studies.
- Conducted research into long term water supply in the Boyne River Watershed under climate change conditions, including development of a hydrologic model of the Boyne River Watershed and analysis and application of Regional Climate Model data.
- Participated in hydrometric/meteorologic program planning activities.
- Maintained databases containing historical streamflow and water level information.

Key Program Outputs:

Produced seven Water Availability and Drought Conditions reports in 2015/16 through the analysis of drought indicators and other data including Environment Canada's seasonal forecast. More information is available on the Conservation and Water Stewardship website at:

http://www.gov.mb.ca/waterstewardship/water_info/drought/index.html

- Developed discharges for the design of waterways and waterway openings to accommodate passage of fish for infrastructure planning, design and environmental approvals. Input was provided to 17 sites. Completed low flow analysis for evaluating wastewater minimum flows for five locations.
- Input and advice was provided on the sustainable supply of water available for allocation and for instream flows under *The Water Rights Act*. Hydrological analysis or provision of input was provided for seven assessments in 2015/16.
- Provided technical and engineering input, advice, planning assistance, assessments and information for integrated watershed management plans and surface water management plans developed by watershed planning authorities. Seven peak flow reduction storage analysis projects were completed for watershed management plans.
- Provided technical and engineering services to conservation districts for a variety of water management problems and water infrastructure proposals. The section provided engineering services of varying degrees for 22 conservation district projects.
- Responded to dozens of hydrologic data analysis/interpretation requests.

Water Quality Management

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

Key Results Achieved:

- Collaborated with upstream jurisdictions to develop and implement nutrient management strategies to reduce nutrient loading to the one million square kilometer Lake Winnipeg watershed. About 50% of the nutrient load to Lake Winnipeg comes from upstream jurisdictions, so efforts to reduce nutrients and improve water quality require cooperation.
- Through participation on the Prairie Provinces Water Board's Committee on Water Quality, developed new and updated water quality objectives for transboundary rivers flowing from Alberta into Saskatchewan and from Saskatchewan into Manitoba (www.ppwb.ca). Included are new water quality objectives for nutrients, such as, nitrogen and phosphorus in rivers that are part of the Lake Winnipeg watershed.
- Collaborated with Minnesota, North Dakota and the Canadian federal government on a first of its kind survey of water quality, algae and benthic invertebrates along the international Red River in the US and Canada. Sample collection methods and timing were coordinated across the three jurisdictions including the use of a new method for attached algae sampling. Results demonstrated that algae are present at high densities in the Red River and were used to support the International Red River Board's development of a stressor response model and nutrient objectives for the international Red River.
- Work continued to reduce nutrient contributions to Lake Winnipeg and its watershed within Manitoba including implementing the *Canada-Manitoba Memorandum of Understanding Respecting Lake Winnipeg and the Lake Winnipeg Basin* to facilitate a cooperative and coordinated approach to understand and protect the water quality and ecological health of Lake Winnipeg and the Lake Winnipeg Basin.
- Regular monitoring of water chemistry and benthic invertebrates from numerous Manitoba streams, rivers, and lakes was conducted. Data are used to establish long-term trends in water quality and to quantify general water quality conditions such as with the Water Quality Index. Benthic invertebrate data are used along with water chemistry to further assess the aquatic health of Manitoba's streams and rivers.
- Monitoring of recreational water quality was conducted at beaches across the province and timely results were provided to the public through the Department web site and posting of advisory signs. Bathing water at approximately 60 Manitoba beaches is monitored each year for densities of the fecal indicator bacteria, *Escherichia coli*. Algal blooms are also monitored for concentrations of toxic algae. Incidents of swimmer's itch and subsequent beach posting are coordinated by the Section.
- Routine monitoring of physical, chemical and biological conditions on Lake Winnipeg from the *MV Namao* continued in cooperation with the Lake Winnipeg Research Consortium and others. Three scientific cruises on Lake Winnipeg were completed in 2015.
- High quality laboratory analytical services were acquired for Manitoba Sustainable Development, Manitoba Health, Seniors and Active Living, and Manitoba Agriculture including ensuring on-going communication and collaboration with contracted analytical laboratories.
- Worked with wastewater treatment facility owners to implement the Water Quality Standards for Nutrients in wastewater including reviewing phosphorus compliance plans required under the Regulation and implementing the requirement for medium and large facilities to meet a 1 mg/L total phosphorus standard by January 1, 2016. More information is available at http://www.gov.mb.ca/conservation/waterstewardship/water_quality/quality/website_notice_mwqs_og_2011.html

- Worked with golf courses, municipalities and the agricultural sector to implement the *Nutrient Management Regulation* under *The Water Protection Act* (C.C.S.M.c.W65). This regulation encourages responsible nutrient planning, regulates the application to land of substances containing nitrogen and phosphorus, and restricts the development of certain types of nutrient generating facilities in sensitive areas. More information is available at www.gov.mb.ca/waterstewardship/wqmz/index.html
- Provided technical comments to the Bureau of Reclamation on the final supplemental environmental impact statement for the proposed Northwest Area Water Supply Project (NAWS). NAWS would be the first-ever US Federal project to artificially connect the Missouri River Basin, which drains south to the Gulf of Mexico, to the Hudson Bay Basin, which drains north to Hudson Bay. The Project could move significant quantities of water from the Missouri River Basin to the Hudson Bay Basin. In so doing, it would threaten to introduce non-native and potentially destructive organisms into the Hudson Bay watershed and thus, into the Manitoban and Canadian environment.

Key Program Outputs:

- Water quality was monitored at 65 long-term stations on 51 waterbodies across Manitoba during 2015/16 including monitoring as a part of the Northern Flood Agreement and the MOU with Manitoba Hydro on the Coordinated Aquatic Monitoring Program. The Section worked in collaboration with Conservation Districts, Environment Canada, the University of Manitoba, and Manitoba Hydro in collecting water quality samples at some sites.
- Water quality on Lake Winnipeg was monitored at 71 stations in collaboration with the Lake Winnipeg Research Consortium during the spring, summer, fall and winter periods. Algae and benthic invertebrates were also monitored at a number of stations as a part of the long-term and Lake Winnipeg monitoring programs.
- Approximately 60 Manitoba beaches were monitored for *Escherichia coli* and algae blooms during the summer of 2015 including 20 beaches on Lake Winnipeg, 16 beaches in the Whiteshell, 10 Central region beaches, and 15 beaches in western Manitoba. Approximately 25 water samples were collected for analysis of algal toxins and the enumeration of cyanobacteria densities to assess the risk to bather health.
- Continued work under the Nutrient Management Regulation which included the review of 97 Nutrient Management Plans, of which 88 were registered, for golf courses across Manitoba in 2015/16. Reviewed 25 site specific soil survey reports for the purpose of requesting rezoning of locations of Onsite Wastewater Management Systems mapped as Nutrient Management Zone N4.
- Responded to over 100 water quality data requests from the public, consultants, industry, academia, non-governmental organizations, conservations districts, stewardship groups, students and educators, and other provincial and federal agencies in 2015/2016.
- Provided water quality assessments on status and trends in water quality and provided recommendations concerning improvements to surface water quality through the Integrated Watershed Management Planning process. The Section worked closely with Watershed Planners and Conservation Cistricts to deliver land-based programming aimed at reducing impacts to water quality.
- Reviewed and provided comments on 40 proposals received under *the Environment Act* and other legislations related to wastewater and water treatment plants, pipeline and transmission projects, livestock site assessments, drainage and other proposals for development that impact or alter aquatic environments.

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

Expenditures by Sub- appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,525	33.00	2,561	(36)	
Other Expenditures	771		863	(92)	
Total 12.4(b)	3,296	33.00	3,424	(128)	

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, create thousands of jobs and financially contribute to the high health care and education standards we all enjoy. Fish and other wild species also provide Manitobans with essential healthy living opportunities including renewable sources of high quality natural foods. Spending time in Manitoba's diversity of natural ecosystems restores our mental and physical health, and offer a lifetime of free natural education for people to learn about the over 40,000 species of wild plants and animals in this province. Our economy and health depend on the sustainable development and use of robust populations of wild species and healthy ecosystems.

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

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:

Sustainable direct and indirect economic benefits from fishing, hunting and trapping, to the Province, and sustainable direct income returns to primary producers such as benefits related to eco-certification of commercial fisheries.

- The *Fisheries and Wildlife Amendment Act (Restitution)* was introduced in the legislature on April 17, 2014 and received royal assent on June 14, 2014. It was proclaimed on August 31, 2015. Regulations came into effect on August 31, 2015, which outlines specific values assigned to fish and wildlife under *The Wildlife Act* and *The Fisheries Act (Manitoba)*. The amendments enable the department to pursue and collect restitution from convicted violators who take fish and wildlife unlawfully.
- Further amendments to *The Wildlife Act* received Royal Assent on November 5, 2015 to remove the requirements to pay royalties on the pelts, skins and hides of animals in Manitoba. The provisions will be proclaimed on September 1, 2016 and will end the collection of fur royalties by the department.
- A total of 67,045 hunting and trapping licences were sold resulting in revenue of \$3.2 million.
- Manitoba's 8,545 licensed and permitted trappers harvested an estimated \$3.38 million in raw fur from September 1, 2014 to August 31, 2015 (the last complete Fur Year with complete returns).
- Trapping and hunting maintain game and fur populations at levels that reduce human-wildlife conflicts such as property damage and livestock depredation.
- A total of approximately 300,000 Big Game hunter days and 124,000 Game Bird hunter days were estimated based on 7.2 days per hunter.
- Approximately 2,226 of the 5,100 allocated big game licences were utilized by 245 registered tourism operators.
- Review of fisheries governance continued to assure contemporary approaches to partnering and collaboration on management activities with key interest groups.
- Fisheries regulatory variances were prepared as required to address season's opening and closing dates and quota adjustments.

- The Fisheries Section provided inputs to policy development in key areas, particularly sustainable fishing eco-certification and aquatic invasive species.
- Integrated planning continued by involving user groups such as The Fish and Wildlife Enhancement Fund - Fisheries Enhancement Subcommittee in branch planning exercises. This process contributed to the key principle of user group involvement in developing fish management strategies.
- The Fisheries Section participated in the Inter-jurisdictional Working Group and task groups reporting to the Canadian Council of Fisheries and Aquaculture Ministers.
- The Fisheries Section participated in the Red River Basin Commission technical workshops with respect to aquatic invasive species.
- Manitoba Sustainable Development and the Department of Fisheries and Oceans continued work in areas of mutual interest through the Canada-Manitoba Fisheries Advisory Committee.
- Fifty-one scientific fish collection, 45 live fish handling and five Interprovincial fish movement permits were issued.
- Two aquatic invasive species permits (issued to authorize the possession of an aquatic invasive species, in this case, for educational purposes) were issued.
- The Department successfully met all conditions of certification under the Marine Stewardship Council to maintain the Waterhen Lake Walleye and Northern Pike commercial gillnet fishery's internationally recognized sustainable certification status by successfully passing the 1st annual surveillance audit of the fishery.
- The Department reorganized a portion of the Fisheries section of the Wildlife and Fisheries Branch into the new Sustainable Fisheries Unit. The mission of this newly organized unit is to create maximally productive fisheries able to meet sustainable fishing certification standards, by working collaboratively with stakeholders and using sound science and community knowledge. Such fisheries, even if a sustainable fishing certificate is not sought, will be positioned through implementation of required management and operational procedures to ensure food security, and lead sustainable economic development through fishing-related recreational and commercial economic activities.
- Efforts continued towards seeking full eco-certification of Manitoba's remaining commercial freshwater fisheries through undertaking discussions and planning sessions between departmental officials and interested commercial fisheries including Moose Lake, Cedar Lake, Swan Lake and Red Deer Lake. These efforts resulted in the department receiving written confirmation from commercial fisher associations, local Chief and Council, and commercial tourism operators indicating their support of efforts to achieve and maintain certification of 18 separate commercial gillnet fisheries located in the Western, North-western and Central regions. In response, the department established the "Moving Forward Working Group" consisting of department staff from the Branch and Regional offices to implement programming that will position these fisheries to achieve certification.

Development of species management plans and procedures that provide provincial objectives and guidelines for management.

- The Wildlife Section continued to engage First Nations, Métis and stakeholders in regional moose recovery efforts for the western and eastern regions. Staff worked with three First Nations in the Western Region to explore a resource management model that would increase First Nations participation in resource management. Discussions continued with Treaty 2 on a range of natural resources issues including Dauphin Lake fisheries and moose management.
- The Wildlife Section initiated a new partnership with Memorial University of Newfoundland and fostered ongoing relationships with Manitoba Hydro and the University of Manitoba in the expansion of a research program aimed at understanding the impact of wolf predation on moose populations in Manitoba. The Department will be providing approximately \$200.0 of in-kind support to this half-million dollar project.

- To assess the status of big game populations, the Big Game Unit conducted five big game surveys – white-tailed deer in GHA 35; elk in GHA 35A; moose in GHAs 8, 11 and 26. The GHA 8 moose survey was funded by Manitoba Hydro. As well, wolf surveys were conducted in GHAs 8, 11, 13, 13A, and 26.
- The Big Game Unit conducted two aerial Chronic Wasting Disease (CWD) Risk Assessment Surveys, one in GHA 5 near Flin Flon and the second in GHA 18C north of Roblin. Over a period of 12 days, approximately 2,366 sq. km along the Saskatchewan border were surveyed to pinpoint potential CWD risk sites, as well as to identify wild cervid population clusters. In total, 133 CWD Risk Sites were identified and 229 moose, 373 elk, two mule deer and 561 white-tailed deer were spotted.
- The Big Game Unit continued with the winter severity index program to monitor and predict the affects of winter conditions on deer mortality. This program was expanded to include 19 monitoring stations throughout the deer range and allow stakeholder groups to contribute to the program.
- The Big Game Unit, in collaboration with Regional staff, continued monitoring GPS-collared moose and wolf in eastern Manitoba and initiated an elk area use study in the Vita area by GPS-collaring eight cow elk.
- The Game Bird Unit developed annual harvest and harvest rate estimates of wild turkeys to estimate population size and for use in a provincial management plan.
- The Game Bird Unit and regional staff partnered with the Canadian Wildlife Service and states within the Mississippi Flyway on waterfowl population and harvest management programs, with a particular emphasis on temperate and sub-arctic nesting Canada Geese. Over 5,500 Canada geese were leg banded to estimate harvest and survival rates, and monitor the effect of international regulation changes.
- Manitoba Sustainable Development and Ducks Unlimited Canada collaborated on waterfowl surveys at Delta Marsh, to estimate staging waterfowl densities and to understand changes in abundance that coincided with completion 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 70 dancing grounds located throughout their range in Manitoba. The index of birds/dancing ground is used to monitor population status of this species.
- The Game Bird Unit partnered with regional staff and affiliate clubs of the Manitoba Wildlife Federation and supplemented three recently established wild turkey populations with additional birds captured from several areas of high abundance.
- Other aerial surveys and collaborative research were conducted on geese and polar bears.
- The Manitoba Conservation Data Centre maintains information in Biotics on 8,051 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish, ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,035 species are endangered or of conservation concern. The database contains 72,508 observations and over 43,010 mapped features based on species observations.
- Biotics data was used to review 84 Environment Act licence documents, and 1,178 other licence, permit, lease, and land sale requests.

Delivery of management and stewardship programs to identify, enhance, monitor and protect habitats that conserve overall populations of species and biodiversity.

- The Manitoba Conservation Data Centre Biotics database was used by the Protected Areas Initiative to inform protected areas planning. Biotics data was also used by the Manitoba Habitat Heritage Corporation to secure species-at-risk habitat through land purchases and Conservation Agreements.
- The Habitat Stewardship Unit delivered the Mixed-grass Prairie Habitat Stewardship Project that secured 262 hectares (648 acres) of native grassland on privately owned lands under two 5-year

prairie management agreements. An additional 404 hectares (999 acres) of shrubs were mowed on project lands and 53 hectares (131 acres) were managed through prescribed burning.

- The Habitat Stewardship Unit through the Mixed-grass Prairie Habitat Stewardship Project inventoried an additional 5,214 hectares (12,880 acres) bringing the total included in the Mixed-grass Prairie Inventory since 1989 to 194,186 hectares (479,640 acres). The 2015-16 Mixed-grass Prairie Inventory data was entered into the Manitoba Conservation Data Centre database. Western spiderwort, a plant species at risk, was monitored on one property.
- Tall Grass Prairie Communities and Species at Risk Project: Species at risk surveys were conducted at the Manitoba Tall Grass Prairie Preserve on 45 properties, totaling 2,925 hectares (7,200 acres) and monitoring continued for seven provincially listed species (five of which are also protected federally) and 14 provincially rare species.
- The Fisheries Section initiated the development of a new provincial fisheries strategy to provide guidance and direction on the delivery of fisheries management and stewardship programs.
- Work continued on reviewing fisheries legislation to ensure appropriate measures are in place to conserve, protect and support fisheries management activities. This included assessing regulations to modernize and streamline legislative regimes to support enforcement and compliance while reducing unnecessary red tape.
- New Aquatic Invasive Species (AIS) legislation was proclaimed. The legislation provides a number of general cleaning measures for watercraft, motor vehicles, such as ORVs, and aircraft, as well as water-related equipment, such as fishing gear, trailers, ropes, and anchors either entering or being removed from water bodies in Manitoba. The legislation also allows for the creation of control zones for aquatic invasive species and adding decontamination requirements and provisions for watercraft, water-related equipment, motor vehicles, and aircraft that have been in water body in a control zone.

Effective communication with user groups and other government agencies and increased involvement of aboriginal people, other users and the public in the planning, implementation and funding of habitat and stewardship programs.

- The annual hunting and trapping guides were posted on the Wildlife Section's website (<http://www.gov.mb.ca/conservation/wildlife/quicklink.html>). A total of 118,000 hunting guides and 14,000 trapping guides were printed and distributed. The hunting guide provides information on seasons, bag limits, and regulation changes for the upcoming hunting season. The trapping guide also provides seasons, regulatory information, and summaries of management and human-wildlife conflict management programs in which trappers participate.
- The 7th Annual Provincial Hunting Day was celebrated at the Winnipeg Trap and Skeet Club on September 26, 2015. Several Hunting Skills Day events and 17 formal mentored hunts for waterfowl and white-tailed deer were held in partnership with the Manitoba Wildlife Federation, Delta Waterfowl, Ducks Unlimited Canada, and Wild Gobblers Unlimited. These programs continue to significantly contribute to the recruitment and retention of hunters.
- The Manitoba Wildlife Federation administers Manitoba's Hunter Education Program on behalf of the Department. In 2015-16, the program graduated 2,971 students, with courses being held in 92 communities across Manitoba.
- The Wildlife Section consults with the Manitoba Wildlife Federation, the Manitoba Lodges and Outfitters Association, and the Archers and Bowhunters Association of Manitoba on hunting regulation changes, and collaborates with organizations to deliver various wildlife related programs (e.g., Manitoba Habitat Heritage Corporation, Mentored Hunt Partnership, Nature Conservancy Canada, Wild Turkey Relocation Program, NatureServe Canada and NatureServe).
- Wildlife Lands Unit participated on various working groups (Netley-Libau Marsh and Delta Marsh) to help with planning and implementation of wetland research and habitat improvement projects.

- The annual Tall Grass Prairie Day event was hosted at the Tall Grass Prairie Preserve with 40 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. Three field tours were provided to the public (two school groups and one seniors group) at their request at the Prairie Shore Interpretive Trail. A total of 45 students and 35 adults participated on these field tours.
- Information and assistance was provided by the Biodiversity, Habitat and Endangered Species Section for the installation of a fibre optic cable through a right of way containing several species at risk, as well as provincially rare species, to minimize disturbance.
- The Manitoba Conservation Data Centre continued to partner with conservation groups (Nature Conservancy Canada and Manitoba Habitat Heritage Corporation) and governments (Canadian Wildlife Service and Rural Municipalities) to share data and update records in its database and conduct species at risk inventories. It also partnered with Parks Canada who provided information on plants and animals in Riding Mountain and Wapusk National Parks to the Data Centre to create new and updated records in its database for those species that are of conservation concern. The Data Centre continues to forge relationships with other provincial departments, including Mineral Resources, and Infrastructure and Transportation.
- The Mixed-grass Prairie Habitat Stewardship Project delivered a 1-day tour highlighting the importance of the mixed-grass prairie ecosystem to livestock producers and species at risk. Interviews with project co-operators were conducted to demonstrate that working with private landowners to implement sustainable prairie management practices improves the remaining native prairie, increases producer income and leads to the long-term retention of native prairie grasslands in southwest Manitoba.
- The Aquatic Invasive Species program participated in the related Task Group reporting to the Canadian Council of Fisheries and Aquaculture Ministers. This program also participated on the associated sub-committee of the International Rainy-Lake of the Woods Watershed Board, the National Aquatic Invasive Species Committee, the national Invasive Alien Species Committee, and the Western Regional Panel's Aquatic Invasive Species Building Consensus group.
- The Aquatic Invasive Species program worked with the Government of Canada's Canadian Border Service Agency to communicate on a standard operating procedure for how federal border agents can inspect and enforce federal Aquatic Invasive Species legislation under *The Federal Fisheries Act* to prevent the importation of invasive carp, and Zebra and Quagga Mussels into Canada. Manitoba is the delegated authority overseeing the federal Aquatic Invasive Species regulations.
- Branch staff partnered with the Mid-Canada Marine and Powersports Dealers Association to communicate to marine dealers about the impacts of Aquatic Invasive Species and how dealers can play a pivotal role to increase awareness to boaters on preventing the spread of Aquatic Invasive Species.
- Organized an ongoing, intradepartmental working group in order to provide Manitobans information on how they can adapt to living on Zebra Mussel invaded water bodies.
- Continued to collaborate with the federal department of Indigenous and Northern Affairs and with the assistance of the northwest regional fisheries manager worked to provide information and guidance to northern communities regarding Aquatic Invasive Species and the precautions they should take to prevent the spread of Zebra Mussels to other watersheds.
- Trained provincial park interpreters on Aquatic Invasive Species so they can include related material into their programming throughout the summer.
- Worked with various cottage groups such as Manitoba Association of Cottagers Owners Inc. to increase awareness on Aquatic Invasive Species.
- The Fisheries Section developed an interactive Angler Lake Information website to assist anglers in planning their next fishing adventure.

- As part of government's obligation to consult with First Nations, Métis and Aboriginal communities in matters related to constitutionally protected Treaty and Aboriginal rights, the Branch participated in Crown-Aboriginal consultations on conservation measures being considered for Dauphin Lake and its tributaries.
- Continued to coordinate Winnipeg's Urban Angling Partnership, which offers residents and visitors recreational angling opportunities through structured angling programs including: Winnipeg Fish Festival, Fish Winnipeg Challenge, Learn to Fish Clinics, Youth Angling Camps, and Fall Fishing Derby. The program's goal is to encourage wider participation in recreational fishing.
- Supported the Youth Angling Card initiative and Gear Up- Tackling the Future programs.
- The Fisheries Section, in partnership with Fish Futures Inc., published the 2015 Manitoba Anglers' Guide that summarizes angling regulations, highlights new and proposed regulations, and includes management and other fisheries information. Anglers and user groups continued to play an important role in developing regulations.
- Worked in partnership with the Department of Fisheries and Oceans to develop the 2015 survey of Recreational Fishing in Canada. This is the ninth in a series of surveys that have been carried out every five years since 1975. The survey provides important social and economic information related to recreational fishing in Manitoba.

Development of species-specific management plans and Species at Risk compliant recovery strategies and action plans.

- During the reporting period, the Wildlife Section released a provincial recovery strategy and range specific action plans for Boreal Woodland Caribou populations.
- The Program Services Unit completed a draft Beluga Habitat Sustainability Plan for the Seal, Churchill and Nelson River estuaries. The plan was developed in cooperation with various stakeholder groups. Although beluga and their habitat are under federal jurisdiction, Manitoba's plan identified areas of the Seal River estuary for protection under provincial authority that can contribute to beluga habitat conservation along Manitoba's coastline.
- The Fisheries Section undertook the first year of a multi-year study assessing Lake Sturgeon movement and behaviour in the Assiniboine River after being reared in captivity (hatchery).
- Assessment continued on the viability of Lake Sturgeon populations in the Nelson River in light of the construction and mitigation activities of the Keeyask Hydro electric Generating Station project.
- Participated in the development of the Management Plan for Bigmouth Buffalo (this species is listed as Special Concern in Manitoba).

Guidance to the public and stakeholders on monitoring, protecting and mitigating adverse effects on wildlife, fish and ecosystems.

- The Manitoba Conservation Data Centre received approximately 45,000 observations for potential inclusion in its species at risk database; approximately 16,000 of these were reviewed and processed. Organizations contributing data included the Manitoba Breeding Bird Atlas, Manitoba Nocturnal Owl Survey, Manitoba Herp Atlas (reptiles and amphibians), the Tall Grass Prairie Preserve, and Parks Canada Agency. Hundreds of volunteers contributed much of this data through citizen science based programs.
- The Manitoba Conservation Data Centre entered into four Data Sharing Agreements to better assist partners in planning and implementing projects to minimized impacts on species at risk in Manitoba, and to improve data holdings of the centre's database. The Data Centre responded to 300 requests for information from our rare species database. Approximately, half of the requests came from industry (154), with other requests coming from provincial (49), federal (39), and municipal (24) government departments, First Nations (16), members of the public (nine), universities (five),

environmental organizations (two), and other organizations (two). Approximately, 118 hours of staff time went into responding to these requests with an average turnaround time of six days. Many additional technical reviews were conducted using data from the Data Centre but not by Data Centre staff.

- The Biodiversity Unit facilitated research in Manitoba on the biology and ecology of species, ranging from endangered butterflies to frogs, snakes, small mammals, cougars and polar bears, and rare ecosystems such as alvars. They collaborated on research activities with the University of Winnipeg and the Nature Conservancy Canada into the ecology and biology of Poweshiek Skipperling and Dakota Skipper butterflies, and with the Assiniboine Park Zoo and the University of Manitoba on source populations of cougars in Manitoba.
- The Wildlife Lands Unit worked at 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 worked collaboratively with Ducks Unlimited Canada to complete significant upgrades to Common Carp Exclusion project infrastructure at Delta Marsh.
- The Mixed-grass Prairie Habitat Stewardship Project worked with livestock producers to implement sustainable prairie management prescriptions on private lands in south western Manitoba. This initiative serves to improve the quality of remaining native prairie, increase income to producers and ultimately leads to the long-term retention of native prairie grasslands which support biodiversity.
- Development and enhancement of a fisheries information system to assist in the sustainable management, harvest, tracking and recreational usage of Manitoba Fisheries Resources continued.
- The Aquatic Invasive Species program provided the public and various stakeholder groups with presentations providing information regarding the current status, distribution of species, to slow the spread of species such as Zebra Mussels to offset ecological and economic costs to the province.
- River-side presentation given to the public during stocking of Lake Sturgeon at Spruce Woods Provincial Park discussed elements of conservation biology and the need to understand fish behaviour to support their protection and use.
- The Fisheries Section conducted bathymetric surveys on 50 water bodies and created supporting Angler information documents. This is part of the interactive Lake Information for Anglers website and contains information on Fish stocking, Fish lake assessments, bathymetric lake views, launch photos and coordinates.

Guidance to the public on reducing the occurrences and risks of human-wildlife conflicts.

- The Problem Predator Removal Program was delivered under an agreement with the Manitoba Trappers Association. In 2015-16, trappers responded to 22 requests and removed two foxes, 43 coyotes and 28 wolves. Coyotes, wolves and black bears continue to be the main predators on livestock. Manitoba Agriculture Services Corporation (MASC) addressed 1,815 predator-livestock claims in 2015-16. Of the total claims, coyotes were responsible for 1,341, wolves 384 and black bears 74.
- As a member and co-chair of the Livestock Predation Protection Working Group, staff continued to work with the Manitoba Beef Producers, Manitoba Agriculture, Manitoba Agricultural Services Corporation, Manitoba Sheep Association, Manitoba Goat Association, Manitoba Trappers Association and Agriculture and Agri-Food Canada. Work continued on the development of a Livestock Predation Protection Report and Strategy. The working group held Livestock Predation Protection Workshops in Alonsa, Arborg, Moosehorn and Vassar to assist livestock producers, landowners and trappers. Information was also provided to livestock producers during the Manitoba Beef Producers Annual General Meeting/Tradeshow.

- The Growing Assurance: Farmland Beaver Damage Control Program was administered by Manitoba Agriculture and delivered by Manitoba Sustainable Development. This program provides funds to assist in preventing and mitigating beaver damage to agricultural land. In 2015-16, program participants included 28 municipalities, five Northern Affairs Communities, and six pastures of the Association of Manitoba Community Pastures. Three Farmland Beaver Damage Control Workshops were delivered in chronic beaver conflict areas: Alonsa, Broad Valley and Swan River.
- The Urban Goose Working Group is comprised of Environment Canada, Manitoba Sustainable Development, the City of Winnipeg and the Winnipeg Airport Authority. The group's efforts reduces Canada goose nest productivity along major high-speed travel corridors (e.g., Bishop Grandin and Kenaston Boulevards) to increase human safety and reduce conflicts such as vehicle collisions with breeding urban geese.
- Over 430 new trappers passed the mandatory trapper education exam in 2015-16. Manitoba Sustainable Development and the Manitoba Trappers Association jointly deliver these courses, with added support from organizations or companies. Presentations were made to youth, conservation, and professional groups on trapping methods and research on furbearing animals.
- "Be Bear Smart" was funded through the Sustainable Development Innovations Fund. This initiative provided workshops, education displays and materials to industry, staff, association events, schools, and fairs. Garbage, bird feeders and barbeques continue to be the three main attractants of the black bear conflicts reported to the department.
- The Wildlife Section and Regional Services and Parks Division staff continued to develop the Wildlife-Human Attack Response Protocol. The protocol will provide consistent direction to staff for the response to an incident involving a wildlife attack on a person.
- The cost-shared Canada-Manitoba Waterfowl Crop Damage Prevention Program reduces waterfowl damage to agricultural crops. The program assists producers with waterfowl scaring efforts in agro-Manitoba. In two chronic conflict areas – Grants Lake and Oak Hammock Marsh Managed Hunting Areas – program funds maintain lure crops and facilitate staff engagement with landowner advisory committees. This program is linked to the federal-provincial Waterfowl Crop Damage Compensation Program which compensates producers for crop losses from ducks, geese and sandhill cranes. This program is also considered to be the provincial contribution to the North American Waterfowl Management Plan (NAWMP). Since 1986, the NAWMP has provided more than \$181 million in financial contributions to Manitoba for the conservation of waterfowl and wetlands.
- Staff responded to 309 waterfowl crop damage complaints involving 1,116 hectares in 2015-16. Waterfowl crop damage compensation claims to Manitoba Agriculture Services Corporation (MASC) by producers can exceed \$1.0 million per year; every \$1.00 spent in prevention is estimated to save \$3.97 in compensation costs. It is estimated that 2015-16 Waterfowl Crop Damage Prevention Program activities prevented more than \$800,000 in waterfowl crop damage. The Wildlife Damage Compensation Program is cost-shared with Canada and their contribution to it is dependent upon Manitoba maintaining wildlife damage prevention services and programs.

Fairness and efficiency in the wildlife and fisheries licence and quota allocation systems.

- Manitoba implemented a moratorium on issuance of Resource Tourism Operator Licences for waterfowl in Game Bird Hunting Zones 3 and 4, in response to greatly increased demand and a large number of existing operators. A policy will be drafted to guide future distribution of such licences for waterfowl following consultation with stakeholder groups.
- Co-chaired the Lake Winnipeg Fishery Co-Management Board that represents a partnership with commercial fishers to maximize economic opportunities while ensuring the long-term sustainability of the fisheries resource.
- Implemented a moratorium on licensing any new commercial tourism outfitting applications through Licencing Advisory Committee in the Red River, Lake Winnipeg, and Lake Manitoba until a Fisheries Management Policy Governing Commercial Tourism Outfitting Expansion on Fully Allocated Fisheries

is developed and approved. This new policy will be developed for assessing new commercial tourism angling outfitting applications within the context of the fishery resource being fully allocated between the existing levels of resource usages; outline a process on how to reallocate access amongst competing resource users on fully allocated fisheries; and ensure that the fishery resource will be allocated in a sustainable manner that maximizes the economic benefits to all Manitobans.

- Manitoba extended the Whitefish Optimization Quota Allocation program on Lake Winnipeg for another year to reduce fish waste and provide economic opportunities to fishers by encouraging lake whitefish deliveries.

Effective control of diseases and invasive species.

- Annual program implementation plans were prepared for the Bovine Tuberculosis and Chronic Wasting Disease programs. The Big Game Health Program analyzed over 900 elk, white-tailed deer, moose, mule deer, and caribou samples for signs of Bovine Tuberculosis, Chronic Wasting Disease, and other diseases. All samples were negative for signs of reportable diseases.
- The Tall Grass Prairie Communities and Species at Risk Project resulted in the removal of 4.6 hectares (11.3 acres) of invasive species (leafy spurge and St. John's wort) and 16.9 hectares (41.5 acres) of aspen to limit encroachment on tall-grass prairie lands to conserve species at risk.
- The Aquatic Invasive Species program continued its Watercraft Inspection program. Watercraft inspectors and five decontamination units were deployed at high traffic boating areas. The program ran from mid-May to late October and performed 4,195 watercraft inspections and 279 decontaminations.
- Monitoring of water-based infrastructure, including navigational buoys and docks for Zebra Mussels, was conducted in the south basin and channel of Lake Winnipeg; Cedar Lake and the Saskatchewan River system, and 11 water bodies throughout the northwest, central and southern parts of the province.
- Samples for Zebra Mussel veligers were collected bi-weekly from the Red River at Emerson. Zebra Mussel veligers were detected for the first time since sampling at Emerson began in 2009. Following this find the Red River was also sampled at St. Vital and Selkirk Parks. Veligers were found at both locations throughout the summer and adults were reported being found at the Selkirk Generating Station, St. Andrews Lock and Dam and on native mussels retrieved during sampling.
- In partnership with the Lake Winnipeg Research Consortium, 190 samples were collected from the MV Namao during the spring, summer and fall cruise to monitor the spread of veligers. One hundred and twenty samples were collected to monitor Spiny Waterflea spread and establishment in Lake Winnipeg.
- In October 2015, Zebra Mussel veligers were found through collaborative sampling with Manitoba Hydro through the Coordinated Aquatic Monitoring Program. Upon the detection of the veliger, the Aquatic Invasive Species program implemented their early detection and rapid response protocol and confirmed the presence of veligers in Cedar Lake with subsequent sampling. The Zebra Mussel Science Advisory Committee recommended Manitoba continue to sample Cedar Lake to try and delineate the location of Zebra Mussels in the lake.
- Veliger samples were also collected from 14 lakes thought to be of high risk of invasion given proximity to Cedar Lake and/or known boat movement between. No veligers were found in these samples.
- In collaboration with Environment Canada, the Aquatic Invasive Species program continued to work on indicators of aquatic ecosystem health as part of the Federal-Provincial Lake Winnipeg State of the Lake Indicators.
- As of December 31, 2016, the Canadian Food Inspection Agency assumed responsibility for permitting the movement of live fish between provinces (Domestic Movement Program) based on disease. Now that the agency has assumed all aspects of fish health, the Department of Fisheries

and Ocean's Fish Health Regulations will be rescinded along with Manitoba's delegated authority and role as Fish Health Officer. Wildlife and Fisheries still has the authority over the movement of live fish into, between and within Manitoba based on provincial and federal legislation and agreements (e.g., National Code on the Transfers and Introductions of Aquatic Organisms).

- Whiteshell and Swan Creek hatchery targets for walleye were met. The branch remains committed to increasing output for Walleye. Hatchery targets for salmonids (trout species) were surpassed. The production and distribution from the total fish hatchery system was:

Walleye Fry	40,000,000 ± 30%
Trout (fingerlings and yearlings)	300,000 ± 10%

Payments under the Northern Fisherman's Freight Assistance Program were made in a manner that provides the most appropriate and timely assistance to commercial fishers.

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

**Table WF.1
Licensed Fishers Employed in Manitoba Commercial Fishery, 2014/15**

	PART I LAKE WPG	PART II LAKE WPGOSIS	PART III LAKE MB	PART IV SPRING SUCKER CREEKS*	PART V OTHER WATERS	PART VI ADD'L WATERS	EXP'L	Total
ANNUAL LICENCE HOLDERS	776	160	299	42	446	141	17	1,786

Note: Those who fish in more than one area or season, or who fish both as hired persons and licence holders, are counted only once in the appropriate total column. Commercial fishing licenses are issued on a fiscal year basis (April 1st - March 31st). Commercial fishing statistics for 2015/16 were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

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

Table WF.2

Commercial Fishing Production (Round Weight kg), Total Value and Employment (Licensed Fishers) 2000/01 to 2014/15

Year	PART I LAKE WINNIPEG		PART II LAKE WINNIPEGOSIS		PART III LAKE MANITOBA	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
2008	6,982,370	19,623,797	1,451,871	1,285,677	928,023	1,473,616
2009	6,961,049	18,640,267	1,299,150	983,968	795,112	1,355,281
2010	6,642,285	15,792,411	794,838	814,564	395,319	769,116
2011	6,294,268	16,934,883	1,165,329	1,094,160	923,278	1,917,100
2012	6,160,613	16,266,979	994,314	1,130,288	539,974	771,167
2013	6,584,360	15,715,014	1,417,850	1,487,128	879,382	895,484
2014	6,620,172	14,715,907	1,603,042	1,794,341	1,768,312	1,600,349
2015	6,717,817	15,783,613	1,777,863	1,927,147	1,823,327	1,896,092
Total	52,962,934	133,472,871.62	10,504,257	10,517,273	8,052,728	10,678,204

Year	PART V OTHER WATERS		PART VI ADDITIONAL WATERS		EXPERIMENTAL		Total	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
2008	2,390,956	3,565,740	463,554	613,014	75,832	174,411	12,292,607	26,736,254.99
2009	2,500,119	3,443,934	344,970	524,787	90,854	214,899	11,991,253	25,163,135.20
2010	2,361,167	3,231,550	341,640	436,475	55,785	102,841	10,591,033	21,146,958.30
2011	1,870,798	2,759,028	352,298	449,720	94,245	253,647	10,700,216	23,408,537.85
2012	2,233,063	3,264,045	491,776	651,783	104,569	226,659	10,524,309	22,310,921.51
2013	1,980,002	2,743,288	474,633	716,841	51,254	97,103	11,387,481	21,654,857.39
2014	2,265,543	3,256,311	490,526	688,314	65,190	203,404	12,812,785	22,258,625.18
2015	2,322,141	3,777,148	580,472	788,911	61,567	205,282	13,283,187	24,378,193.48
Total	17,923,789	26,041,044	3,539,868	4,869,845	599,296	1,478,246	93,582,871	187,057,483.90

Note: Total value includes both Initial Value and Final Payment. Commercial fishing statistics prior to 2007/08 were based on a fiscal year (April 1st - March 31st). Statistics from 2007/08 on are based on a "fishing year" (May 1st - April 30th). Statistics for 2015/16 were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

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

Table WF.3

Commercial Fishing Production (Round Weight kg) by Area and Total Value by Species, 2014/15

Species	PART I LAKE WINNIPEG		PART II LAKE WINNIPEGOSIS		PART III LAKE MANITOBA	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
CHANNEL CATFISH	2,156	0	0	0	0	0
CISCO	92,372	130,631	0	0	353	278
COMMON CARP	35,374	21,011	92,535	61,607	530,535	346,193
FRESHWATER DRUM	1,943	1,975	0	0	0	0
GOLDEYE	18,425	25,096	8	3	0	0
MISC	933	0	0	0	12	24
LAKE WHITEFISH	2,576,366	5,170,298	71,624	116,539	32,199	50,357
NORTHERN PIKE	188,225	144,989	638,466	662,220	393,954	298,531
SAUGER	249,132	728,023	4	13	2,469	8,410
SUCKER	176,203	83,726	759,953	359,342	643,155	299,999
TROUT	108	22	0	0	9	5
WALLEYE	3,296,208	9,370,850	214,684	725,271	217,518	880,612
WHITE BASS	45,591	18,450	0	0	0	0
YELLOW PERCH	34,782	88,542	589	2,153	3,125	11,682
Total	6,717,817	15,783,613	1,777,863	1,927,147	1,823,327	1,896,092

Species	PART V OTHER WATERS		PART VI ADDITIONAL WATERS		EXPERIMENTAL		Total	
	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value	Weight (kg)	Value
CHANNEL CATFISH	0	0	0	0	0	0	2,156	0
CISCO	137,042	194,446	328	462	488	492	230,582	326,308
COMMON CARP	570	293	21,910	14,873	0	0	680,926	443,977
FRESHWATER DRUM	0	0	0	0	0	0	1,943	1,975
GOLDEYE	2,380	7,414	1	0	0	0	20,813	32,513
MISC	0	0	0	0	0	0	945	24
LAKE WHITEFISH	411,692	767,076	103,425	167,404	4,407	7,352	3,199,713	6,279,026
NORTHERN PIKE	579,577	447,081	171,245	169,095	2,383	1,538	1,973,851	1,723,453
SAUGER	2,478	6,517	25	84	0	0	254,107	743,048
SUCKER	538,106	252,570	197,214	90,378	1,993	970	2,316,623	1,086,985
TROUT	45,293	32,909	59	32	0	0	45,469	32,968
WALLEYE	604,451	2,066,877	85,257	342,862	20,650	78,817	4,438,768	13,465,288
WHITE BASS	0	0	0	0	0	0	45,591	18,450
YELLOW PERCH	551	1,966	1,008	3,720	31,646	116,115	71,701	224,178
Total	2,322,141	3,777,148	580,472	788,911	61,567	205,282	13,283,187	24,378,193

**Table WF.4
Angling Licence Sales and Revenue 1997/98 to 2014/15**

Year	Resident/Manitoba – Senior Conservation			Total: Resident of Manitoba Senior	
	Number	Fee \$	Revenue \$	Number	Revenue \$
1997/98	7,878	5.61	36,615.58	7,878	36,615.58
1998/99	8,700	5.61	40,315.00	8,700	40,315.00
1999/00	8,935	5.61	41,411.35	8,935	41,411.35
2000/01	8,532	5.61	39,537.52	8,532	39,537.52
2001/02	8,621	5.61	39,940.81	8,621	39,940.81
2002/03	8,341	5.61	38,657.01	8,341	38,657.01
2003/04	12,256	0	(9,593.98)	12,256	(9,593.98)
2004/05	12,530	0	(12,050.00)	12,530	(12,050.00)
2005/06	12,977	0	(12,491.00)	12,977	(12,491.00)
2006/07	13,923	0	(13,394.00)	13,923	(13,394.00)
2007/08	13,978	0	(13,518.00)	13,978	(13,518.00)
2008/09	14,585	0	(14,069.00)	14,585	(14,069.00)
2009/10	15,139	0	(14,579.00)	15,139	(14,579.00)
2010/11	15,353	0	(14,812.00)	15,353	(14,812.00)
2011/12	15,602	0	(15,044.00)	15,602	(15,044.00)
2012/13	16,901	0	(16,258.00)	16,901	(16,258.00)
2013/14	17,232	0	(16,533.00)	17,232	(16,533.00)
2014/15	18,028	0	(17,337.00)	18,028	(17,337.00)

Year	Resident of Manitoba- Regular			Resident of Manitoba-Conservation			Total: Resident of Manitoba (includes Sr. licenses above)	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
2004/05	44,885	15.89	669,173.65	73,934	10.28	686,978.52	131,349	1,344,102.17
2005/06	44,851	15.89	668,658.39	71,155	10.28	661,127.40	128,983	1,317,294.79
2006/07	46,810	15.89	697,872.90	74,851	10.28	695,393.28	135,584	1,379,872.18
2007/08	48,997	15.89	730,453.33	71,741	10.28	666,559.48	134,716	1,383,494.81
2008/09	50,196	18.89	898,899.44	72,379	13.28	889,604.12	137,160	1,774,434.56
2009/10	51,983	18.89	930,843.87	74,239	13.28	912,479.92	141,361	1,828,744.79
2010/11	53,284	18.89	954,034.76	72,225	13.28	887,663.00	140,862	1,826,885.76
2011/12	53,861	18.89	964,501.29	71,228	13.28	875,436.84	140,691	1,824,894.13
2012/13	58,406	18.89	1,045,817.34	77,014	13.28	946,675.92	152,321	1,976,235.26
2013/14	53,102	23.89	1,216,961.80	73,095	18.28	1,264,642.55	143,429	2,465,071.35
2014/15	54,877	23.89	1,257,524.30	70,979	18.28	1,228,002.91	143,884	2,468,190.21

Year	Resident of Canada-Regular*			Resident of Canada-Conservation*			Total: Resident of Canada*	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
1993/94	58,833	12.50	706,624.50	73,227	7.50	512,963.00	132,060	1,219,587.50
1994/95	57,783	12.50	694,044.00	77,716	7.50	544,498.00	135,499	1,238,542.00
1995/96	55,235	12.50	663,355.00	76,844	7.50	538,289.00	132,079	1,201,644.00
1996/97	52,158	12.50	626,742.00	75,081	7.50	526,422.50	127,239	1,153,164.50
1997/98	51,859	14.02	676,760.18	73,603	8.41	546,849.23	125,462	1,223,609.41
1998/99	57,381	14.02	748,238.62	84,000	8.41	623,386.00	141,381	1,371,624.62
1999/00	57,567	14.02	750,690.37	84,938	8.41	630,356.58	142,505	1,381,046.92
2000/01	56,092	14.02	731,276.84	85,256	8.41	632,700.96	141,348	1,363,977.80
2001/02	56,951	14.02	742,473.02	86,223	8.41	639,893.43	143,174	1,382,366.45
2002/03	54,801	14.02	714,456.02	81,629	8.41	605,678.89	136,430	1,320,134.91
2003/04	53,995	14.02	703,974.90	82,576	8.41	612,873.16	136,571	1,316,848.06
2004/05	1,906	37.38	69,383.28	8,939	18.69	158,350.91	10,845	227,734.19
2005/06	1,705	37.38	62,055.90	8,495	18.69	150,422.55	10,200	212,478.45
2006/07	1,831	37.38	66,634.78	9,106	18.69	161,263.14	10,937	227,897.92
2007/08	2,101	37.38	76,469.38	9,139	18.69	161,851.91	11,240	238,321.29
2008/09	2,043	40.38	80,495.34	9,626	21.69	199,366.94	11,669	279,862.28
2009/10	2,150	40.38	84,714.00	10,055	21.69	208,258.95	12,205	292,972.95
2010/11	2,085	40.38	82,149.30	9,759	21.69	202,126.71	11,884	284,276.01
2011/12	2,275	40.38	89,632.50	9,886	21.69	204,829.34	12,161	294,461.84
2012/13	2,603	40.38	102,544.14	10,488	21.69	217,254.72	13,091	319,798.86
2013/14	2,392	45.38	106,222.96	10,070	26.69	258,783.90	12,462	365,006.86
2014/15	2,562	45.38	113,752.56	9,930	26.69	255,199.10	12,492	368,951.66

Year	Non-Resident of Canada – Regular			Non-Resident of Canada – Conservation			Total: Non-Resident of Canada	
	Number	Fee \$	Revenue \$	Number	Fee \$	Revenue \$	Number	Revenue \$
1993/94	8,770	32.50	280,744.00	20,742	17.50	352,905.50	29,512	633,649.50
1994/95	8,299	32.50	265,668.50	21,906	17.50	372,702.50	30,205	638,371.00
1995/96	7,821	32.50	250,369.50	22,448	17.50	381,856.00	30,269	632,225.50
1996/97	6,840	32.50	218,945.50	21,757	17.50	370,199.50	28,597	589,145.00
1997/98	6,712	37.38	244,557.56	23,406	20.56	458,473.36	30,118	703,030.92
1998/99	7,149	37.38	260,237.62	26,223	20.56	513,312.88	33,372	773,550.50
1999/00	7,192	37.38	261,840.96	27,151	20.56	531,532.56	34,343	793,373.52
2000/01	6,130	37.38	223,166.40	29,959	20.56	586,452.04	36,089	809,618.44
2001/02	6,120	37.38	222,788.60	27,716	20.56	542,490.96	33,836	765,269.56
2002/03	6,075	37.38	221,122.50	26,121	20.56	511,251.76	32,196	732,374.26
2003/04	5,974	37.38	217,466.12	24,952	20.56	488,348.12	30,926	705,814.24
2004/05	4,755	51.40	239,777.00	24,089	28.04	651,714.56	28,844	891,491.56
2005/06	4,271	51.40	215,364.40	23,116	28.04	625,376.64	27,387	840,741.04
2006/07	3,694	51.40	186,241.60	21,353	28.04	577,719.12	25,047	763,960.72
2007/08	3,331	51.40	167,975.40	20,448	28.04	553,163.92	23,779	721,139.32
2008/09	2,773	54.40	148,145.20	17,597	31.04	528,931.88	20,370	677,077.08
2009/10	2,637	54.40	140,908.80	14,801	31.04	444,855.04	17,438	585,763.84
2010/11	2,509	54.40	134,064.60	15,275	31.04	459,135.00	17,784	593,199.60
2011/12	2,472	54.40	132,084.80	14,259	31.04	428,605.36	16,731	560,690.16
2012/13	2,722	54.40	145,451.80	14,779	31.04	444,361.16	17,501	589,812.96
2013/14	2,455	59.40	143,406.90	14,490	36.04	508,288.50	16,945	651,695.40
2014/15	2,696	59.40	157,501.48	15,546	36.04	545,311.30	18,242	702,812.78

Year	Total Regular Licences		Total Conservation Licences		Total Licences	
	Number	Revenue \$	Number	Revenue \$	Number	Revenue \$
1993/94	67,603	987,368.50	93,969	865,868.50	161,572	1,853,237.00
1994/95	66,082	959,712.50	99,622	917,200.50	165,704	1,876,913.00
1995/96	63,056	913,724.50	99,292	920,145.00	162,348	1,833,869.50
1996/97	58,998	845,687.50	96,838	896,622.00	155,836	1,742,309.50
1997/98	58,571	921,317.74	104,887	1,041,938.17	163,458	1,963,255.91
1998/99	64,530	1,008,476.24	118,923	1,177,013.88	183,453	2,185,490.12
1999/00	64,759	1,012,531.20	121,024	1,203,300.49	185,783	2,215,831.79
2000/01	62,222	954,443.24	123,747	1,258,690.52	185,969	2,213,133.76
2001/02	63,071	965,251.62	122,560	1,222,325.20	185,631	2,187,576.82
2002/03	60,876	935,578.52	116,091	1,155,587.66	176,967	2,091,166.18
2003/04	59,969	921,441.02	119,784	1,091,627.30	179,753	2,013,068.32
2004/05	51,546	978,333.93	119,492	1,484,993.99	171,038	2,463,327.92
2005/06	50,827	946,078.29	115,743	1,424,435.59	166,570	2,370,513.88
2006/07	52,335	950,749.28	119,233	1,420,981.50	171,568	2,371,730.70
2007/08	54,431	974,898.11	115,306	1,381,575.31	169,737	2,356,473.42
2008/09	55,012	1,127,539.98	114,187	1,617,902.94	169,199	2,745,442.92
2009/10	56,770	1,156,466.67	114,234	1,565,593.91	171,004	2,707,482.00
2010/11	57,878	1,170,248.66	112,612	1,548,924.71	170,490	2,719,173.37
2011/12	58,608	1,186,218.59	110,975	1,493,827.54	169,583	2,680,046.13
2012/13	63,731	1,293,813.28	119,182	1,608,291.80	182,913	2,885,847.08
2013/14	57,949	1,466,591.66	114,887	2,031,714.95	172,836	3,481,773.61
2014/15	60,135	1,528,778.34	114,483	2,028,513.31	174,618	3,557,291.65

Note: Total Revenue figure are net (less vendor's commission). Resident of Manitoba Senior's Conservation Licences were introduced in 1998/99. Starting with the 1999/2000 season – angling licences will be valid from May 1 – April 30. Licence sale statistics for the 2014/2015 annual report will be based on the most recent complete season (ex: the 2013/2014 season).

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

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

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

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

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

Table WF.7
12.4(c) Wildlife and Fisheries

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	3,816	60.35	3,816	0	
Other Expenditures	2,096		1,975	121	1
Grant Assistance	924		924	0	
Northern Fisherman's Freight Assistance	410		410	0	
Total 12.4(c)	7,246	60.35	7,125	121	

1. Over-expenditure due to Zebra Mussel Program Costs.

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:

Conserved, restored and enhanced Manitoba wildlife habitat, particularly those habitats important to species at risk, and developed and implemented relevant land stewardship initiatives.

- Supported Critical Wildlife Habitat Program stewardship projects on mixed-grass and tall-grass prairies.
- Provided a portion of the funding for cost-sharing initiatives funded by Habitat Stewardship Program where a minimum 1:1 match is required. See detail on project accomplishments under Biodiversity, Habitat and Endangered Species Section.

Table HE.1

12.4(d) Habitat Enhancement Fund

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(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 was established in 2014 under authority of *The Fish and Wildlife Enhancement Fund Act* and its regulation (57/2014). The fund is supported by imposts on angling, hunting and trapping licences. Manitoba Sustainable Development administers this Fund in support of 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. The Fisheries Enhancement Subcommittee reviews and makes recommendations on all fisheries enhancement initiatives that seek funding. The Wildlife Enhancement Subcommittee reviews and makes recommendations on all wildlife enhancement initiatives that seek funding. These committees are comprised of representatives of fishing organizations, and hunting and trapping organizations.

Fisheries Enhancement

The Fisheries Enhancement Subcommittee met on two separate occasions (May 28, 2015, and November 26, 2015) to review 23 projects. Of the 23 projects, 17 were approved as follows:

- *Preliminary Assessment of Movements of Channel Catfish in the Red River using Passive Telemetry* - Evaluating the movements of channel catfish in the Red River to better understand how connected the populations are and how susceptible these populations are to exploitation.
- *Fly Fishing Education* - Providing education programs at high schools and at new locations around the province, and inviting fly fishing experts to conduct educational seminars.
- *McIntyre Anglers Program* - Providing a fishing education program to Daniel McIntyre School students.
- *Assessment Program Co-operative Education Students* - Hiring two Co-op students for 4 months to support monitoring and assessment of fish stocks, to age fish structures and to process fish samples.
- *McIntyre Anglers Ice Fishing Program* - Teaching youth sustainable ice fishing practices.
- *Extensive Assessment of Channel Catfish Movement Patterns in the Red River* - Gaining an understanding of movements of channel catfish to develop management practices to sustain this resource.
- *FLIPPR Lakes – Trout Assessments Lake Management* - Assessing trout populations and impact management required to reduce invasive non-trout species and implement the same.
- *Summer Student Local Initiatives* - Having student's upkeep and maintain the Ryz Fish Bypass, Uncle Bobs Trout Pond, Vermillion Reservoir Parking Area, Valley River Boat Launch and any other sites that are the responsibility of Intermountain Sport Fishing Enhancement Inc.
- *Swan Valley Sport Fisheries Enhancement Integrated Fisheries Assessments, Maintenance and Monitoring 2016* - Continuing to enhance local fisheries through research, improving fishing access, stocking and providing education/awareness.
- *Singush Lake Trapnetting Fish Population Assessment* - Continuing with second year of a fish community and walleye population assessment in Singush Lake with the goal of achieving better species and age class representation.
- *Assessment and Maintenance of Stocked Trout Water Bodies* - Assessing trout growth and health and removal of competing fish species that negatively impact stocked trout.
- *Beautiful Lake Walleye Transfer* - Relocating provincially stocked walleye into other suitable western region water bodies as sub-adult and adult walleye.
- *Nikon Camera, Touchscreen and Software for Microscope* - Replacing ageing equipment to further the advances of the Assessment Program, keep equipment current and improve overall efficiency of ageing.
- *Fish Ageing and Technical Work to Support Assessment Program* - Supporting consistent and timely technical work for fish ageing and other Assessment Program priorities.
- *Recreational Fishing Bathymetry Mapping Project* –Conducting sonar surveys on 20 popular angling lakes to enhance and develop bathymetry data for angling contour maps.
- *Trap and Gill Netting Assessment of Fish Communities in Dauphin Lake* - Assessing fish communities in Dauphin Lake with goal of better species and age class representation with less mortality while increasing geographic and habitat type coverage of the lake.

- *Trap and Gill Netting Assessment of Fish Communities in Dauphin Lake 2* - Gaining a better understanding of species and age class representation with less mortality while increasing geographic and habitat type coverage of lake.

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

The annual Fish Enhancement Stamp Competition was held in August 2015. The winning artwork “Lake Sturgeon – Living Fossil” painted by Lois Hogg was unveiled at Oak Hammock Marsh Interpretive Centre.

Wildlife Enhancement

The Wildlife Enhancement Subcommittee met on December 14, 2015, to review 17 first intake proposal applications. Of the 17 projects 10 were approved as follows:

- **Whiteshell Trappers’ Museum Public Education Program** - Informing the highly urban population that visits the Whiteshell Provincial Park about local animals and the history and role of trapping in the area to sustain wildlife.
- **East Side Futures Meeting** - Brining together various stakeholders who hunt moose in order to better understand the amount of moose harvest that takes place in the area and the timing, hunting methods, and population dynamics of the harvest.
- **Duck Mountain Trapper’s Education Center** - Developing a Trapping Education Center to create awareness of the trapping industry, both old and new, and allow the general public to have a better understanding of trapping methodologies, standards and its use in effectively managing wildlife populations.
- **Educator and Student Experiential Learning of Wildlife and Fisheries Management** - Providing educators and high school students the opportunity to learn about wildlife and fisheries management through experiential learning in Nopiming Provincial Park.
- **North Interlake Elk Population Range Delineation and Population Estimate** - Providing information on elk population seasonal distribution and range/habitat use.
- **Moose-Wolf Dynamics in Manitoba – How do Wolves Affect Moose?** - Providing quantitative information on the impacts of wolves on moose in Manitoba.
- **50th North American Moose Conference and Workshop and 8th International Moose Symposium** - Assisting in bringing together wildlife managers, researchers and students from across the globe to tackle the myriad of management issues with moose across its range in North America, Europe and Asia.
- **Creating a Comprehensive Hunting Recruitment Plan and Information System for Manitoba** - Creating a comprehensive hunting and recruitment plan and information system that will allow all hunting and shooting recruitment project partners to increase participation of Manitobans in hunter education, shooting skills and hunting, and to evaluate the overall success of the various recruitment activities in creating and retaining new hunters.
- **Home Range and Seasonal Movements of Caribou-Vita Cross Boarder (Manitoba-Minnesota) Elk Herd** - Advancing the understanding of the elk herd by placing GPS collars on 8 cow elk in Manitoba and monitoring their movements, seasonal ranges and habitat use across both jurisdictions.

- **Sharp-Tailed Grouse Harvest Survey** - Providing a metric for monitoring population status of sharp-tails, evaluate current season dates and bag limits, and ensure that harvest managements decisions are made using the best available data.

Fisheries Enhancement Fund	
Opening Fund Balance (April 1, 2016) (000s)	<u>269</u>
2015/16 Financial Summary	
Revenue	
Angling License Impost Revenue	1688
Expenses	
Funded Projects	370
Fish Hatchery Programs	850
Administration	<u>36</u>
	<u>1256</u>
Annual Net Income	<u><u>432</u></u>
Closing Fund Balance (March 31, 2016) (000s)	<u>701</u>
Wildlife Enhancement Fund	
Opening Fund Balance (April 1, 2016) (000s)	<u>316</u>
2015/16 Financial Summary	
Revenue	
Hunting and Trapping License Impost Revenue	335
Restitution	2
	337
Expenses	
Funded Projects	249
Administration	<u>11</u>
	<u>260</u>
Annual Net Income	<u><u>75</u></u>
Closing Fund Balance (March 31, 2016) (000s)	<u>391</u>

Conservation District and Watershed Assistance

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

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

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

In 2015/16 provincial grants totalling \$5,312,000.00 were provided as follows:

Alonsa	\$ 267,500.00
Assiniboine Hills	\$ 316,000.00
Cooks Creek	\$ 295,000.00
East Interlake	\$ 300,000.00
Intermountain	\$ 268,000.00
Kelsey	\$ 155,000.00
Lake of the Prairies	\$ 200,000.00
La Salle Redboine	\$ 225,000.00
Little Saskatchewan River	\$ 200,000.00
Pembina Valley	\$ 359,500.00
Seine-Rat River	\$ 378,000.00
Swan Lake Watershed	\$ 225,000.00
Turtle Mountain	\$ 303,000.00
Turtle River Watershed	\$ 417,500.00
Upper Assiniboine River	\$ 270,000.00
West Interlake Watershed	\$ 200,000.00
West Souris River	\$ 203,500.00
Whitemud Watershed	\$ 687,000.00
Boyne-Morris Integrated Watershed Management Plan	\$ 25,000.00
Board Governance Training	\$ 17,000.00
Total:	\$ 5,312,000.00

- Maintained 2,650 km of waterways and 3,765 crossings

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

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Other Expenditures	5,312		5,312	0	
Less; Recoverable from other Appropriations	(1,165)		(1,165)	0	
Total 12.4(e)	4,147		4,147	0	

Office of Drinking Water

For 2015/16, the Office of Drinking Water continued to focus on expansion of the semi-public water system program; implementation of compliance planning processes to address the microbiological, chemical and physical standards that came into force in 2012; and enforcement action to address the most critical non-compliance issues related to disinfection and bacteriological monitoring standards. The Office continues to monitor construction and operation of licensed public and semi-public water systems and to provide educational materials and technical support to private water system owners, as required. In fulfillment of these responsibilities, the Office of Drinking Water:

- Released an interactive map to the website that allows the public to identify the location of drinking water advisories and obtain related information.
- Issued 58 public and 13 semi-public water system permits under *The Drinking Water Safety Act*, and completed 29 post-commissioning inspections of newly constructed or upgraded water treatment plants.
- Issued 19 new public water system operating licences, 33 public water system operating licence renewals and 46 public water system operating licence amendments. Municipal amalgamations affected 8 public water systems, which helped to reduce the total number of licensed public water systems to 390 by the end of the fiscal year. Key amendments included the addition of standards and monitoring requirements for haloacetic acids (HAAs) for systems using surface water or groundwater under the influence of surface water.
- Issued 49 new semi-public water system licences bringing the total number of licensed semi-public water systems to 300.
- Monitored raw and treated water quality for 437 public water systems and 500 semi-public water systems, including review of laboratory analytical results for bacteriological, chemical and physical parameters. Monitored systems include newly identified systems that have not yet been licenced.
- Undertook 194 routine and unscheduled on-site inspections of public water systems to assess their ability to reliably produce and distribute safe water, and 96 inspections of semi-public water systems to assess their safety and reliability, and to initiate the semi-public water system licensing process.
- Prepared 384 public water system report cards (annual audits) assessing the performance of these systems with respect to the conditions outlined in their operating licences. These annual audits are distributed to public water system owners, and are available to the general public on request.
- Reviewed Assessment of Water System Infrastructure and Water Sources for 56 public water system and 7 semi-public water system. The Assessments are intended to support owners and operators in identifying and prioritizing water system improvement needs.
- Reviewed 31 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. Twelve compliance plans were approved. Key requirements relate to the technical feasibility and estimated performance of the proposed upgrade; the ability of the system to secure funding for the upgrade; and appropriate timelines for implementation.
- Took enforcement action to address the most critical non-compliance issues associated with bacteria and disinfection standards, including issuance of 38 warnings, 2 common offence notices (tickets), and 22 letters of direction.
- Continued to work with Manitoba Health, Seniors and Active Living and the Regional Health Authorities on drinking water quality advisories as needed to mitigate the impacts of non-compliance.

Of note, a long-term advisory relating to naturally-occurring arsenic in the source water for the Town of Virden was rescinded as treatment processes are now confirmed sufficient to address the concern.

- Updated the public and semi-public water system boil water advisory lists on the department website to provide additional clarity on the size and type of system, the location, and the length of time the advisory is expected to remain in place.
- Updated existing Boil Water Advisory fact sheets to assist the public in understanding and responding to advisories.
- Removed long-term boil water advisories on 14 private well communities and created a web page for private well owners with information on understanding and mitigating the risks of well water contamination.
- Issued two public notices to private well owners in response to positive bacteria test results in the communities of Oakbank and Grand Marais. Issued two public notices to private surface water system owners in response to blue green algae/cyanobacteria concerns around Dauphin Lake and Kerrs Lake.
- Conducted private well sampling in Onanole area in response to potential trichloroethylene (TCE) contamination.
- Answered more than 763 telephone inquiries from private well owners concerned about their water.
- Coordinated Enforcement training for 21 Drinking Water Officers through Northwest Law Enforcement Academy in support of continued enforcement efforts.
- Reviewed and commented on 111 *Environment Act* submissions and two drinking water plans as part of the ongoing Technical Advisory Committee work.
- Reviewed and commented on 142 subdivision proposals and planning documents.
- Continued to provide support to the provincial Water and Wastewater Certification Program, to provide lectures for the Water and Wastewater School for operators through Red River Community College and technical seminars for Manitoba Water and Wastewater Association's Annual Conference and workshops.

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

Expenditures by Sub- appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	2,247	28.00	2,171	76	
Other Expenditures	589		665	(76)	
Total 12.4(f)	2,836	28.00	2,836	0	

Drainage and Water Control Licensing

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

Key Results Achieved:

- Licensing – Drainage and Water Control Works Licensing Branch received 1,244 new applications and issued 989 licenses. More than 2,000 subdivisions and 1,000 Crown land development proposals were reviewed by Branch staff. Branch staff responded to approximately 2,800 formal drainage complaints
- Enforcement – A total of 135 charges under The Water Rights Act were issued last year. Of those files, completed 35 fines were issued. The fines ranged from \$500 to \$6,500. Sixteen “long-form” charges were laid and twenty Orders were issued. Fines, charges and orders are issued to ensure compliance with *The Water Rights Act*.

Table DW.1

12.4(g) Drainage and Water Control Licensing

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,539	22.00	1,448	91	
Other Expenditures	541		407	134	1
Total 12.4(g)	2,080	22.00	1,855	225	

1. Over-expenditure due to Water Right Act order enforcement costs.

Water Use Licensing

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

Water Rights Licensing Program:

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

Key Results Achieved:

- Continued improvement in processing new and existing applications for Water Rights Licences.
- Number of active and approved water use licences is the highest ever in the Section's history.

Water Power Regulation and Crown Land Development Review:

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

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

Key Results Achieved:

- Consultations between the Crown and First Nations, Métis, and other Aboriginal communities about government decisions that might affect the exercise of Treaty or Aboriginal rights, for a number of Manitoba Hydro projects. The hydro projects that are currently the subject of a Section 35 Crown/Aboriginal consultation process include: the Churchill River Diversion, the Lake Winnipeg Regulation, and, the Jenpeg Generating Station for Water Power Final Licences.
- Documents that may be of interest to the general public continue to be added to the Water Power Licensing component of the government website as they become available.

Table WU.1
12.4(h) Water Use Licensing

Expenditures by Sub- appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,038	20.00	1,275	(237)	1
Other Expenditures	144		219	(75)	
Total 12.4(h)	1,182	20.00	1,494	(312)	

1. Under expenditures in Salaries due to vacancies.

Table SD.1

12.4(I) Recoverable from Sustainable Development Innovations Fund

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Less: Recoverable from Sustainable Development Innovations Fund	(2,410)		(2,410)	0	
Total 12.4(I)	(2,410)		(2,410)	0	

Watershed and Land Use Planning

The Watersheds Branch is comprised of the Strategic Initiatives section and the Watershed Planning and Programs section. The Branch:

- Coordinates the development of planning initiatives and programs to manage and ensure the sustainability of Manitoba's resources and environment.
- Provides advisory and planning services to the Conservation Districts Program as per the *Conservation Districts Act*.
- Implements Integrated Watershed Management Planning as per the provisions of *The Water Protection Act*.
- Develops and implements a new integrated Surface Water Management Strategy involving all stakeholders.
- Contributes significant climate change adaptation through management and protection of watersheds for ecosystem resilience.
- Builds capacity in water stakeholder groups to improve their participation in water management and decision making.
- Coordinates the development of a Wetland Inventory for Manitoba with Manitoba Habitat Heritage Corporation and other stakeholders.
- Maintains effective relationships with other governments, non-government organizations, producer organizations and Aboriginal organizations.

Healthy, well-managed watersheds, holistic water strategies, and the network of local watershed organizations provide a natural legacy for future generations and promote human physical, mental and spiritual well-being. They help conserve land and water where Aboriginal people can continue traditional activities such as trapping, hunting, fishing and medicinal plant collection. They also provide a range of ecological services which have economic benefits to communities and businesses including natural regulation of water flow, water quality improvement, carbon storage and biodiversity conservation.

Key Results Achieved:

- Continued coordination of implementation of a new integrated Surface Water Management Strategy, which includes input from all levels of government, Aboriginal groups, non-governmental environmental organizations, agricultural, industry, and academia. 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.
- Celebrated the completion of the Swan Lake Watershed, Westlake, East Duck Sagemace Bay, and Central Assiniboine Lower Souris River Integrated Watershed Management Plans.
- Continued work with 11 water planning authorities to develop integrated watershed management plans with consideration to land and water management, conservation, drinking water quality and aquatic ecosystem protection.
- Oversaw the development of the protocol for aligning Manitoba's Wetland Inventory with the Canadian Wetland Inventory standard and the completion of a significant portion of the peatland inventory.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	1,062	14.00	1,074	(12)	
Other Expenditures	175		174	1	
Total 12.4(j)	1,237	14.00	1,248	(11)	

Forestry and Peatlands Management

The Forestry and Peatlands Management Branch plans, manages and allocates forest and peat resources for the long-term social, economic and environmental benefit of Manitobans.

To achieve these results, the Branch is organized into three areas:

- Inventory and Resource Analysis
- Health and Renewal
- Management and Development

The Branch works from a central office in Winnipeg and several regional offices, and is comprised of approximately 60 professional, technical and support staff. The central office sets the policy and planning framework for forest and peatlands management and develops and administers the programs on a provincial basis. Regional forestry staff from Lac du Bonnet, Gimli, Swan River, The Pas and Thompson, implements forest management programs on behalf of the Department.

The Branch website - www.gov.mb.ca/conservation/forestry

New The Peatlands Stewardship Act.

- *The Peatlands Stewardship Act* was proclaimed on June 15, 2015, promoting a balanced approach between protecting peatland ecosystems and responsible harvesting by industry.
- As a result of the new legislation, approximately 200 peat quarry leases were replaced by 22 peat harvest licences. Presently, there are 11 peat harvesting companies with licences to operate in Manitoba.
- The province is also working in partnership with industry, academia and NGOs to develop comprehensive peatland inventory and design field sampling methods, including the designation and protection of provincially significant peatlands.

Inventory and Resource Analysis

This Section supports the Branch in managing Manitoba's forest resources through three program areas: Forest Inventory, Forest Productivity, and Resource Analysis

Inventory Program

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

Key Results Achieved

- The inventory continued to be developed for Tolko's Forest Management License 2 (FML #2) area of the Nelson River Forest section. A total of 1.3 million hectares has been interpreted. Photo-interpretation of the Nelson River Forest Section is anticipated to be completed by the next year.
- In collaboration with the National Forest Inventory (NFI) section of the Canadian Forest Service, staff completed the re-measurement of 8 NFI ground plots. The data collected will be used to monitor forest change in the future.

Forest Productivity Program

The Forest Productivity Program implements field sampling programs, manages associated growth and yield data, and uses statistical techniques to create models for consistently predicting the growth, decay,

yield and quality of Manitoba's forests. The program also provides the base information to assist in timber supply, sustained yield projections and assessments of forest carbon storage and dynamics

Key Results Achieved

- During the 2015-16 reporting period, 52 Permanent Sample Plots (PSPs) were re-measured and 8 new plots were established. The field data collected was added to the existing database. The PSPs program is a long term program that monitors the growth and change of provincial forests over time through re-measuring trees from plots established across the province.
- Completed a study exploring impacts of climate change on site productivity of Manitoba's forests using provincial wide climate and stem analysis data. The results will be incorporated into Manitoba-Variant Growth and Yield Prediction System (MGYPSY) for predicting future forests impacted by climate change.
- A report was completed for the development of (MGYPSY) which will provide a potential option for forecasting yields of Manitoba's forests to support wood supply analysis.
- Developed transition matrices using silviculture survey data and mortality models which were adopted for MGYPSY to determine succession/transition of stands after harvest for FMU13. The work provides support for wood supply analysis for the area.
- Documented the development of strata-based yield curves for FMUs 11 and 12

Resource Analysis Program

Wood Supply and Resource Modeling supports forest management planning at the strategic, tactical and operational levels by determining sustainable harvest levels (referred to as Annual Allowable Cuts or AAC) ensuring 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 calculation of forest biomass and carbon sequestration, integration of new principles of forest ecology and landscape design, and incorporation of natural disturbances, forest succession and wildlife habitat forecasting into forest ecosystem modeling.

Key Results Achieved

- The wood supply for Forest Management Units 11 and 12, and a portion of the Mountain Forest Section, was completed.
- FIRA collaborated with the Canadian Forest Service (CFS), the Canadian Council of Forest Ministers' Climate Change Task Force (CCFM-CCTF), and the Saskatchewan Research Council (SRC) to conduct a case study on assessing the vulnerability of the Pineland Forest Section to climate change using modeling and simulation techniques (LANDIS-II and PnET models) and the CCFM-CCTF adaptation framework approach. Two reports were produced for each approach.
- FIRA organized a workshop titled Adapting Manitoba Forests to Climate Change: Challenges and opportunities. The workshop brought together forestry staff and representatives from the forest industry, CFS and the Canadian Boreal Forest Agreement, to discuss how to incorporate climate change into forest management planning and to promote the use of existing CCFM-CCTF adaptation information, resources and decision-support tools.
- FIRA collaborated with the National Forests Sinks Committee (NFSC) in a study that analyzed the cost and mitigation potential of increased use of forest harvest residues for bio-energy in Manitoba (and other jurisdictions).

Health and Renewal Program

This section ensures successful renewal of harvested Crown forested lands, conducts monitoring and control programs to reduce damage from invasive and native forest insects and disease and delivers urban forestry programs to engage communities to enhance forests within urban areas throughout Manitoba.

Renewal Program

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

Key Results Achieved

- White spruce trees were planted along CentrePort Canada Way in an effort to reduce the effects of greenhouse-gas emissions, while improving public safety by blocking wind and decreasing drifting snow in the winter.
- In 2015, the renewal program contracted the planting of 1,765,000 trees on approximately 1,100 ha of Crown land. This was accomplished through 4 tendered contracts, of which 1 was awarded to a First Nation company through Aboriginal tree planting initiatives. An additional 501,000 trees were planted through a forestation initiative via 4 tendered contracts.
- Renewal surveys were conducted on 805 ha of renewal blocks, 222 ha of hardwood blocks, and 583 ha of softwood blocks. Of the hardwood renewal areas surveyed, 222 ha achieved the provincial regeneration standards. Free to Grow (FTG) surveys were performed on 1,840 ha of softwood-dominated forest stands. The surveys indicate a total of 1,565 ha have achieved the provincial FTG standard for softwood leading renewal blocks.
- A total of 27 hectoliters of Red Pine cones was collected in 2015 for future renewal efforts across the province. The Branch continues to maintain a seed bank with a forecasted 3 year supply of seed. There are 14 seed orchards for jack pine, white spruce and black spruce and 27 associated family tests across the province.

Forest Health Program

The Forest Health program monitors the health of Manitoba's urban, rural and Crown forests. Surveys and control programs are delivered to reduce the damage from native and invasive forest insects and disease. The program collaborates with local, national and international governments and organizations to ensure continued improved forest pest management for the province. Management programs, surveys, research and public education on forest insect and diseases are also conducted.

Key Results Achieved

- Monitoring continued for spruce and jack pine budworm. Ground plots and aerial defoliation surveys supported monitoring efforts to determine population levels and the potential necessity for a control program. Low populations of spruce budworm were observed in 2015, while an emerging population of jack pine budworm was detected in the Interlake.

An outbreak of Ips beetles was detected in the southeast portion of Manitoba. Pine stands in the area are under stress due to climatic factors.

- Monitoring for the invasive Emerald Ash Borer (EAB) continued with 34 green sticky traps placed at high-risk locations across the province. Communities were encouraged to participate in monitoring

efforts and supplement trap placements. In 2015, EAB was not detected in Manitoba. The Province also collaborated with the Canadian Food Inspection Agency on a project to determine the presence of a wasp (*Cerceris fumipennis*) that preys on beetles in the same family as EAB. These wasps have been used to detect new infestations of EAB in other areas. Work on this project will continue in 2016.

- Monitoring for the invasive European gypsy moth continued throughout Manitoba in 2015. Low numbers were observed for the majority of sampled areas; however, an expanding population was detected in the RM of Lac du Bonnet in 2014. An eradication program was implemented in 2015, to control this emerging population of European gypsy moth. Three aerial applications of Foray 48B were applied over the 230 hectare treatment area. Monitoring within the treatment area revealed evidence that European gypsy moth is still present in the treatment area. An intensive trapping operation will be implemented in 2016, to eradicate the residual population.
- Four firewood collection bins along three major highways into Manitoba are monitored to help prevent the establishment of invasive forest pests through the movement of firewood. These bins, along with informative highway signs, warn the public that by transporting firewood they may be spreading invasive forest pests.

Urban Forestry Program

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

Key Results Achieved

- The Dutch Elm Disease (DED) management program is delivered within 38 participating communities throughout Manitoba. In 2015, the Province introduced changes to the program to establish a partnership approach with participating communities. The changes involved communities assuming responsibility for the removal of infected trees with financial support from the province. These changes are being phased in over two years. The province will continue to coordinate the delivery of the program, conduct annual detection surveys, and provide funding to support preventative maintenance and tree removals. The partnership approach will increase community participation and enhance protection efforts for Manitoba's urban forests. In 2015, detection surveys marked a total of 4,652 DED infected trees and 52 piles of elm firewood.
- The new provincial heritage tree program was launched on October 1, 2015. The program has been developed in partnership with the Manitoba Forestry Association and Trees Winnipeg. The launch took place at the Argyle School (formerly the Point Douglas School) in Winnipeg. Three trees, including the prominent cottonwood at the Argyle School, were officially recognized as heritage trees during the launch. The program is intended to raise public awareness and recognize trees with exceptional environmental, cultural, social, economic or historic significance to Manitobans and provide opportunities for their increased protection.
- Public outreach continued in 2015, with attendance at events, such as the Cottage Show, Arbor Day in Winnipeg, Eco Day in May and Enviro Expo in Brandon. An event at the West St. Paul School saw more than 200 trees planted with students at the school. Staff also participated in the provincial Envirothon event with the Manitoba Forestry Association.

Forest Management and Development (FMD)

This Section provides cutting authorities, establishes conditions for all forestry operations, tracks and monitors timber harvesting, and collects associated timber dues and charges. The Section also fosters economic development by supporting new and existing industry and by facilitating increased Aboriginal participation in the forest sector.

Timber Administration Program

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

Key Results Achieved

- Commodity prices for Kraft continued at an all time high throughout 2015/16. This combined with the strong US dollar, had Standard Distance Kraft dues rates ranging from \$5.40 to \$6.88/m³.
- Oriented Strand Board (OSB) dues rates fluctuated between base rates and slightly above through the year. Softwood Lumber and Newsprint dues remained at base rate throughout 2015/16.
- In total, 1,070,187 m³ of Crown timber was harvested in Manitoba and \$2,682,180.89 in revenue was collected from Timber Dues and Charges in 2015/16. The OSB mill in the Swan Valley underwent a conversion to a siding mill. Tolko Industries Ltd. had a mill shut down in order to reduce inventory. Tolko Industries Ltd is getting approximately 300,000 m³ of residue chips and logs from Saskatchewan, reducing the amount of wood used from Manitoba. Revenues remain low, due to reduced dues and charges attributed to the Eastern Region winter storm damaged salvage program.
- Jack Pine budworm salvage has started in the Central Region and is expected to continue for the next several years. In the Eastern Region, there was over 88,000 m³ of salvage delivered with a reduction in timber dues and charges of \$630,420.
- In 2015/16, Tolko 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.

Forest Management Planning and Forest Practices Program

The program provides a lead role in strategic forest management planning; supports regional counterparts with operational planning and coordinates the development of various forest practice guidelines.

Key Results Achieved

- The Forest Practices Committee, comprised of representatives from other branches and departments of the Government of Manitoba and the forest industry, continues to develop guidelines for forestry practice.
- Tolko submitted a two year Operating Plan covering 2015/16 and 2016/17 which were approved subject to ongoing Section 35 Consultation efforts.
- Annual meetings were held with Louisiana Pacific (LP) and Tolko.
- Annual reports were submitted by both LP and Tolko. Both reports were reviewed and accepted.
- The FML #3 FMP team met on a regular basis throughout 2015/16 and continued to make progress towards the development of a new Forest Management Plan.

Wood Measurement Program

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

Key Results Achieved

- A Manitoba issued scaling licence is required for the measurement of harvested Crown timber before it is moved from the site on which it was harvested, and for the purpose of preparing timber returns or reports.
- A five-day scalers course was held in Swan River in April/May 2015 resulting in the licensing or recertification of 12 provincial timber scalers. At the end of the reporting period, there were 73 licensed scalers in Manitoba. Improvements to the course are ongoing based on feedback from previous courses.
- Planning and Development instituted a revised and streamlined methodology for renewing a scaling license in Manitoba. In March 2016, eighteen persons wrote the exam to renew their scaling licenses.
- Manitoba hosted the annual CSA technical meeting on scaling of primary forest products. Committee members from across Canada attended.

Legislation and Policy Program

All forestry activities must be properly authorized and approved. The Branch works within *The Forest Act*, *The Forest Health Protection Act*, *The Peatlands Stewardship and Related Amendments Act*, associated regulations and forestry policies.

Key Results Achieved

The 2006 Canada/United States Softwood Lumber Agreement (2006 SLA) was a bilateral trade agreement which provided certainty and security to Canadian Softwood lumber producers who export into the United States. The 2006 SLA expired in October 2015. As part of the provincial Heads of Delegation, Manitoba participated in regular discussions with both federal and provincial representatives on matters relating to a potential new agreement.

The Branch continues to promote economic development and support the existing forest industry. The Section provides advice and support to regional staff and other departments on forestry Crown-Aboriginal consultation and continues to facilitate increased Indigenous participation in the forest sector.

Key Results Achieved

- **Indigenous Youth Forestry Camp in Northern Manitoba**
In August of 2015, sixteen students from northern Manitoba participated in a Forestry camp at Egg Lake where they were introduced to forestry in northern Manitoba. At camp, students learned Forestry skills, toured the Tolko mill and discovered career opportunities in Forestry. This camp was made possible with help from the Northern Manitoba Sector Council, Opaskwayak Cree Nation, Frontier College, and the Northern Manitoba Mining Academy of University College of the North.

- Sawmill Feasibility Study in Partnership with Swampy Cree Tribal Council, Natural Resources Canada and Tolko Industries Ltd**

In January of 2016, the government announced it would contribute a one-time grant of \$35,000 to the Swampy Cree Tribal council for a feasibility study to look at reopening the Tolko sawmill in the Pas with First Nations involvement. This study is near completion and a final report is scheduled for release in July 2016.
- Opportunities for Indigenous communities in Jack Pine Budworm Salvage Harvest – Grand Rapids area**

In response to the outbreak of Jack Pine Budworm in the Grand Rapids area, Forestry and Peatlands Management Branch has been working with the forest industry to salvage harvest some of 3000ha of damaged jack pine. Staff have met with the Manitoba Métis Federation (MMF) and Grand Rapids First Nation to inform them of the damage occurring and discuss planned harvest. The Forestry and Peatlands Management Branch is working with the Manitoba Métis Federation (MMF) in support of their Elder Fuelwood program to collect wood from harvest areas and for Grand Rapids First Nation through a small contract to collect jack pine cones for forest renewal.
- 2015-2020 Timber Quota Plan for Forest Management Unit 24**

The Branch has drafted the 2015-2020 Timber Quota Plan for Forest Management Unit 24 and has informed communities of proposed forestry activities. Continued consultation may be required at a later date with communities in southeastern Manitoba to provide further information.
- 2016-2018 Forest Operating Plans – LP Canada and Mountain Quota Holder Association**

The Branch is planning to hold consultation meetings with stakeholders to review the 2 year Operating Plans for LP Canada and Mountain Quota Holder Association (MCHA). These stakeholders include Métis Right Coalition (MRC), Manitoba Métis Federation (MMF), Barrows, Wuskwi Sipiik, Sandy Bay and Pine Creek. The LP and MCHA Operating plans describe in detail the timber harvesting, access development, access control measures, access rehabilitation and forest renewal activities that are proposed by LP Canada and the MQHA for 2016-18.
- 2015-2017 Forest Operating Plan – Tolko Industries Ltd.**

Regional Branch staff held a consultation meeting with Mosakahiken Cree Nation in October 2015 to review the Tolko 2 year Operating Plan for 2017-2019. The main concerns from the meeting were; road building and quarry permits, registered traplines and the use of herbicides. A consultation meeting to review this Operational/ing Plan was also planned with Pimicikamak Cree Nation in February 2016; however the meeting was rescheduled several times with a new date confirmed for July 6th, 2016. With the 2017-2019 plan anticipated for submission in February 2017, the consultation in July is intended to serve as an introduction to the new Operating Plan in addition to discuss specific concerns in the 2015-2017 plan.
- Forest Development Opportunity for First Nations on East-Side of Lake Winnipeg**

For the past decade, the Branch has tried to engage First Nations in a Forest Development opportunity on the East-Side of Lake Winnipeg. Over the past year and a half, the project has gained momentum and has reached the point where the 3, First Nations (Black River, Sagkeeng, Brokenhead First Nation) have signed an MOU to work together to pursue a Forest Management License (FML) with the province. The next step in the project is to bring together all parties (SD, FN's, NRCAN, and INAC) for a Workshop, to identify next steps and develop a Work plan.

Eastern Region

- Completion of 85,000 tree planting contract for Kekekoziibi Economic Development Corporation. The trees were planted within the Whiteshell Provincial Forest and afforested areas within the Sandilands Provincial Forest.
- Continued involvement with the Economic Development subcommittee of the Shoal Lake Watershed Group tied into the Tripartite Agreement.

- Participation in the Shoal Lake 40 All-season access road steering committee.
- Identified Forest Health concern of a bark beetle infestation and subsequent Fire Smart harvest patterns around local communities.
- Achieved 85% full utilization (approximately 250,000m³ of 291,000 m³) of the Annual Allowable Cut.
- Completed two contracts involving approximately 1,000 hectares of harvested land to initiate the silviculture cycle of forest management. This resulted in seasonal work for two contractors and approximately four equipment operators.
- Completed 3 planting contracts for a total of 1.5 million trees and provided seasonal employment for approximately 95 tree planters.

Central Region

- In August 2015, a severe infestation of Jack Pine Budworm *Choristoneura pinus pinus* (Freeman) was identified in the Twin Rivers/Dancing Point area. There were no signs of infestation detected in previous Forest Health Survey Flights in 2013 & 2014; therefore this outbreak is believed to be in the initial stages of a three to four year cycle. An estimated 3,000 hectares of mature to over-mature Jack Pine stands have shown moderate to high levels of infestation. Harvest plans were developed to target these areas of higher concentrations in order to reduce budworm population and wildfire potential. Due to contractor availability and mild winter conditions only 41 hectares was harvested this winter.
- Consultation process has focused on the Jack Pine Budworm infestation area, which *involved meetings and discussions* requested by four communities. Various informal meetings and discussions with First Nation and Aboriginal communities have occurred with forestry staff to provide updates on forestry activities in the region.
- A total area of 51 ha was harvested by Quota Holders in the Central Region within in FMU 40 (82%) and FMU 41 (18%). This area does not include the harvested area associated with Jack Pine budworm salvage.
- There were 163 Personal Use Timber permits issued in Designated Cutting Areas within the Central Region.
- The regional forestry renewal program included 26 hectares of scarification used to promote natural regeneration of Jack Pine, in the Rosenberg area. The collection of Jack pine cones were completed and will be used for growing seedlings in future years. The verification of forest prescriptions were conducted for the tree plant scheduled in the spring of 2016/17.

Northeast Region

- Mine rehabilitation projects continued in the North East Region at three decommissioned mine sites: Manibridge, Farley and Soab. The rehabilitated mine sites were planted with Jack pine.
- Tolko harvested approximately 106,806 m³ of softwood off the North Joey Lake Road and Sipiwesk Operating Areas. A Timber Sale contractor (Mistik Hauling Inc.) harvested, and marketed , hardwood for biomass and softwood for pulp to Tolko, reporting approximately 17,213 metres³ of hardwood and 13,720 meters³ of softwood. 34,960 tree seedlings were planted, utilizing one contractor.

- Consultation continued on the Tolko Operating Plan 2015-17, with Cross Lake First Nation. Consultation also occurred with Wabowden Community Council on harvest activities associated with the Mistik Hauling Timber Sale.
- Coordinated and delivered a Provincial Scaling Course in Swan River, April 2015.
- Planned and hosted the annual, national “Wood Measurement CSA Meeting” in Winnipeg September, 2015

Northwest Region

- Regional forestry staff continues to work with Tolko, Quota Holders and Wildlife Branch to integrate caribou recovery strategies into logging plans near or at Kississing Lake West, Wheadon and the south Bog herd.
- The existing Quota Holder Plan was modified to reflect available quota volumes.
- Timber sales were issued to Opaskwayak Cree Nation and two quota holders to facilitate poplar logging for hog fuel. Regional staff marked boundaries and provided basic supervision for these activities.
- Regional forestry staff actively participated in the scaling program and the Fire Smart Program.
- A total of 21 new work permits and 65 extended work permits were issued by staff for logging, road construction and silviculture for the period, April 2015 to March 2016. Approximately 237,000 m³ of timber was harvested, which included 32,000 m³ of poplar and 205,000 m³ of conifer. 44 timber inspection reports were done by regional and district staff. In the spring of 2016, 448,000 trees were planted, utilizing one contract.

Western Region

Regional forestry staff completed mitigation of second year blocks for LP Canada Ltd. and the Manitoba Quota Holders Association (MQHA) Operating Plans for 2014-2016.

- Consultations related to moose recovery in the Mountain forest section continues with aboriginal communities and stakeholder groups. As part of the Moose Management strategy, planned timber harvest was temporarily deferred from key moose wintering areas.
- Forestry staff continues to work with smaller timber operators requesting access to salvage timber for fuel wood from declining stands.
- Regional forestry staff provided education assistance in natural resources for elementary school students and participated in a water festival with one Conservation District. More than 7,000 trees were planted by students and Boy Scouts in the Duck Mountains and at Spruce Woods Provincial Park. Regional staff also hosted a regional Envirothon (environmental education program) event for high school students.
- Staff 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.
- Continued to monitor and promote biomass utilization of wood residue from mill and logging operations.
- Reviewed, and approved 2014/15 Annual Harvest Plans for Bipole III Transmission Project and maintenance of M39V distribution line in Duck Mountain including monitoring and assessment of timber utilization.

- Coordinated field meeting for Officers and industry on reviewing timber utilizations standards.
- Coordinated review and approval of 41 timber harvest work permits for 103 harvest blocks totaling 427,674 m3 softwood and 470,703 m3 hardwood harvest.

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

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
Salaries and Employee Benefits	4,528	45.00	4,058	470	
Other Expenditures	3,161		4,065	(904)	
Grant Assistance	20		43	(23)	
Forest Regeneration Stock	582		545	37	
Less: Recoverable from Urban and Rural Economic Development Initiatives	(1,428)		(1,608)	180	
Total 12.4(k)	6,863	45.00	7,103	(240)	1

1. Under-expenditure is due to vacancies budgeted in Other Expenditures, and under-expenditure in the Spruce Budworm program.

Pineland Forest Nursery

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

Water Stewardship Initiatives

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

The following initiatives were supported in 2015/16:

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

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

- **Fisheries Science Initiatives**

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

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

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

Project	Amount
Water Quality Science Protection Initiatives	602.0
Fisheries Science Initiatives	97.0
Boards and Committees to Support Citizen Engagement Initiatives	456.0
Total	\$1,155.0

Table ACA.1
12.5 Costs Related to Capital Assets

Expenditures by Sub-appropriation	Actual 2015/16 \$(000)	FTE's	Estimate 2015/16 \$(000)	Variance Over/(Under) \$(000)	Expl. No.
(a) General Assets					
(1) Amortization Expense	1,831		1,967	(136)	
(2) Interest Expense	911		1,214	(303)	
(b) Infrastructure Assets					
(1) Amortization Expense	4,430		4,601	(171)	
(2) Interest Expense	5,643		5,652	(9)	
Total 12.5	12,815		13,434	(619)	1.

1. Under expenditure in General and Infrastructure Assets, Amortization and Interest Expense, due to deferral of various Parks infrastructure projects and reprioritization of departmental Projects.

Part B – Capital Investment

General Assets

General Assets provides for the refurbishment and upgrade of facilities and the acquisition of machinery and equipment which are utilized by the department in providing services to the general public.

Three staff bunkhouses (in Duck Mountain, Paint Lake, and Asessippi Provincial Parks) and the Lac du Bonnet Initial Attack Fire Base were completed this fiscal year.

Machinery and equipment purchases included all-terrain vehicles, boats with outboard motor, garbage truck, industrial mower/tractors, air compressor, tree stump cutter, forklift, snow machines, tractors with Loader\Mower, GNSS survey equipment, excavators/loader/ graders for road work, septic tank truck, night vision goggles, and trail groomers.

Infrastructure Assets

Infrastructure provides for the refurbishment and upgrade of facilities and the acquisition of machinery and equipment, which are utilized by the general public in their enjoyment of Manitoba's outdoors.

- Work was completed on the Initial Attack Wildfire Base in Lac du Bonnet. The base includes: helicopter pads, fixed wing aircraft apron for access from the existing runway, aircraft fueling, fire equipment warehouse/office and staff accommodation facilities for Initial Attack crew members and the Regional Fire Center
- Three new staff accommodation facilities (bunkhouses) were completed and included: 4 bedroom bunkhouse to house park patrol staff and park operations staff at Blue Lake in Duck Mountain PP; 3 season bunkhouse to house park patrol staff at Asessippi PP; and a helicopter pilot bunkhouse at Paint Lake PP.
- Work was completed on the beach expansion project at Birds Hill Provincial Park including construction of an expanded lake and beach area, new playground, new volleyball courts, improved pathway connections and site amenities.
- Work was initiated on West Gate improvements at Birds Hill Provincial Park.
- Work was completed on the new Piping Plover Plaza natural playground at Grand Beach Provincial Park.
- Completed partnership with the Friends of Upper Fort Garry to support the park development of Upper Fort Garry Provincial Heritage Park, and the grand opening of the park was celebrated.
- Continued partnership with the Winnipeg Folk Festival to support water system improvements at the Group Use Two area in Birds Hill Provincial Park.
- Design work continues on the Grand Beach Wastewater Lagoon Upgrade project.
- Repairs and improvements continue at Spruce Woods Provincial Park as a result of the significant damage from the 2011 and 2014 flood events. Work. Construction was initiated on a new entry road, internal road system improvements, and new lift stations and a new force main to connect to the new sewage lagoon.
- Campground electrification improvements and campsite enhancements continued at St. Malo Provincial Park.
- Campground electrification improvements and campsite enhancements were initiated at the Blue Lake Campground in Duck Mountain Provincial Park.
- Design was completed and construction was initiated on the Winnipeg Beach seawall upgrade at Winnipeg Beach Provincial Park.

- In the fall, four new yurts were installed at Campers Cove in Clearwater Provincial Park and one new yurt was added to the yurt village at Spruce Woods Provincial Park. These facilities will be available for occupancy in 2016. Construction was initiated on a new yurt village at Tulabi Falls in Nopiming Provincial Park.
- Work continued on the Paint Lake Provincial Park yurt project.
- Construction was completed on new washroom shower buildings at Stephenfield and St. Malo provincial parks, as well as in Falcon and Betula campgrounds in Whiteshell Provincial Park.
- Construction of an entry structure and interpretation components along the boardwalk at Brokenhead Wetland Interpretive Trail was completed, and a grand opening was celebrated.
- Design work continued for a water treatment system at Brereton Lake.
- Water treatment plant upgrades continued at Grand Beach and Moose Lake Provincial Parks and Opapiskaw Campground in Whiteshell Provincial Park. New water treatment upgrades were initiated at Caddy Lake in Whiteshell Provincial Park and in Wekusko Falls Provincial Park.
- A new roof was installed on the campground service building at Grand Beach Provincial Park.
- Construction was initiated on roof and siding upgrades on the mall at Falcon Lake in Whiteshell Provincial Park.
- New playground equipment was installed at Falcon Lake in Whiteshell Provincial Park.
- Design work was initiated for wastewater facility improvements at Rivers Provincial Park and Adam Lake in Turtle Mountain Provincial Park, as well as for a new truck haul facility in the south Whiteshell area.

Sustainable Development Integration

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

Principles of Sustainable Development

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

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

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

Examples:

- After wide-ranging stakeholder consultations, Manitoba released 'Manitoba's Climate Change and Green Economy Action Plan' targeting reduction of Manitoba's greenhouse gas emissions by one half over 2005 levels.
- Manitoba released 'Green and Growing Manitoba's Commitment to Green Jobs' document linking the green economy to other Provincial strategic initiatives such as training standards and the Manitoba Skills Strategy, and developed indicators for the measurement and tracking of the green economy and green jobs.
- Developed new partnerships and initiatives with organizations to collaboratively take action on climate change supported through a \$5 million climate fund.
- *The Peatlands Stewardship Act* was proclaimed on June 15, 2015, promoting a balanced approach between protecting peatland ecosystems and responsible harvesting by industry.
- Released the 'Manitoba Drought Management Strategy' and the drought monitor web site (www.manitoba.ca/drought)
- Efforts continued towards seeking full eco-certification of Manitoba's remaining commercial freshwater fisheries through undertaking discussions and planning sessions between departmental officials and interested commercial fisheries including Moose Lake, Cedar Lake, Swan Lake and Red Deer Lake. These efforts resulted in the department receiving written confirmation from commercial fisher associations, local Chief and Council, and commercial tourism operators indicating their support of efforts to achieve and maintain certification of 18 separate commercial gillnet fisheries located in the Western, North-western and Central regions. In response, the department established the "Moving Forward Working Group" consisting of department staff from the Branch and Regional offices to implement programming that will position these fisheries to achieve certification.

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:

- Designed, approved and managed the *Certificate of Indigenous Relations Program (CIRP)*, an initiative created as a result of the 2015 Truth and Reconciliation Commission Report recommendations and is intended to provide internal training on Indigenous Relations to enhance one of the department's top priorities. Manitoba also successfully designed and implemented the Indigenous Resources Intranet Site that allows easy access to Indigenous Resources.
- Negotiated a process to renew and expand a Memorandum of Understanding between the Department and the Treaty Relations Commission of Manitoba.
- The Fisheries Section developed an interactive Angler Lake Information website to assist anglers in planning their next fishing adventure.
- The Department successfully met all conditions of certification under the Marine Stewardship Council to maintain the Waterhen Lake Walleye and Northern Pike commercial gillnet fishery's internationally recognized sustainable certification status by successfully passing the 1st annual surveillance audit of the fishery.

3. Shared Responsibility and Understanding

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

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

Examples:

As a requirement of *The Sustainable Development Act*, the Indigenous Relations Branch has undertaken strategic initiatives incorporating sustainable development into its activities. The section below provides just a few examples of the many activities the Branch has undertaken to apply the Principles and Guidelines of Sustainable Development into operations and activities.

- The Branch advocates for the engagement of the Indigenous community in all aspects of the Department's programs and services promoting the inclusion of the Indigenous community through engagement with leadership, elders, youth and resource users in the planning and decision-making processes. The Indigenous community brings the world-view and a holistic approach respecting natural law with special consideration to harmony and balance and the seven teachings for seven generations ahead.
- The Indigenous Relations Branch continues to support communities on the east side of Lake Winnipeg in their efforts to develop Traditional Area Land Use Plans (TALUP).
- Green Manitoba and co Solution supported educators by working in partnership with education stakeholders such as the International Institute for Sustainable Development (IISD), Manitoba Education and Training, Nutrients for Life Canada and the Canadian Network for Environmental Education and Communication to engage citizens and communities in sustainability education throughout the Province and in other Canadian regions.

4. Prevention

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

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

Examples:

- Office of Drinking Water issued 58 public and 13 semi-public water system permits under *The Drinking Water Safety Act*, and completed 29 post-commissioning inspections of newly constructed or upgraded water treatment plants. It issued 49 new semi-public water system licences bringing the total number of licensed semi-public water systems to 300. Also, it monitored raw and treated water quality for 437 public water systems and 500 semi-public water systems, including review of laboratory analytical results for bacteriological, chemical and physical parameters. It undertook 194 routine and unscheduled on-site inspections of public water systems to assess their ability to reliably produce and distribute safe water, and 96 inspections of semi-public water systems to assess their safety and reliability, and to initiate the semi-public water system licensing process.
- The Big Game Unit conducted two aerial Chronic Wasting Disease (CWD) Risk Assessment Surveys, one in GHA 5 near Flin Flon and the second in GHA 18C north of Roblin. Over a period of 12 days, approximately 2,366 sq. km along the Saskatchewan border were surveyed to pinpoint potential CWD risk sites, as well as to identify wild cervid population clusters. In total, 133 CWD Risk Sites were identified and 229 moose, 373 elk, two mule deer and 561 white-tailed deer were spotted.

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:

- The Department successfully met all conditions of certification under the Marine Stewardship Council to maintain the Waterhen Lake Walleye and Northern Pike commercial gillnet fishery's internationally recognized sustainable certification status by successfully passing the 1st annual surveillance audit of the fishery.
- Manitoba has tried to engage First Nations in a Forest Development opportunity on the East-Side of Lake Winnipeg. Over the past year and a half, the project has gained momentum and has reached the point where three First Nations (Black River, Sagkeeng, Brokenhead First Nation) have signed an MOU to work together to pursue a Forest Management License (FML) with the province. The next step in the project is to bring together all parties (SD, FN's, NRCAN, and INAC) for to identify next steps and develop a Work plan.

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:

- Regional staff were involved in the creation of the Special Conservation Area located at the St. Andrews Locks to protect pelicans from harm caused by fishing gear that has either been discarded or lost while sport angling.
- Five (5) new ecological reserves were designated (Cedar Bog, Piney, St. Labre Bog, Ste. Anne Bog and Woodridge Ecological Reserves) and Lewis Bog Ecological Reserve was expanded.
- At St. Norbert Provincial Park, a Grand Re-opening of the Historical Bohemier House was held in conjunction with the Fort Gary Historical Society. The Bohemier House had been closed to the public for six years while asbestos remediation was undertaken and the related interior and exterior repairs were conducted.
- The Habitat Stewardship Unit delivered the Mixed-grass Prairie Habitat Stewardship Project that secured 262 hectares (648 acres) of native grassland on privately owned lands under two 5-year prairie management agreements. An additional 404 hectares (999 acres) of shrubs were mowed on project lands and 53 hectares (131 acres) were managed through prescribed burning. Also, it inventoried an additional 5,214 hectares (12,880 acres) bringing the total included in the Mixed-grass Prairie Inventory since 1989 to 194,186 hectares (479,640 acres). The 2015-16 Mixed-grass Prairie Inventory data was entered into the Manitoba Conservation Data Centre database. Western spiderwort, a plant species at risk, was monitored on one property.

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:

- Collaborated with Minnesota, North Dakota and the Canadian federal government on a first of its kind survey of water quality, algae and benthic invertebrates along the international Red River in the US and Canada. Sample collection methods and timing were coordinated across the three jurisdictions including the use of a new method for attached algae sampling.
- Tall Grass Prairie Communities and Species at Risk Project: Species at risk surveys were conducted at the Manitoba Tall Grass Prairie Preserve on 45 properties, totaling 2,925 hectares (7,200 acres) and monitoring continued for seven provincially listed species (five of which are also protected federally) and 14 provincially rare species.
- Provided support to a number of boards, commissions and initiatives that help manage transboundary water issues between the United States and Canada and between Canadian provinces, and that help facilitate the inclusion of local stakeholders in water governance. As a downstream jurisdiction, Manitoba is a key beneficiary of transboundary water groups that support water quality and quantity protection and management.
- Funds were provided to the Prairie Provinces Water Board, the Red River Basin Commission, the Assiniboine River Basin Initiative, the partners for the Saskatchewan River Basin and Manitoba Eco-Network's water caucus.

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:

- Under the Reducing Ecological Footprint (REF) initiative, the committee continues to encourage government staff to take better advantage of collaborative tools such as SharePoint, Skype for Business, GoToMeeting and GoToWebinar, which enable staff to host “green meetings” by remotely connecting and collaborating with each other, and thus avoiding travel wherever possible. As a means to further encourage the use of collaborative tools and to educate staff on their availability and use, the Process Improvement and Technology (PIT) Unit, in partnership with the REF working group, facilitated a number of in-person and remote information sessions.
- The Print Reduction Initiative pilot project resulted in an average of 21.38% cost savings over a six month period. Other notable savings included: 242,532 pieces of paper saved; paper reduction resulted in approximately \$3,197.49 in savings; toner reduction resulted in approximately \$9,097.02 in savings; total cost savings for the PRI were \$12,294.51 with an ongoing savings of approximately \$2050 a month. Results of the Print Reduction Initiative have been shared with the Greening Government Committee, and BTT is presently working with Hewlett-Packard, the government’s computer hardware service provider, in preparing a cost estimate for scaling up the project.

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:

- As part of government’s obligation to consult with First Nations, Métis and Aboriginal communities in matters related to constitutionally protected Treaty and Aboriginal rights, Manitoba participated in Crown-Aboriginal consultations on conservation measures being considered for Dauphin Lake and its tributaries.
- Manitoba continued to coordinate Winnipeg’s Urban Angling Partnership, which offers residents and visitors recreational angling opportunities through structured angling programs including: Winnipeg Fish Festival, Fish Winnipeg Challenge, Learn to Fish Clinics, Youth Angling Camps and Fall Fishing Derby. The program’s goal is to encourage wider participation in recreational fishing.
- The Legislation and Policy program of Forestry branch plans to hold consultation meetings with stakeholders to review the 2 year Operating Plans for LP Canada and Mountain Quota Holder Association (MCHA). These stakeholders include Métis Right Coalition (MRC), Manitoba Métis Federation (MMF), Barrows, Wuskwi Sipiik, Sandy Bay and Pine Creek. The LP and MCHA Operating plans describe in detail the timber harvesting, access development, access control

measures, access rehabilitation and forest renewal activities that are proposed by LP Canada and the MQHA for 2016-18.

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:

- Released an interactive map to the website that allows the public to identify the location of drinking water advisories and obtain related information.
- The Manitoba Conservation Data Centre maintains information in Biotics on 8,051 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish, ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,035 species are endangered or of conservation concern. The database contains 72,508 observations and over 43,010 mapped features based on species observations. Biotics data was used to review 84 Environment Act licence documents, and 1,178 other licence, permit, lease, and land sale requests.

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:

- Watersheds Branch promotes the sustainable use and management of land, water and related resources through a watershed-based partnership with municipalities to: support 18 local conservation districts, develop 24 integrated watershed management plans; implement voluntary, incentive based programs and projects that address risks to water resources and aquatic ecosystems; and ensure that the ecological integrity and overall health of each watershed is protected. Local conservation district boards are empowered to make decisions that will have positive benefits for present and future generations.
- Manitoba supported a number of boards, commissions and initiatives that help manage transboundary water issues between the United States and Canada, and between Canadian provinces, and facilitated the inclusion of local stakeholders in water governance. As a downstream jurisdiction, Manitoba is a key beneficiary of transboundary water groups that support water quality and quantity protection and management. Funds were provided to the Prairie Provinces Water Board the Red River Basin Commission, the Assiniboine River Basin Initiative and the Partners FOR the Saskatchewan River Basin. Support was also provided to Manitoba Eco-Network's water caucus.
- The Manitoba Conservation Data Centre Biotics database was used by the Protected Areas Initiative to inform protected areas planning. Biotics data was also used by the Manitoba Habitat Heritage Corporation to secure species-at-risk habitat through land purchases and Conservation Agreements.

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:

- Green Manitoba Eco Solutions continued to administer the \$10 per tonne Waste Reduction and Recycling Support (WRARS) Landfill Levy program in 2015/16 to enhance and promote improved waste management practices and increased waste diversion. In 2015, 977,585 tonnes of solid waste was sent to 183 Manitoba landfills, a 0.35% reduction from 2014. On a per capita basis, 831 kgs of waste per person was disposed compared to 836 kgs in 2014.
- A total of 118 landfill owners remitted levy payments for 173 of the Class 1, 2 and 3 landfills in Manitoba, achieving 95% landfill compliance. Of the 173 municipalities and Community Councils, 135 submitted recycling rebate reports and a total of \$7,580,760 was rebated to municipalities based on 76,212 tonnes of recycling reported (67 kg/capita). This represents a decline of 0.36% from 2014.
- Green Manitoba Eco Solutions supported the improvement of northern/remote community recycling activities and compliance with the Waste Reduction and Recycling Support levy requirements. Supported Regional Waste System initiatives in Northern Manitoba. Results of the collaborative Winter Road project organized by the Solid Waste Action Team, St. Theresa Point First Nation and Manitoba's PROs include the shipping of approximately 700 kgs aluminum/plastic packaging, 700 kgs of e-waste, 768 kgs of lead acid batteries, 1450 scrap tires, and 32 loads (320 scrap vehicles) out on the winter road. Winter road pilot project at St. Theresa Point in 2015 and follow-up works at St. Theresa Point in July 2015 was nominated for Service Excellence Award.

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:

- Support was provided for operation of the Lake Winnipeg Research Consortium's ship the *MV Namao*, to undertake water quality and fisheries science on Lake Winnipeg, to protect Manitoba from transboundary activities that may unacceptably impact Manitoba's water, to support work of the South Basin Lake Winnipeg Mayors and Reeves in its Lake Friendly Campaign, to protect and restore wetlands including continuing an inventory of wetlands, to monitor for pharmaceuticals in surface waters, and to support the University of Manitoba in a research project to better understand potential in-lake remediation options for mitigating algal blooms in Killarney Lake. Engineering support was also provided to Conservation Districts to design and build water retention structures to mitigate flooding and drought and to improve water quality.
- Funding support provided for Churchill waste management enhancement project, home construction waste diversion pilot project, landfill waste diversion pilot project, fish waste composting project at Hecla/Grindstone provincial park, review and report on waste related greenhouse gas reduction, and mattress and box spring recycling project for inner-city downtown Winnipeg, among many others.
- The Manitoba Conservation Data Centre maintains information in Biotics on 8,051 wild plant and animal species, including mammals, birds, reptiles, amphibians, fish, insects, mussels, crayfish,

ferns, flowering plants, lichens, mosses, liverworts and mushrooms. Of these, 1,035 species are endangered or of conservation concern. The database contains 72,508 observations and over 43,010 mapped features based on species observations.

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:

- In 2015/16, Green Manitoba, in partnership with NFL Canada, continued to support the creation and enhancement of gardens at 9 Manitoba schools, for a total of 20 schools since the inception of the program. Green Manitoba and Eco Solutions also aided in the development and dissemination of curriculum-based resources for educators.
- Sixteen students from northern Manitoba participated in a Forestry camp at Egg Lake where they were introduced to forestry in northern Manitoba. At camp, students learned Forestry skills, toured the Tolko mill and discovered career opportunities in Forestry. This camp was made possible with help from the Northern Manitoba Sector Council, Opaskwayak Cree Nation, Frontier College, and the Northern Manitoba Mining Academy of University College of the North.
- Green Manitoba and Eco Solutions partnered with Manitoba Business Transformation and Technology (BTT) to implement a 'Print Reduction Initiative' pilot program. The first few months of the pilot showed an average decrease of approximately 23% in paper use. Upon completion of the pilot in May of 2015, and a survey of the participants, a report was presented to the Greening Government Committee which recommended government wide implementation.

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:

- Manitoba implemented compliance activities for the Non-Essential Pesticides Use Regulation throughout the province. It was more educative in nature this year.
- The Manitoba Composts program ramped up its activity in 2015-2016 and to date, a total of nine composting sites have been registered and have processed 47,600 tonnes of organic waste, equating to 39 kg/capita. The goal is to divert up to 100,000 tonnes of organic waste annually from landfills by 2020.

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:

- In 2015/16, Tolko 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.
- In partnership with the Reducing Ecological Footprint Working Group, the department offices located at 123 Main Street, in downtown Winnipeg, initiated a pilot project to use Peg City Car Co-op vehicles for work-related travel rather than using employees' personal vehicles. The expected benefits of using co-op cars include: lower carbon emissions if employees no longer need to drive their personal vehicles to work, more flexibility for employees who prefer public transportation or active commuting, and lower carbon emissions through use of co-op vehicles which are generally more fuel efficient than employees' personal vehicles.

4. Resource Conservation

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

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

Examples:

- The Greening Government Committee continues its efforts in reducing use of water and energy in government buildings, and looks forward for strategic direction and resources from the new government to boost up its efforts to reduce consumption of resources across government buildings and premises.

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

Examples:

- Forestry branch awarded a total of 5 tree planting contracts valued at \$233,869 to First Nation contractors to plant 943,440 trees.

Revenue and Expenditure Summaries

**Table RE.1
Reconciliation Statement**

\$(000s)	
DETAILS	2015-16 ESTIMATES
2015-16 MAIN ESTIMATES MAIN ESTIMATES AUTHORITY TRANSFERRED FROM: Enabling Appropriation <ul style="list-style-type: none"> • Internal Service Adjustments 	 \$138,089 4,861
2015-16 ESTIMATE	\$142,950

Table RE.2

Revenue Summary by Source

For the year ended March 31, 2016 with comparative figures for the previous year

Actual 2014-15	Actual 2015-16	Increase (Decrease)	Source	Actual 2015-16	Estimate 2015-16	Variance	Expl. No.
OTHER REVENUE:							
583	658	75	Clean Environment Commission Cost Recovery	658	100	558	1.
337	1,142	805	Cottaging Initiative	1,142	732	410	2.
818	672	(146)	Environment Fees and Sundry	672	691	(19)	3.
3,831	3,749	(82)	Forestry Fees and Sundry	3,749	4,423	(674)	4.
309	423	114	GeoManitoba Fees and Sundry	423	321	102	5.
2,311	1,997	(314)	Land Information Sales and Fees	1,997	1,697	300	6.
16,953	17,751	798	Parks Fees	17,751	19,109	(1,358)	7.
6,412	5,802	(610)	Regional Operations Fees and Cost Recovery	5,802	5,020	782	8.
3,148	3,203	55	Wildlife Sundry	3,203	3,300	(97)	9.
353	502	149	Sundry	502	431	71	10.
2,230	2,269	39	Fisheries Fees and Sundry	2,269	1,921	348	11.
116,913	105,883	(11,030)	Water Power Rentals	105,883	119,026	(13,143)	12.
122	119	(3)	Water Resources Sundry	119	114	5	
154,320	144,170	(10,150)	Subtotal	144,170	156,885	(12,715)	
GOVERNMENT OF CANADA:							
85	44	(41)	1. Waterfowl Crop Damage Prevention	44	45	(1)	
30	30	0	2. Ecosystem Monitoring Network	30	30	0	
	0	0	3. Softwood Lumber Agreement	0	0	0	
115	74	(41)	Subtotal	74	75	(1)	
154,435	144,244	(10,191)	Total	144,244	156,960	(12,716)	
31	86	55	Sale of Government Assets	86	0	86	
Explanation Number:							
1. Higher revenue due to the recoveries from Hydro related to Lake Winnipeg Regulation Hearing.							
2. Higher revenue due to higher sales of Cottage lots on Crown Lands in 2015-16.							
3. Lower revenue primarily due to fewer Environmental Licence Proposal Class 2 & 3 applications received.							
4. Lower revenue primarily due to reduced Forest Management Licences revenues in 2015/16 relating to reduction of Crown wood deliveries, due to shut down of Tolko mill and conversion to Louisiana Pacific specialty siding mill in Summer/Fall.							
5. Higher revenue due to sale of topographic mapping products and higher demand due to weather conditions.							
6. Higher revenue due to market value assessment process approve and billing Hydro for easement and increase in sale of Land brought to conclusion.							
7. Lower revenues for Parks Lot rentals, due to deferral of Crown Land rental rates and Parks Service Fees.							
8. Higher Regional Operations Fees and Cost Recovery revenue due to higher out of province forest fire suppression revenues and revenues from Indian and Northern Affairs and Mutual Aid Response System.							
9. Lower revenue due to decrease in sale of big game, game bird licenses and wildlife hunting licences.							
10. Higher revenue due to a MPI rebate for department-owned vehicles and miscellaneous vendor							

licensing accounting and U.S. exchange for sale of licences.
11. Higher revenue due to increased Angling licence sales due to a warmer summer and extended fall.
12. Lower revenue due to a change in accounting practice policy recognizing the March Water Power Rental payment, to correctly account for year-end revenue stream, when it was received early in 2016/17.

Table RE.3
Expenditure Summary

For fiscal year ended March 31, 2016 with comparative figures for the previous year.

Estimate 2015/16	Appropriation	Actual 2015/16	Actual 2014/15	Increase (Decrease)	Expl. No.
12-1 Administration and Finance					
37	(a) Minister's Salary	38	37	1	
	(b) Executive Support				
712	Salaries and Employee Benefits	734	804	(70)	
182	Other Expenditures	152	116	36	
	(c) Administration & Financial Services				
4,040	Salaries and Employee Benefits	3,988	3,954	34	
957	Other Expenditures	1,048	1,118	(70)	
	(d) Corporate Crown Land Policy				
302	Salaries and Employee Benefits	341	264	77	
16	Other Expenditures	25	26	(1)	
	(e) Clean Environment Commission				
379	Salaries and Employee Benefits	397	420	(23)	
433	Other Expenditures	335	604	(269)	1.
	(f) GeoManitoba				
3,273	Salaries and Employee Benefits	2,330	2,335	(5)	
960	Other Expenditures	732	619	113	2.
(1,621)	Less: Recoveries from other appropriations	(1,031)	(874)	(157)	
	(g) Lands				
1,165	Salaries and Employee Benefits	1,165	1,261	(96)	
4,655	Other Expenditures	5,413	3,820	1,593	3.
234	Grant Assistance	234	234	0	
	(h) Aboriginal Relations				
424	Salaries and Employee Benefits	398	341	57	
472	Other Expenditures	321	360	(39)	
16,620	Total 12-1	16,620	15,439	1,181	
12-2 Parks and Regional Services					
	(a) Regional Support Services				
3,171	Salaries and Employee Benefits	3,273	3,130	143	
913	Other Expenditures	879	1,373	(494)	4.
	(b) Northwest Region				
2,517	Salaries and Employee Benefits	2,450	2,473	(23)	
447	Other Expenditures	444	463	(19)	
	(c) Northeast Region				
3,249	Salaries and Employee Benefits	3,445	3,182	263	5.
838	Other Expenditures	1,021	997	24	
	(d) Central Region				
4,547	Salaries and Employee Benefits	4,209	4,131	78	
1,050	Other Expenditures	1,085	1,023	62	
	(e) Eastern Region				
4,737	Salaries and Employee Benefits	4,818	4,552	266	6.
792	Other Expenditures	789	787	2	
	(f) Western Region				
4,968	Salaries and Employee Benefits	4,717	4,788	(71)	
901	Other Expenditures	876	900	(24)	
	(g) Parks and Protected Spaces				

Estimate 2015/16	Appropriation	Actual 2015/16	Actual 2014/15	Increase (Decrease)	Expl. No.
15,560	Salaries and Employee Benefits	16,148	15,757	391	
9,882	Other Expenditures	11,135	10,117	1,018	7.
461	Grant Assistance	460	460	0	
(472)	Less: Recoverable from Rural Economic Development Initiatives	(472)	(472)	0	
	(h) Fire and Emergency Response Program				
6,705	Salaries and Employee Benefits	11,226	11,386	(160)	
10,562	Other Expenditures	4,325	4,895	(570)	8.
(500)	Less: Recoverable from Emergency Expenditures	(500)	(499)	(1)	
70,328	Total 12-2	70,328	69,443	885	
	12-3 Environmental Stewardship				
	(a) Divisional Administration				
389	Salaries and Employee Benefits	389	294	95	
50	Other Expenditures	52	55	(3)	
	(b) Environmental Compliance and Enforcement				
3,731	Salaries and Employee Benefits	3,731	3,129	602	
921	Other Expenditures	811	1,096	(285)	9.
	(c) Environmental Approvals				
3,106	Salaries and Employee Benefits	3,106	3,024	82	
432	Other Expenditures	468	476	(8)	
(193)	Less: Recovery from Environmental Liabilities	(168)	0	(168)	
	(d) Climate Change and Air Quality				
1,013	Salaries and Employee Benefits	1,013	1,124	(111)	
242	Other Expenditures	283	294	(8)	
1,000	Climate Change Initiatives	979	0	979	10.
	(e) Strategic Policy and Co-ordination				
1,843	Salaries and Employee Benefits	1,843	1,786	57	
157	Other Expenditures	183	193	(10)	
96	Grant Assistance	97	97	0	
1,013	(f) International Institute for Sustainable Development	1,013	1,013	0	
13,800	Total 12-3	13,800	12,578	1,222	
	12-4 Water Stewardship and Biodiversity				
	(a) Divisional Administration				
388	Salaries and Employee Benefits	388	604	(216)	
240	Other Expenditures	249	754	(505)	11.
	(b) Water Science and Management				
2,561	Salaries and Employee Benefits	2,525	2,632	(107)	
863	Other Expenditures	771	835	(64)	
	(c) Wildlife and Fisheries Branch				
3,816	Salaries and Employee Benefits	3,816	3,934	(118)	
1,975	Other Expenditures	2,096	2,315	(219)	12.
924	Grants Assistance	924	874	50	
410	Northern Fisherman's Freight Assistance	410	410	0	
	(d) Habitat Enhancement Fund				
45		45	45	0	
	(e) Conservation District and Watershed Assistance				
5,312	Conservation District and Watershed Assistance	5,312	5,162	150	13.
(1,165)	Less: Recoverable from Rural Economic	(1,165)	(1,165)	0	

Estimate 2015/16	Appropriation	Actual 2015/16	Actual 2014/15	Increase (Decrease)	Expl. No.
	Development Initiatives				
	(f) Office of Drinking Water				
2,171	Salaries and Employee Benefits	2,247	1,985	262	14.
665	Other Expenditures	589	573	16	
	(g) Drainage and Water Control Licensing				
1,448	Salaries and Employee Benefits	1,539	1,620	(81)	
407	Other Expenditures	541	375	166	15.
	(h) Water Use Licensing				
1,275	Salaries and Employee Benefits	1,038	1,262	(224)	16.
219	Other Expenditures	144	153	(9)	
1,273	(i) Water Stewardship Initiatives	1,609	1,259	350	17.
	(j) Watershed and Land Use Planning				
1,074	Salaries and Employee Benefits	1,062	941	121	18.
174	Other Expenditures	175	172	3	
	(k) Forestry and Peatlands Management				
4,058	Salaries and Employee Benefits	4,528	4,821	(293)	
4,065	Other Expenditures	3,161	2,934	227	19.
43	Grant Assistance	20	23	(3)	
545	Forest Regeneration Stock	582	916	(334)	20.
(1,608)	Less: Recoverable from Urban and Rural Economic Development Initiatives	(1,428)	(1,607)	179	21.
(2,410)	(l) Less: Recoverable from Sustainable Development Innovations Fund	(2,410)	(2,410)	0	
0	(m) Pineland Forest Nursery	0	0	0	
28,768	Total 12-4	28,768	29,417	(649)	
	12-5 Costs Related to Capital Assets				
	(a) General Assets				
1,967	(1) Amortization Expense	1,831	31,902	(30,071)	22.
1,214	(2) Interest Expense	911	2,443	(1,532)	23.
	(b) Infrastructure Assets				
4,601	(1) Amortization Expense	4,430	4,036	394	24.
5,652	(2) Interest Expense	5,643	5,226	417	25.
13,434	Total 12-5	12,815	43,607	(30,792)	
142,950	TOTAL EXPENDITURES	142,331	170,484	(28,153)	
	B.12 Capital Investment				
	(a) General Assets				
300	(1) Information Technology Projects	0	167	(167)	26.
3,997	(2) Other Equipment and Buildings	2,905	11,918	(9,013)	27.
	(b) Infrastructure Assets				
14,910	(1) Parks Infrastructure Projects	10,023	16,001	(5,978)	28.
4,316	(2) Crown Land and Cottage Lot Development	187	0	187	
23,523	TOTAL B.12 CAPITAL INVESTMENT	13,115	28,086	(14,971)	

Explanations:

1. Under-expenditure in 2015/16 due to lower expenses in the Lake of Winnipeg Regulation Hearings.
2. Over-expenditure in 2015/16 due to higher development costs on the Spatial Data Infrastructure project.
3. Over-expenditure in 2015/16 due to payment of the Nature Conservancy Grant and other UNESCO grants.
4. Under-expenditure due to the payment of MPI – Snowman contract in 2014/15 and reduction in Training costs.
5. Over-expenditure due to cost related to enforcement issues.
6. Over-expenditure due to lower vacant positions in 2015-16, as compared to 2014/15.
7. Over-expenditure due to increase in general parks maintenance and operations costs, in various parks of the province.
8. Under-expenditure due to lower expenses at the Air Services Division and Fire, Emergency Response costs due to fewer fires in 2015/16.
9. The increase of in 2015/16 primarily due to filling Environment positions required for Environment Compliance and Enforcement programs.
10. The increase of \$979 in 2015/16 is primarily due to the implementation of various Climate Change Initiatives related to Green Trucking, Trees for Tomorrow and Climate friendly Agricultural projects in Manitoba.
11. The decrease of \$(505) in 2015/16 in operating expenditures is primarily due savings related to the use of the Fish and Wildlife Enhancement Fund for various Acquatic Invasive species programs, such as Zebra Mussels.
12. The decrease of \$(219) in 2015/16 in operating expenditures is primarily due to lower Zebra Mussels program expenses, which are now paid out of the Fish and Wildlife Enhancement Fund.
13. The increase of \$150 in 2015/16 in Conservation District and Watershed Assistance is primarily due to additional provincial funds, which were provided for the expansion of Conservation Districts in the municipalities of Manitoba, Hillsurg-Roblin-Shell River and Riding Mountain West, required to match anticipated incremental municipal funding as a result of municipal amalgamation in 2015/16.
14. The increase of \$262 in 2015/16 in Salaries and Employee Benefits is primarily due to filling of vacant positions.
15. The increase of \$166 in 2015/16 in operating expenditures is primarily due to increased legal costs, related to Water Right Act enforcement.
16. The decrease of \$(224) in 2015/16 in Salaries and Employee Benefits is primarily due to vacancies.
17. The increase of \$350 in 2015/16 in operating expenditures is primarily due to Transboundary legal costs for Northwest Area Water Supply projects.
18. The increase of \$121 in 2015/16 in Salaries and Employee Benefits is primarily due to additional staffing requirements for Watershed Planning programs.
19. The increase of \$227 in 2015/16 in operating expenditures is primarily due to increased expenses related to the Dutch Elm Disease program transition to 22 communities while continuing to complete back log elm removals with provincial crews.
20. The decrease of \$(334) in 2015/16 in Forest Regeneration Stock is primarily due to change in invoicing structure affecting charges in 2014/15.
21. The decrease of \$(179) in 2015/16 in the Recovery is primarily due to recovery of Zebra Mussel program did not occur.
22. The decrease of \$(30,071) in General Assets – Amortization Expense is primarily related to the Asset write-off to correct the Schedule of Unadjusted items, accounting treatment for International Polar Bear Conservatory, as recommended by the Office of Auditor General, removing the asset from the Province's tangible capital assets and treating it as an operating expense in 2014/15.
23. The decrease of \$(1,532) in 2015/16 in General Assets – Interest Expense is related to the Assiniboine Park Conservancy Arctic Exhibit building in 2014/15.
24. The increase of \$394 in 2015/16 in Infrastructure Assets – Amortization Expense is primarily due to newly completed Parks projects.
25. The increase of \$417 in 2015/16 in Infrastructure – Interest Expense is primarily due to newly completed Parks projects.
26. The decrease of \$(167) in 2015/16 in General Assets – Information Technology Projects was related to GIS Infrastructure Project costs.

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|--|
| 27. The decrease of \$(9,013) in 2015/16 in General Assets – Other Equipment and Buildings was primarily due to construction on the Lac du Bonnet Initial Attack Fire Base project incurred in 2014/15. |
| 28. The decrease of \$(5,978) in 2015/16 in Infrastructure Assets – Parks Infrastructure Projects was primarily due to several projects that were higher in 2014/15 (Assessippi road upgrade, Birds Hill Beach expansion, Brereton Lake water treatment plan, Spruce Woods lagoon, and Stephenfield lagoon). |

Table RE.4
Five Year Expenditure and Staffing Summary by Appropriation

For year ending March 31, 2012 – March 31, 2016*

	2011/2012		2012/2013		2013/2014		2014/2015		2015/2016	
	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)	FTEs	\$(000)
Administration and Finance	208.58	23,901	207.58	23,859	151.79	17,010	148.75	15,422	145.00	16,620
Parks and Regional Services	665.58	71,264	664.58	72,405	644.40	70,134	644.10	69,026	640.10	70,328
Environmental Stewardship	130.00	13,578	129.00	13,283	136.00	13,395	133.00	12,603	127.00	13,800
Water Stewardship & Biodiversity	238.16	34,775	237.60	35,844	244.35	31,384	238.35	29,435	227.35	28,768
Costs Related to Capital Assets		8,972		10,516		11,805		43,607		12,815
Total Appropriations	1,242.32	152,490	1,238.76	155,907	1,176.54	143,728	1,164.20	170,093	1,139.45	142,331

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

Performance Reporting Table 2015/16

The following section provides information on key performance measures for the department for the 2015/16 reporting year. This is the seventh year in which all Government of Manitoba departments have included a Performance Measurement section, in a standardized format, in their Annual Reports.

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

For more information on performance reporting and the Manitoba government, visit www.manitoba.ca/performance.

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? (baseline data and year) (C)	What is the 2015/2016 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
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 will continue to increase.	Approximately 2.1 million hectares of the 14.6 million hectares also have approved land use plans within the East Side Traditional Use Planning Area.
The availability of high quality outdoor recreation opportunities and experiences for Manitobans; measured by: - Number of	It is important to measure the expansion of available recreational campsites because the ability to enjoy outdoor recreation experiences is very	The baseline year is 2004/05 – 225 improved campsites were made available to Manitobans that year.	22 campsites were upgraded from Basic to Electrical Service at Manipogo. 41 seasonal campsites were upgraded from basic to electrical service and an additional 14 nightly	From 2004/05 through 2015/16, a total of 1034 camping improvements were implemented. Campsite	The province has made significant commitments with respect to increasing camping and cottaging opportunities for Manitobans.

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<p>improved campsites made available (e.g., washrooms, showers).</p> <ul style="list-style-type: none"> - Yearly occupation rates of all campsites. 	<p>important to Manitobans. Camping is an important activity in Manitoba and it is important to know if the camping program is meeting the needs of Manitobans.</p>		<p>campsites were upgraded to electrical service at Blue Lakes campground. Four new washroom/shower buildings were completed (St. Malo, Betula, Stephenfield and Falcon Lake) 1 yurt was added at Spruce Woods, and Camper's Cove received 3 additional yurts. These facilities will be ready for use in the 2016 camping season. The average campsite occupancy was 32.7%, which is up 2% from 2014/15.</p>	<p>occupancy .</p>	<p>In 2015/16, one of the seven campgrounds damaged by the 2011 flood remained closed. St. Ambroise campground remained closed but open for day use.</p>
<p>Number of cottage lots made available to Manitobans.</p>	<p>Providing cottaging opportunities is important to government and Manitobans. Relative affordability of cottage properties is a major reason why Manitoba remains attractive as a place to live.</p>	<p>The baseline year is 2004/05 when the Cottage Lot Program began. The commitment at that time was to create 1,000 new cottage lots. In 2007 government announced another 1,000</p>	<p>An estimate of 1,402 cottage lots have been made available in the form of newly created lots since 2004 and from pre-2004 cottage lot inventory. Approximately 90 lots have been sold or leased through Cottage Lot Draws and the First-Come, First Served Cottage Lot Program during 2015-16.From</p>	<p>The number of Manitobans applying/expressing interest for cottage lots through the Cottage Lot Draws and First Come First Served Cottage Lot programs remains consistently high since inception of the program.</p>	<p>The two-year development timeframe requirement for lots offered for sale through the First-Come, First-Served Cottage Lot Program was removed in August 2015. The number of sales has increased dramatically since</p>

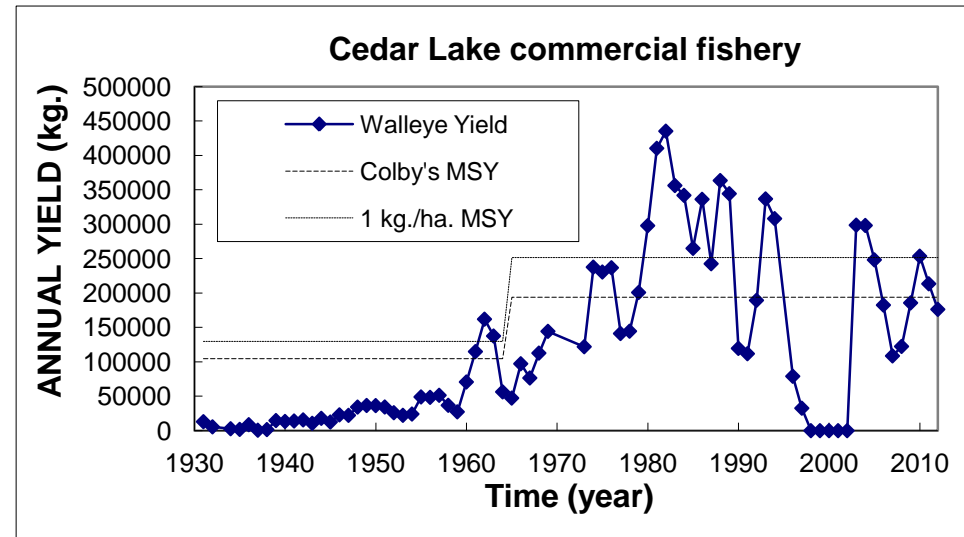
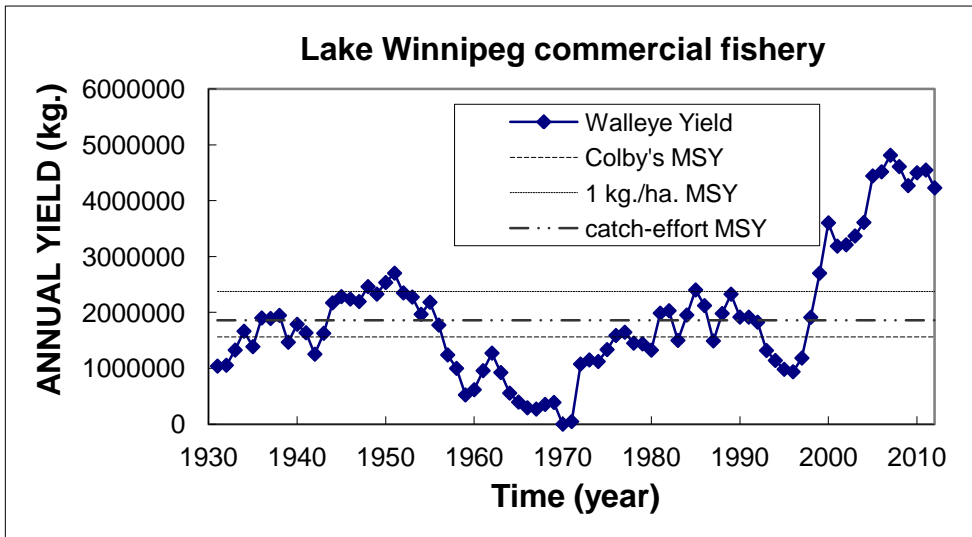
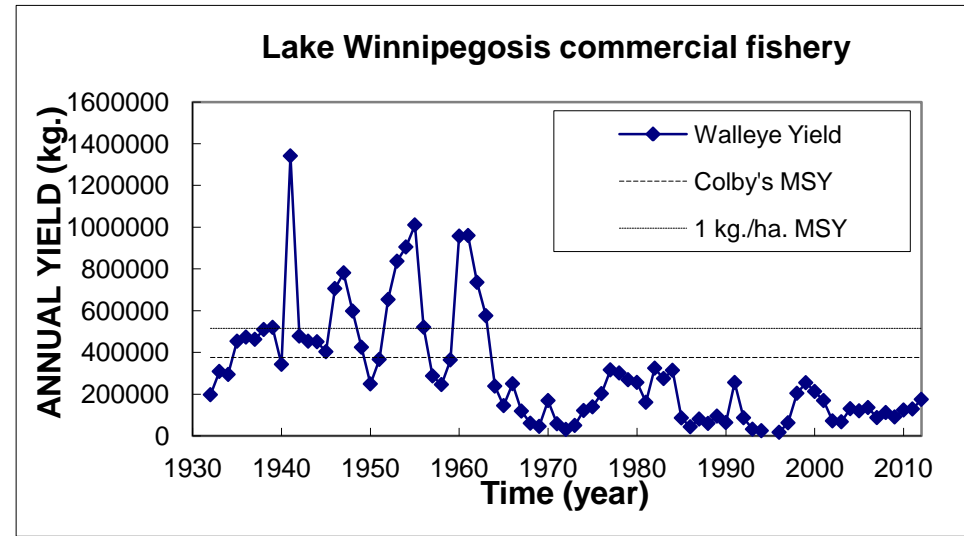
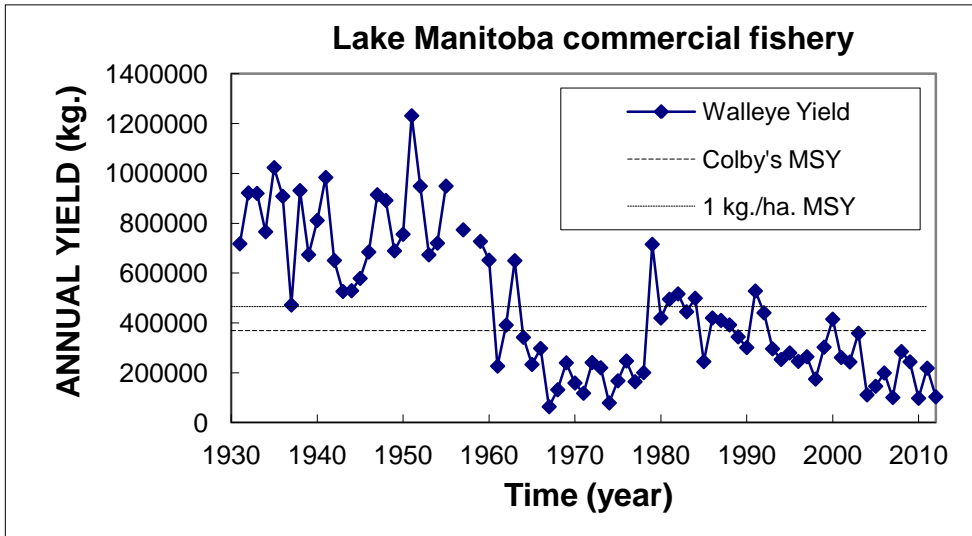
What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (base-line data and year) (C)	What is the 2015/2016 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
		new cottage lots would be created under the program. The focus of the Program since 2007 has been on joint cottage lot development with First Nations as a means to create economic opportunities.	2007 to 2009/10 Manitoba entered into Memorandums of Understanding with two First Nations. Manitoba continues to work with these First Nations towards joint cottage lot agreements.		this change and 62 cottage lots were selected for sale through the First-Come, First-Served Cottage Lot Program since the development requirement was removed.
Reduction in environmental liabilities for which the Department is responsible.	Contaminated and impacted sites may be harmful to human health and/or the environment. They need to be tracked to ensure public safety and health and environmental protection. They also create a financial liability that must be addressed.	The baseline year is 2005/06. Recorded value of environmental liabilities was \$39 million as of March 31, 2006.	Recorded value of environmental liabilities for the Department was \$97.5 million as of March 31, 2015.	Recorded value of environmental liabilities should decrease as sites are remediated, and environmental quality should increase as a result. The financial liability should also decrease over time.	Initial identification and assessment phase is complete. Assessment and remediation of priority sites is ongoing. Stronger legislation to ensure “polluter pays” and that the Department does not have to take responsibility for such sites is currently under consideration.
Hectares of protected land in Manitoba.	Protected areas help ensure conservation of biodiversity,	The baseline year is 1990 - 350,000	Currently 7.0 million hectares or 11.0% of Manitoba is protected –	Since 1990, the area of protected lands has increased	A public consultation document, <i>Places to Keep: Manitoba's</i>

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	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.	hectares were designated as protected when the Protected Areas Initiative began.	a significant increase since 1990. This includes two national parks, 30 ecological reserves, all or parts of 43 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.	from 350,000 hectares to 7,176,000 hectares, as of March 31, 2016.	<i>Protected Areas Strategy</i> , was released for public comment in November 2015.
The number and type of forestry co-management agreements in place, projects or developments undertaken by Aboriginal communities or number of contacts with communities or companies.	Provides an indication of the level of economic development opportunities in the forest sector for Aboriginal communities.	The baseline year is 2008/09.	A total of 5 tree planting contracts valued at \$233,869 awarded to First Nation contractors to plant 943,440 trees. Working with several FN communities regarding community awards for timber harvesting. Commercial Community awards (1): 1. Buffalo Point FN 1,000 m ³ hardwood	Increasing involvement in all area of forest renewal.	Forestry Branch continues to explore opportunities to engage First Nation involvement within the provincial forest inventory program.

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 2015/2016 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
			<p>Non-commercial community award (1) 3. Opaskwayak CN 19,500 m³ hardwood</p> <p>Forestry Crown Aboriginal consultation continues. In 2014/15 meetings were held in many communities and more meetings are scheduled for 2015/16.</p>		
<p>The status of fish stocks is being measured by comparing the commercial production of the most economically valuable fish species against Maximum Sustainable Yield (MSY). These comparisons are made for four large commercial fisheries: Lake Winnipeg, Lake Manitoba, Lake Winnipegosis and Cedar lake.</p>	<p>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>MSY and annual production contribute</p>	<p>The baseline used for management purposes is MSY and historic annual catch.</p>	<p>See walleye production & 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 –</p>	<p>Lake Winnipegosis – production of walleye has shown recent preliminary recovery.</p> <p>Lake Manitoba – production has experienced long term decline in walleye and sauger, however, recent years have seen increase in pike and carp deliveries.</p> <p>Cedar Lake – stabilized production over the past 10 years.</p>	<p>Lake Winnipegosis – The Department continued to implement rehabilitation strategies as part of overall stock recovery efforts.</p> <p>Lake Manitoba – The Department has implemented a moratorium on any new commercial tourism angling outfitting on Lake Manitoba until a policy is developed and approved that will guide how commercial tourism angling operations</p>

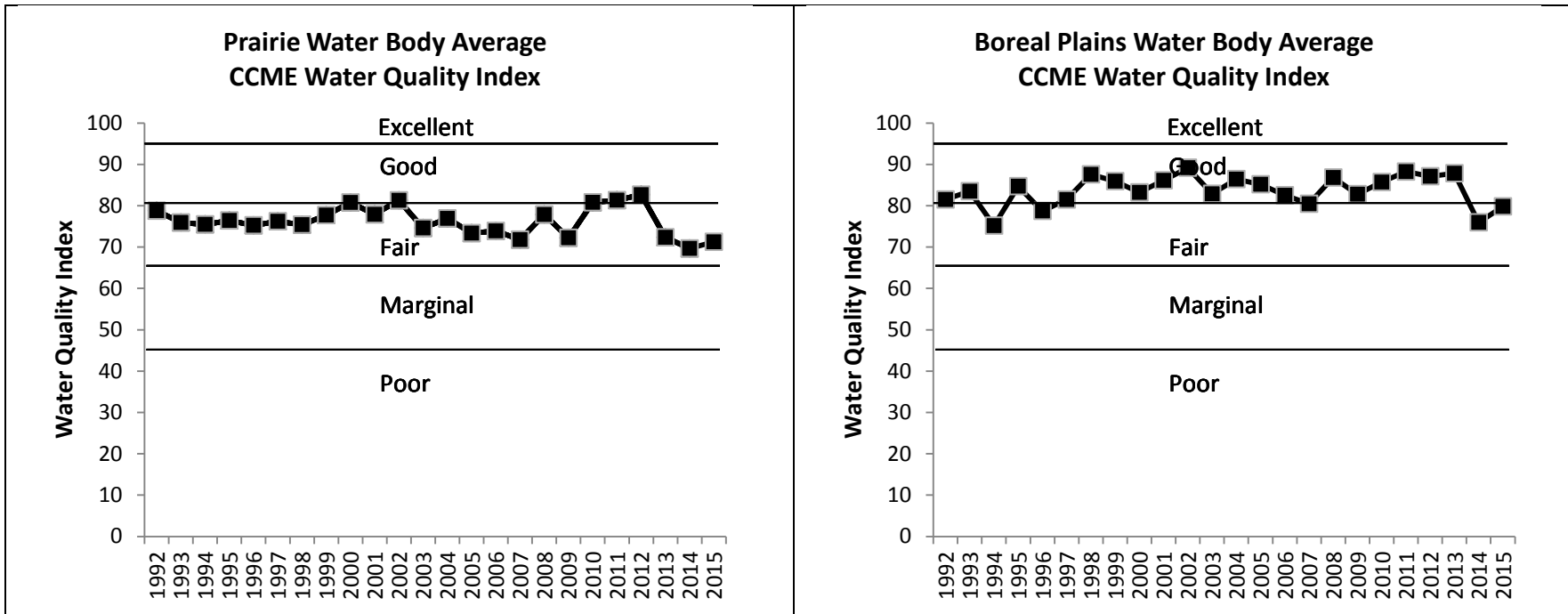
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	to the establishment of quotas for each lake.		6,623,000 kg (walleye, sauger, whitefish)	Lake Winnipeg – Walleye and Lake Whitefish landings are somewhat unpredictable despite season extension for fourth straight year.	<p>can be allocated to ensure the sustainable use of the local fishery resource.</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 and with annual stock monitoring activities. <i>A Lake Winnipeg Fishery Resource Co-Management Board</i> was established to enhance fisher participation in the decision-making process and support biological reviews.</p>

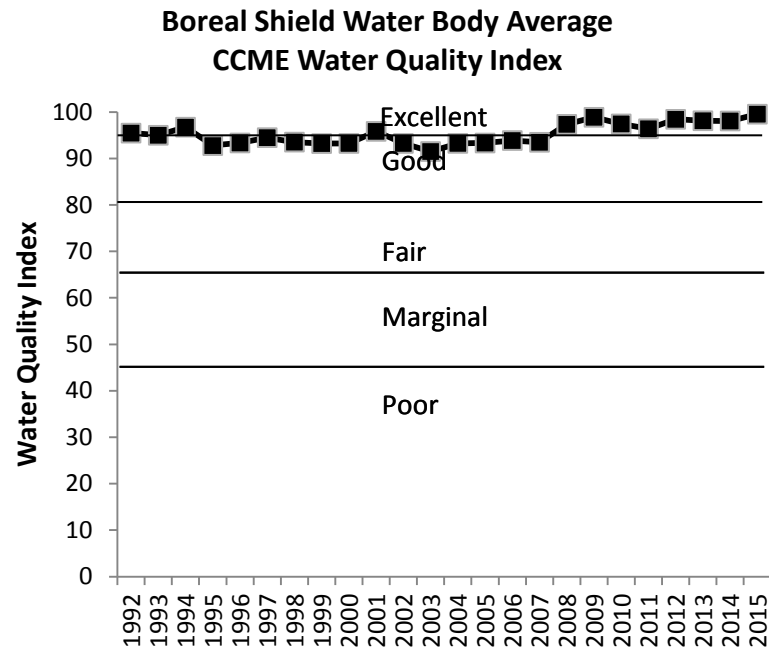
Commercial production and maximum sustainable yield (MSY) on four large Manitoba fisheries.



What is being measured and using what indicator? (A)	Why is it important to measure this? (B)	What is the starting point? (baseline data and year) (C)	What is the 2013/2014 result or most recent available data? (D)	What is the trend over time? (E)	Comments/recent actions/report links (F)
<p>Water quality in Manitoba, by assessing water quality data using the CCME Water Quality Index</p>	<p>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.</p>	<p>Water quality has been tested at many rivers, streams and lakes since the early 1970s. The Water Quality Index has been calculated for 40 to 50 sites since 1992.</p>	<p>The latest data available is for 2015. Within the Prairie Ecozone, the CCME Water Quality Index Value was 71 or of “fair” quality. Within the Boreal Plains, the CCME Water Quality Index Value was 80 or of “good” quality. Within the Boreal Shield Ecozone, the CCME Water Quality Index Value was 100 or of “excellent” quality.</p>	<p>The Water Quality Index in Manitoba has generally been stable since 1992 (see graphs below).</p>	<p>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; is implementing new nutrient standards for wastewater, and is promoting the reduction of nutrient loading via personal and collective action. The department is also working with upstream jurisdictions to protect, maintain and where necessary, improve, the quality of water flowing into Manitoba.</p>

CCME Water Quality Index for Manitoba





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

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

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

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

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

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

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

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<p>Approximately 437 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>The Office of Drinking Water began performance reporting in 2003 with a health-based compliance index that captured average public water system compliance with the most critical public health monitoring requirements: bacteriological testing schedules, bacteriological water quality standards, chlorine residual testing schedules, and chlorine residual</p>	<p>The health-based compliance index captured critical acute public health risks associated with disease-causing microbiological organisms. The index captured average public water system compliance with all requirements.</p> <p>The performance reporting measures (percentage of public water systems that achieve full compliance with all of the disinfection and bacteriological monitoring requirements) holds water systems to a much higher</p>	<p>The Office of Drinking Water's health-based compliance monitoring program started in 2003. The baseline for Manitoba's public water systems at that time was 72%.</p> <p>The baselines being established this year for the percentage of public water systems achieving full compliance with all of the disinfection and bacteriological monitoring requirements are 67% and 60% respectively.</p> <p>The baseline for percent</p>	<p>The 2015 percentage of public water systems achieving full compliance with all of the disinfection and bacteriological monitoring requirements are 65% and 62% respectively.</p> <p>The percentage of public water system complying with all chemical standards in 2014 is 69%.</p>	<p>The health-based compliance index has shown gradual improvement over time, with occasional dips as the Office expands its surveillance of previously unregulated systems. Initial data suggest the same will be true for the newer indicators.</p>	<p>N/A</p> <p><i>Drinking Water Safety Act.</i></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, scheduled and unscheduled inspections, water quality monitoring and education of water system owners, operators and the general public.</p> <ul style="list-style-type: none"> • Permitting helps ensure that minimum engineering and construction standards are met or exceeded. • Licensing, inspections and water quality monitoring help ensure that minimum operational performance and water quality standards are met. <p>Activities focus on public health protection, maintenance of water quality and public confidence.</p> <p>Rural and northern systems face significant challenges in trying to meet the monitoring requirements due to sample shipping constraints (transportation time limits and maximum/minimum temperature limits).</p>

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<p>standards.</p> <p>In 2011, the Office began reporting on the percentage of public water systems that achieved full compliance with all of the chemical standards that were to take effect the following year.</p> <p>In 2014-2015 the Office phased out the health-based compliance index, and began reporting on: the percentage of public water systems that achieve full compliance with all of their disinfection monitoring requirements; and the percentage of public water systems that achieve full compliance with all of their bacteriological monitoring requirements.</p>	<p>standard – requiring them to achieve 100% compliance with all monitoring requirements to be counted.</p> <p>Chemical standards typically address lower-level public health risks associated with lifetime exposure.</p>	<p>public water system compliance with all chemical standards established in 2011, was 66%.</p>				

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<p>The number and type of forestry co-management agreements in place, projects or developments undertaken by Aboriginal communities or number of contacts with communities or companies.</p>	<p>Provides an indication of the level of economic development opportunities in the forest sector for Aboriginal communities.</p>	<p>The baseline year is 2008/09.</p>	<p>A total of 5 tree planting contracts valued at \$233,869 awarded to First Nation contractors to plant 943,440 trees.</p> <p>Working with several FN communities regarding community awards for timber harvesting.</p> <p>Commercial Community awards (1): 1. Buffalo Point FN 1,000 m³ hardwood</p> <p>Non-commercialcommunity award (1) 3. Opaskwayak CN 19,500 m³ hardwood</p> <p>Forestry Crown Aboriginal consultation continues. In 2014/15 meetings were held in many communities and more meetings are scheduled for 2015/16.</p>	<p>Increasing involvement in all area of forest renewal.</p>	<p>Forestry Branch continues to explore opportunities to engage First Nation involvement within the provincial forest inventory program.</p>

The Public Interest Disclosure (Whistleblower Protection) Act

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

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

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

The following is a summary of disclosures received by Manitoba Conservation and Water Stewardship, Pineland Forest Nursery and Green Manitoba Eco Solutions for fiscal year 2015/16.

Information Required Annually (per Section 18 of The Act)	Fiscal Year 2015/16
The number of disclosures received and the number acted on and not acted <i>Subsection 18(2)(a)</i>	There was one disclosure received in March 2016.
The number of investigations commenced as a result of a disclosure. <i>Subsection 18(2)(b)</i>	The investigation was not initiated as it was determined that the disclosure did not fall within the categories of wrongdoing covered in <i>The Act</i> . The applicant was notified.
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. <i>Subsection 18(2)(c)</i>	N/A

STATUTORY RESPONSIBILITIES OF THE MINISTER OF CONSERVATION AND WATER STEWARDSHIP

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Manitoba Natural Resources Transfer Act, C.C.S.M. chapter N 30

The Natural Resources Agreement Act, 1938, C.C.S.M. chapter N 40

An Act to Ratify a Certain Agreement Between the Government of the Dominion of Canada and the Government of the Province of Manitoba, C.C.S.M. chapter N 50

The Manitoba Natural Resources Transfer Act Amendment Act, C.C.S.M. chapter N 60

The Manitoba Natural Resources Transfer Act Amendment Act, 1963, C.C.S.M. chapter N 70

The Ozone Depleting Substances Act, C.C.S.M. chapter O 80

The Provincial Parks Act, C.C.S.M. chapter P 20

[except section 22 and clause 33(u) and the Debt Certificate Regulation M.R. 140/96]

The Peatland Stewardship Act, C.C.S.M. chapter P31

[except Part 7]

The Pimachiowin Aki World Heritage Fund Act, C.C.S.M. chapter P 70

The Polar Bear Protection Act, C.C.S.M. chapter P 94

The High-Level Radioactive Waste Act, C.C.S.M. chapter R 10

The Resource Tourism Operators Act, C.C.S.M. chapter R 119.5

The Surveys Act, C.C.S.M. chapter S 240 [Part II]

The Sustainable Development Act, C.C.S.M. chapter S 270

The Upper Fort Garry Heritage Provincial Park Act, C.C.S.M. chapter U 80

The Waste Reduction and Prevention Act, C.C.S.M. chapter W 40

The Water Power Act, C.C.S.M. chapter W60 [except as it relates to the planning, construction or operation of provincial water control works],

The Water Protection Act, C.C.S.M. chapter W65

The Water Resources Conservation Act, C.C.S.M. chapter W72

The Water Rights Act, C.C.S.M. chapter W80

[except as it relates to the planning, construction or operation of provincial water control works]

The Wildfires Act, C.C.S.M. chapter W 128

The Wildlife Act, C.C.S.M. chapter W 130

[except that portion of clause 89(e) that applies to compensation for damage to crops caused by wildlife as it pertains to big game and migratory waterfowl]

The Wild Rice Act, C.C.S.M. chapter W 140

[except subsections 10(1) and 11(1)]

and:

Manitoba Fishery Regulations, 1987 made under section 43 of the *Fisheries Act* (Canada)

As per Schedule "D", Order in Council No. 148/2015