

**ENVIRONMENT AND  
NATURAL RESOURCES**



## **1. OVERVIEW**

### **MISSION**

Environment and Natural Resources (ENR) works with all people and interested organizations to protect our environment by making sure our resources are used wisely and that people understand their part in keeping the environment healthy.

### **GOALS**

1. The Northwest Territories' (NWT) air, land, water, wildlife, and forests are protected.
2. The NWT's natural resources are used and developed wisely in accordance with the Sustainable Development Policy.
3. Knowledge is gained through cooperating and sharing information with other organizations and people interested in the environment.
4. The NWT's environment and natural resources are managed with the understanding that forests, wildlife, air, land and water are connected.

### **KEY ACTIVITIES**

- Corporate Management
- Land and Water
- Environment
- Forest Management
- Wildlife

## **2. EMERGING ISSUES**

### ***Climate Change***

Climate change is one of the most serious environmental, economic and political challenges facing governments, communities and residents. Residents are already seeing and dealing with many environmental changes consistent with climate change predictions, including changes in sea ice, melting permafrost, shoreline erosion and weather.

Due to its geography, climate and economy, the NWT is dependent on fossil fuels and faces unique challenges to reducing its greenhouse gas (GHG) emissions. Although NWT emissions dropped in 2009, during the recent economic downturn, emissions are expected to increase as these activities resume and the economy regains strength. Reductions of GHG emissions will require adopting and expanding the use of renewable energy technologies (biomass, solar, geothermal and wind).

Climate change will impact forest growth and regeneration, wildland fire cycles, wildlife habitat, wildlife migration patterns, and water tables. ENR needs to modify its resource management practices to adapt to the impacts of climate change. For example, with the changing climate invasive alien species now have a greater chance of becoming established in the NWT and have become the second greatest threat to biodiversity after habitat loss.

### ***Protecting Biodiversity and Sustainable Use of Renewable Resources***

#### ***National Recovery Strategies***

A national recovery strategy is a legal requirement for all species listed as threatened or endangered under the federal *Species at Risk Act* (SARA). Boreal caribou are listed as a threatened species under SARA. A proposed National Boreal Caribou Recovery Strategy is being finalized by the Government of Canada. The recovery strategy identifies recovery objectives and critical habitat. Critical habitat must be legally protected by Aboriginal Affairs and Northern Development Canada (AANDC) on federal lands and by the GNWT on Commissioner's Lands. The legal requirement to protect critical habitat will have implications for GNWT infrastructure, economic development, land claim and self-government negotiations and wildland fire management in the NWT. Implementation of the recovery strategy will also have socio-economic impacts on the NWT as it may limit resource development within portions of boreal caribou range in the NWT. In 2012-13, recovery strategies will also be required and critical habitat will need to be identified and legally protected, for wood bison, Peary caribou, and likely two species of bats (northern myotis and the little brown myotis).

#### ***Barren-ground Caribou Management***

Management actions taken during the past four years have helped many barren-ground caribou herds stabilize and, in some cases, increase in size. Some herds continue to decline. Overall, herd numbers remain low and measures to assist recovery and long-term sustainability are still required. The NWT Barren-ground Caribou Management Strategy 2011-2015 identifies actions to help herds continue to grow and recover. ENR will continue to implement actions identified in the Strategy, including monitoring the cumulative effects of climate change, human disturbance and anthropogenic disturbance on barren-ground caribou (a priority action identified during the public review of the Strategy). Successful implementation of the Strategy requires extensive cooperation with communities and active participation by Aboriginal governments and other partners.

As six of the eight barren-ground caribou herds are shared with other provinces and territories, ENR will continue to work with other jurisdictions to develop joint management plans for the shared herds. Decreased access to caribou has increased pressure on other species, such as muskox, moose, woodland boreal caribou and wood bison. Monitoring these species and developing and implementing management plans is critical to maintaining abundant natural resources.

#### *Wildland Fire Management*

Reconciling the role of fire in maintaining the ecosystem with the need to protect people, property and forest values presents a complex challenge. This is further complicated by climate change, resulting in a high level of seasonal variability that is likely to increase the number and severity of wildland fires during the next century. A Wildland Fire Program Review was completed to assess the changing needs of the people of the NWT and the effects of fire on those needs. Program Review recommendations will be implemented to ensure the program is addressing the needs of communities and residents, particularly in determining the values at risk and value placed on wildlife habitat.

The GNWT owns and operates a fleet of four CL215 air tankers to support wildland fire suppression. This fleet is aging. Due to critical operating considerations, the GNWT must determine replacement of the fleet. The air tankers have about five to eight years of useful life left. The continued ability of the GNWT to provide effective and efficient wildland fire response requires water skimmer aircraft as an available fire response tool. The future of a land-based air tanker fleet (currently supplied under contract) is in question, due to the availability of aircraft options. Viable options for the replacement of the fleet will be developed.

#### *Land and Water Management*

##### *Protecting Territorial Waters*

Protecting territorial waters is a strong priority for the people of the Northwest Territories. As the downstream jurisdiction in the Mackenzie River Basin, much of the NWT's water resources are influenced by management decisions in the upper basin, primarily British Columbia, Alberta and the Yukon. Rapid and extensive development of oil sands in Alberta's Athabasca region and the anticipated Site C hydroelectric development downstream from the Bennett Dam in British Columbia have heightened community concerns about water quality, water quantity and traditional harvests of wildlife and fish.

Implementation of the NWT Water Stewardship Strategy and Action Plan are critical to addressing these concerns. This includes community source-water protection plans, community-based water monitoring programs and a transboundary water agreement with Alberta.

##### *Infrastructure development - all season highways*

The development of all season highways by the Department of Transportation (DOT) require environmental assessments (EAs) to be completed and follow up effects monitoring. The EA for the Inuvik to Tuktoyaktuk all season road is underway through the Inuvialuit Environmental Impact Review Board and plans for long-term wildlife effects monitoring by ENR will be developed. ENR provides assistance to DOT throughout the EA given the complexity of the process. ENR will also continue coordinating GNWT Departmental intervention during each highway EA. Considerable additional time and resources from ENR and other GNWT departments will need to be invested in the anticipated EA for the Mackenzie Valley Highway.

## *Environment and Natural Resources*

### ***Forest Industry Development***

Support for a viable sustainable forest industry accessing timber, biomass, and non-timber forest resources remains a priority for the GNWT. Woody biomass as an alternative energy source is an emerging economic opportunity. Essential planning, resource information and advice to communities and entrepreneurs on sustainable development and management of forest resources are critical in supporting emerging and existing forest industry players. Implementation of new regulatory options, and working with Aboriginal governments and industry to support a viable forest industry in the north is a continuing challenge.

The management of forest resources was devolved to the GNWT in 1987, as part of the transfer of fire and forest management from Canada to the GNWT. Under the transfer, the GNWT received the authority and responsibility for management and conservation of forest resources on 75 million hectares of forested lands in the NWT. Northern management of forest lands should address the concepts of eco-system based management and sustainable management of forest resources for the continuing and future benefit of northern residents. Current legislation and policy is either absent, deficient or dated, having been drafted in 1988. ENR is developing updated Forest Management Regulations and policy work is underway.

### ***Environmental Protection***

NWT residents are concerned with the quality of the environment. There is a need to address past environmental liabilities and ensure current activities are conducted in an environmentally appropriate manner.

#### *Managing the impacts of past, present and future developments*

There is an environmental legacy of abandoned waste sites across the NWT, much of it from past resource development and government activities. While the responsibility to manage and clean up abandoned waste sites on crown land lies with the federal government, the GNWT maintains an interest in ensuring these sites are remediated and managed properly. The GNWT also maintains, or shares, responsibility for contaminated sites located on Commissioner's Land including dumps and landfills.

Remediation of the Giant Mine site poses the greatest challenge in the NWT. ENR is a co-proponent in the Giant Mine Remediation Project and has booked a \$23 million liability for the Project. The Project is currently undergoing an EA. ENR will continue to coordinate other GNWT issues that may arise during the EA, for instance those related to health, municipal plans, highways or wildlife.

#### *Hydraulic Fracturing*

Unconventional oil and gas techniques and hydraulic fracturing are being considered for use in the NWT. Applications or permits to use these techniques in the Sahtu and Dehcho regions are expected to be filed within the next year. There are many concerns about the use of these techniques. An analysis is being undertaken outlining the economic opportunities, environmental concerns and human health issues related to the use of unconventional hydraulic fracturing techniques in the NWT. ENR, Industry, Tourism and Investment (ITI) and Health and Social Services (HSS) are working to develop an understanding of the hydraulic fracturing issue.

*Electronic waste*

Waste products fill landfill sites, using up valuable land and creating potential environmental hazards. Current programs continue to reduce our impacts on the environment. Expanding the NWT's waste reduction and recovery programs will ensure this continues. ENR is currently assessing the viability of introducing an electronic waste program for the NWT.

***Devolution - Identification of waste sites***

A key factor affecting resource and environmental management in the NWT is the devolution of responsibility for land, water and non-renewable resources from Canada to the GNWT. Contaminated sites, most on crown lands, can be found throughout the NWT. The GNWT needs a greater understanding of the status of federal contaminated sites and the risk they may pose to the environment prior to a final devolution agreement.

Negotiations and implementation of the devolution final agreement are likely to have a significant impact on ENR. Therefore, ENR will continue to support negotiations and implementation of complex devolution-related issues such as human resources and organizational design, regulatory issues relating to land and water, waste site delineation, and information systems. These activities will be undertaken through various devolution working groups and in cooperation with other GNWT departments.

### 3. 2012-13 PLANNING INFORMATION

The detailed description of planned activities for the department includes the following sections:

- a) **Fiscal Position and Budget** provides information on the department's operation expenses and revenues.
- b) **Key Activities** describes the department's major programs and services, including strategic activities, as well as results to date and measures.
- c) **Responding to Priorities** describes current major activities the department is undertaking in supporting the priorities identified by the 17<sup>th</sup> Assembly.
- d) **Infrastructure Investments** gives an overview of the department's planned infrastructure investments for 2012-13.
- e) **Legislative Initiatives** provides a summary of the department's legislative initiatives during the 17<sup>th</sup> Legislative Assembly as well as initiatives planned for 2012-13.
- f) **Human Resources** includes overall statistics and position reconciliation, information on capacity building activities as well as departmental training and development.
- g) **Information Systems and Management** describes department-specific information and management systems as well as major initiatives planned for 2012-13.

#### a) Fiscal Position and Budget

##### DEPARTMENTAL SUMMARY

	<b>Proposed Main Estimates 2012-2013</b>	<b>Revised Estimates 2011-2012</b>	<b>Main Estimates 2011-2012</b>	<b>Actuals 2010-2011</b>
	(\$000)	(\$000)	(\$000)	(\$000)
<b>OPERATIONS EXPENSE</b>				
Corporate Management	11,171	11,172	10,995	11,710
Land and Water	4,827	4,849	4,123	4,191
Environment	5,936	9,709	8,662	7,531
Forest Management	28,634	33,603	28,439	31,023
Wildlife	15,125	15,175	15,274	15,339
<b>TOTAL OPERATIONS EXPENSE</b>	<b>65,693</b>	<b>74,508</b>	<b>67,493</b>	<b>69,794</b>
<b>REVENUE</b>	<b>1,570</b>	<b>1,920</b>	<b>1,920</b>	<b>1,585</b>



**OPERATION EXPENSE SUMMARY**

	Main Estimates 2011-2012	Proposed Adjustments			Internal Reallocation of Resources	Main Estimates 2012-2013
		Forced Growth	Strategic Initiatives	Sunsets and Other Approved Adjustments		
<b>Corporate Management</b>						
Directorate	2,253	-	-	-	(100)	2,153
Policy & Strategic Planning	1,225	-	-	-	100	1,325
Shared Services	3,197	-	-	-	-	3,197
Field Support	1,368	-	-	-	-	1,368
Corporate Costs	2,741	168	-	-	2	2,911
Amortization	211	-	-	6	-	217
<b>Total Corporate Management</b>	<b>10,995</b>	<b>168</b>	<b>-</b>	<b>6</b>	<b>2</b>	<b>11,171</b>
<b>Land &amp; Water</b>						
Program Management	3,230	1	905	(200)	(2)	3,934
Environmental Assessment & Monitoring	893	-	-	-	-	893
Amortization	-	-	-	-	-	-
<b>Total Land and Water</b>	<b>4,123</b>	<b>1</b>	<b>905</b>	<b>(200)</b>	<b>(2)</b>	<b>4,827</b>
<b>Environment</b>						
Program Management	755	-	-	(85)	-	670
Environmental Protection	1,750	-	-	-	(3)	1,747
Energy Management	6,148	-	750	(3,385)	-	3,513
Amortization	9	-	-	(3)	-	6
<b>Total Environment</b>	<b>8,662</b>	<b>-</b>	<b>750</b>	<b>(3,473)</b>	<b>(3)</b>	<b>5,936</b>
<b>Forest Management</b>						
Program Mgmt & Presuppression	19,095	559	-	(210)	-	19,444
Suppression	4,540	-	-	-	-	4,540
Forest Resources	3,159	3	-	(300)	-	2,862
Amortization	1,645	-	-	143	-	1,788
<b>Total Forest Management</b>	<b>28,439</b>	<b>562</b>	<b>-</b>	<b>(367)</b>	<b>-</b>	<b>28,634</b>
<b>Wildlife</b>						
Wildlife Management	546	-	-	-	29	575
Wildlife Support	2,665	-	-	(100)	(5)	2,560
Technical Support	6,036	3	-	-	(14)	6,025
Field Operations	5,576	21	-	-	(7)	5,590
Amortization	451	-	-	(76)	-	375
<b>Total Wildlife</b>	<b>15,274</b>	<b>24</b>	<b>-</b>	<b>(176)</b>	<b>3</b>	<b>15,125</b>
<b>TOTAL DEPARTMENT</b>	<b>67,493</b>	<b>755</b>	<b>1,655</b>	<b>(4,210)</b>	<b>-</b>	<b>65,693</b>

**REVENUE SUMMARY**

	(thousands of dollars)			
	2012-2013 Main Estimates	2011-2012 Revised Estimates	2011-2012 Main Estimates	2010-2011 Actuals
<b>General</b>				
Timber Permits and Licences	5	5	5	37
Hunting and Fishing Licences	550	600	600	504
	<u>555</u>	<u>605</u>	<u>605</u>	<u>541</u>
<b>Recoveries</b>				
Lease Revenue	-	-	-	2
Mutual Aid Resources Sharing	-	300	300	27
Amortization of Capital Contributions	1,015	1,015	1,015	1,015
	<u>1,015</u>	<u>1,315</u>	<u>1,315</u>	<u>1,044</u>
<b>TOTAL</b>	<u><b>1,570</b></u>	<u><b>1,920</b></u>	<u><b>1,920</b></u>	<u><b>1,585</b></u>

## *b) Key Activities*

### **KEY ACTIVITY 1: CORPORATE MANAGEMENT**

#### Description

The Corporate Management activity provides overall management, strategic planning, communication, and leadership to the Department's divisions and regions. Divisions and Units within this activity enable the Department to respond effectively to the environmental and resource management priorities of NWT residents.

The Corporate Management activity is carried out through Directorate, the Policy and Strategic Planning Division, Shared Services (Finance and Administration and Informatics Divisions), and the Field Support Unit.

**Directorate** provides overall leadership, management, and strategic planning for the Department.

**Policy and Strategic Planning** provides policy, legislative, strategic planning, coordination, and communications and media relations expertise to lead associated initiatives or provide support to the Department to make informed decisions on environmental and resource management issues.

The **Field Support Unit** provides regional and divisional support on activities related to traditional knowledge, Aboriginal relations, licensing, compliance, public education, and employee training.

**Shared Services** consists of the Finance and Administration and Informatics divisions, providing services to the Departments of Environment and Natural Resources and Industry, Tourism and Investment.

Finance and Administration provides financial management and administrative services to the departments. These services include providing advice to senior managers on financial management, financial control, contracts and contributions.

Informatics provides broad Information Management Services including Records and Library Services, Geomatics and Geographic Information Systems and analysis, Information Systems development, implementation and operations, and strategic advice and guidance on the use of information and technology in support of programs and services.

This activity also includes **Corporate Costs**, which capture Department-wide specific costs such as lease payments, vehicle and building maintenance and fuel.

**Major Program and Service Initiatives 2012-13**

**Policy and Strategic Planning (PSP)**

During 2012/13, PSP will continue to provide ongoing decision-making and communication support to the Department. Specific areas of focus include the development of a departmental strategic plan and Framework for Action linking priority areas of the department and the GNWT with the allocation of human and financial resources; review the implementation of the Sustainable Development Policy; development of a comprehensive approach to cumulative effects; advancement of new wildlife legislation for review by the Legislative Assembly; development of a policy for critical wildlife areas; and development of an internal consultation Framework.

**Field Support Unit (FSU)**

FSU will continue to focus on establishing strong relationships with regions and divisions to provide added value to their existing programs. Areas of focus will include: the development and implementation of a Hunter's Education Program; advancement of the Training Strategy; implementation of compliance and licensing databases; Aboriginal liaison advice for departmental initiatives; coordination of the GNWT Interdepartmental Traditional Knowledge (TK) Committee to promote government-wide implementation of the Traditional Knowledge Policy; establishment of formal TK access; development of resource materials for teachers to assist with the inclusion of traditional knowledge within school curriculums; and, development of a guide to improve decision-making within ENR and encourage the consideration of traditional knowledge as part of an established organizational process.

**Shared Services**

Finance and Administration will continue to work with other departments on the preparation and implementation of the GNWT shared financial services and shared procurement initiatives.

Informatics will focus on several system enhancements. Details of the specific systems are found in the Information Systems and Management section of this Business Plan.

## **KEY ACTIVITY 2: LAND AND WATER**

### **Description**

Land and water programs are those that stem from federal environmental legislation that have GNWT obligations, such as the *Mackenzie Valley Resource Management Act*, as well as related partnership initiatives such as water stewardship and cumulative effects. Key program areas include regional land use planning, protected areas, environmental impact assessment, and water stewardship. The Land and Water Division houses the NWT Protected Areas Strategy (PAS) Secretariat, which is shared with Aboriginal Affairs and Northern Development Canada.

Regional land use plans integrate environmental, social, cultural and economic interests, ensuring NWT values on the landscape are protected or conserved by defining where development can occur and under what general conditions. Consistent with regional land use planning, the NWT PAS protects special natural and cultural areas and core representative areas within each eco-region.

Environmental Assessment and Monitoring (EAM) functions include overseeing ENR's input into preliminary screenings of regulatory applications and renewal of permits and licenses, as well as the GNWT's participation in environmental assessments and environmental impact reviews, and improvements such as guidelines or proposed amendments to the NWT land and water regulatory system. EAM coordinates input from Regional Environmental Assessment Coordinators who provide comments from a local perspective on regulatory applications. EAM is also involved with follow-up monitoring and overseeing GNWT requirements set out in Environmental Agreements.

Water Stewardship functions involve the ongoing implementation of the NWT Water Stewardship Strategy with other water management partners. GNWT focus areas include transboundary water issues, community public water supply source protection, community based aquatic monitoring and aquatic ecosystem indicators, as well as federal/provincial/territorial initiatives related to water resources stewardship.

### **Major Program and Service Initiatives 2012-13**

During 2012/13, Land and Water will continue to lead GNWT efforts to manage water resources, coordinate land use planning, provide a secretariat function to the NWT Protected Areas Strategy and coordinate the GNWT's participation in environmental assessments and environmental impact reviews.

#### **NWT Water Stewardship Strategy**

ENR continues to coordinate the implementation of the NWT Water Stewardship Strategy and Action Plan. Specific initiatives for 2012/13 include: negotiations towards a transboundary water management agreement with Alberta; public and Aboriginal engagement on transboundary matters; community-based monitoring; aquatic ecosystem health indicators research and monitoring; community source water protection; and, shared national interests, such as the development of a national water agenda.

#### ***Inter-jurisdictional Commitments***

ENR is working toward negotiating a Bilateral Transboundary Water Management Agreement with Alberta. A final transboundary Agreement is expected in 2013. Work continues on developing an

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agreement with the federal government on the management of municipal wastewater. ENR will remain active in the Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring and will promote NWT-related research and monitoring.

### *Community-Based Monitoring*

ENR will work with NWT communities to prepare regional state of the knowledge reports and vulnerability assessments to identify and prioritize monitoring and research needs. Several funding proposals for monitoring and research, including a Cumulative Impacts Monitoring Program application for 2012-2013, have been completed. ENR is providing water quality monitoring equipment and training materials on community-based monitoring activities to NWT communities. The equipment will be deployed and training offered to interested communities during the 2012-2013 ice free season. ENR continues to develop and implement research partnerships, such as the Wilfrid Laurier-GNWT Contribution Agreement, that can contribute to community-based monitoring and aquatic ecosystem health indicators.

### *Aquatic Ecosystem Health Indicators*

Building on community workshops to gather traditional and local knowledge perspectives, ENR will work with the Canadian Water Network and other western science experts to define appropriate aquatic ecosystem health indicators for NWT waters. This work helps ensure that aquatic ecosystem health indicators selected for the NWT will be relevant from traditional/local knowledge and western science perspectives.

### *Protect Community Source Water*

ENR is working with communities and other GNWT departments (Municipal and Community Affairs, Health and Social Services, and Public Works and Services) on source water protection initiatives. This work builds on source water protection maps for community catchments updated in 2011-2012. ENR will provide support for communities to create source water protection plans during 2012-2013. Research and development work is underway related to the management of municipal wastewater effluent for Canada's Far North under the *Canada-wide Strategy for the Management of Municipal Wastewater Effluent*.

## Regional Land Use Planning

### *Draft Sahtu Land Use Plan*

The GNWT will participate in the tripartite meeting with Aboriginal Affairs and Northern Development Canada (AANDC) and Sahtu Secretariat Incorporated (SSI) as a forum to resolve any outstanding issues with the Draft 3 plan. The final draft plan is expected in May 2012 and will take effect upon approval by SSI, GNWT and AANDC.

### *Revised Gwich'in Land Use Plan*

The GNWT will provide comments on the Final Draft of the Revised Gwich'in Land Use Plan released for review and comment by the Gwich'in Land Use Planning Board (GLUPB). This is the next step in the five-year review of the GLUP that is required under s. 50 of the *Mackenzie Valley Resource Management Act* (MVRMA). The final revised plan is expected in May 2012 and will take effect upon approval by the Gwich'in Tribal Council, GNWT and AANDC.

### *Interim Dehcho Land Use Plan*

The GNWT will continue to work with the Dehcho Land Use Planning committee, through its member, to advance an Interim Dehcho Land Use Plan.

NWT Protected Areas Strategy – Establishment Action Plan (2010-2015)

Progress continues on actions identified in the NWT Protected Areas Strategy (PAS) Establishment Action Plan.

The PAS Secretariat is working collaboratively with key departments to prepare GNWT wording for several PAS sites to be included in recommendations reports available for public review during the next six months.

An internal review of the GNWT's role in the PAS is being conducted with representatives from interested Managing This Land departments (ENR, DOT, ITI, Education Culture and Employment, Executive, and Aboriginal Affairs and Intergovernmental Relations). This review is intended to improve the effectiveness and efficiency of the GNWT's role in the PAS.

Criteria for the establishment of Critical Wildlife Areas under the *Wildlife Act* are being developed. The criteria will provide direction to ENR on the management of Critical Wildlife Areas and on sponsorship of additional Critical Wildlife Areas.

The *Ejé Túé Ndáde* (Buffalo Lake, River and Trails) Candidate Critical Wildlife Area, sponsored by ENR under the *Wildlife Act*, is nearing completion of Step 5 of the Protected Areas Strategy process. The *Ejé Túé Ndáde* Working Group has completed a draft report which includes recommendations on the designation, administration, boundary, and management for the area. As a working group member, ENR will seek GNWT support for the Recommendations Report before it is posted for an eight-week public review. The Kátlódeeché First Nation, who proposed this area for protection in 2007, is expected to submit the Recommendations Report to ENR following the public review. ENR will also work to consider consistency between Critical Wildlife Areas policy under the current *Wildlife Act* and Conservations Zones as contemplated under the proposed new *Wildlife Act*.

Environmental Assessment and Monitoring (EAM)

EAM is working on increasing GNWT departmental access to environmental assessment and regulatory information through tools such as a Sharepoint website, information training sessions, and the Environmental Assessment Tracking System (EATS). EATS is intended to be a key tracking tool for access and use by all relevant GNWT departments.

EAM is participating with federal government departments in development of Responsible Ministers protocol to assist Responsible Ministers in meeting requirements under the MVRMA. EAM will work to refine ENR policies and work with other departments on developing GNWT protocol for EA intervention.

EAM's level of involvement and time committed in environmental assessment and regulatory reviews is project dependent. There are currently nine environmental assessments and one environmental impact review underway that will carry over to 2012/13. EAM participates and/or has an interest in transborder projects such as the North American Tungsten Mactung Mine Project proposal and the potential application in the Yukon for the Selwyn Chihong Mining Ltd. Mine Project. EAM is also participating on an Environmental Assessment Working Group that has been struck by the province of British Columbia for the environmental impact assessment of the proposed Site C dam. It is expected that the Seabridge Gold Courageous Lake Project will be sent to environmental assessment once its land use permit and water licence applications are submitted in the fall of 2012. EAM continues to provide assistance to DOT, as it prepares for and progresses towards the Mackenzie Valley Highway.

**Measures Reporting**

**Measure 1** - Number of inter-jurisdictional meetings attended on water initiatives

In 2010/11, a total of six meetings were attended on water initiatives. They are as follows:

- Council of the Federation - Water Charter (1)
- Peace-Athabasca Delta Environmental Monitoring Program (1)
- Canadian Council of Ministers of the Environment
  - Canada Wide Strategy for the Management of Municipal Wastewater Effluent (1)
  - Water Management Council (1)
- Transboundary Waters – Alberta (2)

**Measure 2** - Number of engagement activities undertaken within regions to promote water stewardship

In 2010/11, approximately 25 activities were undertaken within regions to promote water stewardship. This included engagement on the Water Strategy as a whole, preparation for transboundary water management agreements, community-based monitoring, source water protection, aquatic ecosystem health indicators, and the Wilfrid Laurier Agreement.

**Measure 3** - Number of land use plans successfully negotiated and in place

To date, the Gwich'in Land Use Plan (2003) is the only approved regional land use plan. The Sahtu Land Use Plan and approval and the five-year review of the Gwich'in Land Use Plan are expected to be finalized in 2012.

**Measure 4** - Number of NWT PAS sites advance through PAS stepped process

The PAS can be roughly divided into three main “phases”:

1. Identify and sponsor protected areas (PAS Steps 1-3)
2. Assess candidate areas and establish protected areas (PAS Steps 4-7)
3. Monitor and manage established areas (PAS Step 8)

<b>Number of NWT PAS sites advance through PAS process</b>			
<b>Steps in the PAS process</b>	<b>2008-2009</b>	<b>2009 -2010</b>	<b>2010-2011</b>
Number of sites			
Steps 1-2	13	10	9
Step 3	4	2	1
Step 4	4	1	3
Steps 5-8	1	5	5
Established	0	1	1
Total	22	18	19



**Measure 5 - Amount and number of ecoregions with established protected areas**

Percent of eco-region protected	Number of ecoregions protected		
	2008-2009	2009-2010	2010-2011
> 75 %	3	4	4
50 to 75 %	1	2	2
20 to 50 %	5	5	5
5 to 25 %	5	8	8
< 5 %	28	23	23

In total there are 42 ecoregions in the NWT that have varying degrees of representation by established protected areas. From fiscal 2008-09, the amount of representation has increased in 5 ecoregions. Ecoregions with less than 5% protection are down from 28 to 23 ecoregions.

**Measure 6 - Number of regulatory applications, renewals, and environmental assessments coordinated**

EAM coordinated the submission of technical comments and recommendations from ENR divisional and regional staff to resource management boards and agencies on 223 applications. These applications were for water licenses and land use permits throughout the territory as well as leases on Commissioner’s Lands and Crown Lands.

Regulatory Applications				
	2007-08	2008-09	2009-10	2010-11
Water Licenses	29	3	39	32
Land Use Permits (Mackenzie Valley only)	93	56	66	64
Leases	40	132	51	65
Other Screenings (Inuvialuit region)	31	39	55	62

The GNWT engages in environmental assessments and environmental impact reviews of projects within the NWT as well as those in neighbouring jurisdictions that have the potential to affect the NWT environment.

Environmental Assessments (EAs) and Environmental Impact Reviews (EIRs)				
	2007-08	2008-09	2009-10	2010-11
NWT	15	16 EAs – 2 EIRs	17 EAs – 2 EIRs	11 EAs – 1 EIR
Nunavut	1	2	2	2
Yukon	0	1	2	1
British Columbia	1	0	0	1
Alberta	0	0	0	0

While the number of applications and assessments is a reflection of the level of activity in the NWT, it is only an indirect measure of the level of effort required to conduct the regulatory reviews and participate in environmental impact assessments as effort varies substantially based on the nature of the proposed development and the associated potential for environmental or socioeconomic impacts.

## **KEY ACTIVITY 3: ENVIRONMENT**

### **Description**

The Environment Division works to maintain a high quality environment for the benefit of current and future generations.

The Environmental Protection section works to prevent and reduce the impact of human activities on the natural environment by providing information, advice, and programs in the areas of contaminated sites, hazardous substances, solid and hazardous waste management, waste reduction and recovery, and air quality.

The Climate Change Programs (CCP) section coordinates the GNWT's response to climate change by developing strategies and activities to control and inventory greenhouse gas emissions, identifying climate change impacts, increasing awareness of climate change, and adapting to a changing climate. Working with the Arctic Energy Alliance, the CCP section encourages energy conservation and the use of energy efficient technologies and alternative energy sources.

The Environment Division has the lead on implementation of the GNWT Science Agenda. The Senior Science Advisor provides expertise, leadership, and vision across the GNWT as a champion for excellence in scholarship and research. The Advisor is responsible for promoting collaborative research priorities and themes relevant to the GNWT and northerners, engaging research partners in science policy development, encouraging investment in research and promoting major research initiatives.

### **Major Program and Service Initiatives 2012-13**

#### **Environmental Protection**

Environment will continue to provide technical expertise on regulatory and mitigation approaches to addressing air quality, waste management, hazardous materials management, spills planning, and environmental protection planning issues associated with resource development, exploration and construction activities. This expertise ensures ENR can conduct thorough and detailed reviews of mining and oil and gas exploration and pipeline applications; support mitigation and remediation activities; address public concerns over potential environmental impacts from pipeline and natural gas development; and, reduce the GNWT's post-devolution environmental liabilities.

ENR will continue to participate on the Waste Sites Intergovernmental Working Group. The group's primary role is to review, categorize and identify additional Waste Sites as defined in the Devolution Agreement-in-Principle. ENR's technical experts are reviewing a federal database that includes information on 681 identified sites.

ENR continues to be an active participant on the Giant Mine remediation team to ensure that GNWT priorities are recognized in the clean-up of the mine site and stabilization of the underground arsenic waste stored there.

ENR is working with ITI and HSS to develop an understanding of the hydraulic fracturing issue. ENR is developing expertise to be able to review industry proposals and provide guidance on waste management activities to ensure protection of the environment from potential contaminants from these activities.

Under the Waste Reduction and Recovery Act, the GNWT can implement programs to reduce, reuse, recycle and recover waste products/materials throughout the NWT, or ban certain materials that damage the environment. ENR has introduced several programs to expand the Waste Recovery Program. In 2012-13, an electronic waste recycling program will be designed and implemented.

### Climate Change Programs

In 2012-13, ENR will implement specific aspects of the revised Greenhouse Gas Strategy and will provide advice and support for other departments, agencies, businesses, and residents to implement actions identified in the Greenhouse Gas Strategy. A report on Greenhouse Gas Strategy actions will be prepared annually. ENR will track and report on GNWT greenhouse gas emissions and support will be provided to other parties in the NWT in preparation of their greenhouse gas emission inventories. Annual inventories of total NWT emissions will be prepared for reporting to The Climate Registry.

Energy efficiency and conservation programs, including support for the Arctic Energy Alliance, Energy Efficiency Incentive Program, Energy Conservation Program, Alternative Energy Technology Program, Regional Energy Advisors, community energy planning, and public education and awareness will continue to be a focus. These programs will target and promote actions that reduce the use of imported fossil fuels, greenhouse gas emissions and the cost of living for NWT residents.

ENR and the Arctic Energy Alliance will coordinate activities with other GNWT Departments to work with Inuvik and Norman Wells to help identify energy solutions to problems caused by the declining supplies of natural gas. ENR's specific role will focus on energy efficiency measures for residents and small businesses and identifying alternative energy sources to meet both short term and longer term needs.

A number of projects have been undertaken in each of the five main priority areas identified in the NWT Biomass Energy Strategy: community fuel wood; biomass heating; electricity generation; biomass supply; and, communications and public education. Progress on actions has been reviewed and a revised Strategy will be prepared for release in 2012-13.

ENR is working directly with communities to identify projects, develop project proposals and initiate projects that address the 12 actions listed in the Biomass Energy Strategy. Depending on community interest and feasibility assessments, these projects could include improving the supply of firewood, developing wood pellet or wood chip production and supply, increased use of biomass in community district heating systems and combined heat and power generation. ENR will continue to promote and support community biomass initiatives in 2012-13.

Through the Alternative Energy Technologies Program, ENR continues to fund solar photovoltaic power installations in communities and remote camp locations. ENR is participating with the power utilities to implement the NWT Net Billing Pilot Project to assess and understand the potential for solar energy in the NWT. A Solar Energy Strategy will be prepared in 2012-13 to describe and coordinate these initiatives.

A Climate Change Adaptation Framework will be finalized in 2012-13. A report identifying the impacts of climate change on GNWT activities, as well as actions the GNWT has undertaken to adapt to these impacts, will help to guide the development of this Plan. The report also identifies a number of critical needs for information and coordination to assist departments in incorporating climate change considerations into decision-making, especially regarding new and existing infrastructure.

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The Climate Change Adaptation Framework will establish mechanisms to provide information and support to decision-makers at all levels to incorporate climate change considerations into their activities.

### Science Agenda

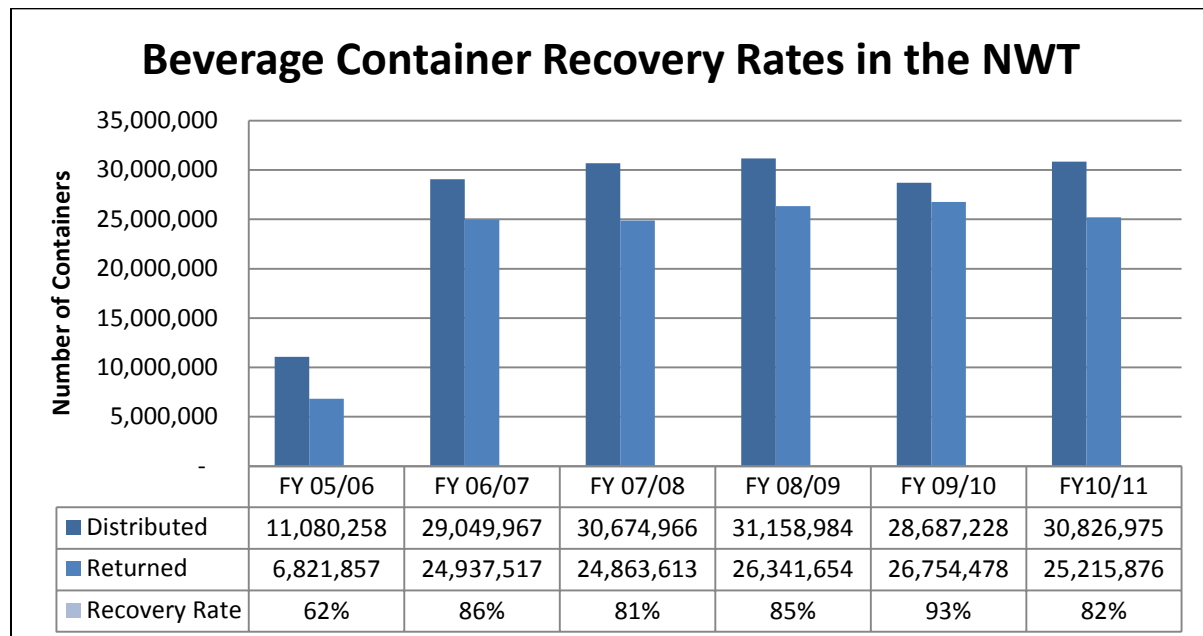
The GNWT Science Agenda, *Building a Path for Northern Science* (2009) establishes a strategic framework for science and identifies scientific priorities, which guide research and science integration for the GNWT.

Major actions under the Science Agenda will include initiating the development and publishing of best practices and standards for community consultation on science projects, expanding research partnerships, improving information sharing protocols and building GNWT science capacity. Strategic collaborations with Canadian Universities will be developed to provide GNWT with scientific expertise and leverage federal funding opportunities available only to Universities. New partnerships will reflect government water, energy and climate change initiatives as well as other priority information needs highlighted in the science agenda. Research licensing and permitting processes across the NWT will be evaluated. ENR and the Interdepartmental Science Working Group will also work with NWT community groups, Aboriginal governments and organizations, environmental non-government organizations, and federal agencies to develop a comprehensive NWT Science Agenda.

### Measures Reporting

#### Measure 1 - Annual Recovery Rate of Beverage Containers

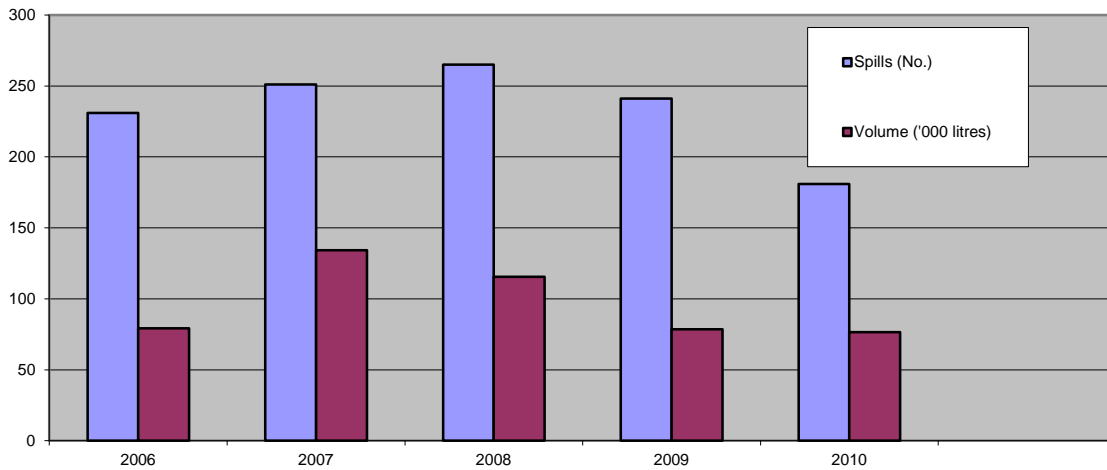
The Beverage Container Program was implemented on November 1, 2005. To date, approximately 156 million beverage containers have been returned in the NWT. From April 1, 2010 to March 31, 2011, approximately 30.8 million containers were distributed and 25.2 million containers were returned to NWT depots. The rate of recovery for the fiscal year 2010-11 was 82%.



**Measure 2 - Number and volume of hydrocarbons spills recorded and tracked through the NWT Spill Line**

Petroleum liquids represented the majority of spills in the NWT. There has been a general decrease in the number and volume of spills since 2000. ENR reported in its annual Spills in the Northwest Territories 2010 report that mining and oil and gas sectors continue to see a decrease in spills. Despite the overall decreasing spill trend, there tends to be a general increase in the number of spills reported from residential-sized steel oil tanks (1,135 litres) due to corrosion. In response to this, ENR released the Homeowner’s Guide to Oil Tanks to provide homeowners with some simple, practical steps that can minimize the chances of an oil spill.

**Number and Volume of Hydrocarbon Spills  
Northwest Territories, 2006 - 10**

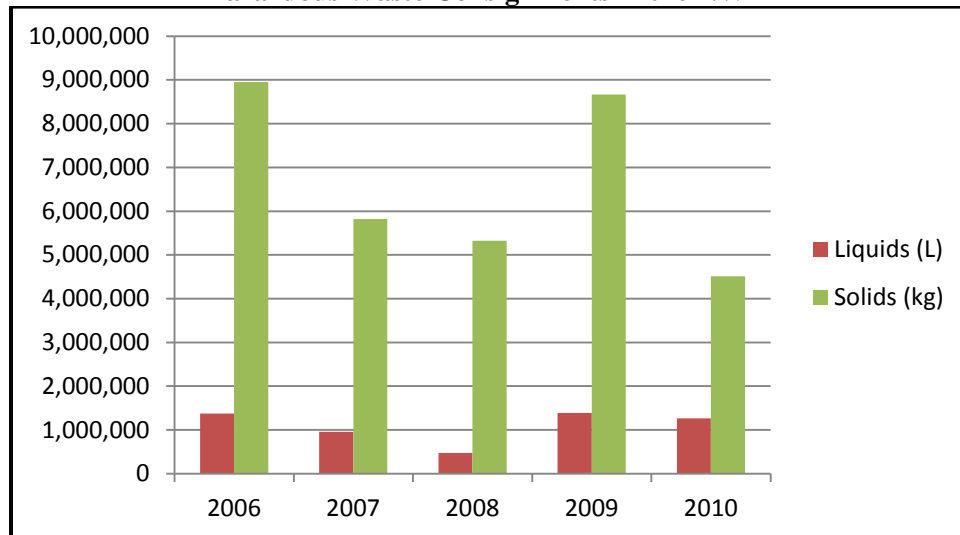


**Measure 3 - Quantity of hazardous wastes generated and transported off site**

The information described in the tables below accounts for the amount of hazardous waste being consigned from registered generators of hazardous waste to registered receivers of hazardous waste. The receivers may be within the NWT, as is the case for facilities that remediate hydrocarbon contaminated soils and waters, or outside the NWT. A consignment is a single waste stream listed on a movement document (hazardous waste manifest). Up to four waste streams can be listed on a single movement document. The weights and volumes are estimates based on amounts reported in kilograms, litres and cubic meters. The numbers are frequently estimated, and should only be used to track general trends in hazardous waste amounts.

<b>Hazardous Waste Consignments in the NWT</b>			
Year	Liquids (L)	Solids (kg)	Consignments recorded by ENR
2006	1,375,632	8,947,990	649
2007	956,791	5,821,448	565
2008	478,110	5,324,799	778
2009	1,387,096	8,666,299	881
2010	1,263,211	4,510,053	1,120

**Hazardous Waste Consignments in the NWT**



**Measure 4 - Level of participation in energy conservation and alternative technology programs**

	2007-08	2008-09	2009-10	2010-11
<b>Alternative Energy Technology Program</b>				
Projects funded	14	14	9	16
Funding provided	\$121,436	\$95,161	\$73,661	\$299,357
Number of installed kilowatts	6.5	13.4	6.12	37.93
Estimated annual savings	\$23,849	\$58,531	\$11,107	\$112,352
<b>Energy Conservation Program</b>				
Projects funded	3	9	8	7
Funding provided	\$69,800	\$124,662	\$110,279	\$89,295
Estimated annual CO <sub>2</sub> reduction (tonnes)	89	130	250	73
Estimated annual savings	\$31,760	\$66,739	\$52,925	35,727
<b>Energy Efficiency Incentive Program</b>				
Rebates provided	547	764	813	882
Funding provided	\$165,550	\$ 262,150	\$264,401	\$345,380
Estimated annual CO <sub>2</sub> reduction (tonnes)	938	1,869	1,840	2,080
Estimated annual savings	\$228,223	\$551,191	\$676,681	\$771,041

## **KEY ACTIVITY 4: FOREST MANAGEMENT**

### *Description*

Forest Management initiatives provide for the stewardship of NWT forests through sustainable management of forest resources and forest fire management.

Sustainable forest management is ensured through the collection of information on the state of forest resources; forest management planning; monitoring of forest health and changes to forest landscapes; regulation of forest practices and planning; and, compliance and reporting. Forest fire management is achieved through prevention, preparedness and forest fire response. Using the best science, technology and effective use of available fire response resources, forest fire management provides for the protection of people, property and other values at risk from forest fire. Developing an increased capacity of individuals, communities, industry and others to take responsibility for reducing fire hazards and forest fires is also a priority.

### *Major Program and Service Initiatives 2012-13*

ENR is approaching the management of the northern forest landscape recognizing the concepts of eco-system based management, and sustainable management of forest resources for the continuing and future benefit of northern citizens.

#### Forest Fire Management

The Wildland Fire Management Program Review (reviewing the implementation of NWT Forest Management Policy 53.04 and Strategy for Management of Forest Fire Responses) was completed in the spring of 2011. ENR will complete an analysis of recommendations, and implement a plan for appropriate key changes and management concepts recognized through the Review process. Some changes have been implemented in the 2011 season, additional changes are in progress for the 2012 season, while other changes will require further consideration and approval looking forward.

A Review Recommendation, enhancement of public education and communications in the wildland fire function, requires staff and resources commitment to enhance communication processes with communities and stakeholders concerning past, present, and future wildland fires and values-at-risk. The recommendation will provide for a more encompassing platform for decision-making.

ENR will implement collection and recording of landscape features and values affected by wildland fire, a matter of significant concern in determination of the effect on important landscape values, especially wildlife resources. The impact of Wildland Fire on wildlife populations is a significant concern in the NWT. ENR is assessing methodologies to assess the severity of large landscape fires, to support decisions on how fire affects and fire response may support wildlife population recoveries. Assessments will provide support to response decisions during the 2012 forest fire season, assisting fire managers in determining an appropriate level of response.

FireSmart communities and landscapes are being pursued working cooperatively with communities, Municipal and Community Affairs, with the technical support and advice of Forest Management Division and Regional specialists. A funding proposal for the ongoing support of FireSmart activities in communities will be developed in 2012-2013. ENR is developing Wildland Fire Response Pre-attack Plans for community landscape areas, recognizing that effective planning and preparation will



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enable effective response to wildland fire emergencies in community areas.

ENR is conducting an Aviation Fleet Review in 2012-2013. The Review using expert advice will provide recommendations on GNWT's optimal level of an air tanker and rotary wing fleet, both in type and configuration, to meet the ongoing wildland fire management requirements in the NWT.

This is a significant decision both in terms of funding and the implications for northern content and the economy. The recommendation and analysis will provide ENR with various air tanker and helicopter options available now and forecast to be available in the near future, and the operational configurations which would provide optimum benefit to the NWT in an efficient cost scenario. The review, with information developed on the replacement options for the CL-215 fleet, will assist government as the current contracts reach their term.

### Forest Resources

Continuing in 2012-2013, forest resource assessments will be conducted and refined to support alternative energy initiatives, woody biomass components. The technical information will provide guidance on sustainable harvest levels for the specified areas. The focus areas in 2012-2013 will be the Fort Providence-Tli Cho area, and South Slave regions where there is ongoing interest in developing a biomass industry. ENR will present the information to communities inviting discussions on how this information can fit into community resource planning, and how the forest management program may assist the community in accessing the economic potential of the community's forest resource base. Efforts on completing development of woodlot options in the Yellowknife and Behchoko areas, and a riparian willow fields management plan in the Fort McPherson area will continue.

ENR will complete a Forest Renewal Strategy to guide forest renewal activities and provide linkages to emerging forestry issues, including sustainability, ecological classification, climate change, carbon budgets, wildlife habitats, and others.

A project to develop a comprehensive Forest Policy and to develop comprehensive ecosystem-focused Forest Management Legislation will be advanced during 2012-2013. This includes development of a legislative framework and policy required to enable ENR to effectively manage forest sustainability, forest impact control, forest ecology, biodiversity, and climate change.

As an interim step, ENR will pursue the introduction of the new Incidental Use of Forest licencing initiative to address the impact of large-scale industrial activities on the forest landscape and resource. In addition, a review of charges and assessments for the harvest of northern forest resources will be completed. The review, involving input from Aboriginal governments and other stakeholders will address the issue of a return to northerners for natural resource harvesting, while considering the fluctuations in market opportunities.

ENR will continue work on climate change adaptation planning, identifying ecosystem impacts, and developing indicators of climate change on forest resources as part of the territorial amalgamation of climate change issues.

ENR will advance the monitoring and reporting of insect pest activity in northern forests, especially focusing on potential landscape level infestations such as the mountain pine beetle (now being observed in northern Alberta).

ENR will be pursuing long-term leasehold arrangements for the supply of warehouse, workshop, specialty, and office space for FMD in Fort Smith.



The potential for communities and northerners to use forest biomass as a green energy source will continue to be a key focus area. ENR will develop best practice sustainable management plan formats, guidelines, and procedures for implementation of significant biomass harvesting operations. This will ensure that the harvest of forest resources for alternative energy does not have a negative impact on the ecological integrity and long-term sustainability of the northern forest resource base.

A second initiative in the woody biomass opportunity is the development of a forest management agreement (FMA) model providing tenure options which may support the business requirements of significant industry ventures. The FMA concept is being pursued with the support of Aboriginal governments as much as possible.

**Measures Reporting**

**Measure 1** – Area of the NWT having data on the current state of the forest resource

A satellite based vegetation classification assessment has now been created as the basis for defining forested lands. A new spatially explicit estimate of 75 million hectares now defines forested land as that which is terrestrial and within the climatic treeline. Approximately 30 million hectares of that is considered productive forests.

In 2010-2011, 2.8 million hectares of inventoried land in the Dehcho Administrative Region was assessed to create sustainable measures for biomass harvest. The project involved an extensive field program to develop forest growth functions, and attempted to incorporate information on impacts to caribou habitat and effects of a changing climate.

**Measure 2** – Number of community wildland fire risk mitigation plans completed

Risk mitigation planning is a relatively new activity in fire management. This enhanced approach to community protection planning focuses on methodology development and completion of a comprehensive mitigation plan.

Community wildland interface fire management plans were completed for Fort Smith, Tsiigehtchic, Kakisa, Fort Providence, Norman Wells, Enterprise, Jean Marie River and Fort Good Hope, Hay River, Hay River Reserve, Fort Resolution, Fort Simpson, Trout Lake, Wrigley, Fort Liard, Nahanni Butte and Tulita.

**Measure 3** – Sustaining fire dependent ecosystems while maintaining a social, economic and environment balance of fires on the landscape

Wildland fire is an important agent of change on the boreal landscape. Determining how many natural-caused wildland fires (lightning, or other natural causes e.g. coal seams) should be actioned versus how many should be monitored all relate to a number of dynamic factors, such as time of year, proximity to values-at-risk, available resources, and other risk variables. All person-caused wildfires are actioned because of their proximity to values-at-risk. A decision to monitor a natural-caused wildfire is just as important as a decision to action one. ENR has reduced the average number of wildland fires actioned from 70% in the past to approximately 50% of the past decade.

Ongoing wildland fires such as those located within the Caribou Range continue to be monitored for potential effects on values-at-risk. Fire action is pursued where appropriate in a manner consistent with the Forest Fire Management Policy.

224 wildland fires were reported in the 2010 fire season. 98 fires received action and 126 fires were monitored for possible effects on values-at-risk. 200 fires were lightning caused, 12 fires were person-caused; one fire originated from a coal seam, four were of unknown origin, two were attributed to industry activity, and five arose from other causes. Four large fires threatening landscape resource values and individual values-at-risk required significant attention, and were managed under policy guidelines.

## **KEY ACTIVITY 5: WILDLIFE**

### *Description*

The Wildlife Division is responsible for the stewardship of wildlife resources. Wildlife initiatives assess and monitor wildlife populations, habitat, species at risk, wildlife health, and biodiversity, as well as coordinate initiatives to address impacts on wildlife from human activity. Functions include developing legislation, strategies, management plans and programs to support the conservation and management of wildlife resources, preparing public information materials on wildlife conservation and management, biodiversity and reducing wildlife/human conflicts, undertaking compliance activities and administering the sport fishery.

Wildlife programs and services are delivered by regional and headquarters wildlife staff. Regional wildlife staff work closely with wildlife co-management boards to co-ordinate wildlife research and monitoring programs. Regional wildlife staff undertake wildlife surveys and involve communities in these activities. Regional and headquarters staff also participate in the development of management plans. Headquarters wildlife staff help co-ordinate and provide expertise to assist regional staff in wildlife research and monitoring programs. Headquarters wildlife staff liaise with national and international wildlife activities and co-ordinate NWT-wide programs, such as biodiversity monitoring, major legislative reviews (e.g. *Wildlife Act*), species at risk programs, wildlife health studies, wildlife best management practices, wildlife cumulative effects studies, wildlife databases, and wildlife study publications. All wildlife and sport fishing compliance programs are delivered by regional renewable resource officers.

### *Major Program and Service Initiatives 2012-13*

The major wildlife programs and services to be delivered by regional and headquarters wildlife staff in 2012-13 focus on four areas: providing services to the public; collecting information for management; providing information on wildlife to the public; and, taking actions to conserve wildlife and wildlife habitat, including compliance actions.

Services to the public include issuing various wildlife permits and licenses, responding to information requests for data, and addressing problem wildlife. Collecting information for management in 2012-13 includes maintaining data management systems (NWT Species Infobase and Wildlife Management Information System), conducting regional surveys to monitor the status and trend of multiple barren-ground caribou herds, Peary caribou, boreal woodland caribou, polar bears, bison, bats, moose, snowshoe hare and other small mammals, furbearers and other wildlife, releasing the report on important wildlife areas, and running the Tundra Ecosystem Research Station at Daring Lake.

In 2012-13, work will continue on the update of the ecosystem classification for the NWT. This classification system describes the landforms, soils, and vegetation in various regions of the NWT. Wildlife health information is also important for management in 2012-13. Monitoring will continue with respect to wildlife health issues that affect humans and wildlife, such as rabies, tularemia, bovine tuberculosis and brucellosis, West Nile virus, White-Nose Syndrome, avian influenza, and contaminants.

Providing information to the public includes releasing annual guides on sport fishing and hunting regulations, species at risk publications, reports on research and programs, public information provided on the website, and doing presentations on wildlife to schools and the public.

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Taking actions to conserve and manage wildlife will include developing draft guidance documents to reduce wildlife impacts from mining activities, and developing and completing management plans for barren-ground caribou, bison, moose, boreal woodland caribou, polar bears, and wolverine. Compliance actions for 2012-13 include undertaking patrols to monitor hunting, outfitting, and sport fishing activities, and running regional winter road check stations to monitor harvest.

### Stewardship – Managing Key Resources

Stewardship actions are needed to monitor the effect of recovery actions on barren-ground caribou herds, manage species at risk (Peary caribou, wood bison, boreal woodland caribou, and polar bear), and manage the cumulative effects of climate change and natural and human-caused habitat change on woodland boreal caribou and barren-ground caribou.

ENR continues to implement the Alberta Research Council recommendations under the new 2011-2015 NWT Barren-ground Caribou Management Strategy. Actions in the Wood Bison Management Strategy are now being implemented, including the development of population specific management plans. The NWT Action Plan for woodland boreal caribou, a species at risk, is being implemented.

The main activities for 2012-13 include completing a joint Wildlife Effects Monitoring Program with the Department of Transportation to assess the impacts of the Inuvik to Tuktoyaktuk Road on grizzly bears and barren-ground caribou. Workshops to determine next steps for assessing and managing cumulative effects on barren-ground caribou and boreal woodland caribou will also be held.

Stewardship actions are also needed to address key species at risk, including completion of wood bison management plans for the Mackenzie, Nahanni, and Slave River Lowlands populations, the continued implementation of the NWT Action Plan for boreal woodland caribou and potential implementation of recovery approaches identified in the federal Boreal Caribou Recovery Strategy, updating the population estimate for Peary caribou on the Queen Elizabeth Islands, continuing traditional knowledge studies on Peary caribou, Dolphin-Union caribou, and polar bears, developing a range management plan for the Southern Beaufort polar bear subpopulation with Environment Canada, preparing of a five-year polar bear monitoring plan in cooperation with the Inuvialuit and Environment Canada, and continuing the four-year process to update the population estimate for the Viscount Melville polar bear subpopulation.

As barren-ground caribou numbers are low, it is also critical to monitor the status of key wildlife species like moose.

### NWT Barren-ground Caribou Management Strategy (2011-2015)

The Harvest Management Strategy for the Porcupine caribou herd was approved by all signatories to the Porcupine Caribou Management Agreement and is now being implemented. Interim emergency measures to protect the Bathurst herd were implemented in January 2010. A revised joint management proposal was completed with Tlicho Government and was submitted to the Wek'eezhii Renewable Resources Board for caribou management actions in Wek'eezhii. Actions in this proposal are being implemented.

Key activities for 2012-13 include undertaking actions in the 2011-2015 NWT Barren-ground Caribou Management Strategy, including monitoring annual movements of multiple herds, conducting surveys to determine calf survival and fall sex ratios, and updating population estimates for the Porcupine, Tuktoyaktuk-Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, and Bathurst barren-ground caribou herds. Additional actions include developing management plans for

the Bathurst and Beverly/Ahiak herd with co-management partners, enhancing patrols, supporting traditional knowledge studies to provide information for decision-making, supporting technical capacity-building with Aboriginal governments, increasing public information and education activities, collecting harvest data, completing and implementing management plans for Cape Bathurst, Bluenose-West, and Bluenose-East caribou, and completing inter-jurisdictional agreements with Yukon and Nunavut on caribou monitoring and management actions.

*Species at Risk (NWT) Act*

The *Species at Risk (NWT) Act* came into effect in February 2010. A NWT Species at Risk Stewardship Program was developed and implemented to provide a source of funding for projects that support the long-term protection and recovery of species that are at risk or of concern in the NWT.

The key activities for 2012-13 include meetings of the Species at Risk Committee to develop their species assessment process, development of a five-year species assessment schedule, review status reports on four species (Peary caribou, the hairy northern rockcress (a plant), polar bear, and boreal woodland caribou), meetings of the Conference of Management Authorities (CMA) to review listing recommendations from the Species at Risk Committee, development of guidelines and templates for management plans and recovery strategies and coordination of actions on species at risk, and continued implementation of the NWT Species at Risk Stewardship Program.

*Wildlife Act*

The new *Wildlife Act* will reform wildlife management law by enacting legislation that is comprehensive, enforceable, and respectful of Aboriginal and treaty harvesting rights.

The activities for 2012-13 are to undertake public engagement and consultation to address outstanding issues with the Bill developed during the last government. Meetings will be held in regional centres and open houses will be held in ENR offices in communities. A stakeholder's wildlife act advisory group will be established to provide advice to the Minister on the draft *Wildlife Act*. The *Wildlife Act* Working Group will be reconvened to look at options for revision and recommendations will be sought from political leaders of Aboriginal governments and organizations with respect to how a collaborative approach to wildlife management could be reflected in legislation. Materials will be developed to help the public understand what is included in the proposed new *Wildlife Act*. A new *Wildlife Act* is expected to be introduced in the Legislative Assembly in the 2012 fall/winter session.

**Measures Reporting**

**Measure 1** – Reports on wildlife studies

The following reports were completed in 2010-11:

- Sport Fishing Regulations Guide
- Hunting Regulations Summary
- Species at Risk Booklet
- State of the Environment – Biodiversity Special Report
- 2010-2020 Wood Bison Management Strategy for the NWT
- Ecological Regions of the NWT Cordillera Ecosystem Classification Report
- 2009-10 Annual Western NWT Biophysical Report
  - Implementation Plan for the Action Plan for Boreal Caribou
  - Revised Joint Proposal on Caribou Management Actions in the Wek’eezhii
- Four ENR file and manuscript reports

**Measure 2** – Number of wildlife surveys completed

The following table describes the wildlife surveys completed by regional and headquarters staff in 2009-2011.

Survey Description	2009/10 surveys		2010/11 surveys	
	Number	Location	Number	Location
<b>Barren-ground Caribou</b>				
Calf survival for Tuktoyaktuk-Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst and Beverly/Ahiak herd (March/April)	5	Inuvik, Sahtu, North Slave, South Slave	6	Inuvik, Sahtu, North Slave, South Slave
Conduct calving ground survey of Bathurst herd to update population estimate (June)	1	North Slave and Nunavut	0 - next survey 2012/13	
Conduct post calving photographic survey of Tuktoyaktuk Peninsula, Cape Bathurst and Bluenose-West herds to update population estimates (July)	3	Inuvik	0 - next survey 2012/13	
Conduct photographic survey of Bluenose-East herd to update population estimate (typically post-calving)	Attempted, not completed due to weather	North Slave and Nunavut	2 - both calving and post calving surveys completed to verify methods	North Slave and Nunavut
Assess summer insect abundance and effect on caribou behavior (July and August 2009)	2	Tundra north of Yellowknife, North Slave	n/a - study completed in 2009	
Determine fall sex ratios (Cape Bathurst, Bluenose - West, Bluenose-East, Bathurst and Beverly/Ahiak herds) (October)	2	North Slave, South Slave, and Nunavut	0	

Survey Description	2009/10 surveys		2010/11 surveys	
	Number	Location	Number	Location
Conduct calving ground distribution survey – Tuktoyaktuk-Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst Beverly-Ahiak (June)	2	North Slave and Nunavut	3	North Slave, South Slave and Nunavut
<b>Dall's Sheep</b>				
Monitor Dall's Sheep productivity and recruitment	1	Mackenzie Mountains, Sahtu	1	Mackenzie Mountains, Sahtu
<b>Ecoregion Mapping</b>				
Conduct survey to ground truth soils, landform and vegetation for reclassification of five ecozones	1 (Southern Arctic)	Inuvik, Sahtu, North Slave	1 (High Arctic Islands)	Inuvik
<b>Furbearers</b>				
Conduct winter track count and monitor trapping success to monitor marten and mink abundance	1	Bliss Lake, North Slave	1	Bliss Lake, North Slave
<b>Moose</b>				
Determine number and productivity of moose (November)	2	Buffalo Lake, South Slave; Dehcho	3	Dehcho, Inuvik and Gwich'in Settlement Areas.
<b>Muskox</b>				
Determine number and productivity of muskox and assess trend in relation to previous surveys (March/April)	2	East of Lutsel'ke, North Slave Region; Sahtu	0	South Slave survey deferred to April 2011
<b>Northern Leopard Frogs, Chorus Frog, Canadian Toad, Wood Frog</b>				
Studies on densities and prevalence of diseases in amphibian populations on and near the Talston River.	1	South Slave	1	South Slave
<b>Peregrine Falcons</b>				
North American Peregrine Falcon Survey (once every 5 years)	0	North Slave	1	North Slave
<b>Small mammals (e.g., mice, voles, and lemmings)</b>				
Conduct live and snap trapping to monitor trend in populations throughout NWT (August)	14	Inuvik, Sahtu, Dehcho, North Slave, South Slave	14	Inuvik, Sahtu, Dehcho, North Slave, South Slave
<b>Snowshoe Hare</b>				

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Survey Description	2009/10 surveys		2010/11 surveys	
	Number	Location	Number	Location
Monitor trend in populations throughout NWT by conducting pellet counts (June-July)	14	Inuvik Region, Sahtu Region, Dehcho Region, North Slave Region, South Slave Region	14	Inuvik Region, Sahtu Region, Dehcho Region, North Slave Region, South Slave Region
<b>Wolf</b>				
Monitor productivity at den sites to assess population trend (May and August)	2	Tundra north of Yellowknife, North Slave	3	Tundra north of Yellowknife, North Slave
<b>Wolverine</b>				
Monitor density of wolverine at Daring Lake, North Slave	2	Tundra north of Yellowknife, North Slave	0 - next series of surveys start in April 2011	
<b>Wood Bison</b>				
Monitor movements and productivity of wood bison in Nahanni, Mackenzie and Slave River Lowlands populations (July)	3	Dehcho, North Slave, South Slave	1	North Slave and South Slave surveys cancelled due to anthrax outbreak
Monitor presence of anthrax in Mackenzie and Slave River Lowlands populations (June-August)	7	North Slave, South Slave	7	North Slave, South Slave
Bison Control Area	1	North Slave, South Slave	1	North Slave, South Slave
<b>Woodland Caribou</b>				
Monitor survival and productivity of woodland caribou (survey timing varies by region)	16	Inuvik, Sahtu, Dehcho, South Slave	16	Inuvik, Sahtu, Dehcho, South Slave



**Measure 3 – Number of samples analyzed for disease**

The following table describes wildlife health studies conducted in from 2008 to 2011:

<b>Study</b>	<b>Positives 2008-09 (samples tested)</b>	<b>Positives 2009-10 (samples tested)</b>	<b>Positives 2010-11 (samples tested)</b>
<i>Wildlife &amp; Zoonotic Diseases</i>			
Anthrax Cases (Wood bison)	0 (7 surveillance flights)	0 (7 surveillance flights)	55 (7 surveillance flights)
Anthrax Serology (past exposure – Wood bison)	n/a	n/a	80 (356)
Avian Influenza & West Nile (Birds)	0 (38 birds)	0 (50 birds)	not detected
Brucellosis & Tuberculosis in Wood Bison - Mackenzie & Nahanni herds (some tests pending)	0 (60)	0 (399)	0 (36)
Brucellosis (Caribou)	n/a	5( 227)	n/a
Caribou Health & Condition Monitoring	94 tested	300 tested	230 tested
Chronic Wasting Disease (Caribou)	0 (104)	0 (75)	0 (100)
Giardia (multiple species)	n/a	Detected (100)	n/a
Hunter Submitted Samples	Various diseases detected (200)	Various diseases detected (100)	Various diseases detected (400)
Map (Johne's disease)	n/a	n/a	n/a
Mosquito borne viruses (animal and zoonotic)	0 (12 weeks of mosquito sampling)	0 (12 weeks of mosquito sampling)	0 (12 weeks of mosquito sampling)
Rabies (canids)	4 (17)	5 (57)	5 (59)
Small mammal – zoonotic diseases	n/a	Various diseases detected (520)	Various diseases detected (520)
Toxoplasma (caribou)	n/a	5 (227)	n/a
Trichinella (Bear)	77% of wolves +ve	50% of wolves +ve	52% of wolves +ve
	n/a grizzly bears	73% grizzly bears	73% grizzly bears
	7% black bears +ve	5% black bears +ve	6% black bears +ve
	282 tested	140 tested	158 tested
<i>Contaminants</i>			
Moose	Health Advisory Issued (46)	Health Advisory Issued (46)	Health Advisory Issued (64)
Caribou	Normal Background Levels (108)	Normal Background Levels (43)	Normal Background Levels (20)

## ***c) Responding to Priorities of the 17<sup>th</sup> Assembly***

The Department is undertaking in the following activities in support of the priorities identified by the 17<sup>th</sup> Assembly:

### **Priority 1 – Building a Strong and Sustainable Future for our Territory**

#### **Description**

Strengthening our relationships with Aboriginal and other northern governments

#### **Planned Activities for 2012-13**

- Wildlife Act
  - Undertake public engagement and consultation to address outstanding issues with the Bill developed during the last government.
  - Reconvene the Wildlife Act Working Group and establish a Stakeholders Wildlife Act Advisory Group.
  - Develop public information on the proposed new Wildlife Act.
- Water Stewardship Strategy
  - Public and Aboriginal engagement on transboundary matters
  - Negotiation towards a transboundary water management agreement
  - Continue to develop and implement research partnerships
  - Ensure aquatic ecosystem health indicators selected will be relevant from traditional/local knowledge and western science perspectives.
  - Work with communities and other GNWT departments on source water protection initiatives.
- Support for Wildlife Co-management Regimes
- Traditional Knowledge Implementation Plan
  - Develop and implement protocols with regional Aboriginal governments and agencies to access and share Traditional Knowledge.
- Develop an ENR Consultation Framework based on the GNWT's Approach to Consultation with Aboriginal Governments and Organizations.
- Land Use Framework (Executive Lead) and associated Land Use Plans
  - Provide comments on the Final Draft of the Revised Gwich'in Land Use Plan (GLUP).
  - Continue to work with the Dehcho Land Use Planning Committee through the GNWT member to advance an Interim Dehcho Land Use Plan.
- Active Community Presence:
  - Traditional economy support and program delivery
  - Waste reduction and recovery program delivery
  - Wildland fire crew contracts

**Description**

Negotiating and implementing a devolution final agreement.

**Planned Activities for 2012-13**

- Waste Management
  - Review inventories of federal contaminated sites on Crown lands, excluding oil and gas sites
- Land and Resource Management
  - Development of Land Use Framework Decision Support Tools
  - NWT Discovery Portal
  - Pursue partnerships with other information producers to support further integration, collaboration and sharing
- Water Management Regimes
  - Transboundary water agreements
- Regimes envisioned under the proposed new Wildlife Act
  - Stakeholder's Wildlife Act Advisory Group and Wildlife Act Working Group
  - Continued collaboration with Renewable Resource Boards, wildlife co-management boards (i.e. Porcupine Caribou Management Board) and other jurisdictions

**Description**

Working with our partners to ensure responsible stewardship through our land and resource management regime

**Planned Activities for 2012-13**

- Wildlife Act (see above list)
- Water Stewardship Strategy (see above list)
- Transboundary Waters
  - Begin transboundary negotiations with Alberta in the spring of 2012 through interests and options sharing phases.
- Forest Fire Management Program Review
  - Develop a Forest Fire Management Action Plan based on recommendations from the program review.
  - Enhance public education and communication in wildland fires and values-at-risk.
  - Develop Wildland Fire Response Pre-attack Plans for community landscape areas.
- Protected Areas - Critical Wildlife Areas (CWA)
  - Develop criteria for the establishment of CWAs.

## *Environment and Natural Resources*

- Caribou Management Strategy
  - Undertake actions in the 2011-2015 NWT Barren-ground Caribou Management Strategy.
  - Developing management plans for the Bathurst and Beverly/Ahiak herd with co-management partners.
  - Support traditional knowledge studies to provide information for decision-making.
  - Support technical capacity-building with Aboriginal governments.
  - Complete and implement management plans for Cape Bathurst, Bluenose West, and Bluenose East caribou.
  - Implement the harvest management plan for the Porcupine Caribou Herd.
  - Complete inter-jurisdictional agreements with Yukon and Nunavut on caribou monitoring and management actions.
- Wood Bison Management Strategy
  - Complete wood bison management plans for the Mackenzie, Nahanni, and Slave River Lowlands populations.
- Forest Resources Assessments
  - Conduct forest resource assessments to support alternative energy initiatives.
  - Continue efforts on completing development of woodlot options in Yellowknife and Behchoko areas.
  - Complete a Forest Renewal Strategy to ensure sustainable use of forest resources.
  - Develop a policy on Forest Management Agreements.
- Land Use Decision Support tools
  - Pursue partnerships with other information producers to support further integration, collaboration and sharing.
- Traditional Knowledge Implementation Plan (see above)
- Greenhouse Gas Strategy Implementation
  - Provide advice and support to implement actions identified in the Strategy.
  - Track and report GNWT GHG emissions.
- Energy Efficiency and Conservation
  - Promote actions that reduce the use of imported fossil fuels.
  - Public awareness and education.
- Alternative Energy Programs (Geothermal, biomass, solar, wind)
  - Continue to fund solar photovoltaic power installations in communities.
  - Participate with power utilities to implement the NWT Net Billing Pilot Project.
  - Prepare a Solar Energy Strategy.
  - Develop best practice sustainable management plan formats, guidelines, and procedures for implementation of significant biomass harvesting operations.
- Waste site remediation (Giant)
  - Continue to provide technical support to the Giant Mine Project Team as required.
- Waste Reduction and Recovery
  - Design and implement an electronic waste recycling program.
- Science Agenda Implementation
  - Develop and publish best practices and standards for community consultation on science projects.
  - Expand research partnerships, improving information sharing protocols, building GNWT science capacity and evaluating the research licensing and permitting processes across the NWT.
  - Work with NWT community groups, Aboriginal Governments and organizations, environmental non-government organizations, and federal agencies to develop a comprehensive NWT Science Agenda.
- Ongoing enforcement of Environmental Protection Legislation (Statutory obligation)

**Priority 3 – Strengthen and Diversify our Economy**

**Description**

Making strategic infrastructure investments such as: The Inuvik-Tuktoyaktuk Highway

**Planned Activities for 2012-13**

- Coordinate and participate in environmental assessment and regulatory process.
- Complete a joint Wildlife Effects Monitoring Program with the Department of Transportation that will assess the impacts of the Inuvik to Tuktoyaktuk Road on grizzly bears and barren-ground caribou.

**Description**

Making strategic infrastructure investments such as: Mackenzie Valley Fiberoptic Link

**Planned Activities for 2012-13**

- Coordinate and participate in environmental assessment and regulatory process.
- Wildlife Monitoring mitigation and adaptive management required.

**Description**

Making strategic infrastructure investments such as: Hydro Initiatives

**Planned Activities for 2012-13**

- Coordinate and participate in environmental assessment and regulatory process.
- Water Stewardship Strategy (see above)
- Biomass Strategy
  - Work with communities to identify projects, develop project proposals, and initiate projects that address actions in the Strategy.
  - Promote and support community biomass initiatives.
- Alternative Energy (Solar, Wind, Geothermal) - (see above)

**Description**

Supporting the Mackenzie Gas Pipeline project

**Planned Activities for 2012-13**

- Permits and regional capacity
- Biomass Strategy (see above)
- Land Use Decision Support Tools

## *Environment and Natural Resources*

### **Description**

Developing a socially responsible and environmentally sustainable economic development and mining strategy

### **Planned Activities for 2012-13**

- Work collaboratively with ITI and social envelope departments
- Environmental Protection Guidelines
- Abandonment and restoration planning
- Critical review of best practices brought forward by Industry

### **Description**

Supporting the traditional economy

### **Planned Activities for 2012-13**

- Administer fur program on behalf of ITI.
- Traditional Knowledge Implementation Plan
- Caribou Management Strategy Implementation
- Wildland Fire Program Review
- Wildlife Act
- Water Stewardship Strategy
- Support for Wildlife Co-Management Regimes

### **Description**

Improving our regulatory processes

### **Planned Activities for 2012-13**

- Northern Regulatory Improvement Process (Executive Lead)
- Engagement in MVRMA Review Process
- Coordination of GNWT involvement in the Environmental Assessment process

**Priority 4 – Address Housing Needs**

**Description**

Putting higher density housing units in small communities

**Planned Activities for 2012-13**

- Energy Efficiency and Conservation
- Alternative Energy Programs (Geothermal, biomass, solar, wind)
  - Continue to fund solar photovoltaic power installations in communities.
  - Participate with power utilities to implement the NWT Net Billing Pilot Project.
  - Prepare a Solar Energy Strategy.

## **d) Infrastructure Investments**

### **Planned Activities – 2012-13**

There are eight small capital projects planned for 2012-13. They include:

#### **New office/warehouse in Tsiigehtchic**

- The new facilities will house the Renewable Resource Officer including office and warehouse facilities, Field Operations including conservation education and compliance, and Forest Management including Forest Fire Management and warehousing.

#### **Wildlife Management Information System (WMIS)**

- WMIS is a highly valued secure data store. During 2010/11 an assessment revealed that WMIS is not achieving its intended objectives, or meeting the business requirements as identified by stakeholders. Custom development is required to provide supportable, integrated and flexible system to store, document, extend and access data necessary to make and substantiate wildlife management decisions.

#### **Annual replacement of one lightning sensor in the GNWT-ENR Lightning Location System**

- ENR maintains a network of nine lightning sensors located across the NWT. The Lightning Location System provides real-time information on lightning in the NWT and is a key part of ENR's ability to respond to wildfire events. No other system is available to northern forest managers to provide this information. Regular replacement of sensors is required to maintain the current capacity of the GNWT Lightning Location System.

#### **Continuing upgrades to the Fire Radio Communications Network**

- There is a need to maintain the current capacity of the GNWT/ENR radio communications network. While the technology and systems are reasonably secure, as with any technology, system failures demand replacement equipment and backup systems, and as technologies stagnate, new equipment is required to maintain the effectiveness of the system. Radio communications technology has a lifespan of approximately ten to fifteen years. To ensure this capacity, regular replacement of network modules is warranted.

#### **Patrol boat in Inuvik**

- This replaces the regional patrol boat that was lost in a fire.

#### **Upgrades to the Yellowknife Regional Office**

- The North Slave Regional Office is in need of an upgrade. The building, although maintained, has not kept up with current standards. Work is required to bring the building up to current codes and standards, and good building practices. Siding, lights, insulation and windows would be addressed in the upgrade.

#### **Mobile equipment storage facility in Norman Wells**

- An equipment storage facility is required to store ENRs mobile equipment as current conditions do not provide total protection from the elements.

#### **Upgrades to the Fort Simpson regional warehouse**

- The Fort Simpson regional warehouse was constructed in the 1970s and is in need of upgrades. The upgrades address safety standards, protect departmental assets and promote energy conservation.



## e) Legislative Initiatives

### Planned Activities – 2012-13

#### **Wildlife Act**

A new *Wildlife Act* will reform wildlife management law by enacting legislation that is comprehensive, enforceable, and respectful of Aboriginal and treaty harvesting rights. A proposed *Wildlife Act* was introduced in the Legislative Assembly in the fall of 2010 and successfully passed first and second reading. As a result of issues raised during the Standing Committee consultations the GNWT decided not to proceed with third reading of the Bill.

During 2012-13 ENR will undertake public engagement and consultation to address outstanding issues with the *Wildlife Act*. Meetings will be held in regional centres and open houses will be held in ENR offices in communities. A stakeholder's advisory group will be established to provide advice to the Minister on the draft *Wildlife Act*. The *Wildlife Act* Working Group that developed the draft *Wildlife Act* will be reconvened to look at options for revision and recommendations will be sought from political leaders of Aboriginal governments and organizations with respect to how a collaborative approach to wildlife management could be reflected in legislation. Materials will be developed to help the public understand what is included in the proposed new *Wildlife Act*. The new *Wildlife Act* is expected to be introduced in the Legislative Assembly during the 2012 fall/winter session.

#### **Forest Management Act**

The existing *Forest Protection Act* and *Forest Management Act* do not provide the tools necessary to manage forest resources consistent with federal commitments to sustainable forestry, the NWT Sustainable Development Policy and forest management principles in use today.

ENR will develop policy discussion papers and templates and continue research and accumulation of technical information in Forest Policy and Forest Management to inform future legislation and policy development.

ENR will continue work on the development of Forest Management Agreements appropriate to northern concepts of environmental management, sustainable forest resources management.

ENR is proposing new concepts and plans for 2012/13 on the following regulations: Incidental Use of Forest Licence; Forestry Fund; Import Permit; and, Increase of Licence Fees for inflation. These regulations have not had substantial review since coming into force in 1990.

## f) Human Resources

### Overall Human Resource Statistics

#### Employees

	2011	%	2010	%	2009	%	2008	%	2007	%
<b>Total</b>	272		267		251		254		254	
<b>Indigenous Employees</b>	172	64%	171	64%	165	66%	168	65%	172	67%
Aboriginal	132	49%	130	49%	122	49%	129	51%	133	52%
Non-Aboriginal	40	15%	41	15%	43	17%	39	15%	39	15%
<b>Non-Indigenous Employees</b>	100	37%	96	36%	86	34%	86	34%	82	32%

Note: Information as of December 31.

#### Senior Management

	2011	%	2010	%	2009	%	2008	%	2007	%
<b>Total</b>	14		14		14		12		11	
<b>Indigenous Employees</b>	11	79%	11	79%	11	79%	8	66%	5	45%
Aboriginal	5	36%	5	36%	5	36%	4	33%	3	27%
Non-Aboriginal	7	43%	6	43%	6	43%	4	33%	2	18%
<b>Non-Indigenous Employees</b>	2	21%	3	21%	3	21%	4	33%	6	55%
<b>Male</b>	12	79%	11	79%	12	86%	9	75%	8	73%
<b>Female</b>	2	21%	3	21%	2	14%	3	25%	3	27%

Note: Information as of December 31

#### Non-Traditional Occupations

	2011	%	2010	%	2009	%	2008	%	2007	%
<b>Total</b>	123		129		124		121		138	
<b>Male</b>	108	88%	109	84%	106	85%	103	85%	119	86%
<b>Female</b>	15	12%	20	16%	18	15%	18	15%	19	14%

Note: Information as of December 31

#### Employees with Disabilities

	2011	%	2010	%	2009	%	2008	%	2007	%
<b>Total</b>	1	0.4%	1	0.4%	1	0.4%	1	0.4%	1	0.4%

Note: Information as of December 31

**Position Reconciliation**

This information differs from the employee information on the preceding page; Human Resource information reflects actual employees as of December 31 each year. The information presented below reflects position expenditures approved through the budget process for each fiscal year.

**Active Positions**

Summary:

	<b>2011-12 Main Estimates</b>	<b>Change</b>	<b>2012-13 Main Estimates</b>
Total	303	-	303
Indeterminate full-time	195	-	195
Indeterminate part-time	9	-	9
Seasonal	99	-	99

Adjustments During the Year:

Position	Community	Region	Added/ Deleted	Explanation
Assoc Director, Strat Initiatives	Yellowknife	HQ	Deleted	Reduction
Research Analyst	Yellowknife	HQ	Deleted	Reduction
Data Analyst	Yellowknife	HQ	Deleted	Sunset
Environmental Impact Analyst	Fort Smith	SS	Deleted	Reduction
Advisor, Water Stewardship	Yellowknife	HQ	Added	Internal Reallocation
Transboundary Support, Land & Water	Yellowknife	HQ	Added	Strategic Initiative
Public Education Specialist (F/T)	Yellowknife	HQ	Added	Internal Reallocation
Public Education Specialist	Yellowknife	HQ	Change	F/T to P/T
Policy Analyst	Yellowknife	HQ	Added	Internal Reallocation
PAS Coordinator	Yellowknife	HQ	Change	P/T to F/T

**Other Positions**

Summary:

	<b>2011-12 Main Estimates</b>	<b>Change</b>	<b>2012-13 Main Estimates</b>
Total	-	-	-
Indeterminate full-time	-	-	-
Indeterminate part-time	-	-	-
Seasonal	-	-	-

Adjustments During the Year: None

**Other Human Resource Information**

The Department of Human Resources has launched a long-term human resources strategy for the public service titled, *20/20: A Brilliant North*. Among other initiatives, this strategy provides a framework for the development of departmental human resource plans, including succession plans and affirmative action plans.

The tables below indicate statistics on departmental human resource activities with respect to summer students, interns and transfer assignments for 2011. The information is current as of December 31, 2011.

<b>Summer Students</b>				
Total Students	Indigenous Employees (Aboriginal + Non Aboriginal)	Indigenous Aboriginal	Indigenous Non- Aboriginal	Non-Indigenous
37	37	21	16	0

Note: Information as of August 17

<b>Interns</b>				
Total Interns	Indigenous Employees (Aboriginal + Non Aboriginal)	Indigenous Aboriginal	Indigenous Non- Aboriginal	Non-Indigenous
1	1	1	0	0

Note: Information as of December 31

<b>Transfer Assignments (In)</b>				
Total transfer assignments	Indigenous Employees (Aboriginal + Non Aboriginal)	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
10	8	4	4	2

Note: Information as of December 31

<b>Transfer Assignments (Out)</b>				
Total transfer assignments	Indigenous Employees (Aboriginal + Non Aboriginal)	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
5	4	2	2	1

Note: Information as of December 31

**Activities Associated with Staff Training & Development**

In 2011, ENR sponsored a total of 12 employees in the Leadership Development Program: six employees in the Emerging Managers program, three in the Middle Managers program and three in the Executive Managers program.

Forty six officers completed mandatory training in firearm re-qualifications, defensive tactics re-qualifications, workplace simulation standards and judicial process and court procedures.

## g) Information Systems and Management

### Overview

The Informatics Division provides information management and information services to the Departments of ENR and ITI, under an interdepartmental agreement. Services include Records and Library Services, Geomatics and Geographic Information Systems (GIS) and analysis, Information Systems development, implementation and operations, Internet and Intranet Development and support, and strategic advice and guidance on the use of information and technology in support of programs and services. This approach allows for increased synergies between Departmental systems and encourages a strong desire to share and collaborate on technology initiatives.

The following table lists the major information systems and applications that support ENR activities.

System Name	System Description
Action Request Tracking System (ARTS)	Multi-departmental system to track mail, reports data, provides action item reminders, sends notifications, allows for document scanning and linking to requests, as well as Bring Forward (BF) date maintenance.
Air Quality Monitoring System	Tracks and reports on measured air quality from monitoring stations across the NWT and provides quantitative results for reporting purposes.
Compliance Management Information System	Used to track and monitor progress on all occurrences, bear reports, officer patrols and other enforcement related activities of both Parks and Wildlife Officers.
EMBER	Wildfire financial and logistical support system to manage and track departmental activities related to wildfires.
Environmental Assessment Tracking System (EATS)	Environmental Assessment Tracking System — new multi-departmental system to support GNWT activities in environmental assessments and related activities.
Fur harvest database	This database tracks the results of annual fur harvests. ENR officers enter fur received from trappers into the system and issue Promissory Notes for payment.
Licensing Information System (LISIN)	The licensing system is used for issuing and tracking ENR and ITI licences and permits.
Prophix	Finance budget software.
Spills Database	System for tracking and reporting of hazardous waste spills in the NWT.
Submission Tracking System (STS)	An internal STS that captures all required data pertaining to Cabinet and FMB meetings, items, decisions and facilitates in the monitoring of the these items.
Wildlife Management Information System (WMIS)	A web and GIS based system to store, analyze and distribute information and data related to wildlife studies.
NWTCG Website	The new NWTCG website allows ENR and ITI as well as outside users to post maps, access and share spatial data.

*Environment and Natural Resources*

<b>System Name</b>	<b>System Description</b>
Spatial Data Viewer (SDV)	The SDV provides a means of mapping geospatial information, satellite imagery and aerial photography using a web browser; allowing access to the GNWT's Spatial Data Warehouse without specialized software.
Spatial Data Warehouse (SDW)	The SDW is becoming the authoritative source for spatial data for GNWT GIS users.
Web Mapping Architecture	The infrastructure used by the SDW and SDV allows for the creation of custom web mapping applications.
NWT Discovery Portal	The portal is a search and share tool that allows users to both access data and reports as well as contribute by uploading research and monitoring information. Updates in progress include accessing the Mackenzie Valley Land and Water Board database of projects and reports.
Spatial Precipitation and Risk Calculation System (SPARCS)	An integrated decision support tool that manages and tracks weather, satellite fire detections, electronic duty logs / rosters, lightning, values at risk, and dynamic maps used to assist with tactical and strategic fire management.

**Planned Activities - 2012-13**

In 2012-13 the Informatics division will undertake major project work for ENR as listed below.

<b>System Name</b>	<b>System Description</b>
Compliance Management Information System (CMIS)	Implementation of a Compliance Management Information System to track and manage law enforcement and compliance activities as they relate to ENR and ITI enforcement activities. System to be deployed mid 2012.
Electronic Records Management Services (ERMS)	ENR and ITI are scheduled to deploy electronic records management services. This will support improved records management practices and allow for improved efficiency in handling electronic information.
Ember	Post fire assessment (2011) of EMBER has identified a few issues. These are being dealt with through the pre-fire enhancement cycle (2012). The Ember team will assess Ember in October 2012 to identify other areas to be improved.
Fur Harvest Database	The system will be redeveloped to enhance system functionality and update the underlying technology. The project will also address issues in the current application such as ease of use, scalability, and high maintenance and support requirements.
LISIN	Review the current system and assess the implementation of online applications.
Land Use Framework Decision Support Tools	2012-13 system enhancements will include development of line-of-business applications for the analysis and presentation of information. It will also include pursuing partnerships with other information producers — such as the Land and Water Boards, federal government departments and Aboriginal governments — to support further integration, collaboration and sharing.

<b>System Name</b>	<b>System Description</b>
SharePoint 2012	The TSC is rolling out SharePoint 2010. All departments will be responsible for migrating to the new environment. Informatics will need to migrate from SharePoint 2003 to 2010 in the timeframe provided by the TSC.
WMIS	Redevelopment of the Wildlife Management Information WMIS. WMIS is a highly valued in the department as a secure data store has not yet reached the original objectives of supplying management with information to support decision making.
Windows 7, Internet Explorer 8 and Microsoft Office 2010	The TSC is rolling out these new versions of Microsoft products. Work is underway planning the successful deployment to clients.
Spatial Data Viewer (SDV)	Additional data layers will be made available, such as power transmission lines and tourism operator licenses. In addition, a number of training videos are being developed to allow more users to effectively use the SDV.
Web Mapping Architecture	The division will be working with client departments to produce new web based mapping products and applications such as the PNWER Arctic Caucus Web Map.
SPARCS	Development of public access system module - for public information and communications. Enhanced development of values-at-risk module to allow landscape values displays and system performance. Completion of code security measures to ensure system security and integrity during catastrophic system challenges.