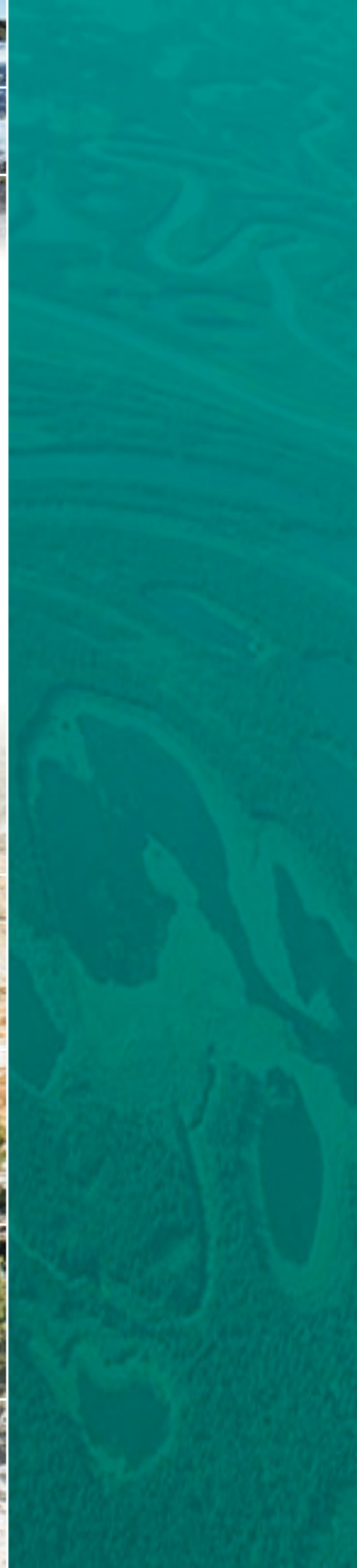




Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada



WATER RESOURCES DIVISION



**BUSINESS PLAN
2003/04 to 2005/06**





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Water Resources Division

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Introduction

The Water Resources Division of the Department of Indian Affairs and Northern Development (DIAND) Northwest Territories Region developed this business plan to outline and communicate its:

- *role and key activities*
- *challenges - external and internal to the Division*
- *vision, goals, and objectives*

The business plan reflects a three-year planning horizon, from the 2003/04 fiscal year to the 2005/06 fiscal year.

More detailed information on the Division's activities and programs can be obtained by contacting the Division in Yellowknife at 867-669-2655, by e-mail at NorthwestTerritoriesWaters@inac.gc.ca or its website at http://www.ainc-inac.gc.ca/nt/wrd/rred_e.html.





What Is the Water Resources Division and What Does It Do?

The Water Resources Division and three other Divisions make up the Renewable Resources and Environment Directorate of DIAND Northwest Territories Region. The Division supports DIAND Northwest Territories Region in fulfilling its mission of:

Supporting Northern political and economic development through the management of federal interests, and promoting sustainable development of Northern communities and natural resources.

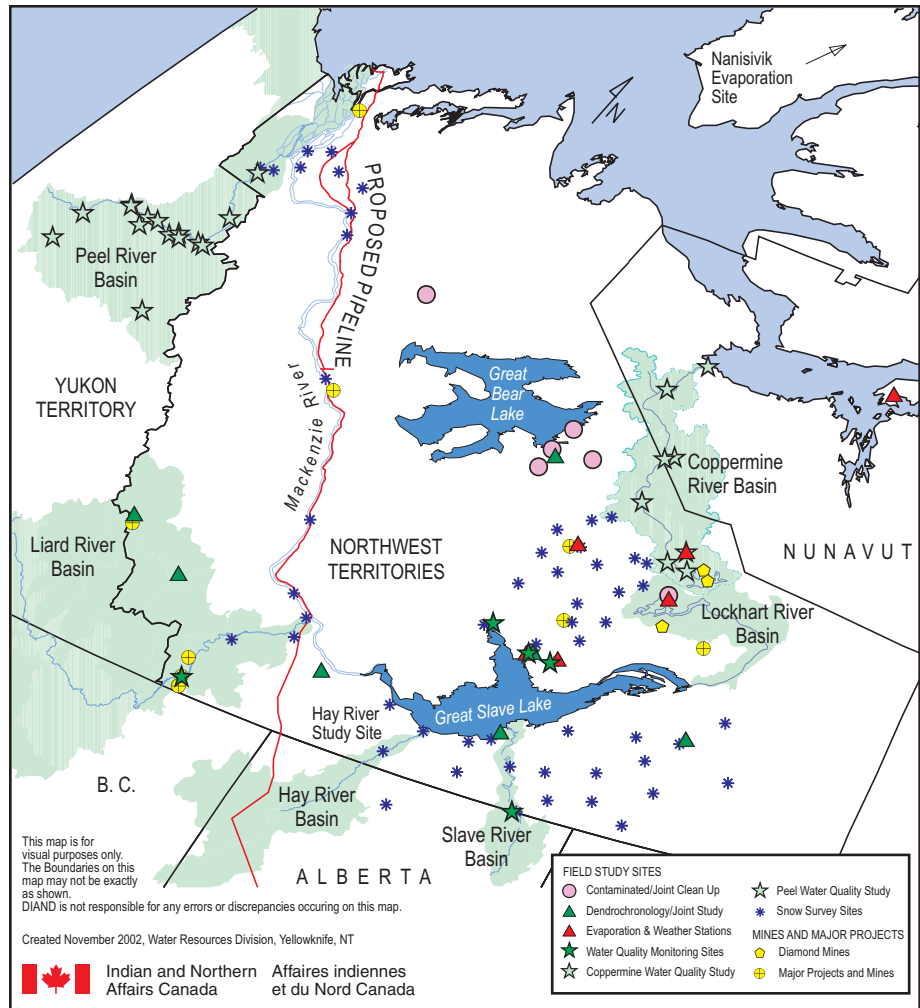
The Water Resources Division is responsible for managing the water resources of the Northwest Territories through the administration of the Northwest Territories Waters Act and Regulations and the Arctic Waters Pollution Prevention Act. Responsibility for water resources normally rests with provincial governments. However, until such time as this responsibility is devolved to the Government of the Northwest Territories, the Water Resources Division manages the waters of the Northwest Territories and advises the Minister of DIAND on water matters.

The Water Resources Division fulfills its responsibility for water resource management by acting as a centre for water expertise within DIAND and within the Northwest Territories. Some key activities of the Water Resources Division include:

- ***developing and managing scientific programs, such as the collection, analysis, interpretation and distribution of water quantity and quality information, and conducting specific aquatic ecosystem studies***
- ***developing guidelines and codes of practice for water resource management and monitoring***
- ***providing on-going expert scientific and procedural advice to a wide range of clients in the Northwest Territories.***

The Water Resources Division's clients include the Land and Water Boards, the Mackenzie Valley Environmental Impact Review Board, other DIAND Divisions, DIAND Ottawa, other federal agencies, Aboriginal and community organizations, the Government of the Northwest Territories, other provinces and territories, industry, other organizations (national and international), and members of the public.

To fulfill its mandate, the Water Resources Division is divided functionally into two sections: Water Science and Technology, which includes Policy and Assessment, Diamonds Group and Major Projects, and Water Management and Planning, which includes Hydrology and Aquatic Quality.



WRD Projects in the NWT and Nunavut.

Issues That Affect the Water Resources Division

Water management issues at the global, circumpolar and national levels affect the Water Resources Division in some way. In addition, there are a number of factors specific to the management of water resources in the Northwest Territories that have an impact on the work of the Water Resources Division.

Global, Circumpolar and National Water Management Issues

The World Water Council has identified the following seven world water challenges for the 21st century: water scarcity; lack of accessibility; water quality deterioration; world peace and security; awareness by decision-makers and the public; decline of financial resource allocation; and fragmentation of water management.



Many of these issues are of particular concern to Canadians and Northerners. Canadian water management issues include:

- **International water management** - *Canada is a signatory to several treaties and agreements with the United States dealing with waters that flow along or across the common boundary.*
- **Water quality** - *Canadian water quality is affected by contaminants, micro-organisms, excess nutrients, and sedimentation.*
- **Water pricing** - *The price put on water for private consumption and for use by industry affects the way that this resource is valued by consumers and the financial resources available for its management.*
- **Consideration of water exportation** - *The demand for freshwater exports has been increasing as other nations begin to experience water shortages and increasing water quality concerns.*

The circumpolar regions, including Northern Canada, share a number of environmental concerns and water resource related issues, including contaminants from distant sources, wastes at abandoned development sites, mining, oil and gas exploration and development, and water quality issues related to the geography and climate of the North. The Arctic Council has been Canada's primary means of involvement in circumpolar environmental issues.

Factors Specific to the NORTHWEST TERRITORIES

The perspectives of northern residents on water management issues are rooted in the Northern environment. Key characteristics of this environment include:

- *a greater reliance on traditional ways of life than in southern Canada and, therefore, a daily need for clean, usable, natural sources of water. This reliance, coupled with a rapidly increasing pace of exploration and development, leads to a strong interest in financial assurance, compensation, and project restoration on the part of DIAND and the Government of the Northwest Territories*
- *a vulnerability to the water management policies of other provinces and territories. There are several major transboundary rivers entering the Northwest Territories from other jurisdictions. Water management decisions made in these upstream jurisdictions can affect and have affected water quantity and water quality in the Northwest Territories*
- *unique conditions such as permafrost, long periods of ice cover, the use of ice roads, and a higher potential for flooding from ice jams*



- *a legislative framework that provides for many partners in the management of water resources*
- *an evolving allocation of responsibility for water resource management as land claims are finalized and responsibilities are devolved to the territorial government*

A number of other issues are emerging that will eventually influence the activities of the WRD. These include:

- *increasing concern over long range transport of airborne pollutants*
- *climate change*
- *the potential for increased ship traffic through the Northwest Passage*
- *offshore oil and gas exploration and development*
- *The Mackenzie Gas Project*
- *the post-land claims water management regime*
- *implementing the Cumulative Effects Assessment Monitoring Framework and Strategy (CEAMF/S)*

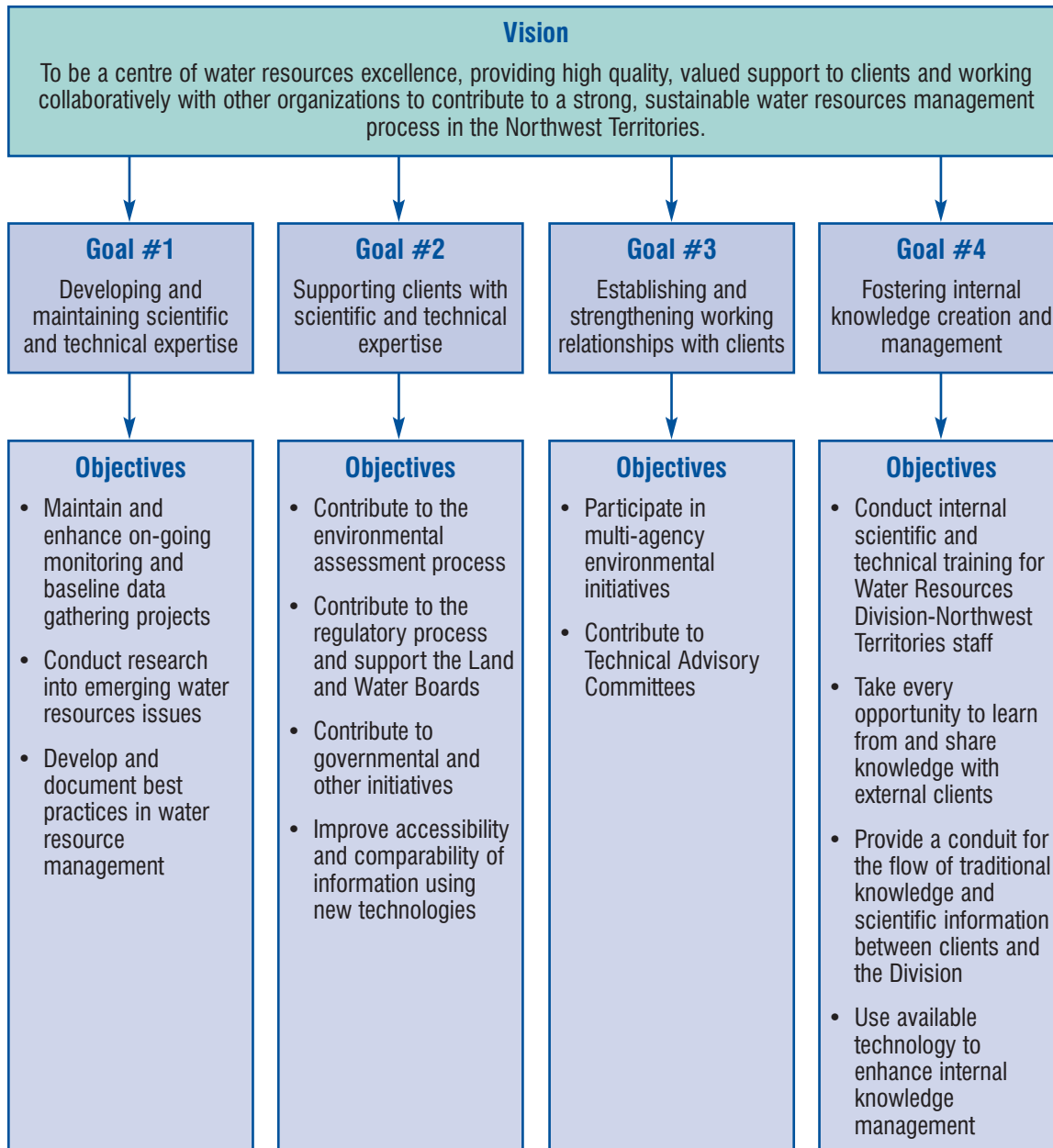
Key Issues Summary

The Water Resources Division is responding to a number of key challenges and opportunities including the following:

- *oil and gas exploration and development activities are expanding;*
- *the scope and complexity of industrial developments is increasing dramatically;*
- *baseline information is sparse in many of the areas where mineral and oil and gas exploration is expanding;*
- *the diversity and complexity of water-related issues in the Northwest Territories, combined with the expectations of clients for expert advice, is resulting in new skill requirements; and*
- *to fulfill its role as a focal point for water-related information, the Water Resources Division needs a system to improve the compilation and management of existing and new data.*

Water Resources Division Plan for 2003/04 - 2005/06

The Water Resources Division’s business plan for 2003/04 to 2005/06 consists of a vision, goals and objectives, established in order to address the key issues and respond to the challenges and opportunities the Division faces over the next three fiscal years.



The Water Resources Division’s Vision, Goals, & Objectives.





The Water Resources Division’s objectives are supported through a detailed action plan that identifies key actions associated with each of the Division’s goals and objectives. These key actions are summarized below:

Actions for Developing and Maintaining Scientific and Technical Expertise	
Objectives	Key Actions
Maintain and expand on-going monitoring and baseline data gathering projects	<ul style="list-style-type: none"> • Baseline hydrometric network in the Northwest Territories and Nunavut • Snow survey stations • Meteorology-evaporation stations in the Northwest Territories and Nunavut • Site-specific water quality monitoring stations in the Northwest Territories and Nunavut • Coppermine River Basin Cumulative Effects Monitoring Program • Slave, Liard, Hay and Peel Rivers water quality monitoring
Conduct research into emerging water resources issues	<ul style="list-style-type: none"> • Develop methods of measuring concentrations of specific coagulants and flocculants associated with diamond mines • Develop capacity in water economics
Develop and document best practices in water resource management	<ul style="list-style-type: none"> • Guidelines and Information Requirements for the Evaluation of Diamond Developments in the Northwest Territories • Minesite Reclamation Guidelines for the Northwest Territories • Standards of Practice for Pipeline Crossings of Streams and Rivers • Best Practices for Environmental Management of Northern Mines • Statement of Knowledge: Sumps in Northern Environments • Geotechnical and Hydrotechnical Issues Related to the Oil and Gas Industry in the Northwest Territories



Supporting Clients with Scientific and Technical Expertise

Objectives	Key Actions
Contribute to the environmental assessment process	<ul style="list-style-type: none"> • Advice to MVEIRB on environmental assessments • Conduct CEAA screenings Northwest Territories Water Board
Contribute to the regulatory process and support the Land and Water Boards	<ul style="list-style-type: none"> • Advice to regulators on preliminary screenings, draft licences and permits, and monitoring activities • RECLAIM modeling services • Up to 20 water licences for the Inuvialuit Settlement Region • Coordinate the Technical Advisory Committee for the Northwest Territories Water Board until the Board becomes fully independent
Contribute to government and other initiatives	<ul style="list-style-type: none"> • Coppermine River Basin Cumulative Effects Monitoring Program • Land claims negotiations • Natural gas and pipeline development activities • Mackenzie River Basin Transboundary Waters Master Agreement • Mackenzie River Basin State of the Aquatic Environment Report • Consultation on legislative amendments
Improve accessibility and comparability of information using new technologies	<ul style="list-style-type: none"> • Phase II of the Water Data Management System • Web-based data archive system for the Coppermine River Basin • Real-time web-cam monitoring of breakup processes on the lower Coppermine River • Security Deposit database • Water Use Fees database



Establishing and Strengthening Working Relationships with Clients	
Objectives	Key Actions
Participate in multi-agency environmental initiatives	<ul style="list-style-type: none"> • CCME Water Quality Task Group • CIMP VEC Committees: <ul style="list-style-type: none"> • Water and Sediment Quality • Water Quantity • Climate • Snow, Ground Ice, and Permafrost • CEAMF/S • Mackenzie River Basin Board
Contribute to Technical Committees and groups	<ul style="list-style-type: none"> • Diavik Technical Committee • BHP Inter Agency Coordinating Team • Snap Lake technical committee or group (likely to be established in 2003/04 after EIA is completed) • Technical Advisory Group on Sumps • Northwest Territories Water Board Technical Advisory Committee





Fostering Internal Knowledge Creation and Management

Objectives	Key Actions
Conduct internal scientific and technical training sessions for Water Resources Division	<p>Training in:</p> <ul style="list-style-type: none"> • Permafrost engineering • Pipeline development • RECLAIM modelling • Off-shore oil and gas development • Environmental effects monitoring • Acid rock drainage • Risk assessment • Project management • Air photo interpretation
Take every opportunity to learn from and share knowledge with external clients	<ul style="list-style-type: none"> • Peer review of Best Practices for Environmental Management of Northern Mines • Peer review of the RECLAIM 4.1 Model • Share courses in Mackenzie Delta Permafrost and Introduction to Pipelines in Permafrost Areas • Conduct Phase I Environmental Site Assessments at select industrial operations
Provide a conduit for the flow of traditional knowledge and scientific information between clients and the Division	<ul style="list-style-type: none"> • Build traditional knowledge into baseline studies and monitoring projects • Use traditional knowledge to inform research design and protocols • Ensure that communities and individuals are considered as a source of data • Ensure that traditional knowledge and the concerns of Aboriginal communities are taken into account during the review of documentation for clients
Use available technology to enhance internal knowledge management	<ul style="list-style-type: none"> • Phase II of the Water Data Management System • Web-based data archive system for the Coppermine Basin • Security Deposit database • Water Use Fees database • Internal Oil and Gas Directory update • Internal Acid Rock Drainage Directory update • Internal Diamonds Directory • Internal Water Resources Legislation Directory • Enhance the Division's website