

Industry PROFILE



An integrated approach to nurturing industry development and NWT wealth

FORESTRY

The forested area of the Northwest Territories is 33.3 million hectares, according to a new National Forest Inventory Report (CanFI 2001). This represents 8% of all of Canada's forested lands. The GNWT needs to continue developing a comprehensive information base to ensure information for the Northwest Territories is complete and authoritative. We have a forest inventory program in place and continue to work forward on assessing this significant northern resource.

FORESTRY SECTOR

Forest use has been ongoing for centuries, but it is only within the last one hundred years that the forests along the riparian belts of northern rivers have been used for commerce and trade. In the 1800's, river travelers used the forest along the rivers for fuel wood and building material. The trading companies built barges and propelled them with the locally available white spruce and pine forests. Steam powered tugs plied the rivers and lakes of the western arctic with boilers fired with wood cut along the waterways.

These harvest levels were significant for local areas, but very small relative to the vast northern forests. Final-use products included house construction, boat and barge building, mine timbers, and fuel wood as well as many smaller products such as furniture and dog sleds.

There are many historical sites along NWT rivers that were refueling stopovers for wood harvested by local people and recent arrivals. The Woodcutters Monument on the sixtieth parallel near Fort Smith is a reminder of those days.

In addition, the forest has always provided building and household materials, game and other foods, and fuelwood for northern peoples. These uses and the knowledge derived from the indigenous people's close attachment to the land has always been an important part of the life and commerce of the north.



RWED Photo

THE NWT FOREST INDUSTRY

Fuelwood

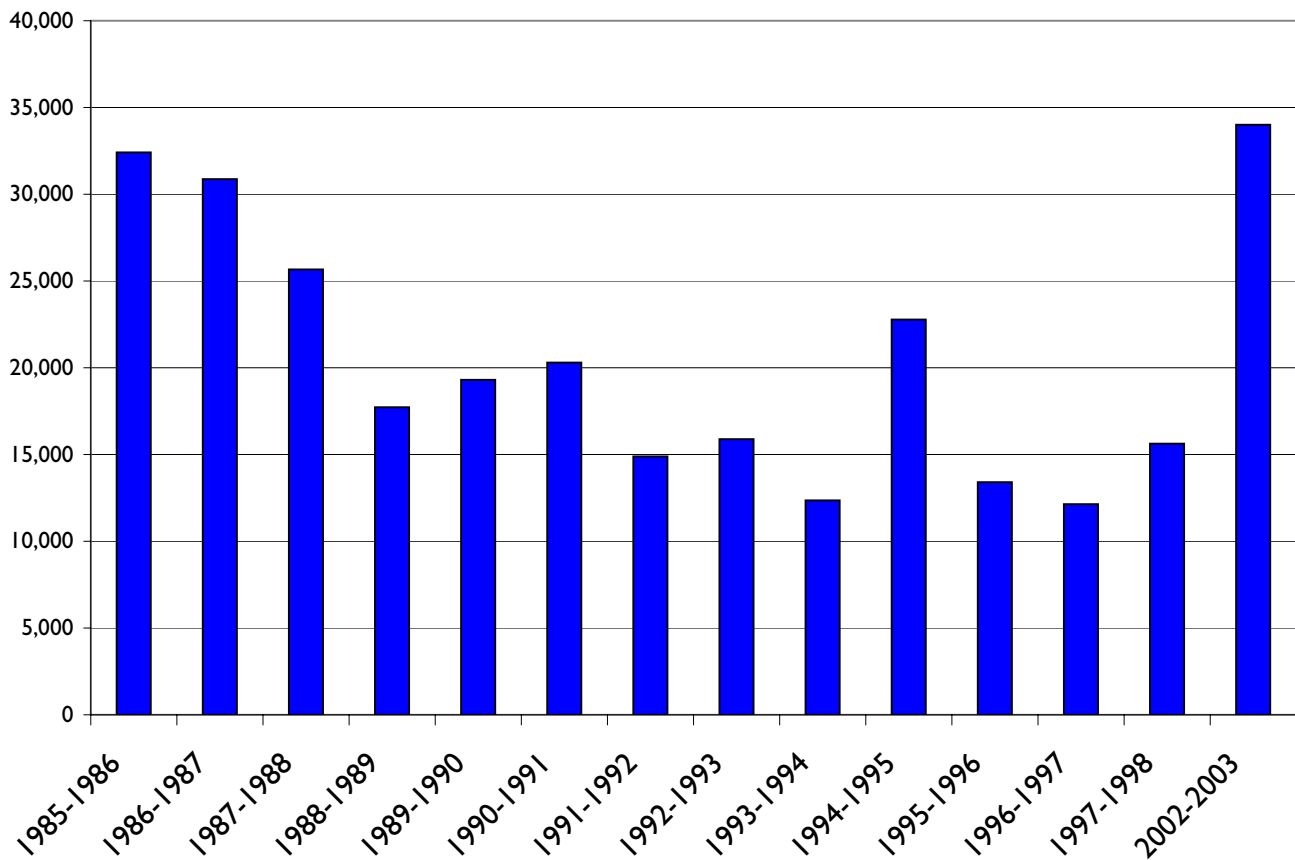
The Northwest Territories has always been a jurisdiction with significant fuelwood harvesting, and use for home heating as part of the northern culture. Recent estimates have put this use at 19% for all homes in the territory, with highest consumption occurring in the Deh Cho Region at 38%. More than 25% of all homes using fuelwood report it as their primary fuel. (GNWT/RWED Research Report 2003).

Total wood use according to this source would indicate that approximately 34,000 cubic meters of wood is used annually. This includes all species, all sizes and harvesters usually have a preference for standing dead wood, when it can be found in quantity.

Fuelwood harvesting is by convention a privilege of all NWT residents and a right of

some northern people. Fuelwood harvest is covered under a Free Timber Cutting Permit. Due to its open nature, fuelwood harvest records compiled by RWED remain incomplete. Figure 1 below, presents fuelwood permit and use data that has been compiled for the past 25 years.

Figure 1: Permitted Fuelwood Harvest (cubic meters) 1985-1998 and Surveyed Use Estimate (2003)*



* Data is not available for 1998 - 2002
Source: Forestry Management, RWED

Sawmilling

Figure 2 below, presents information specific to wood harvest for sawmilling since 1986 when record keeping began. Much of the sawlog wood harvested through the latter half of the 1990's was for export. This export has now come to an end.

In 2003, a grade stamp for lumber from the Northwest Territories was renewed providing greater incentive and marketing capabilities for northern sawmills.

Sawmilling is seeing a resurgence in the Northwest Territories with recent permits increasing in both volume and number. It is expected that the totals from 2003-2004 will continue to rise slowly. All of this harvest is expected to have its primary milling done in the NWT.

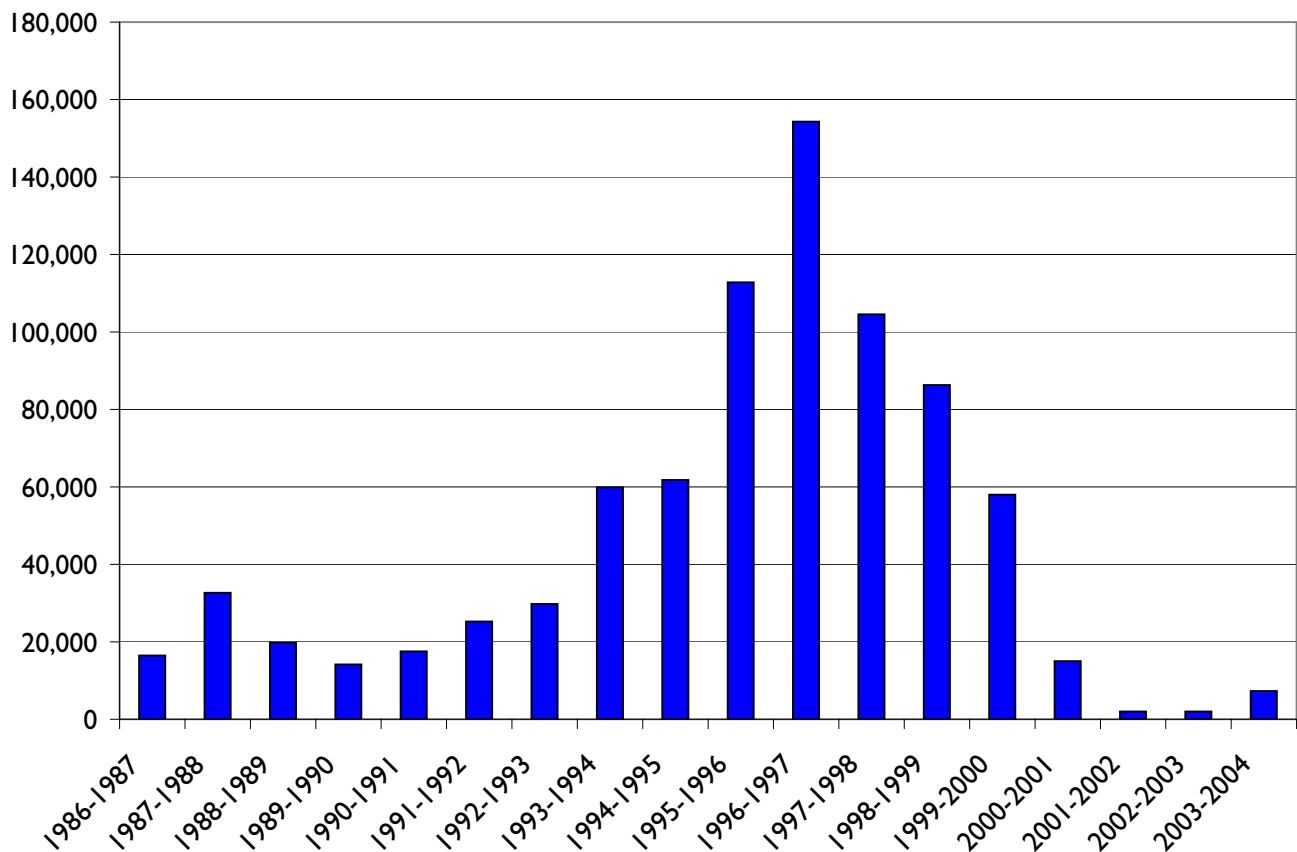
Other Products

Other wood and non-wood products are being used in very small quantities across the Northwest Territories. No volume figures are available, however, individuals are harvesting medicinal and food plants, bark, sap, and wood for specialty furniture and craft markets.



Microsoft Photo

Figure 2: Sawlog Harvest Volumes (cubic meters) 1986-2003*



* Data for years 2000 - 2003 are estimated.

Source: Forestry Management, RWED

Planting Program

Figure 3a and 3b presents the planting program of the Northwest Territories since its inception in 1990.

**Figure 3a: Planting Statistics (1989-2003)
of Seedlings Planted**

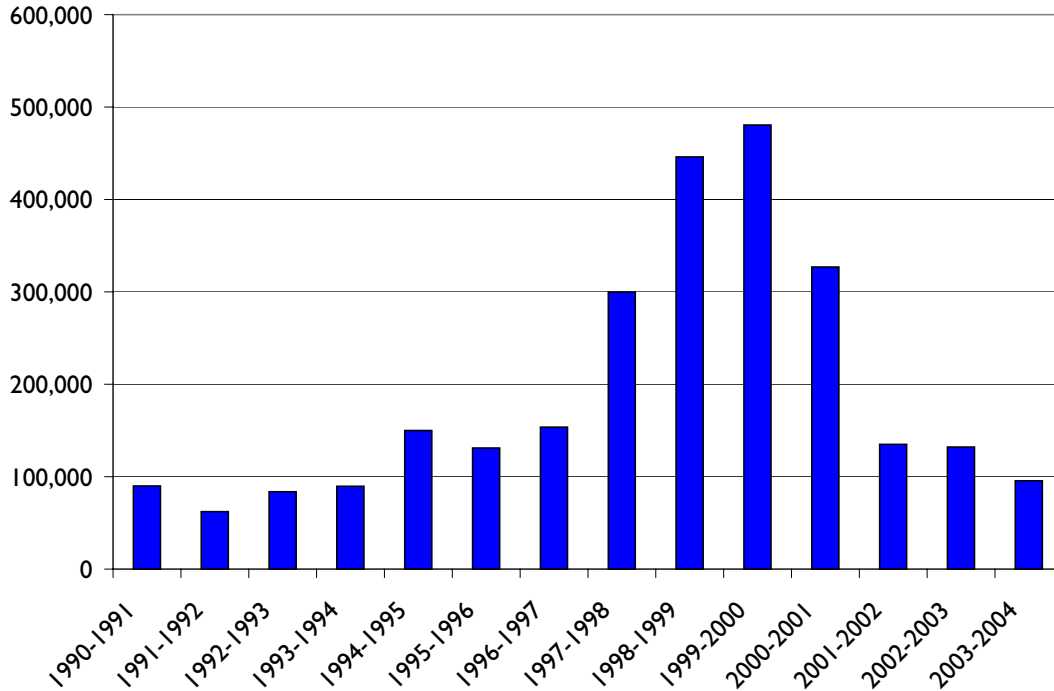
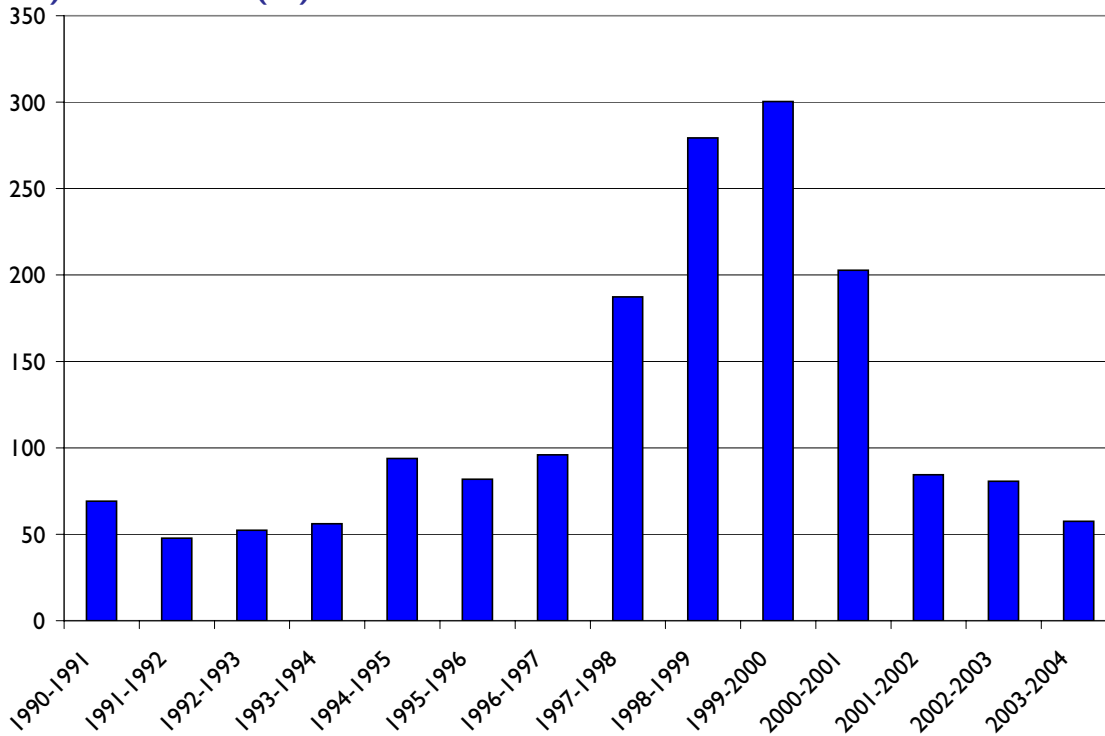


Figure 3b: Planting Statistics (1989-2003) Area Planted (ha)



Source: Forestry Management, RWED

TRENDS

Forest Status Reporting

Significant pressure is being placed on all Canadian forest managers to report on forest condition, forest change, and specific attributes of interest such as forest renewal, sustainable harvest levels, carbon, and management processes. The Northwest Territories needs to improve its ability to ensure we can adequately meet future reporting needs.

Accelerating Land Uses

The Northwest Territories is seeing an unprecedented level of land use expansion due to oil and gas exploration and development, activities surrounding the Mackenzie Valley Pipeline proposal and a general increase in other land use activities. This industrial footprint will continue to grow as resource development continues to be an important part of the northern economy. Current trends challenge the government's ability to manage for the multiple values that are important to NWT residents and their lifestyle.

Sustainable Forest Economies

There has been an increase in interest from many communities in developing sustainable forest economies. Harvesting forest fibre is an opportunity to provide long-term and stable employment in their communities. There is a need to develop local level knowledge around forest planning, forest operations, sawmilling and product marketing and sales.



Early supply of logs. (RWED, GNWT)

INGREDIENTS FOR SUCCESS

The Government of the Northwest Territories is developing materials that will improve our understanding of this vast forest, the impacts and challenges that it faces, its present and potential uses, and the opportunities and alternatives as a resource base for long-term sustainable economies.

The people of the Northwest Territories have a substantial history with small scale sawmilling. The experiences of the existing operators and what has made them successful or created difficult business climates should be thoroughly assessed. There is a small existing industry that should be understood and nurtured as we plan for future developments.

Forest Resources

A satellite based vegetation classification of the Northwest Territories was recently completed. Work is presently being undertaken to link this information with national standards and build a broad scale inventory (NFI) to anchor future changes.

Management level forest inventories have also been created for areas where uses are historically higher and demands on the forest landscape are expected in the short term. An index to these inventories is presented in Figure 4a. Information is also being collected on changes to our forest due to wildfires (Figure 4b) and a growing presence of spruce budworm defoliation (Figure 4c). Information about forestland use is also being gathered on increasing forest impacts, notably from oil and gas exploration and development

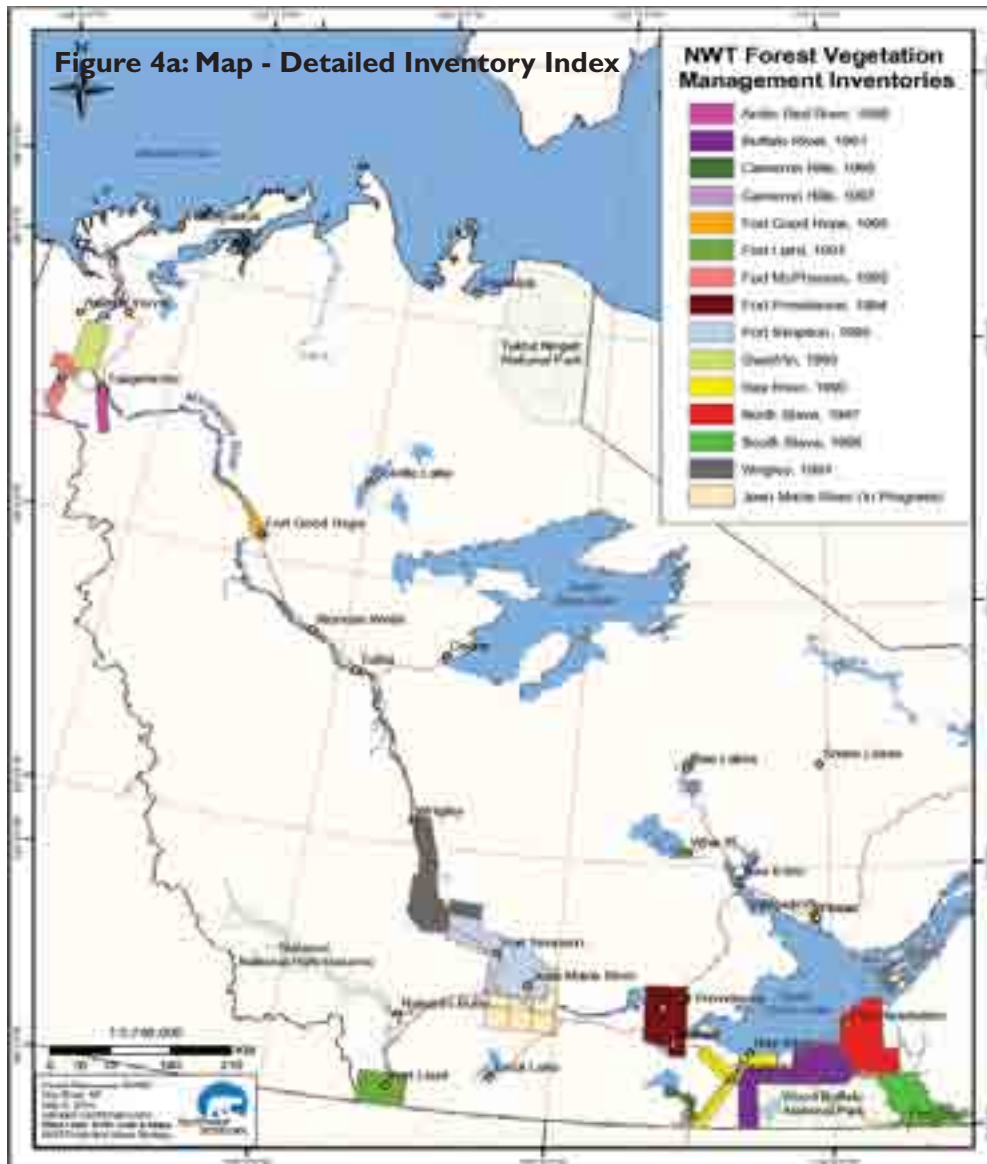


Figure 4b: Map - Fire History.

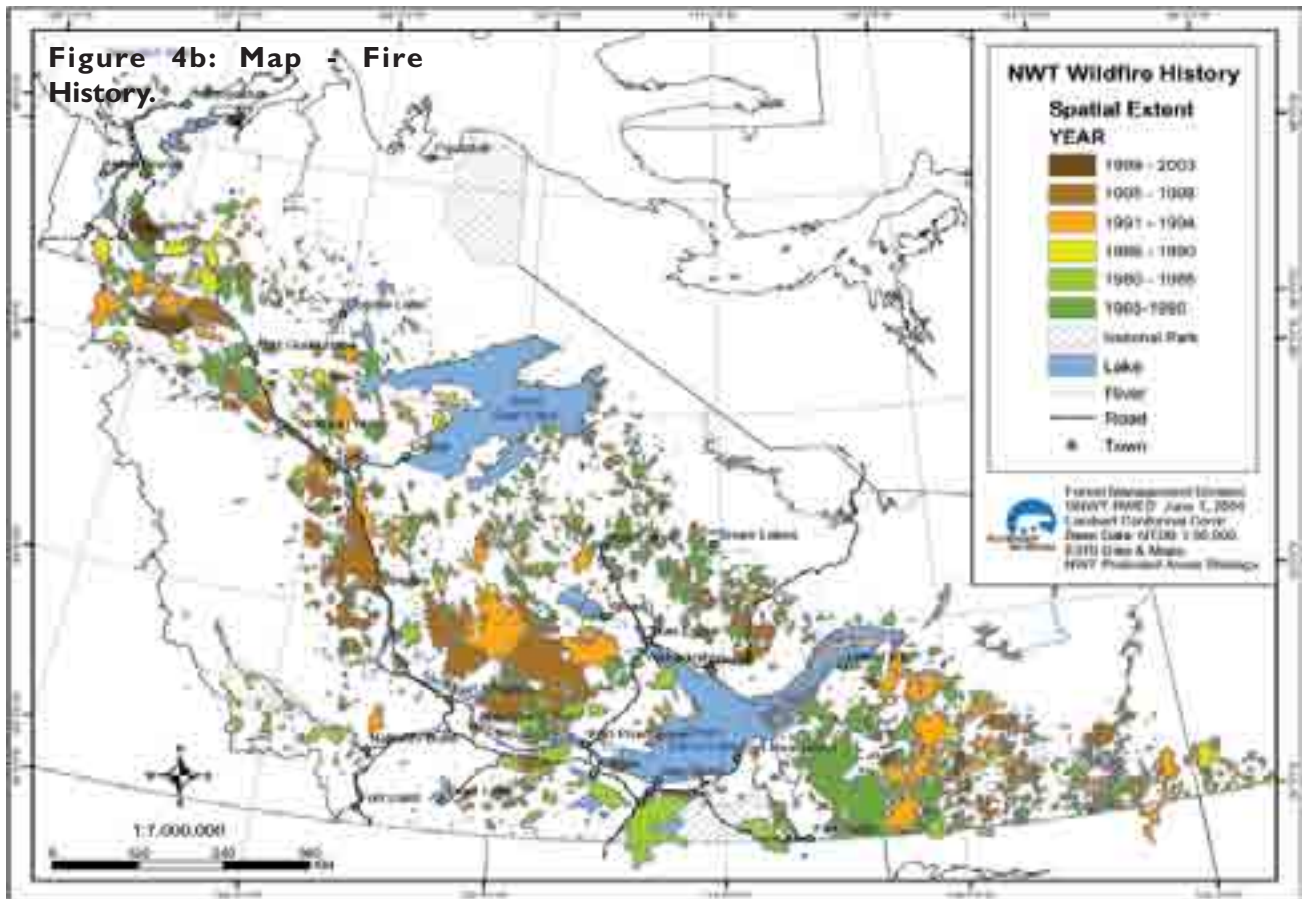
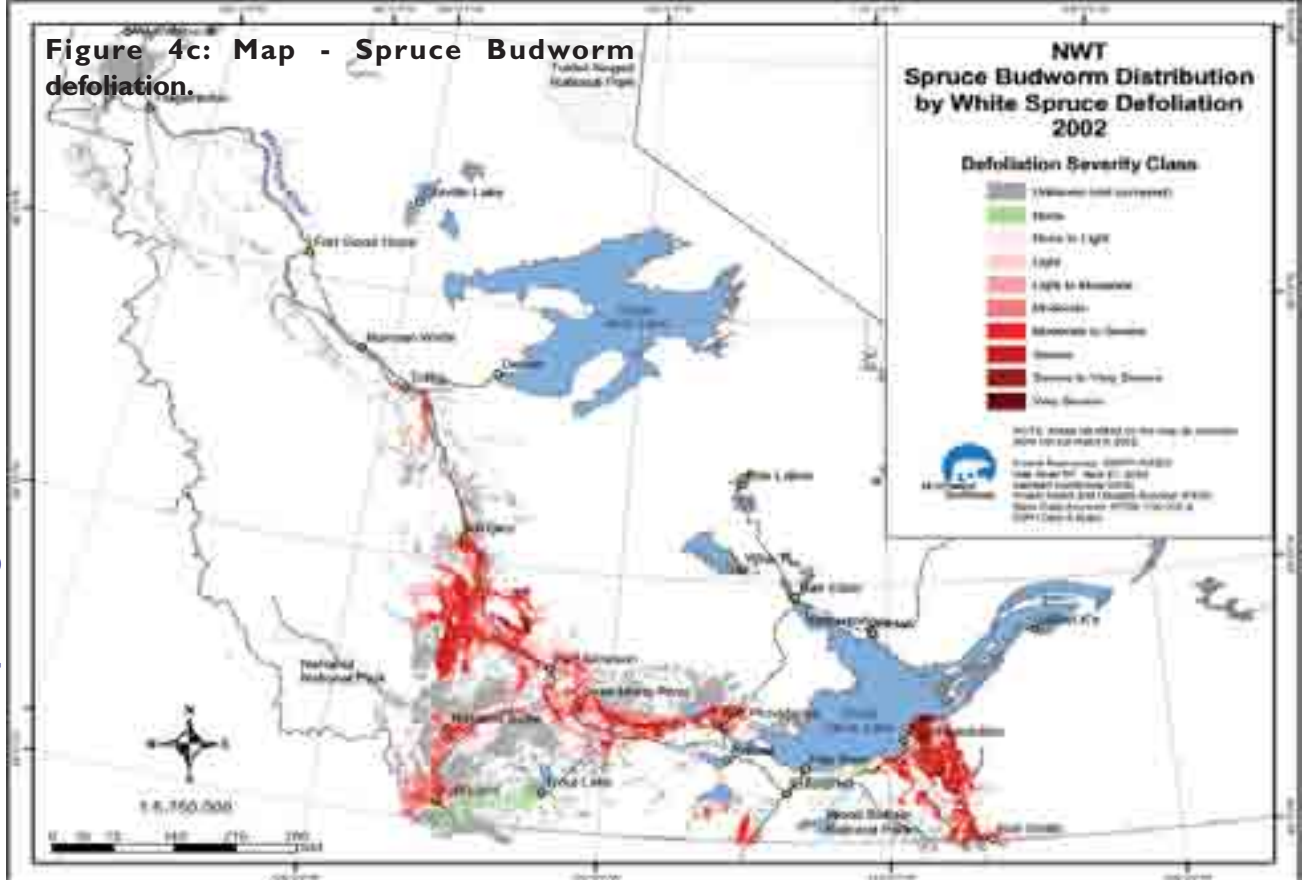


Figure 4c: Map - Spruce Budworm defoliation.



Source: Forestry Management, RWED

activities.

Standard Operating Procedures

The Northwest Territories requires standard rules for assessing and managing forestland impacts such as those from harvest related activities and those where forest vegetation impact is incidental, such as oil and gas developments. RWED is actively working toward developing procedures to manage the processes for assessment and also the rules for users. These will ensure that all activities that impact forested lands have common and acceptable practices that can be managed and monitored.

Landscape Baseline

All Canadian jurisdictions require base knowledge of their forests from the amount and type of forests, to the ecology of that forest and the varied sensitivities it has to the many uses society makes of it. Work is underway to better understand the impact of fires on the forest landscape, forest characteristics for wildlife habitat, completing an ecological land classification, and ultimately, the development of sustainability indices for various aspects of the forest important in stewardship. The GNWT is involved in national efforts to understand the forest as a bank of carbon and how that changes over time. Preliminary results of the above exercises are expected in 2005. Climates are changing and becoming more variable. Recent years have seen milder winters and lower precipitation. The impacts are beginning to be evident on the landscape. There is a need to complete base inventories and standardization of practices for management that are responsive and adaptive to changing conditions.

HUMAN RESOURCES

Human resources are required for forest planning, woods operations, saw milling and marketing of forest products. Training opportunities are all primarily of southern origin, with the notable exception of the two year Natural Resource Technology Program at Aurora College, Fort Smith Campus. Development of human resources will help address technical and knowledge limitations and result in accelerated activities related to industrial development.

INVESTMENT AND CAPITAL

Investment and capital in the forestry sector requires long-term operating opportunities, the same as any other resource based industry. Financing often requires a secure supply of raw material for at least 15 years for business planning purposes. The longest available tenure for a forest operator in the Northwest Territories is for a 5 year license. This has implications for capital financing. Northern forests are also an item of interest by First Nation communities. Primary parties in forest development are most likely to be First Nation companies.

Forest fibre products are presently restricted to fuelwood and lumber types. Basic sawmills, like those presently existing in the Northwest Territories, do not include planers (excepting a small facility in Fort Smith) or kiln facilities. Fibre products could certainly be expanded in scope with appropriate marketing efforts. Superior wood qualities of northern fibre include high densities, and premium tensile and shear strength.

PUBLIC INFRASTRUCTURE

Public infrastructure has not been planned to meet requirements associated with an expanded forest products industry. Log hauling puts pressure on road networks and power consumption increases with the use of larger milling facilities. Clearly identifying industry requirements with their infrastructural providers is an important element of development.

MARKET AND SALES

Markets and sales for forest products can be both internal and for export. Industry itself will determine its most profitable product destination, however ready local markets are always an incentive for businesses. The Government of the Northwest Territories has promoted a grade stamp for northern lumber. Fort Smith operators are making use of

this for northern sales. If northern source rough lumber could be appropriately planed and dried to industrial standards, all northern lumber could find a home in the northern lumber economy since lumber import greatly exceeds northern production. In addition, shipping costs between Edmonton and the NWT are substantial. These shipping costs could be saved and northern sources could benefit both suppliers and consumers.

Timing of supply and demand associated with northern markets would become an issue as northern sawmills typically produce most of their products in late summer and fall, yet consumer demands peak in spring and early summer.

Forest regulation includes permitting for woods operations, land use, and for the sawmill directly. Standard and consistent requirements are a short-term

objective of forest managers and can be met through consultation between regulators and the industry.

Present regulation includes the territorial government in addition to the Mackenzie Valley Land and Water Boards. The GNWT is the main regulator for forest vegetation (including timber) and wildlife. Timber cutting charges are paid to government for harvested wood, called stumpage, and fees paid to help cover management costs associated with reforestation assessment and practice. Standardization and completing standard management practices and procedures can help meet sector needs in a timely and effective manner.

Planting new seedlings (Microsoft)



CONCLUSIONS

The forest industry and the multiple uses of forestland in the Northwest Territories contains unrealized potential. The GNWT Strategic Plan contains three goals that are being addressed through forest management activities.

Well-governed sustainable communities and regions able to fulfill their potential is being supported through Forest management activities, and by building foundational datasets and standard operating procedures that are necessary for good governance and sound scientifically based stewardship of the forest landscape. Forest managers within RWED are actively working to build expertise and opportunities required for sustainable forest economies on a community basis.

A diversified economy provides northerners with opportunities and choices, and the creation of a diversified and ecologically sustainable economy should emphasize import replacement and export development, in order to achieve economic stability and self sufficiency (RWED Business Plan 2005-2008; Principle 4).

Care and protection of the natural environment and resources should be managed and developed in a manner that meets the needs of the present, without compromising the ability of future generations to meet their own needs (RWED Business Plan 2005-2008; Principle 3).

Initiatives of forest vegetation inventories, forest renewal assessments, development of sustainable indices, and commitment to full reporting for forest carbon and national forest database programs all ensure that the GNWT remains a good steward of the natural environment. Also, the development and monitoring compliance with sustainable timber supply processes ensures that forest harvesting is always renewed and ecologically sustained. Thus, monitoring and accounting for the impacts of oil and gas and other forest vegetation impacts and developing processes to control cumulative impacts is a challenge we are preparing to meet.

Logs Ready for the Mill (Microsoft)

