

Management Plan



Churchill Wildlife Management Area

2013

Table of Contents

Table of Contents.....	1
Introduction	2
The Landscape.....	7
Wildlife.....	8
Polar Bear	8
Caribou and Moose.....	12
Furbearers	12
Birds	13
Uses and Activities	14
Tourism.....	14
Research	14
Hunting	15
Trapping	15
Mining and Petroleum	17
Hydro-electric Power Production	17
Forestry.....	17
Protected Areas Initiative	17
Infrastructure	19
Roads and Trails	19
Research Facilities.....	21
Historic Sites	22
Churchill Rocket Range.....	22
Port Nelson	23
Treaty Land Entitlement.....	23
Legislative Framework.....	24
Permits and Licences	25
Management Objectives	26
Zones	27
Zone 1 – Marine Conservation Area.....	29
Zone 2 - Coastal Plain	31
Zone 3 - Denning Area	36
Zone 4 - Transition Forest	37
Zone 5 - Nelson River	38
Zone 6 - Hayes River.....	38
Land Use Policies	39
Vehicles	39
Eco-tourism	40
Roads and Trails	45
Research	45
Cabins and other Permanent Structures	46
Conclusion.....	47
References	48

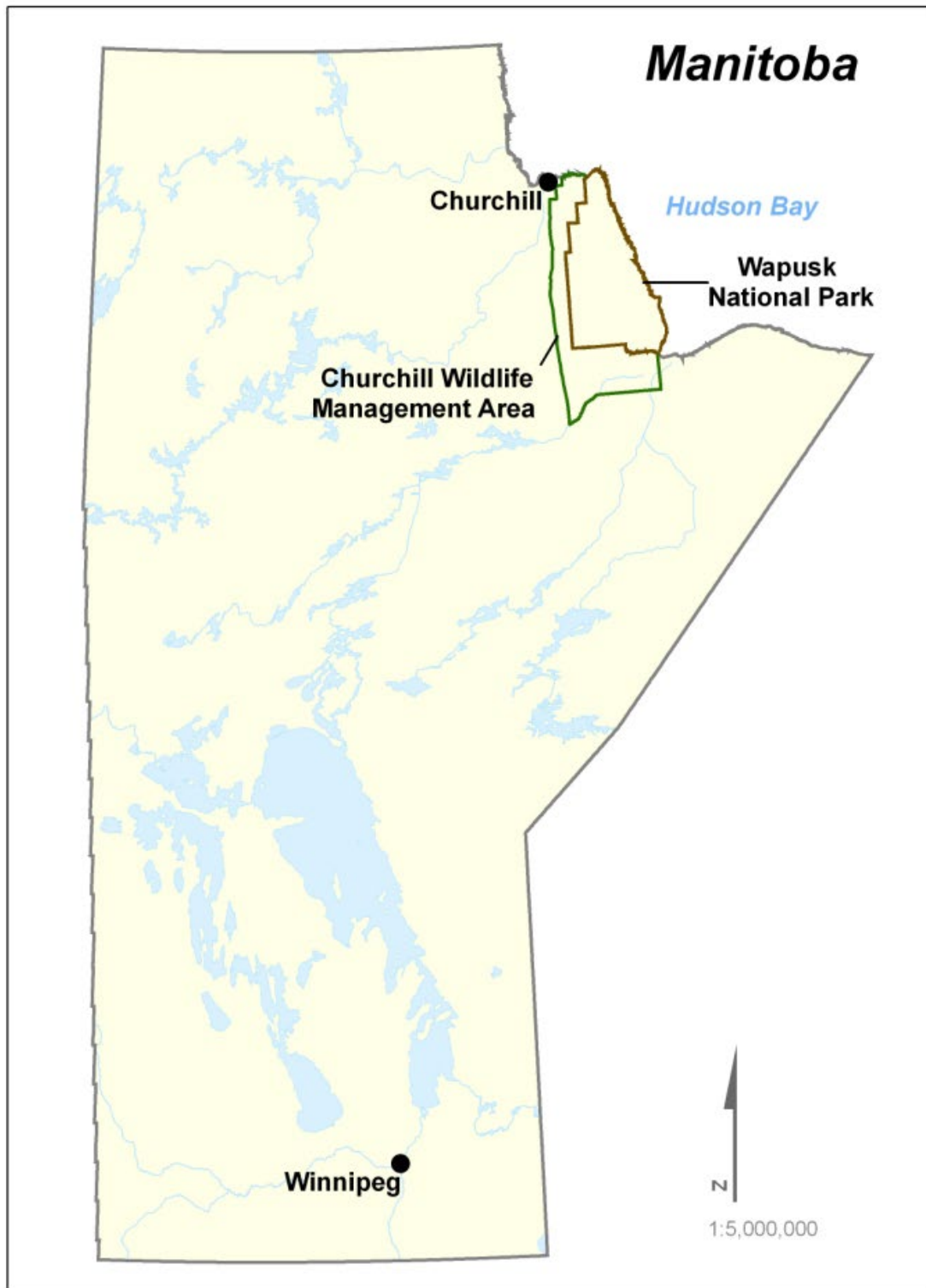
Introduction

Wildlife Management Areas (WMAs) are provincial Crown lands designated under The Wildlife Act for the conservation, protection and enhancement of significant wildlife habitats. They are primarily intended to maintain biodiversity and biological integrity while providing for a variety of wildlife-related forms of recreation, educational experiences, and research activities. In 2013 there were some 82 WMAs throughout Manitoba encompassing a total of 2.2 million hectares (5.4 million acres).

The Cape Churchill WMA was created in 1978 to protect polar bear staging and denning areas, nesting grounds for geese and habitat for caribou. At 1.8 million hectares it was Manitoba's largest WMA, protecting a significant portion of the Hudson Bay coast and associated lowlands between Churchill and the Nelson River. An initial plan for the WMA was produced in 1983, and following extensive public consultations through the mid-1980s, Management Guidelines were developed for the WMA and published in 1988. This document provided information on the biogeography and wildlife of the area, identified ongoing uses of the WMA and outlined a zoning scheme to implement various management strategies.

The zoning scheme developed in 1988 identified eight different zones, some of which were intended to accommodate multiple resource uses, while others were dedicated to preserving the landscape in as natural a state as possible. It was believed that permitting a variety of uses close to the community of Churchill and along the Nelson River would secure support for better protecting the more remote portions of the WMA in their natural state.

In the early 1990s Parks Canada expressed interest in creating a national park from a large portion of the WMA. In 1993 Manitoba protected this area to prevent the introduction of any uses or activities that would compromise its future designation as a national park. In 1996 the Federal-Provincial Memorandum of Agreement for Wapusk National Park was signed by Canada and Manitoba, moving the park closer to becoming a reality. In 1998, 1.14 million hectares of the Cape Churchill WMA were transferred from Manitoba to Canada for the creation of Wapusk National Park. Some 848,813 ha of the former WMA were not included in the park and continued to be designated as WMA after the lands for the national park were transferred. Management of the Churchill WMA is the responsibility of Manitoba Conservation, while Parks Canada is responsible for Wapusk National Park.



The area retained by Manitoba was renamed the Churchill WMA in 2002 to celebrate the close association with the Town of Churchill and because Cape Churchill itself is now in Wapusk National Park. The boundaries of the WMA were also adjusted in 2002 to include the lands to the low tide mark of Hudson Bay, consistent with the boundaries of the Province of Manitoba and Wapusk National Park. The total size of the WMA is now 854,484 hectares or 2.1 million acres.

The area designated as the Churchill WMA conserves a significant tract of exceptional wildlife habitat. It includes about 40% of the maternity denning area for the Western Hudson Bay population of polar bears and a critical portion of the Cape Churchill caribou herd's winter range. The wetlands associated with the Hudson Bay coast provide a rich habitat for great variety of shorebirds, waterfowl, and other wildlife. It is an internationally significant site for scientific research into climate, wildlife, plants, geology and other areas of study. The Churchill Northern Studies Center, located within the WMA, provides a base of operations for many researchers, educators and students. Several long term study sites have been established in the WMA and they continue to be monitored on an ongoing basis.

The portion of the WMA closest to the Town of Churchill is of special significance to its residents. Some look to the WMA as a source of traditional foods, medicine and livelihood, while others use it for recreational activities that enrich their quality of life. The polar bears of the Churchill WMA have become Canada's best-known eco-tourism attraction, attracting visitors from throughout the world. Wildlife viewing in the Churchill area generates over \$10.0 million annually in economic activity.

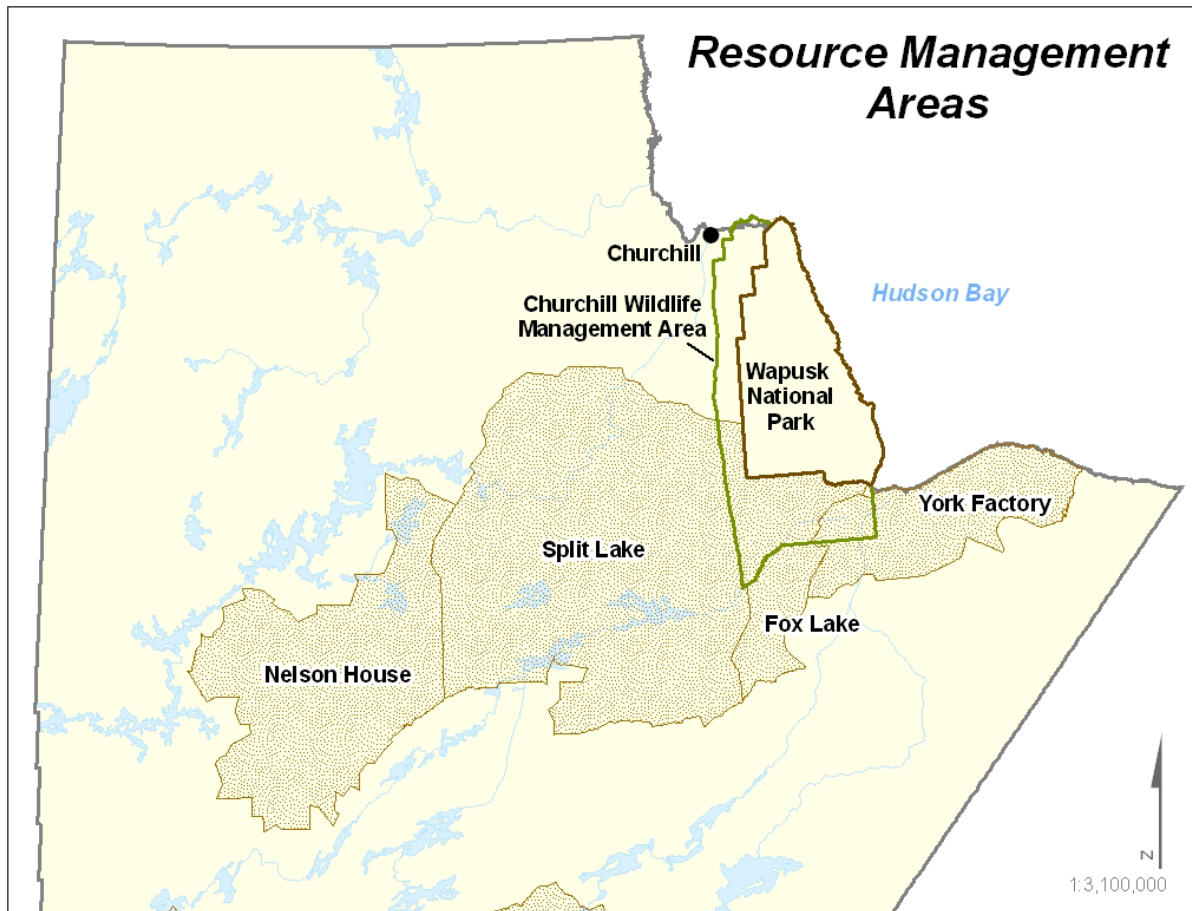
Most of the eco-tourism activities in the Churchill area occur in the WMA, which lies between the Town of Churchill and the largely inaccessible Wapusk National Park. As Churchill's international reputation as a tourism destination grows, in part due to publicity surrounding the park and the potential impacts on wildlife in the area from global warming, additional demands will be placed on the fragile coastal habitat in the WMA. There are growing international concerns not only about global warming, but also about the impact of eco-tourism on polar bears and fragile northern habitats.

Management approaches implemented in the Churchill WMA must take into consideration the regional context, including the interests of First Nations and others with responsibilities for wildlife and land management in the area. The Churchill WMA is bounded by Wapusk National Park on the east, Split Lake Resource Management Area on the west, and York Factory Resource Management Area and Kaskatamagan (formerly known as Cape Tatnam) WMA on the southeast. The southern portion of the WMA is included in the Fox Lake Resource Management Area. The Resource Management Boards ensure that the interests of local First Nations are considered in land use decisions within their areas of interest, while a formal agreement with Parks Canada regarding the establishment of Wapusk Park is intended to ensure consistency in planning and land use decisions.

The change in the land base of WMA, combined with new and often conflicting demands placed on the remaining WMA lands near Churchill, prompted a review of the management guidelines adopted in 1988. The development of a contemporary management plan for the Churchill WMA was initiated to establish policies to govern the use of the WMA into the foreseeable future.



Monitoring site in the Churchill WMA near the Churchill Northern Studies Center.



The Landscape

The Churchill WMA is largely comprised of an undulating plain with little relief and low elevation. Limestone covers the underlying Paleozoic strata and is overlain with marine clays. There are significant peat accumulations, particularly in the northern portion of the WMA where this organic matter is up to three meters thick. Due to the harsh climate and proximity to Hudson Bay in the northern portion of the WMA, vegetation is stunted and the view to the horizon is seldom interrupted.

The lands comprising the WMA are affected by isostatic or glacial rebound. The ground is rising about one meter per century and the shoreline of Hudson Bay is gradually receding. Strand lines marking former beaches exist up to 100 km inland, graphic evidence of Hudson Bay's retreat. The coastal plain is a poorly drained patchwork of freshwater lakes, tundra ponds, bogs, fens and small streams. The upper reaches of the Owl and Broad River systems are found in the central portion of the WMA, while the Weir, Nelson and Hayes Rivers flow through the southern portion.

Permafrost occurs throughout the WMA. Continuous permafrost exists in the northern two-thirds of the WMA, while discontinuous pockets of permafrost are found throughout the southern third. Where permafrost exists, only a thin layer of soil thaws at the surface, while the ground beneath remains frozen throughout the year. Permafrost occurs due to a combination of climate, vegetation, substratum, topography, and solifluction. Changes in these factors, either naturally occurring or human-caused, can result in changes to the permafrost regime, which can have serious implications for any infrastructure that may be developed in the area.

The vegetation in the WMA varies dramatically from the southern reaches of the WMA along the Nelson River north to the Hudson Bay coast. It includes temperate, sub-arctic, and arctic plant species. In spite of the harsh growing conditions, the coastal plain near Churchill has an exceptional diversity of vascular plants, with more than 400 species having been identified.

The vegetation of the coastal area is sensitive to disturbance and if damaged, recovers very slowly. Tracks made by armored personnel carriers during military exercises in the 1950s can still be seen today. Plants have shallow root systems because of the thin layer of soil, which thaws for a brief period in summer. Although white spruce trees are small and stunted, some are over 500 years old. Plants growing on beach ridges also have to contend with dry conditions during the brief growing season.

Additional information about the vegetation and landforms in the WMA may be found in the report *Background Information to the Wapusk National Park Ecological Integrity Statement*, which includes a description of the adjoining Churchill WMA.

Wildlife

The landscape of the Churchill WMA, combined with the variety of cover types, provides a rich habitat for wildlife. Though famous for its polar bears, the WMA supports some 44 species of mammals, including black bear, wolf, caribou, moose, arctic and red foxes, wolverine, and many small mammals such as arctic hare, collared lemming, as well as various species of shrews and voles. The Nelson River estuary has one of the largest concentrations of beluga whales in the world in addition to ringed, harbour and bearded seals. Over 225 species of birds have been identified in the WMA, including Canada and Snow Geese, a great variety of ducks, Pacific Loons, gulls, terns, eagles, hawks, owls, falcons and ptarmigan. The lower reaches of the Nelson River attract the largest-known concentration of Bald Eagles in Manitoba.

Polar Bear

At one time it was believed that polar bears moved extensively throughout the Arctic regions of Canada, Russia and Scandinavia. Research has shown that journeys of extraordinary length were the exception, rather than the rule, and that polar bear populations consisted of many distinct sub-populations. The polar bears found in the Churchill area tend to limit their movements to the west coast of Hudson Bay and the adjacent sea ice.

As of 2011, there were about 1,000 polar bears in the Western Hudson Bay sub-population. They spend most of the year hunting ringed seals on the ice-covered waters of Hudson Bay, but are forced ashore in early summer as the last of the ice melts. Due to ice conditions during break-up and because of the counter-clockwise currents in Hudson Bay, most bears come ashore along the Manitoba coast between the Seal River north of Churchill and the Anabusco River near Cape Tatnam in the Kaskatamagan WMA. While on land the bears segregate according to age, sex and reproductive status. Adult males tend to congregate on beaches, capes, headlands and islands to take advantage of the cooling influence of Hudson Bay. Pregnant females move far inland and select a maternity denning site. Family groups, comprised of females with cubs, move slightly inland away from adult male bears, which pose a threat to the cubs. Sub-adult bears are caught between the family groups and adult males and are tolerated by neither. During the summer months, polar bears normally feed little, if at all. They live off fat reserves accumulated before they come ashore for the summer. Once on land they must conserve their energy and avoid excessive heating. Most bears are sedentary during summer and will use Hudson Bay or freshwater ponds to cool themselves on hot days. With the cooler weather of autumn many polar bears make their way along the coast to the Churchill area. The first major snow storms in late October accelerate this movement. They gather near Cape Churchill in Wapusk National Park because this is where the ice tends to form first along the southwestern shores of Hudson Bay. It serves as a jumping off point for polar bears looking for their first meal of seal blubber after several months of inactivity. Polar bears do not hibernate in winter – despite the harsh weather conditions, this is the season in which they are most active. Most polar bears are exposed on the wind-swept sea ice for the entire winter, often in temperatures of - 40 C. Most polar bears will have to gain enough weight to sustain themselves for about three months while ashore in summer. Pregnant females must gain enough body fat to survive about eight months in the denning area without feeding.

In early summer some 80 pregnant polar bears come ashore each year, making their way up to 100 km inland. The polar bears giving birth in Wapusk National Park and the Churchill WMA comprise one of the largest concentrations of denning polar bears in the world. About 40% of the denning area is in the WMA, with the balance in the park.

A female polar bear's den requires a special set of features in the landscape, such as a steep undercut bank, such as those found along creeks or lakes in peat lands, or a slumped area created by a melting ice lens. The den is usually protected from the prevailing winds and with sufficient vegetation to capture drifting snow. A polar bear maternity den is essentially a snow drift that builds up around the bear through winter. The snow must remain loose enough to provide insulation, but compacted enough to prevent the drift from collapsing. A dry peat site allows the bear to initiate a maternity den prior to the first snowfall and provides a comfortable bedding site.

The cubs are born in late November to mid-December. The female spends the rest of the winter inside the enclosed den with her young, usually two, but sometimes three cubs. In late February she creates an opening by digging through the snow. The cubs are brought out on mild days to allow them to develop their muscles and adapt to the weather. Once the cubs are ready to travel, the family group leaves the den and makes their way to Hudson Bay to hunt seals.

Polar bears can live up to twenty years or more in the wild. Adults bears tend to die of complications related to old age or injuries that inhibit their ability to hunt. Cubs are vulnerable to predation by wolves or adult male polar bears. The occasional adult female has been killed by an aggressive male when defending her cubs, while a few males have been killed by females defending their cubs.

Although people are not the polar bear's normal prey, there have been incidents involving polar bears that attacked, injured, or killed people. In 1997 Manitoba Natural Resources commissioned Dr. Stephen Herrero, an internationally acknowledged authority on human-bear interactions, to assess the risk to visitors of various polar bear viewing situations in the Churchill area. This study identified the human-related factors that can contribute to the chance of a polar bear injuring a visitor as:

- the proximity of polar bears to people
- the presence of attractants (e.g. food and garbage), and
- the food-conditioning of polar bears.

It was noted that these factors can be mitigated or eliminated through specific polar bear safety practices and procedures. Based on this assessment and recommendations to the Department, regulations, policies and permit conditions continue to be fine-tuned to reduce the risks to people and reduce the likelihood of a polar bear having to be destroyed in a defensive action.

Many visitors to Churchill are unaware of the potential danger posed by polar bears. The Herrero report noted that *“polar bears in the Churchill region are at times viewed closer than they are in zoos. When large polar bears are standing up, leaning against the tundra vehicles,*

they are within a passenger's reaching distance. To achieve an acceptable degree of safety in such proximity, passengers must keep their arms, heads, and other parts of their body out of reach of polar bears at all times without exception. Also, passengers should stay in the safety of the tundra vehicles until the outing is finished (i.e. no exits during the polar bear viewing trip)."

The report also noted in its review of situations in which people had been killed or injured by polar bears in the Churchill area that *"We believe that the majority of injurious encounters to date in the Churchill Region could have been avoided if attractants had been better managed."* In order to minimize the risk of polar bears becoming habituated to people, it is unlawful to place a bait or attractant within 10 km of the Hudson Bay coast. (The only exception is for licensed trappers engaged in lawful trapping activities targeted at species other than polar bears.)

Polar Bears are not hunted or commercially trapped in Manitoba, but some have to be destroyed on occasion when they pose an immediate threat to human life. Manitoba's Polar Bear Alert Program is a major effort to minimize the risk posed to the community of Churchill, and to avoid the unnecessary destruction of polar bears. Polar bears are chased off or tranquilized and removed from an exclusion area in and around the Town of Churchill. (The Churchill WMA is outside of the exclusion area.) To date, the Polar Bear Alert Program has been the focus of the Province's polar bear management and is a significant commitment of staff and financial resources.

The Hudson Bay sub-population of polar bears is hunted in nearby Nunavut. Under Manitoba's Wildlife Act, polar bears are a protected species and cannot be hunted or trapped in this province. In 2008, the polar bear was listed as a threatened species under Manitoba's Endangered Species Act. Through this legislation, habitat used by polar bears can be better protected.

Polar bears are the focal point of Churchill's eco-tourism industry and the impacts, both real and perceived, of human activity on polar bears and the habitat of the WMA are periodically debated in the national and international media. Management of activities in the WMA and Wapusk National Park must address the unique challenges and opportunities related to polar bear conservation. Because the area holds such significance for maternity denning and summer fasting, land-use activities that adversely impact polar bears could have a devastating impact on the entire Western Hudson Bay sub-population.

The ice-free period on Hudson Bay appears to be increasing, which reduces the amount of time polar bears have to hunt seals. The bears are coming ashore with decreased reserves of body fat to sustain them over the summer months. Females with triplets are rarely seen now, while this was a common sight in the 1970s and 1980s. Some fear that climate change will cause a further reduction in the numbers of polar bears, while others are concerned that the Western Hudson Bay sub-population may disappear altogether.



Caribou and Moose

The Churchill WMA and Wapusk National Park share a resident population of some 3,000 caribou. Their summer range is the open tundra and the beach ridges near the coast of Hudson Bay. The wind-swept inland beach ridges, small lakes and the Bay itself provide escape from biting flies. During the summer months they feed on sedges, grasses, fungi, forbs, berries and willow or bog birch leaves.

In winter the caribou disperse and move inland. They feed on lichens and to a lesser extent on sedges and berries. Caribou dig through the snow to obtain food, and their wide circular hooves are well adapted for this purpose. Their feeding craters are distinctive features of the winter landscape. In late winter they move to the open tundra and coastal regions where the wind keeps the beach ridges and hills free of snow.

Caribou, especially the young, are vulnerable to predation by wolves and occasionally by polar bears. They are also hunted by people, with some 250 caribou harvested from the Cape Churchill herd annually. More than half the harvest is for subsistence purposes by aboriginal people.

Moose are much less abundant than caribou in the WMA due to the nature of the habitat. They tend to be found in the riparian forest along the Nelson River and Hayes River, but there is some evidence that numbers may be increasing and their range expanding.

Furbearers

Hares, lemmings, shrews, mice and voles are commonly found in the WMA and provide a rich food source for furbearing predators. Red foxes (in various colour phases) are common, and there are good numbers of ermine, marten, and mink. Fisher, lynx, black bear, beaver, river otter, muskrat and wolverine are common but less abundant. Arctic foxes are also common and have a unique dependence on the marine environment. In spring, summer, and fall, like other foxes, the arctic fox preys on small mammals and ptarmigan. In winter they follow the polar bears out on the ice and scavenge seal carcasses left by the bears, which tend to eat only the blubber.

Though listed as extirpated in Manitoba, the occasional barren-ground grizzly bear makes an appearance in the Churchill WMA - Wapusk National Park area from time to time.

Birds

The Churchill WMA and Wapusk National Park are a significant nesting area for medium-sized Canada Geese. They are joined by a few of the smaller Cackling Geese and by large numbers of non-breeding Giant Canada Geese that spend their first summer as juveniles wandering the northern reaches of the province.

A traditional nesting area for lesser Snow Geese is at La Pérouse Bay, which is mostly within Wapusk National Park. However, as the sedge meadows and tidal marshes within the traditional nesting colony are denuded of vegetation, Snow Geese are spreading further along the coast. Serious concern has been expressed in recent years regarding the impact of increasing numbers of Snow Geese on the fragile coastal wetland habitat.

In the latter part of August and in September locally raised geese are joined by others that nest in the high Arctic and elsewhere along the Hudson Bay coast. The Cape Tatnam WMA is also producing increasing numbers of geese that stage in the Churchill WMA.

The Churchill WMA supports a great variety of ducks, including those that are seldom seen elsewhere in Manitoba. Long-tailed ducks, Common and Spectacled Eiders and scoters are seen along the coast, while Black Ducks are seen on freshwater lakes. Tundra Swans and Pacific Loons also breed in the WMA.

Willow Ptarmigan are common breeders in upland areas, while Rock Ptarmigan, which nest further north on the tundra, spend the winter here. Gyrfalcons, Peregrine Falcons, Ross's Gulls and Parasitic Jaegers are among some 225 species of birds observed in the WMA.

The transition from boreal to sub-arctic habitats in the Churchill region gives rise to a diversity of habitats. The tidal flats, coastal marshes, meadows, tundra and forests attract a great variety of birds as resident breeders and as migrants. Churchill has become a world-renowned destination for bird watchers and researchers, generating significant economic activity in the area.

Uses and Activities

Tourism

Churchill is internationally known as a tourism destination. Each year as many as 15,000 visitors arrive to view wildlife and experience the sub-Arctic environment. These activities are regulated within the WMA by Manitoba Conservation and in Wapusk National Park by Parks Canada. Most of the bird-watching, tundra vehicle excursions, polar bear-viewing, and escorted walking tours occur in the Churchill WMA. Commercial operators are authorized to provide off-road vehicle excursions along designated routes; aerial tours by helicopter; overnight accommodation in specially designed trailers; and an eco-tourism lodge on the periphery of the polar bear denning area. Several companies are authorized to conduct tours along the built-up road system and some offer escorted walking tours. Outfitters have also been permitted to operate dog sled tours in the WMA during winter. Up to 10,000 people visit Churchill during the peak polar bear-viewing season, which now stretches from the first of October to mid-November. As many as 5,000 visitors are attracted to the Churchill region in the balance of the year for birding (May and June) whale watching (June - August), and viewing polar bears emerging from dens (March). Some also come to view the Aurora Borealis (northern lights), and experience snowmobiling and dog sledding in winter.

For management and regulatory purposes, tourism is considered to include self-guided visitors, visitors paying for the services of guides and transportation providers, amateur photographers, professional photographers, videographers and film makers.

The tourism operators in the Churchill WMA formed an association in recent years to improve communication among the operators and with the management authorities for the WMA and national park. Representatives of Manitoba Conservation meet with the members of the association, the Town of Churchill, Parks Canada and other interests on an annual basis to share information and keep everyone advised of any new issues or opportunities.

Research

The Manitoba Wildlife Branch and the Canadian Wildlife Service have undertaken various research and monitoring programs in the WMA, many ongoing since the early 1970s. The Manitoba Wildlife Branch operates Nestor 1, a research camp now located within Wapusk National Park. This camp has mainly been used to support research and monitoring of Canada geese. Monitoring and research activities are undertaken both within the WMA and national park, as well as elsewhere along the Hudson Bay coast. Another research camp, known as Nestor 2, is located just inside the Wapusk National Park boundary at La Pérouse Bay. It is operated by as the Hudson Bay Project by a consortium that includes the Ontario Ministry of Natural Resources, University of Toronto, Cornell University, and American Museum of Natural History. Activities within the WMA vary from year to year and depend on the subject areas being investigated.

The Churchill Northern Studies Center, located at the site of the former Churchill Rocket Range, supports a significant amount of research in the WMA. Among its many initiatives, the Center monitors two EMAN (Ecological Monitoring and Assessment Network) sites within the WMA. Researchers from several universities study climate, plants, and various wildlife species. The Center offers university credit courses as well as an elder hostel program with participants combining learning with their wildlife-viewing vacation.

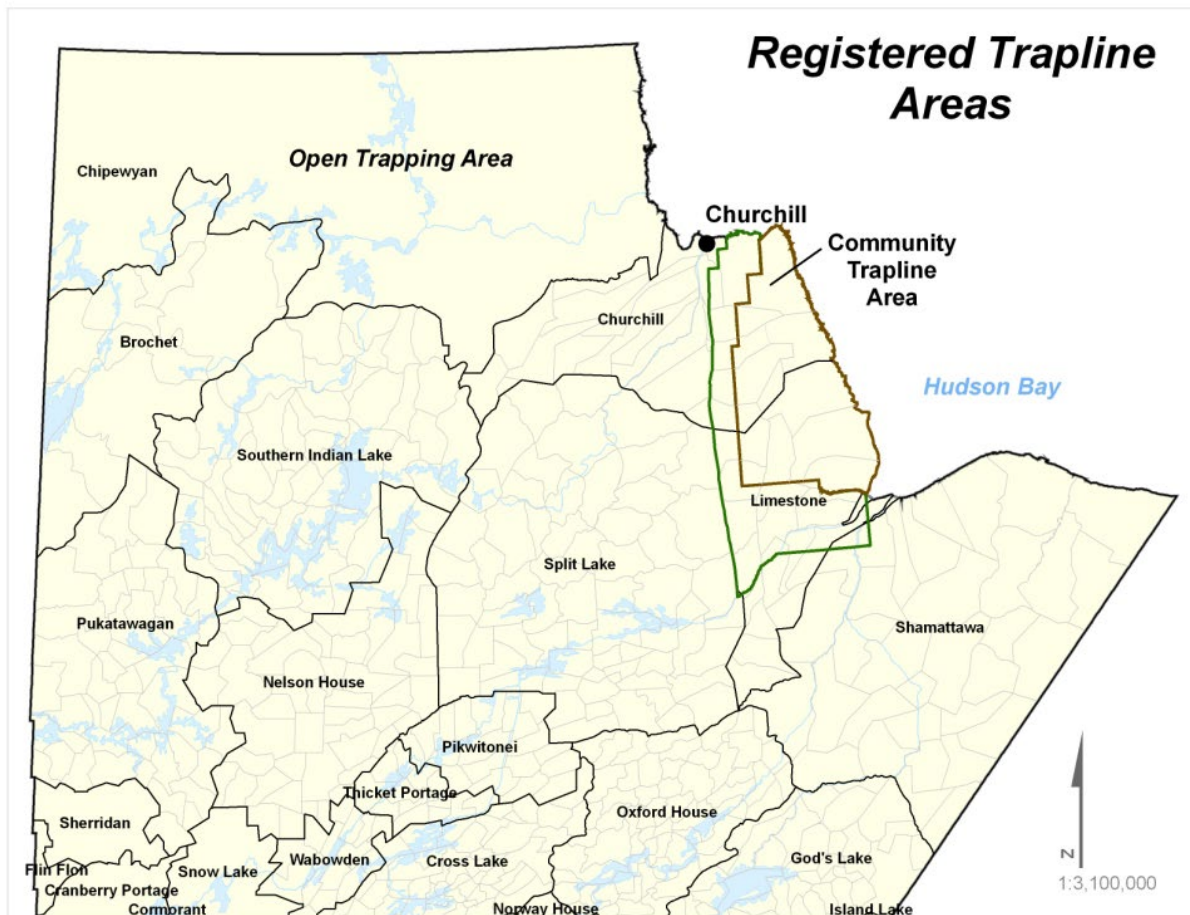
In recent years, Polar Bears International, a non-governmental organization, has supported research into the effects of eco-tourism activities on polar bear behavior. This research has been undertaken with the assistance of one of the off-road tundra vehicle companies permitted to operate in the WMA. School groups have been brought to Churchill by Polar Bears International and they have also set up a web-cam in cooperation with National Geographic that provides real-time images of the WMA during the fall when polar bears are gathering in anticipation of the first ice on the Bay.

Hunting

Hunting is permitted throughout the WMA, but participation is limited due to the remoteness of the area. Big game hunting primarily consists of caribou hunting by residents of Churchill. In the lower Nelson River area, accessible from Gillam, local residents hunt moose and upland game birds. There are no commercial hunting lodges catering to non-resident hunters in the Churchill WMA as there are in the Kaskatamagan WMA. However, waterfowl hunting is popular near Churchill, attracting a few non-resident hunters as well as local residents. It is estimated that up to 300 aboriginal people who live elsewhere in Manitoba hunt geese in the Churchill area during the spring and fall migrations.

Trapping

Trapping within the Churchill WMA is allocated within the Churchill, Limestone and Shamattawa Registered Trapline (RTL) sections. Except for the Churchill community line, RTLs are allocated to a line holder who may also have assistants licensed to trap on the line. Trappers primarily market marten, fisher, and foxes. In southern portions of the WMA, beaver, muskrat and a variety of other furbearers are taken.



Mining and Petroleum

Little mineral exploration and mining has occurred in the WMA in recent years, with the exception of gravel mining in Pit 7b in Legal Subdivision 3 of Section 20-112-2 E 2nd Meridian (also referred to as Pit 58 in some references) which is located approximately one and a half kilometers east of the Churchill Northern Studies Center. Gravel mining is restricted to this pit and no new pits will be established in the portion of the WMA utilized by polar bears. With the recent listing of the polar bear as a threatened species under Manitoba's Endangered Species Act, additional protection will be afforded to polar bear habitat in the WMA. Mineral exploration and mining, including petroleum, will be prohibited in the coastal area and denning area. Those areas where mineral exploration and mining are prohibited will be included in Manitoba's Protected Areas Initiative where possible.

Hydro-electric Power Production

The lower Nelson River has been developed for the production of hydro-electric power, with much of the flow of the Churchill River diverted into the Nelson. The boundary of the WMA follows the northwestern bank of the Nelson River downstream of Sundance for some 60 km, and then stretches eastward as far as the Kaskatamagan WMA boundary to capture all of the lower reaches of the Nelson. The zoning scheme for the WMA recognizes the Water Power Reserve as a distinct zone due to the impact this activity has on the river and its adjacent riparian habitat. Further Hydro-electric power generation facilities may be developed in this portion of the river as demand warrants and financing permits.

Forestry

The commercial forestry potential of the WMA is limited by the harsh nature of the growing conditions. The utilization of forests in the WMA has been limited to fuel-wood harvest for personal use and the salvage of white spruce killed by a fire in the Twin Lakes area in the late 1990s. Commercial forestry activity is not anticipated in the WMA due to the general absence of merchantable timber.

Protected Areas Initiative

In 1990, the World Wildlife Fund issued a challenge to all Canadian provinces and territories to protect a representative sample of each of the country's natural regions by the year 2000. Manitoba became the first jurisdiction in Canada to commit to the campaign and developed the Protected Areas Initiative to respond to the challenge. Manitoba's Protected Areas Initiative has demonstrated a provincial commitment to the environment and natural diversity and continues to work towards protecting representative areas in each of Manitoba's natural regions.

Maintaining protected areas provides many ecological, social, economic and health benefits. In addition to allowing the land to maintain its natural cycles and processes, protected areas conserve biological diversity including natural gene pools. They can also serve as scientific benchmarks when measuring environmental change over time and as models for the growth and succession of an ecosystem.

Natural environments provide a range of ecosystem services which provide economic benefits to businesses and communities. These ecosystem services include natural regulation of water flow and water quality, carbon storage and oxygen release, and assimilation of wastes. Economic benefits are also accrued from tourism as protected areas attract visitors into the area who purchase a range of goods and services.

Recreational and aesthetic experiences in protected areas contribute to human physical and mental well-being. Protected areas may also preserve land where Aboriginal people can maintain their traditional ecological knowledge and continue traditional activities such as trapping, hunting and fishing. Protected areas endure as a natural legacy for future generations.

Protected areas are land, freshwater or marine areas, where logging, mining, hydroelectric development, oil and gas development, and other activities that significantly and adversely affect habitat are prohibited. In WMAs, protected areas are defined in the Use of Wildlife Lands Regulation and restrictions on these specific activities are listed. Those portions of the Churchill WMA to be included in the Protected Areas Initiative will be determined through comprehensive consultations.

Infrastructure

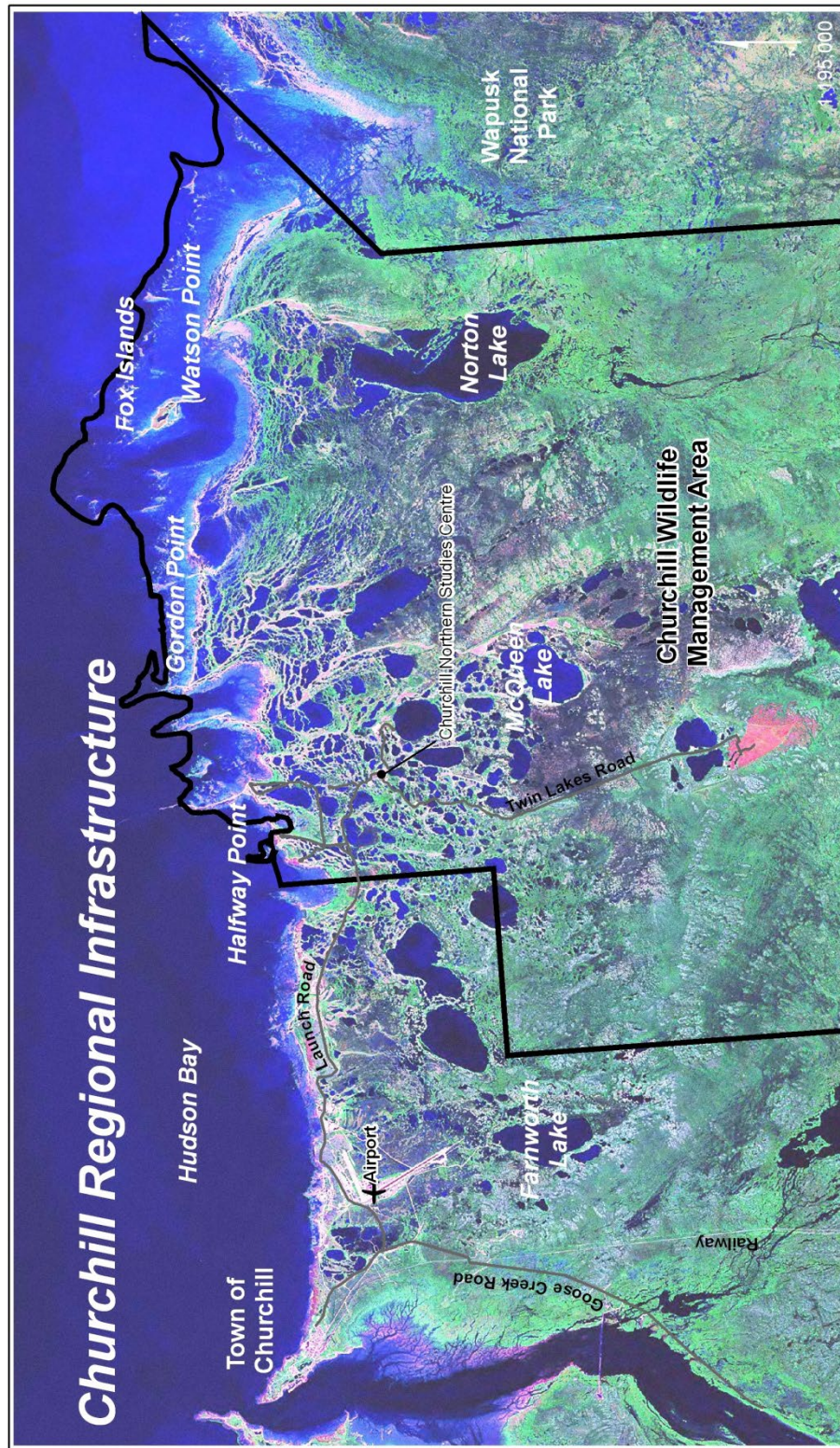
Roads and Trails

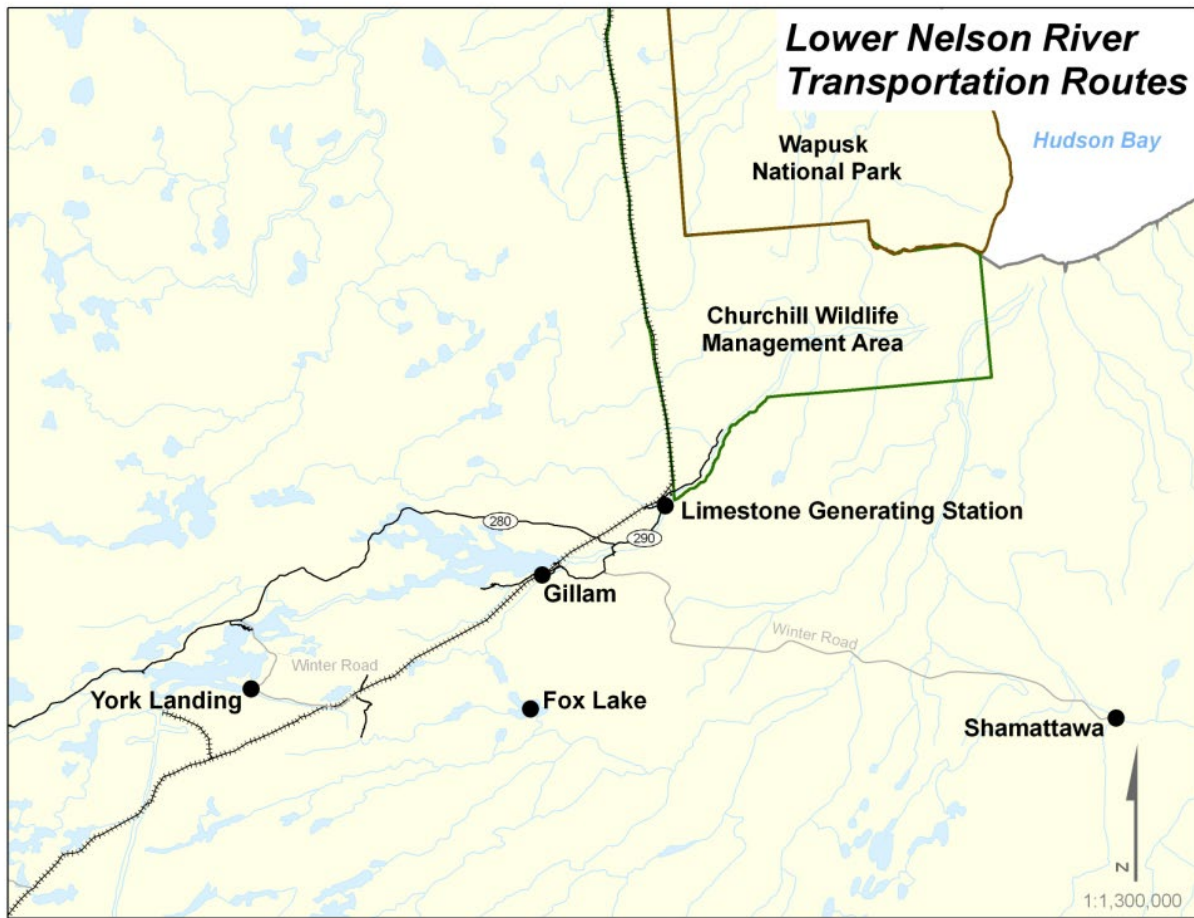
The built-up roads and most of the trails currently in use were established prior to designation of the WMA. The main access road to the northern portion of the WMA is Launch Road, developed to link the Churchill Rocket Range with the airport and Town of Churchill. Launch Road now provides the main access route to the Churchill Northern Studies Center and passenger transfer facilities for the tundra vehicle tour operators. Twin Lakes Road was developed as part of the Rocket Range for rocket recovery purposes. It is now used by commercial tourism operators for birding tours. Various trails were also established for military purposes and the operation of the Churchill Rocket Range. Several gravel pads were built as part of the proposed Akjuit Aerospace operation, but facilities were never constructed on them. The off-road commercial tourism operators now use two of these pads for light maintenance and passenger transfer facilities. Others are being used by researchers to study re-vegetation of disturbed areas.

The designated trail system used by the tundra vehicles evolved from trails established in a series of military exercises intended to test various types of vehicles in Arctic conditions. Beginning in the spring of 1945, when the military first tested the Weasel and Penguin Mark 1, a variety of tanks, armored personnel carriers, and other tracked vehicles were tested in the harsh operating conditions in this area.

Launch Road is a Provincial Road maintained by the Town of Churchill, with funding provided by Manitoba Infrastructure and Transportation. Because of the poor condition of Launch Road, the deteriorating asphalt surface was removed in 2004 and replaced with a gravel surface.

Built-up roads also exist at the southern edge of the WMA along the Nelson River. These roads were developed by Manitoba Hydro for the construction and operation of power generating stations along the Nelson River. Further road construction By Manitoba Hydro may occur in this area in association with any new developments.





Research Facilities

The Churchill Northern Studies Center provides accommodation and facilities to support scientific research in the Churchill area. Accommodation, food service, work space, offices and vehicle-maintenance facilities are all located within one building, originally built for the Churchill Rocket Range. A small parcel of land including this building and a generator shed is owned by the Churchill Northern Studies Center. The balance of the site is owned by the Province and all of the lands are designated as part of the WMA.

The Canadian Wildlife Service has a cabin near Lee Lake that is used periodically to house researchers studying the polar bear denning area. It is authorized by an Annual General Permit.

There are several observation towers in the WMA, built by the military, various operators of the Churchill Rocket Range or by polar bear researchers. One has been leased to the Churchill Northern Studies Center, while others will be removed when they are no longer required for research purposes.

Historic Sites

Churchill Rocket Range

The Churchill Rocket Range, once the site of considerable research into the aurora borealis, has remained unused since Akjuit Aerospace Ltd. discontinued operations in the 1990s. The facility, with several different types of rocket launchers, was designated as a national historic site by Parks Canada. However, the means of celebrating the site has not been determined. The Province of Manitoba owns the facilities and a study was undertaken by a consultant to evaluate the tourism potential of the site. Little interest has been expressed in the remaining rocket launching facilities by either Parks Canada or Manitoba Parks and Natural Areas Branch, the agency responsible for provincial historic parks. The infrastructure, particularly enclosed walkways between buildings, has seriously deteriorated over the years and some structures have collapsed. Stabilization of historically significant structures and a general site clean-up is required.



Port Nelson

The development of deep-water port facilities near the mouth of the Nelson River began in 1912 when it was intended to be the terminus of the Hudson Bay Railway. By the spring of 1914 there were warehouses, bunkhouses and several miles of railway track connecting the port facilities. To avoid the build-up of silt in the harbor, an artificial island, pointed at both ends, was constructed in the river. A prefabricated railway bridge, consisting of 17 spans, was built on piers filled with gravel and rock to connect the island to the mainland.

Construction of the Hudson Bay Railway stalled for a decade and did not resume until the winter of 1926-27. The grain elevators that were planned for the island in the Nelson River were never built. The decision was made in 1927 to terminate the railway at Churchill because it was believed to be a more suitable location for a deep-water port. The railway made an abrupt turn north near the present location of the Limestone Rapids Generating Station and the works at Port Nelson were abandoned. The remains of Port Nelson are recognized as a provincial historic site, but nothing has been done to conserve the structures. The bridgework and many of the on-shore facilities are slowly succumbing to the ravages of time and weather, but many things remain as they were left in 1917 when work on the port ceased.

Treaty Land Entitlement

Lands designated as WMA, including the Churchill WMA, may be selected for Treaty Land Entitlement by First Nations provided that they are not required for the purposes for which they were designated. Some lands have been selected in the southern portion of the WMA and are subject to ongoing negotiations with the First Nations concerned. Should these lands be included in any settlements, they will be deleted from the WMA.

Legislative Framework

Authority for the establishment of Wildlife Management Areas is provided in **The Wildlife Act**. Wildlife Management Areas are defined by the **Designation of Wildlife Lands Regulation** (Manitoba Regulation 171/2001 and its subsequent amendments) while restrictions on the use of WMAs are outlined in the **Use of Wildlife Lands Regulation** (Manitoba Regulation 77/99 and its subsequent amendments). Current versions of the regulations are available on-line through the Government of Manitoba Web Site <http://web2.gov.mb.ca/laws/regs/index.php>.

The **Designation of Wildlife Lands Regulation** defines the boundaries of the Churchill WMA through a Director of Surveys Plan filed in the office of the Director of Surveys, Survey Services Branch of Manitoba Conservation (D of S Plan No. 20178.) The WMA extends to the low-tide mark of Hudson Bay, which is also the boundary between Manitoba and Nunavut. The tidal flats in this area and Fox Island are included within the WMA.

The **Use of Wildlife Lands Regulation** has general restrictions that apply to all WMAs. These state that no person shall grade, gravel or clear a road or trail; install or modify a stream crossing; drain, dyke, or block a manmade or natural waterway or wetland; or engage in haying, grazing, clearing, bulldozing, burning, fencing, logging, cultivation, mineral exploration or extraction; apply pesticides; or construct, place occupy or use a building or structure; carry on any commercial activity or sell or offer for sale any article in a wildlife management area, without a permit issued under the authority of the Minister of Conservation and Water Stewardship. This Regulation has further restrictions for the Churchill WMA that apply to those supplying commercial tourism services or undertaking research in the WMA. Except under the authority of a permit:

While supplying accommodation or touring facilities, or while conducting scientific or research studies in the Churchill Wildlife Management Area, no person shall

(a) operate a vehicle; or

(b) despite subsection 7(2), construct, place, occupy or use a building, structure or tent.

Other Legislation governing activities in the WMA includes but is not limited to the federal Fisheries Act, the Environment Act (provincial), The Crown Lands Act, the Resource Tourism Act and additional Acts and Regulations.

Permits and Licences

A WMA Use Permit is used to authorize an activity that is otherwise restricted by the **Use of Wildlife Lands Regulation**. The use of tundra vehicles for commercial tourism purposes, for example, is restricted by the regulation and only permitted through a WMA Use Permit. Anyone offering anything for sale in the WMA or providing any kind of service related to commercial tourism must obtain a WMA Use Permit prior to operating in the WMA. Commercial tourism includes, but is not limited to such activities as walking tours, bus tours, tundra vehicle tours, aerial sight-seeing tours, and photography tours. Applications for WMA Use Permits are available through the Wildlife Branch's website and from offices of Manitoba Conservation and Water Stewardship.

A potential commercial tourism operation intending to offer services in the WMA is also required to obtain a Tourism Licence through the Licensing Advisory Committee. This includes tour operators offering only guiding or interpretive services as well as those offering overnight accommodation.

Permanent structures, such as the passenger-transfer and maintenance facilities developed by the off-road tour operators must be authorized through a Crown Lands Annual General Permit or a lease issued by the Crown Lands and Property Agency on behalf of Manitoba Conservation and Water Stewardship.

Anyone wishing to undertake research in the WMA and intending to use a vehicle in connection with this research must obtain a WMA Use Permit. A permit may be issued for the research work provided that the department is satisfied that this activity would not have an adverse impact on the habitat or wildlife of the WMA, or interfere with other permitted activities in the area.

More information regarding permits and licences is available on the Government of Manitoba Web site: www.gov.mb.ca/conservation/wildlife.

Management Objectives

Wildlife Management Areas contribute to sustaining wildlife populations in Manitoba and maintaining the ecological integrity of their habitats. Some WMAs are special places for wildlife, protecting habitat where wildlife concentrates, such as the Narcisse Snake Dens or Oak Hammock Marsh. Other WMAs protect typical habitats of a natural region where wildlife is evenly distributed. Due to its vast size, the Churchill WMA embodies elements of both. The coastal area is a very special place for wildlife, with concentrations of polar bears, caribou and birds. Inland, the polar bear denning area is another critical habitat. Further south, the balance of the WMA is typical of the Hudson Bay Lowlands, with wildlife distributed over a large area.

Wildlife Management Areas are lands for both wildlife and people. Public use and enjoyment of wildlife is encouraged in WMAs, including hunting, trapping and wildlife viewing. Balancing the needs of wildlife and accommodating a variety of uses and activities is a major challenge. Other government agencies, often with differing mandates, play a role in managing some activities in WMAs.

Given all of the interests concerned with the Churchill WMA, it is essential that clear management objectives be established to protect the interests of wildlife and its habitat as a primary consideration.

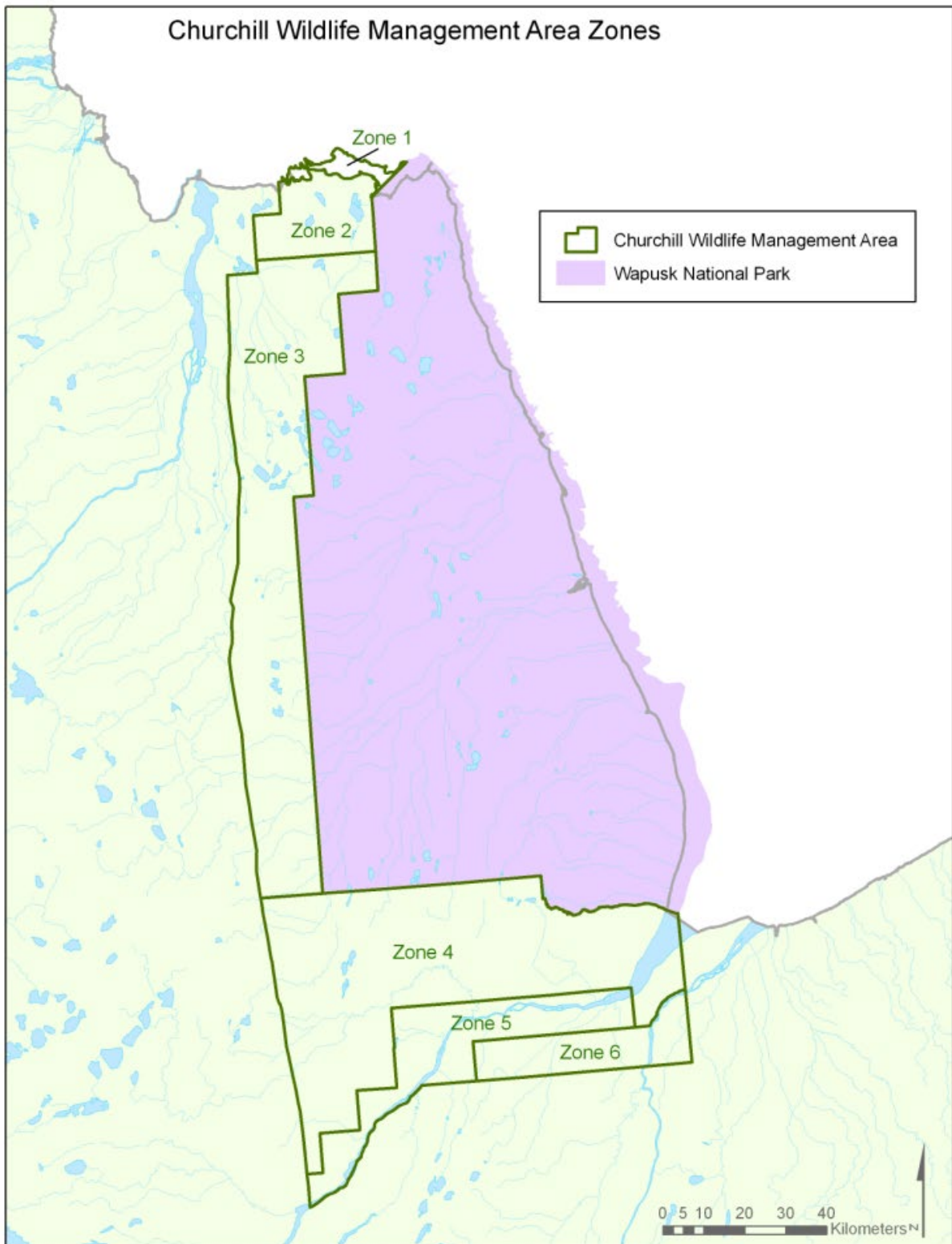
The management objectives are:

- *to conserve and protect indigenous wildlife including plants, insects and animals as well as their habitat*
- *to encourage scientific research that supports Manitoba Conservation and Water Stewardship's ability to manage wildlife and its habitats*
- *to create a better awareness of Manitoba's wildlife and conservation measures*
- *to ensure that Constitutional and Treaty obligations to First Nations people are respected and accommodated*
- *to provide opportunities for wildlife viewing and commercial eco-tourism in a manner that will maintain high-quality viewing experiences while minimizing the impact on the landscape and individual animals*
- *to provide opportunities for hunting and trapping, with special consideration given to the requirements of local residents*

Zones

In order to achieve the management objectives for the WMA, the zoning scheme for the WMA has been simplified. The zones established in the 1988 Management Guidelines have been adjusted to reflect the creation of Wapusk National Park and the knowledge gained over the intervening years. The intent of the zoning scheme is to group similar landscape features and patterns of use, identifying the need for restrictions in some areas and potential opportunities for further development in others. General prohibitions and restrictions affecting all WMAs, and the Churchill WMA in particular, are identified in the Use of Wildlife Lands Regulation. The zones are defined in Director of Survey Plan No. 20399, filed in the Office of the Director of Surveys in Winnipeg. Activities that are further restricted in each zone by virtue of this Plan are outlined for each zone. Unless restricted by regulation or policy as set forth in this Plan, any lawful activities are generally permitted. Rather than list all of the activities that may occur in a zone, the Plan merely describes those that may not occur or may only occur under special conditions.



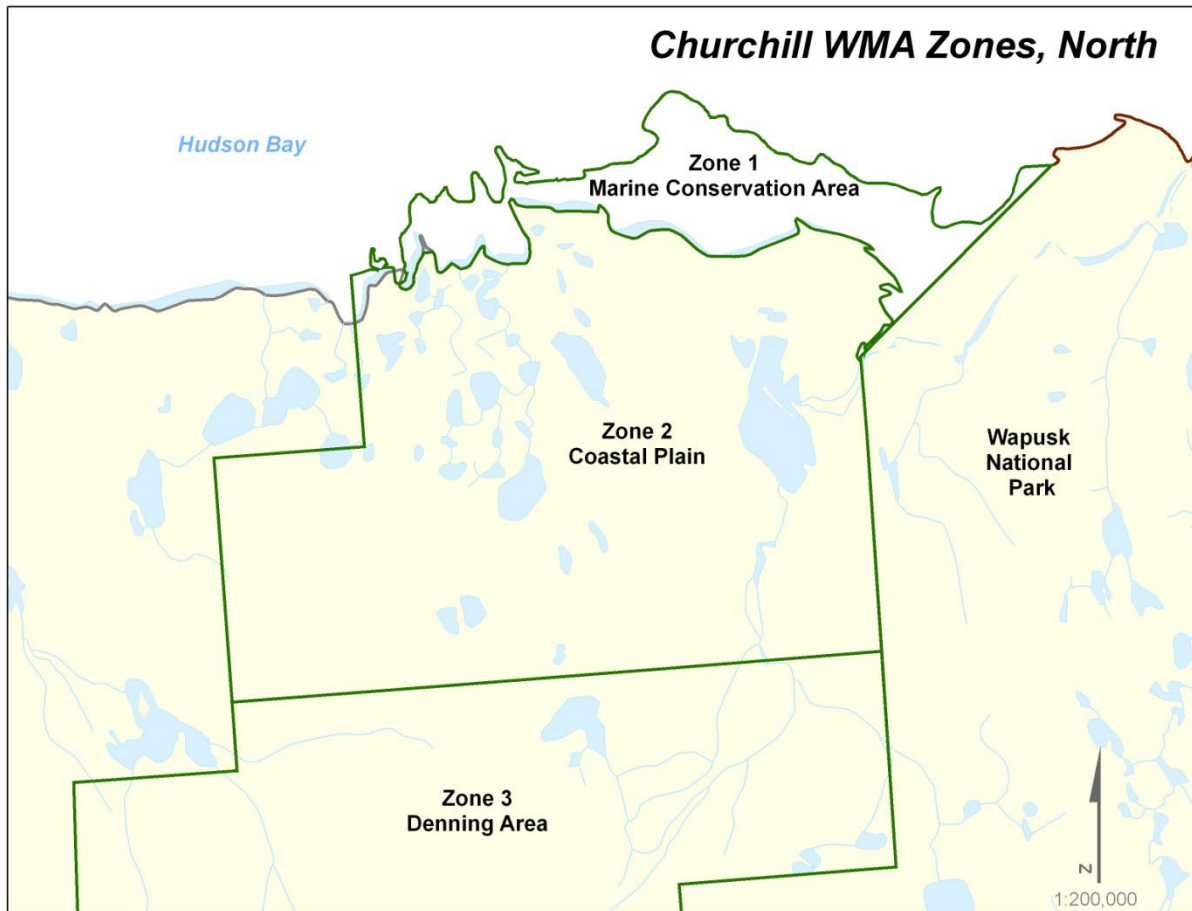


Zone 1 – Marine Conservation Area

Several areas along the coast have traditionally been identified as “polar bear resting areas” where commercial tourism is not permitted. The purpose of these areas is to provide portions of the coast that are free of disturbance from commercial tour activities and in doing so, encourage polar bears to remain in the WMA. Gordon Point, Watson Point, Fox Island, and other selected areas have been off-limits to any and all tourism operations for many years. These areas and the associated tidal flats are identified as a distinct zone in recognition of the special restrictions in place.

Restricted Activities

- commercial tourism is generally prohibited, including aerial sight-seeing tours
- Between October 15 and December 31, a commercial operator permitted to operate in Wapusk National Park may be granted permission to transit directly through the Churchill WMA to and from an approved site in Wapusk National Park. This permission would be granted for moving a trailer camp to and from the park and for moving clients to and from the camp by tundra vehicle.
- access for research purposes requires a Scientific Research Permit
- no infrastructure development of any kind is permitted
- no mineral or petroleum exploration or mining is permitted



Zone 2 - Coastal Plain

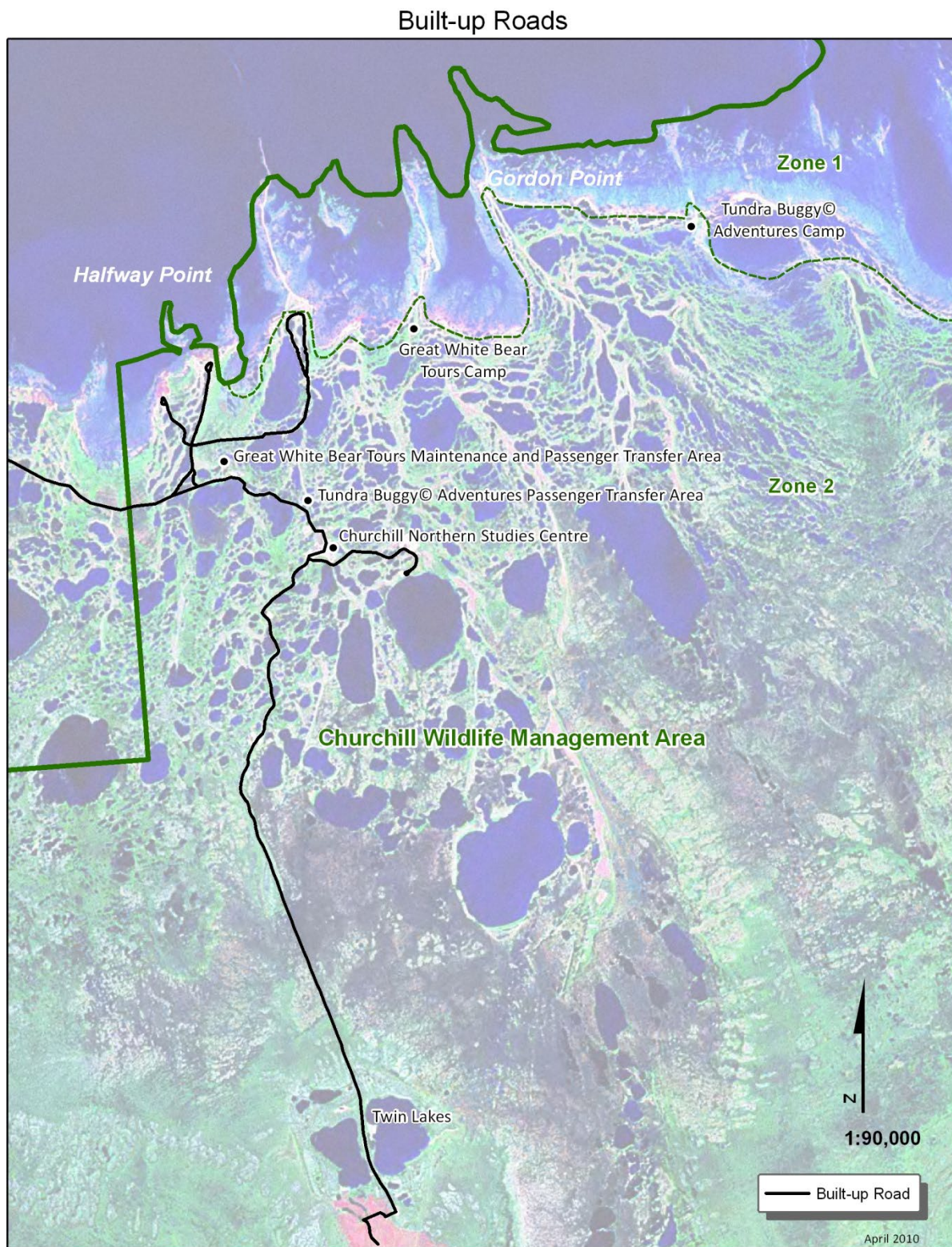
Zone 2 consists of Knight's Hill, the coastal lowlands, tidal flats and freshwater ponds along the Hudson Bay coast, and extends south to include the wooded heights of Twin Lakes Hill. This is the most accessible portion of the WMA for day use, with a built-up road system, the former Churchill Rocket Range and associated infrastructure, the Churchill Northern Studies Center, and maintenance/passenger transfer facilities for off-road commercial tour operators. It is also the area used for tundra vehicle tours off the developed road system and the site for two trailer-camps used during the polar bear viewing season. In addition, it is the most accessible part of the WMA for hunting and trapping by local residents.

Restricted Activities

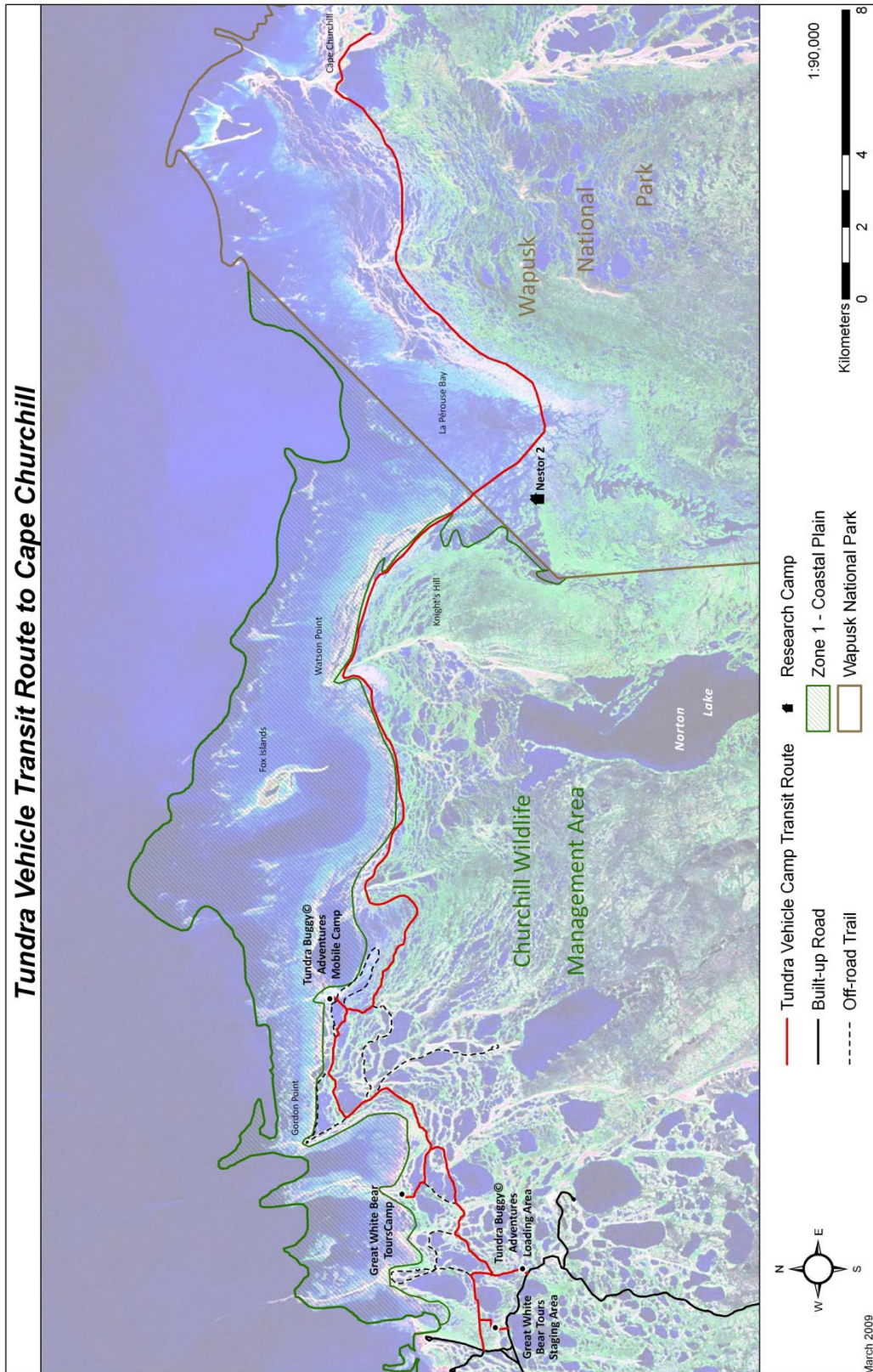
- The total number of self-propelled multi-passenger vehicles (referred to as tundra vehicles), permitted to provide tours off-road in Zone 2 is restricted to a maximum of 18.
- Self-propelled multi-passenger vehicles (tundra vehicles) permitted to operate off-road in Zone 2 must operate on designated trails.
- Between October 15 and December 31, a commercial operator permitted to operate in Wapusk National Park may be granted permission to transit directly through the Churchill WMA to and from an approved site in Wapusk National Park. This permission would be granted for moving a trailer camp to and from the park and for moving clients to and from the camp by tundra vehicle.
- With the exception of the Churchill Northern Studies Center, permanent facilities offering overnight accommodation, such as eco-tourism lodges, are not permitted in this zone in order to maintain the wilderness threshold experience for all visitors to the WMA. The Churchill Northern Studies Center is permitted to provide overnight accommodation and food service, laboratory and office space, as well as storage and maintenance facilities associated with its operation. It may also sell merchandise related to its operation.
- Two sites are identified in this zone for placement of trailer camps during the polar bear viewing season. The trailers may only be placed at these sites from Sept 15 to December 31 of each year and may not be located elsewhere in the WMA other than on the site approved for each operator. The trailers must be removed from the sites by December 31. Trailers may be stored at the operator's approved maintenance location in the WMA, although operators are encouraged to remove them from the WMA. No additional trailer camps will be permitted.

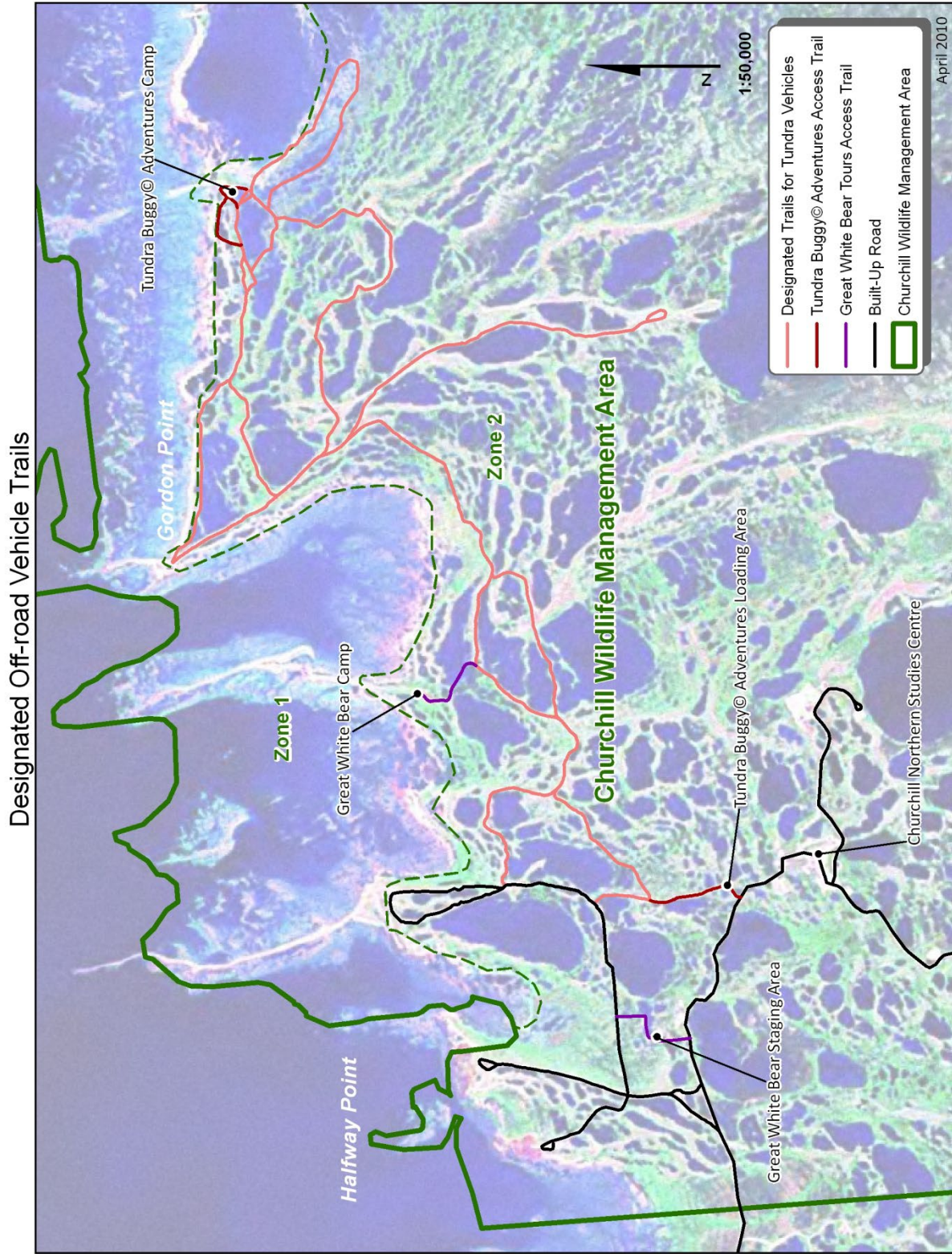
Zone 2 – Coastal Plain (... continued)

- Each commercial tour operator authorized to operate off-road passenger vehicles in Zone 2 is allowed a maintenance/passenger transfer facility in the WMA. Operators who are authorized to conduct tours only on the built-up road and trail system will not be permitted to have a passenger transfer/ maintenance site in the WMA.
- There is no restriction on the number of commercial tour operators permitted to operate in the WMA utilizing the existing built-up road system. Commercial tour operators must first obtain a WMA Use Permit before commencing operations. (This provision of the Plan may be revisited at any time in the future, should congestion on the road system or deterioration of the roads begin to impair the quality of the visitor's experience.)
- Manitoba Conservation and Water Stewardship will work cooperatively with aerial tour operations to manage the number and frequency of flights to maintain the quality of viewing experiences for all visitors to the WMA and minimize the potential disturbance to wildlife.
- Mineral exploration and mining, including petroleum, is prohibited with the exception of Pit 7b in Legal Subdivision 3 of Section 20-112-2 E 2nd Meridian (known to some as Pit 58) which is located approximately one and a half kilometers east of the Churchill Northern Studies Center. Gravel extraction in the Coastal Plain Zone is restricted to this pit.



Tundra Vehicle Transit Route to Cape Churchill





Zone 3 - Denning Area

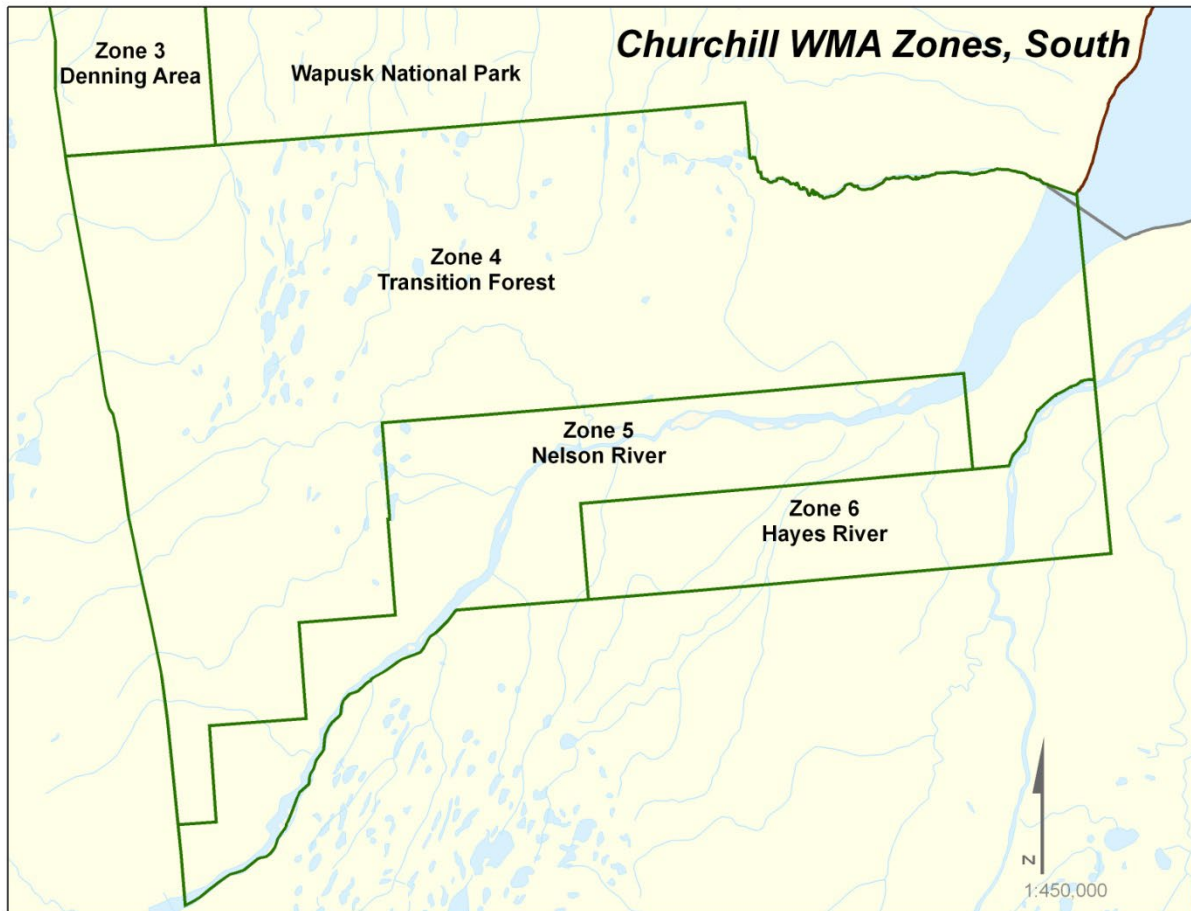
Zone 3 includes the polar bear denning habitat within the WMA. Further development of commercial tourism in this area is not permitted to avoid disturbance to denning females. One lodge operation located within this zone has been permitted and will be permitted to operate on an ongoing basis. (Approval to transfer the business to another operator will be granted provided that the lodge operation including its vehicle allocation is transferred in its entirety.)

Restricted Activities

- The total number of self-propelled multi-passenger vehicles permitted to operate off-road for tourism purposes in Zone 3 is restricted to four.
- Vehicles associated with tourism operations may only operate on snow-covered or frozen ground, between October 20 and April 1 of each year.
- No more than 10 single passenger vehicles (snowmobiles) may be operated for tourism purposes.
- Helicopter tours to the core polar bear denning area, including visits to unused polar bear dens, are prohibited.
- no further development or expansion of infrastructure, including development of new roads or trails, is permitted
- Mineral exploration and mining, including petroleum, is prohibited

Zone 4 - Transition Forest

There are no special restrictions regarding commercial tourism or eco-tourism lodges in Zone 4 of the WMA. In general, the area will remain in its natural state, but should a proposal be made for the development of fixed-roof accommodation, the proposal will be evaluated on its merits. Minimal impact on the landscape and a sound business plan projecting long-term economic and environmental sustainability will be required. New trails may be established through this zone to access Wapusk National Park, should such access be requested by Parks Canada.



Zone 5 - Nelson River

This zone conforms to the boundaries of the Nelson River Water Power Reserve and may be further developed for hydro-electric power generation. There are no special restrictions regarding commercial tourism or eco-tourism lodges in Zone 5 of the WMA. In general, the area will remain in its present state, altered as it is by existing hydro-electric development, but should a proposal be made for the development of fixed-roof accommodation; the proposal will be evaluated on its merits. Minimal impact on the landscape and a sound business plan projecting long-term economic and environmental sustainability will be required.

Zone 6 - Hayes River

The Hayes River has been recognized as a Canadian Heritage River and was once the major fur trade transportation route for the Hudson's Bay Company. The portion of the river that is within the WMA, along with its associated riparian area, will be protected from development. Temporary tent camps may be permitted on a seasonal basis in association with tourism operations.

Restricted Activities

- no infrastructure development of any kind is permitted
- no mineral or petroleum exploration or mining is permitted

Land Use Policies

Vehicles

The impact of vehicle use has been investigated in the Churchill area by Dyke & Teillet in 1981, Webb in 1983, and Rządki in 1986. The results of these studies led to restrictions on vehicle use for commercial tourism purposes in the WMA that continue to be maintained.

Research showed that tracked vehicles used by tour operators during the late 1970s and early 1980s left enduring marks on the landscape when used on unfrozen ground in the coastal area. This was attributed to differential velocities between the track centers and edges, causing a shearing effect. Since frozen soil has a greater resistance to shearing, the use of tracked vehicles is mainly of concern during summer and early fall. In the 1990s, the tour operators licensed to operate off-road in the WMA phased out the use of tracked vehicles and now only use large-tired tundra vehicles.

Tundra vehicles, which use flotation tires originally developed for use on agricultural machinery, still cause rutting and contribute to erosion when operated prior to freeze-up. To confine this impact to a minimal area, designated routes were established for use until freeze-up occurs. The date of freeze-up had been around October 15 when restrictions were first imposed in the 1980s, but milder fall weather in recent years requires that use of these routes now be used throughout the operating season.

The use of hovercraft for commercial tourism purposes has been proposed by potential operators who wish to develop a polar bear viewing business. Hovercraft have the advantage of having less physical impact on the landscape, but the technology available to date results in an unacceptably high level of noise associated with their operation. This noise would adversely affect wildlife and impair the enjoyment of the area by other visitors. Present designs of hovercraft do not afford the same protection for passengers from potential polar bear attacks in the event of a break-down. Hovercraft will not be permitted to operate in Zones 1, 2 and 3 of the WMA.

To manage vehicle impacts within the WMA the following policy will be applied:

- The number of self-propelled multi passenger tundra vehicles engaged in commercial tourism activities and traveling off-road in the coastal area (Zone 2) and polar bear denning area (Zone 3) is limited. The number of vehicles permitted to operate is defined for each of these zones. No vehicles associated with commercial tourism are permitted in Zone 1.
- All off-road vehicles as defined by The Off-Road Vehicle Act (Manitoba) and operated in conjunction with commercial tourism, professional photography, or scientific research are required to operate under the authority of a WMA Use Permit. Limits may also be placed on the number of vehicles permitted to operate in each management zone.

- Self-propelled multi passenger tundra vehicles equipped with tracks may only be permitted to operate on frozen, snow-covered ground.
- Multi-passenger tundra vehicles utilizing low pressure flotation tires may operate at any time of the year, but are restricted to designated routes.
- There shall be no restriction on the use of off-road vehicles in the WMA by residents engaged in lawful recreational activities, trapping or activities defined under Treaty or the Manitoba Natural Resources Transfer Act.
- Aircraft engaged in commercial tourism activities shall land at designated landing sites only, except in the case of a forced or emergency landing. (Once an aircraft is on the ground in a WMA, it is defined as a vehicle and subject to provincial wildlife regulations.)
- Vehicles shall not be operated in the WMA in a manner that causes undue or malicious damage to the vegetation and landforms or in a manner that harasses wildlife.
- Violation of the terms and conditions of a permit authorizing the use of a vehicle in the WMA may result in immediate cancellation of the permit in addition to any charges that may be laid for the violation.

Eco-tourism

Churchill is one of the best known and sought-after wildlife-viewing areas in the world. It attracts as many as 15,000 tourists each year from the United States, Europe, Australia, Japan and elsewhere. People come to see birds in spring, whales in summer and polar bears in the fall. There are also a growing number of winter visitors who come to view the aurora borealis or northern lights. The contribution to the local and provincial economy is significant, as eco-tourism has grown into a multi-million dollar industry.

The interest in viewing polar bears in the Churchill WMA had its origins in the late 1970s when a National Geographic documentary television program brought the story of Churchill's polar bears into the homes of wildlife enthusiasts throughout the world. By 1980, growing numbers of people began visiting Churchill in order to see polar bears, and a commercial tourism industry was born.

Several local entrepreneurs got into the tourism business using four-wheel drive trucks, school buses placed on a four wheel drive chassis, and various tracked vehicles, including the Thiokol Trackmaster. In 1984, concerns regarding the impact of this vehicle traffic on the vegetation and wetlands of the WMA resulted in a moratorium being placed on issuing new permits beyond the 18 vehicles allowed to operate that year. Until 1984, permits were issued to anyone who requested them.

Vehicles with wide, low-pressure flotation tires have the least impact on the landscape compared with present alternatives. Any proposed alternatives to the flotation-tired vehicles will be assessed on a case-by-case basis. If Manitoba Conservation and Water Stewardship believes that an alternate vehicle type may have a greater impact on the landscape than the present type, the proposed alternate vehicle will not be approved. Also, an alternate type of vehicle may not be approved if the design poses a risk to public safety or if it may unduly disturb wildlife or its habitat.

The number of self-propelled tundra vehicles permitted to operate in the WMA has been capped at 18 since 1984 due to concerns regarding the impact on the fragile tundra landscape. However, from time to time additional vehicles in excess of the 18 normally permitted to operate used to be authorized through special permits issued to existing operators. In fairness to applicants who have been denied the opportunity to offer services in the WMA, special permits will not be issued to anyone for any purpose connected with commercial tourism, professional photography, or research that would exceed the limit of 18 self-propelled off-road tundra vehicles.

Trailer camps have been permitted to operate in the WMA to provide visitors with the experience of spending up to a week on the Hudson Bay coast. The camps are mobile only to the extent that they may be taken to and from an approved operating site in the WMA. They may not be moved around or operated at another site of the operator's choosing.

The camps provide a unique rustic experience while having as little impact on the landscape as possible. It is not the intent, nor is it desirable, to have the mobile camps evolve into permanent overnight accommodation facilities. They are intended for operation during the fall and winter months for polar bear viewing, and must be removed at other times of the year to maintain the integrity of the landscape. In order to maintain the wilderness threshold experience for other visitors to the WMA, these modern intrusions on the landscape should be as inconspicuous as possible and used primarily when the ground is frozen.

The future of the eco-tourism industry at Churchill rests on the success of balancing the demands for economic opportunities with the need to minimize the impact on the landscape, including flora and fauna. Providing high-quality viewing experiences for visitors is in everyone's best interests.

The following policies will govern eco-tourism activities within the WMA:

General

- All commercial tourism activities within the WMA must be authorized by WMA Use Permit. (Individuals who are visiting the WMA on their own or local residents taking out friends is not considered commercial tourism unless it is undertaken in return for cash, goods or services.)

- A WMA Use Permit is not required by those who rent a vehicle to utilize the built-up road system nor by the company renting a vehicle to an individual, provided the vehicle rental business is located outside of the WMA.
- A WMA Use Permit is not required by a professional photographer utilizing a vehicle on the built-up road system or using the services of a tour operator already permitted to operate in the WMA through a WMA Use Permit.
- The type of facilities and the activities authorized are restricted and will vary according to the management zone.

Multi-passenger Tundra Vehicles

- The number of self-propelled multi passenger vehicles authorized to operate off-road in the WMA for general tourism purposes will not exceed 18 in Zone 2 – Coastal Plain.
- The number of self-propelled multi-passenger vehicles authorized to operate off-road in Zone 3 – Denning Area shall not exceed four vehicles and are restricted to the period when the ground is frozen and snow covered.
- An operator may sell or transfer an entire off-road vehicle allocation to another operator. If an operator wishes to transfer only a portion of an off road vehicle allocation, then it must be packaged in business units acceptable to Manitoba Conservation and Water Stewardship. For example, an operator may sell a trailer camp in its entirety, provided that all service vehicles and at least six tundra vehicles authorized to operate in the WMA are transferred as part of the business unit. An operator may only transfer a tundra vehicle allocation in blocks of six. Any maintenance buildings and storage sites under permit to an operator in the WMA must be transferred with the sale of all or a portion of the operator's business. If an operator wishes to retain and operate six tundra vehicles after selling the rest of the business, the operator must make arrangements to share an existing maintenance and passenger transfer facility or identify an alternate site for development of such a facility that would be acceptable to Manitoba Conservation and Water Stewardship prior to seeking approval for sale of a portion of the business.

Service Vehicles

- Each permitted trailer camp operator will be allowed one service vehicle to handle sewage pump-out.
- Each tundra vehicle operation will be permitted an additional stand-by or recovery vehicle to transfer passengers from a disabled tundra vehicle in order to resume a tour. The stand-by vehicle may be stored at the authorized maintenance facility in the WMA for that operation, but may not be used for any other purpose in the WMA.

- Broken down or otherwise disabled tundra vehicles must be removed to the operator's authorized maintenance facility in the WMA or entirely removed from the WMA within 48 hours of the breakdown.

Walking tours

- Walking tours in the WMA must be authorized by WMA Use Permit. Permit conditions outline the protocol for the delivery of these tours to ensure the safety of visitors avoid negative impacts on habitat or wildlife.

Helicopters

- The use of a helicopter in the WMA must be authorized by WMA Use Permit if the helicopter is to land in the WMA.
- Permit conditions outline the protocol for the operation of helicopters for research, tourism and other purposes to ensure the safety of visitors avoid negative impacts on habitat or wildlife.

Use of Tundra Vehicles for Professional Photographers and Web Cameras

- Professional photographers will be encouraged to take advantage of under-utilized space on the existing allocation of 18 off-road tundra vehicles or the existing permitted camps. Additional vehicles to accommodate professional photographers or web cameras off of the built-up road system will not be permitted.

Permanent Fixed-roof Accommodation

- There shall be no permanent facility providing over night accommodation in Zone 1 – Marine Conservation Area.
- There shall be only one permanent facility providing over night accommodation in Zone 2 – Coastal Plain of the WMA, that being the Churchill Northern Studies Center.
- There shall be only one permanent eco-tourism lodge (existing) in Zone 3 – Denning Area of the WMA.

Removable Trailer Camps

- Trailer camps providing overnight accommodation and meal service require a WMA Use Permit, a Tourism Licence, and an Annual General Permit to occupy a site in the WMA. They may only be moved to and from the approved operating site along a designated route and may not operate anywhere else in the WMA outside of the approved site.
- Trailer camps that are authorized to operate in Wapusk National Park by Parks Canada may transit through the WMA on a route and during a time frame approved through a WMA Use Permit.
- The number of trailer camps in Zone 2 – Coastal Plain of the WMA is limited to two.
- The number of units, location, type, period of use, and size of any trailer camp is restricted by WMA Use Permit, Tourism Licence and Annual General Permit conditions.
- Trailer camps must be removed from the site specified in the Annual General Permit at the end of the operating season as specified in the permit. In the off-season the trailer units may be stored at the authorized maintenance facility for each operation. The operators are encouraged to remove them from the WMA. Any trailer units that are replaced by new units or no longer required must be removed from the WMA.
- Restrictions appended to the WMA Use Permit will apply to trailer camps including waste-water discharge, sewage disposal, garbage disposal, visitor safety, period of operation, area of operation, and the type and quality of services provided.

Roads and Trails

Despite its vast size, there are less than 50 km of built-up roads in the WMA, most of which are in the vicinity of the Town of Churchill. There are also a number of un-maintained trails that are used by local residents and tour operators. Due to the fragility of the vegetation and nature of the soils almost any kind of vehicle, including one-person all-terrain vehicles, will make an enduring track on the landscape when operated off the existing roads and trails on unfrozen ground.

In order to manage the use of vehicles within the WMA and prevent unnecessary damage to the environment, the following policies apply:

- Those operating vehicles in the WMA will be encouraged to use existing built-up roads and established trails as much as possible, especially when the surface is not frozen.
- Built-up roads and designated trails will be identified on a Plan of Survey filed with the Director of Surveys, Manitoba Conservation and Water Stewardship.
- No new built-up roads will be constructed in the WMA, unless required for hydro-electric development along the Nelson River. Road access to Wapusk National Park will not be constructed through the WMA in Zones 1, 2, or 3.
- Access trails and designated routes should be marked at reasonable intervals.

Research

There is continuing interest in the Churchill WMA as a site for scientific research. Various studies have been conducted in the past or are ongoing, related to anthropology, wildlife biology, climate, and ice to name a few. Research shall be encouraged in the WMA, but requires a review process to ensure the research meets current standards of animal care. It must be conducted to professional standards, sponsored or sanctioned by staff or associates of bone fide educational institutions, such as universities or museums.

The following policies apply to requests for scientific research projects in the WMA:

Research must be conducted under the authority of a permit issued by Manitoba Conservation and Water Stewardship, if it requires the use of a vehicle, or if it involves trapping, marking or handling animals. A permit may also be required if the scientific research involves collecting plants or other samples.

All long term (in excess of one year) study plots must be accurately defined and approved prior to establishment by Manitoba Conservation and water Stewardship. The plot must be authorized

through the permit deemed to be the most appropriate for the circumstances by Manitoba Conservation.

Cabins and other Permanent Structures

Cabins and permanent structures are generally prohibited in the WMA. Exceptions to this include the Churchill Northern Studies Center, Churchill Rocket Range buildings, the three private cabins at Twin Lakes and the existing eco-tourism lodge in the denning area. A major exception is in Zone 5 - Nelson River as it includes the Water Power Reserve and any future hydro-electric developments in this zone will require significant infrastructure. Recreational cabins are not consistent with the stated objectives for the WMA. The cabins at Twin Lakes will be phased out through attrition. Permits for these cabins are not transferable and the cabins cannot be replaced if lost by fire, disrepair, or abandonment.

The following policies will be applied to cabins and other permanent structures:

- Trappers' cabins will be allowed on all Registered Traplines within the WMA, provided that they are authorized through a Crown Lands Annual General Permit.
- Individual trappers' cabins will not be permitted on the Community Trapline. Construction of a structure available to all trappers on the Community Trapline area may be approved, provided that it does not impact the aesthetics of the area in the WMA used by commercial tour operators. Any such structure would require an Annual General Permit.
- Permanent structures constructed for scientific research, such as towers or viewing platforms must be approved in advance by Manitoba Conservation and Water Stewardship and authorized through an Annual General Permit. Applicants will be responsible for dismantling their structures, removing them and rehabilitating the site.
- The construction of permanent structures may be permitted if required for safety purposes (i.e. the transfer of visitors from buses to tundra vehicles), or if required for hydro-electric development on the Nelson River. Otherwise, the development of further permanent structures is not anticipated.

Conclusion

This management plan provides guidance for resource managers, enforcement staff, those who use the WMA and those who may wish to propose a new business venture utilizing the WMA. It sets forth direction for land use within the Churchill WMA for the foreseeable future. In time, however, circumstances may change that will warrant a review of this plan. There is no fixed expiry date or date for a comprehensive review of this plan, but the plan may be subject to review when circumstances warrant, as determined by the Minister, department executive, or Director of the Wildlife Branch.

References

- Christensen, T. 1999. Linking tourism and conservation in the Arctic: a review of tourism in Churchill and results of questionnaire survey undertaken in fall tourism season, 1998. World Wildlife Fund Canada. 31pp.
- Clark, D. and D. Cluff. pers. comm. draft map of polar bear maternity denning area in Wapusk National Park and adjacent lands.
- Churchill Working Group. 1990. A National Park in the Churchill/York Factory Areas? 20pp.
- Churchill Working Group. 1990. Background Technical Papers Related to November 1990 Report Entitled "A National Park in the Churchill/York Factory Areas?"
- Dyck, M. 2001. Effects of Tundra Vehicle Activity on Polar Bears at Churchill, Manitoba. MNRM Practicum. Natural Resource Institute, University of Manitoba. 50pp.
- Dyke, L. and D. Teillet. 1981. Preliminary impact assessment of ATV trails in Cape Churchill WMA. Manitoba Natural Resources. 6pp.
- Elliott, C. 1998. Cape Churchill caribou: status of herd and harvest 1997/98. Depart. Natural Resources. Manuscript Report No. 98-05W. 14pp.
- Groom, H. D. 2001. Aggregate Inventories: Churchill Area, Rural Municipality of Grandview and Selected Areas of Special Interest; in Report of Activities 2001, Manitoba industry, Trade, and Mines, Manitoba Geological Survey. pp. 72-178
- Herrero, J. and Stephen Herrero 1997. Visitor Safety in Polar Bear Viewing Activities in the Churchill Region of Manitoba, Canada. 87pp.
- Lin, W. and J. Jehl. 1998. Population status of shorebirds nesting in the Churchill, Manitoba area in 1997. Hubb-Sea World Research Institute Tech. Rep. 98-284. 14pp.
- Marr Consulting and Communications. 2004. Churchill Research Range and Environs Tourism Feasibility Study. 132 pp.
- Melnyk, S. 2000. Integrated Management Planning in Canada's Arctic and Sub-Arctic: A Case Study of Manitoba's Marine Coastline. MNRM Practicum. Natural Resource Institute, University of Manitoba. 141pp.
- Petch, Virginia. 2002. An Introduction to the Traditional Ecological Knowledge (TEK) of the Hudson Bay Coast in Northern Manitoba. Northern Lights heritage Services Inc.

Parks Canada. 2003. Background Information to the Wapusk National park Ecological Integrity Statement. Parks Canada Western Canada Service Center.

Parks Canada. 2006 Wapusk National Park of Canada Management Plan (draft). Parks Canada Western Canada Service Center.

Rewcastle, C. 1983. A Survey of Selected Plant Communities in the Vicinity of Churchill, Manitoba. Technical report No. 83-11 Manitoba Natural Resource Wildlife Branch. 75pp.

Rzadki, J. 1986. Terrain sensitivity analysis for all-terrain vehicle management in the Cape Churchill Wildlife Management Area, Manitoba. Report submitted to Manitoba Natural Resources. 217pp.

Rzadki, J. 1986. Terrain sensitivity analysis for all-terrain vehicle management in the Cape Churchill Wildlife Management Area, Manitoba. M.Sc. Thesis. University of Guelph. 226pp.

Taylor, C. J. 1987. The Churchill Rocket Research Range. Historic Sites and Monuments Board of Canada. 29 pp.

Teillet, D. 1988. Cape Churchill Wildlife Management Area Management Guidelines. Manitoba Natural Resources. 74pp.

Webb, A. 1983. Environmental impact of all-terrain vehicles in the Cape Churchill Wildlife Management Area. MNRM Practicum. Natural Resource Institute, University of Manitoba. 182pp.

World Wildlife Fund. 1997. Linking tourism and conservation in the Arctic. Ten principles for arctic tourism, code of conduct for tour operators in the arctic, code of conduct for arctic tourist. Oslo. 12pp.