The Assiniboine Developing a Sustainable River Experience in Manitoba

Masters of Landscape Architecture Practicum Project
Department of Landscape Architecture
Faculty of Architecture
University of Manitoba

Danika Proven 2004

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FACULTY OF GRADUATE STUDIES

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The Assiniboine: Developing a Sustainable River Experience in Manitoba

BY

Danika Proven

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of the requirement of the degree

Of

MASTER OF LANDSCAPE ARCHITECTURE

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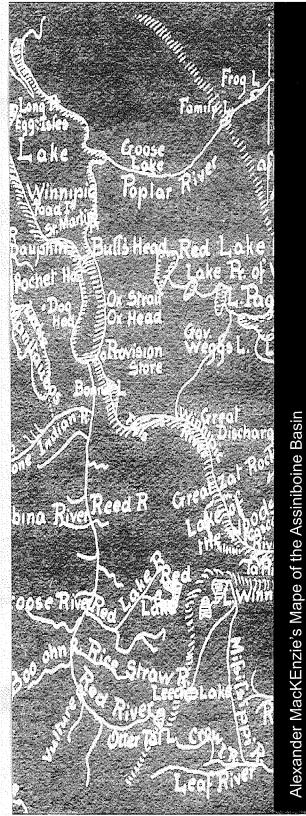
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The modern relationship we have with our waterways and natural areas is one related to the speed in which we drive past them. Small road signs connect us to the natural heritage that is found in the Canadian Landscape. A brief glance is all the time these areas have to convey their secrets, their past and their importance to our national identity.

This is also true for the modern relationship Manitobans have with the Assiniboine River. A casual glance out the window of a car, a brief segment on the nightly news and then the river is out of our minds. Slowly the heritage of the river is being forgotten and the joys and wonder of paddling the river are experienced by only a few.

This Practicum explores the potential for developing a Heritage Canoe Route along the Assiniboine River in Manitoba. This route would be an experiment in sustainable tourism and resource management, revitalizing the rural economy and heritage site development in southern Manitoba. It would also be a tool for conserving and protecting the natural areas of the region and improving the water quality in the entire Assiniboine Watershed.



Acknowledgemen

A special thanks must be given to my committee of Ted McLachlan, Dr. David Witty and Ken Schykulski. The advice that you have given to me has been essential to the success and completion of this practicum. The incredible staff of the Faculty of Architecture and Department of Landscape Architecture also deserve a big thank-you. What I have learned from you all has been a source of inspiration for me.

I would also like to thank my family and friends for their support throughout the course of my education. Especially for their understanding and willingness to put up with me during these often stressfull university years.

Assiniboine River

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This practicum is derived from the desire to celebrate and conserve the rich river environments, history and rural communities that are related to the Assiniboine River in Manitoba. The proposed plan discussed in this practicum uses the themes of Celebration, Conservation and Community to create a development framework focusing on the value of the Spirit, Heritage and Landscape of the Assiniboine River Region.

Together these themes and sub-themes reflect upon who we are, where we have come from and where we are going. Historical, cultural and ecologic values serve as a basis for the practicum objectives and goals. The focus of which is to create a Heritage Canoe Route along the Assiniboine River.

Those who live and work in Manitoba understand the importance of this land of fertile soil, nurturing waters and blazing sun. It is one that has been instilled into the minds of generations from early aboriginal people who lived and died upon the rolling prairies to the waves of immigrants who came to toil and eke out an existence in the harsh Canadian climate. We are a land of dreamers and adventurers, bound together by the chance and circumstance that prompted our ancestors to leave behind what was familiar and venture out to make their own place in the world.

Manitoba was settled in stages. People, from early aboriginal groups to European Immigrants, came to achieve one unifying goal. They sought a land that would improve their lives and provide a home

capable of supporting their family. The river, especially, was instrumental to the settlement of Manitoba. Running water meant movement of people and goods. The canoe routes were trade routes between neighbouring tribes, fur trade forts, frontier towns and cities. These rivers became the first highways of the prairies, later replaced by the railway and finally by the automobile.

The Assiniboine is an important river in Manitoba due to its influence on the lives of those who share a relationship with it. This river snakes across southern Manitoba coming down from the northern forests of Saskatchewan and finally meandering its way across the plains to meet the Red River. It is a river that has a rich and varied history of human use and adaptation. The

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natural areas that abound along its course are unique and filled with life. The landscape of the area is dynamic. It is always changing and recounting the story of the formation of the Earth.

Agricultural land, rural municipalities and urban centres are found along the Assiniboine today. The Assiniboine River travels through a region that is a working landscape. One that is a multimillion dollar asset to the Canadian Agriculture Industry, and responsible for feeding people throughout the world. The vibrant urban centres along the river complement the small prairie towns and offer unique and exciting places for exploration. The region has a great scope of the influence and the people who call it home celebrate this with pride.

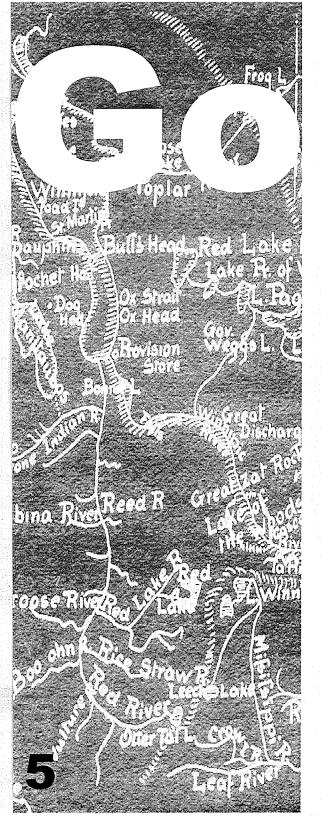
Life along the river is one that is governed by the seasons. The agricultural lifestyle that is the foundation of most communities along the Assiniboine River ensures that the river and its environments are enjoyed year round. Spare hours for recreation and enjoyment are precious commodities of rural life and are to be enjoyed to the fullest no matter what the weather may be. The extreme climate of Manitoba has become a part of our provincial identity. The winter activities in the Assiniboine Region provide citizens and visitors with the opportunity to revel in the weather and what it means to be Canadian.

The proposed development along the river is based on understanding what the region means to the people who call it

home and its importance to the natural world. It recognizes the responsibility any development must have to the people and the land found along the Assiniboine River.



Pives of Legal



This Practicum explores the potential of a sustainable tourism initiative that is anchored by the Assiniboine River. The proposed development is a celebration of Manitoba's history, culture, heritage and environment. The purpose of this is to increase the awareness of the importance and value of the Assiniboine River as a heritage resource while offering development and design strategies that could make it an important asset to the province of Manitoba. The hope is that the proposed development along the Assiniboine River can be used as a precedent for ecological renewal of a river system and sustainable tourism development in Canada.

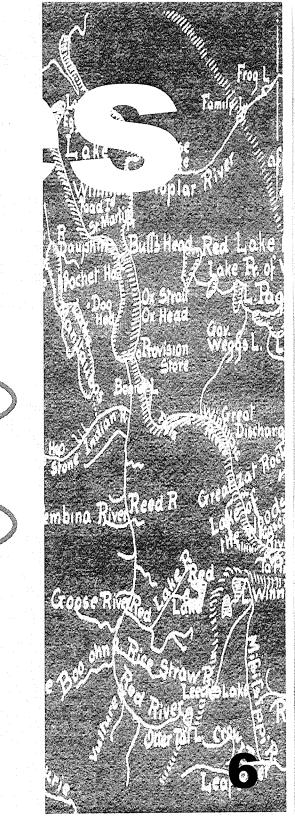
In this practicum I am proposing that a Heritage Canoe Route be developed along the Assiniboine River in southern Manitoba. The focus of this is to increase the tourism potential of the region and the recreational opportunities while enhancing and protecting the natural resources of

the area. Conservation and ecosystem improvement are important elements to the success of the Heritage Canoe Route as well as the success of sustainable development in the area. The goals of the Heritage Canoe Route can be broken down into:

- Developing an Assiniboine River Corridor
- Locating sites for overnight lodges along the Assiniboine River
- Constructing and rehabilitating wetlands in the region
- Rehabilitating and replanting Riparian Zones along the river.
- •Connecting Communities and users

These goals are based upon three Themes. These are used to identify the areas of interest and research that relate to the vision of a sustainable tourism development along the Assiniboine River. The Themes also provide a framework for this practicum.

Conservation Community Celebration





The rich river history of Manitoba must not be forgotten by the people of Canada. As a nation we must be taught the importance of environmental stewardship and our duty to respect and sustain the land and waters that support life.

The development along the Assiniboine River that is proposed in this practicum offers flexible solutions that will aid the region in realizing a more sustainable future. Investigate the importance of the Assiniboine River in the natural and cultural heritage of Manitoba.

Propose a Heritage
Canoe Route to be
developed along the
Assiniboine River
that is based on the
practicum themes
of conservation,
community and
celebration.

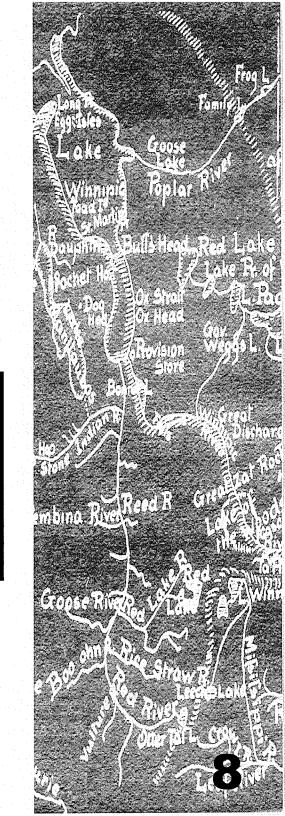
Investigate the sustainable development opportunities, conservation strategies and tourism practices in Manitoba that are related to the practicum goals.

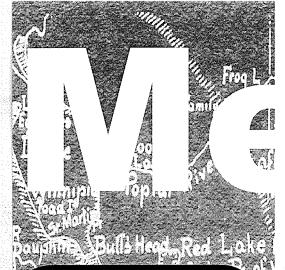
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Articulate environmental and regional benefits created by the proposed **Heritage Canoe** Route.

Investigate the Canadian Heritage **River System and** the possible benefits gained in membership for the Assiniboine River.

Discuss the relationship between the **Heritage Canoe** Route and the **Practicum sub**themes of Spirit, Heritage and Landscape.





This practicum investigates the role of a Heritage Canoe Route in developing sustainable economic initiatives along the Assiniboine River that celebrate and interpret Manitoba's history, culture and environment. The work is focused on identifying the issues, opportunities and constraints related to development along the river.

The methodology used for the work is based upon the Value guidelines of the Canadian Heritage River System. These were expanded upon and made more specific to the Assiniboine River region. The practicum uses existing information as the basis of the proposed development, rather than undertaking additional fieldwork.

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The Heritage Canoe Route commemorates and honors what it means to live within the Assiniboine River Region, the environment and natural beauty in the region, the history and cultures found within the region and the recreational experience of paddling along the river. The flow chart represents the breakdown of research and intent of the practicum. Themes and sub-themes were chosen to inform the development of the practicum. These were also used as organizational tools for the information gathered.

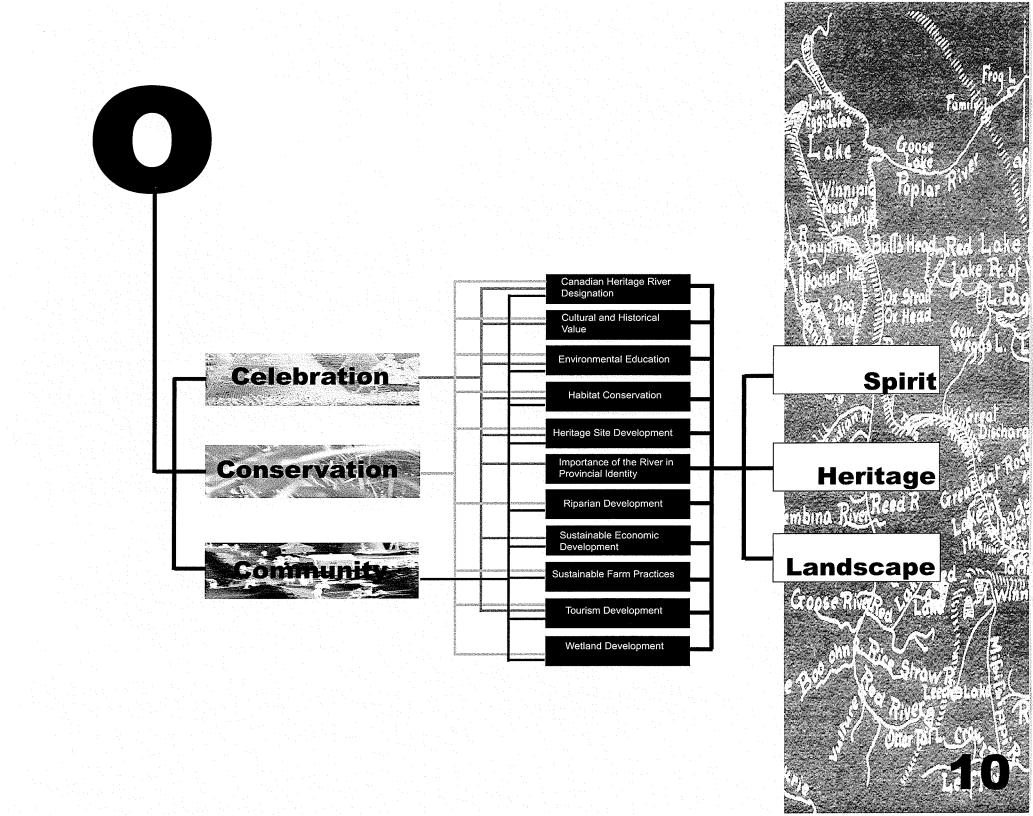
The themes of Celebration, Conservation and Community provide the focus for my intent with the development of the Heritage Canoe Route. These three themes foster interactions between the people who would use the Assiniboine Heritage Canoe Route and the peoples, places, history and cultures of the river. The themes guided the research undertaken in this practicum and helped to identify important areas to be considered and investigated.

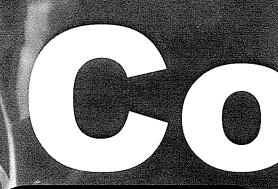
Priority areas where chosen to explore each

theme. These areas were essential to realizing an informed development along the river. Many of these priority areas relate to all three themes and show how connected and interwoven the themes are.

The research conducted into these areas was done to ensure that the Heritage Canoe Route would meet the sub-themes of Spirit, Heritage and Landscape. These three elements capture the essence of what I hope to achieve through the establishment of a sustainable river experience along the Assiniboine River. A balance between responsible environmental use and stewardship, increased awareness of the spectacular natural beauty, history and cultures of the region and a revitalization of the rural tourism economy.

Spirit, Heritage and Landscape are used as tools of exploration into the importance of the Assiniboine River in the history, culture, environment and use of the region. The sub-themes are what I believe need to be addressed in order for the Heritage Canoe Route discussed in this practicum to succeed.

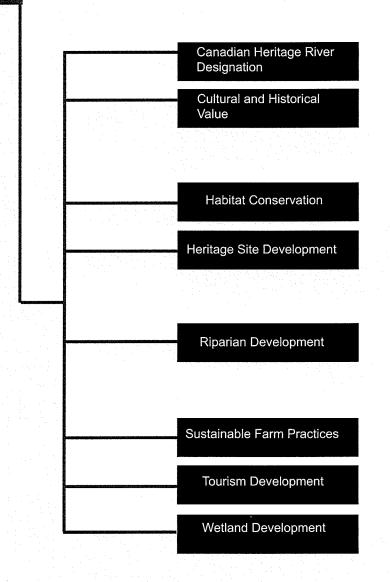




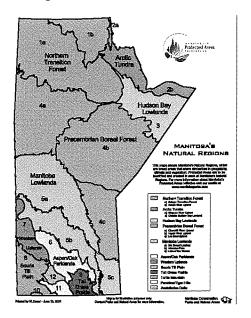


The ecoregions that contain the Assiniboine River have been given a Conservation Status of Critical and Endangered. Many of the native habitats found within these ecoregions in Manitoba are endangered. the Tall-Grass Prairie habitat is nearly extinct and less than:

13% of the native Short-grass Prairie remains, 19% of the Mixed-grass Prairie remains
16% of the Aspen Parkland remains.



The Theme of Conservation focuses on how to foster stewardship of natural areas along the Assiniboine and protecting the natural heritage of the region.



Natural Regions of Manitoba Map Manitoba Conservation

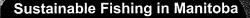
The Assiniboine River is located in the Aspen Forest and Parklands ecoregion and is classified in the Terrestrial Ecoregions of North America as having savannah/ temperate grasslands as its major habitat type. The river travels through Western uplands, Souris Till Plain, Aspen/ Oak Parklands, Tall Grass Prairie and Manitoba Lowlands natural regions (refer to following map).

The Assiniboine River flows through Manitoba's Agro-region. The most intensive agriculture in the province occurs in the Assiniboine, Souris and Red River watersheds. Due to this, most of the run-off nutrients found in the river come from agricultural sources. Five major industrial facilities are licensed to discharge water into the river. An overabundance of nutrients in the water has resulted in quality issues such as algae growth, increased

water treatment costs, oxygen depletion, fish kills, decreased biodiversity, taste and odour concerns and production of toxins from bluegreen algae. (Bourne, Armstrong, Jones. 2002)

Clean water is a commodity that is rapidly decreasing. The Assiniboine, like many Canadian rivers, is polluted. This contamination is contributing to the degradation of the entire water shed. This is intolerable because it is preventable. Present practices in agriculture, industry, urban centres and recreational use of the river and surrounding areas are damaging the environment to a point that may be beyond repair. Today, the people whom are in its debt are polluting the river. The Assiniboine, which was so important to the formation of the landscape and province of Manitoba and a driving force behind the Fur Trade that built the nation, may never recover.





Manitoba has a Conservation & Resource Management Program that is a leader in protecting and encouraging the growth of fisheries in North America. Its goal is to ensure that Manitoba continues to provide a superior quality of angling for future generations and to rank as one of the top sport fishing destinations in the world. The focus of this program is encouraging selective harvesting through:

- 1. Conservation Licences that lower the catch limits (80% of fishing licences sold are this type)
- 2. Managing High-Quality Size limits to reduce the number of large fish harvested
- 3. Mandatory use of barbless hooks
- 4. Promotion of Catch & Release practices (Manitoba has highest rate of any province)
- 5. Fisheries Enhancement Initiative Program (funds projects from watershed management to improving spawning habitats).

Manitoba is a Province that is working towards a sustainable future. Habitat Conservation, resource conservation and environmental protection are growing concerns for Manitobans and many organizations have been developed to ensure that the land-base and resources of the province are not lost for future generations. In the past the focus of these programs and organizations has been on the untouched and wild areas of Manitoba. These areas are found mainly in the northern part of the province. Recently, focus has shifted towards the southern, agricultural region of the Manitoba.

The landscape of the Assiniboine River has seen an extreme decrease in natural habitats since the arrival of European settlers. Agriculture has destroyed the Tall-grass Prairie ecosystem and is now encroaching upon the Aspen Parkland, Mixed-grass Prairie and River Bottom Forests. The disappearance of these landscapes will have a negative effect on the landscape and ecology of Manitoba. Native prairie habitats are essential for

biodiversity and ecosystem health. The loss of these areas, especially riparian habitats, contributes to the overloading of nutrients and sediments in the Assiniboine River. Riparian environments filter run-off, allow for ground water recharge, decrease wind erosion, provide nesting habitat for waterfowl and serve as habitat corridors for larger animals.

Agriculture organizations have recognized the economic and environmental benefits of establishing and renewing riparian zones and native habitats. Management strategies, farm programs, development incentives and education are being used to encourage Manitoba farmers to use ecological principles and sustainable farm practices on their land. Rotational farming, forage strips, limited river access for livestock and wetland renewal are becoming important practices for farmers to ensure that the land base they require is healthy and properly maintained.

This matrix shows the areas of development that are shared between conservation organizations and programs that are in operation in Manitoba. It also shows the areas that are shared with the Assiniboine River Heritage Canoe Route proposal. A High degree of shared interest is shown in red and medium shared interest in green.

The Environmental Strategy for the Heritage Canoe Route is based on these shared characteristics. The areas of high interest will have the most support in programs and funds for private land owners and public groups. This will enable people to participate in the conservation priorities of this practicum.

Environmental Strategy

The environmental strategy for the Heritage Canoe Route is based on the areas of high and medium interest (shown in red and green). These interest areas are compatible with the Conservation Priorities discussed in this practicum. The environmental strategy also includes stewardship and sustainable development. These play a supporting role in the conservation of the natural areas and the health of the rural economy.

The goal of this strategy is to ensure that the natural heritage of the region is enjoyed and integrated into the river experience. The Development Priorities work together to support the natural heritage of the Assiniboine River. Each aspect is important to the

	Wetland Restoration	Habitat Conservation	Wildlife Conservation	Riparian Development	Sustainable Economic Developmen	Sustainable Agriculture Practices	Water Management	Water Quality Enhancement	Recreation Development	Environmental Monitoring	Stewardship
Organizations	Same	Wester.	comma	_		_	BOSS COLUMN	Bossesse			
North America Waterfowl Management Plan					•						
Ducks Unlimited				L					•	•	
Manitoba Heritage Corporation						•					
Prairie Farm Rehabilitation Association											
Manitoba Conservation Districts					•					•	
Nature Conservancy Canada											
Watershed Association											
Programs											
Prairie Care											
Green Banks											
Green Acres											
Permanent Cover						•					
Migratory Bird Act	m									П	
Canada Wildlife Act			Mm.S.							П	
Manitoba Prairie Conservation Action Plan				•	•		\Box			•	
Riparian Health Initiative				ō			n			F	
Potholes Plus							\Box				Ō
Assiniboine River Heritage Canoe Route				•	•		(•	•	

Area of Interest

Prairie Conservation Action Plan

This plan was created to prevent the further destruction of native habitats in Agro-Manitoba. It recognizes that natural ecosystems are life-supporting system essential for healthy environments. Its goals are prairie conservation and the conservation of biodiversity in order to maintain a healthy, functioning ecosystems so that human economy, social and cultural needs can be sustained. (MPCAP) The integrated landscape and ecosystem approach to the plan emphasizes the importance of education about how we use and can maintain the land we live in. Riparian development and water management are priorities of this plan.

The Manitoba Habitat Heritage Corporation

The MHHC is a crown corporation that was created in 1986 by the Manitoba Heritage Act. Its mandate is to conserve, restore and enhance fish and wildlife habitat in Manitoba. The MHHC focuses on:

- Cooperative partnerships between private landowners, farm organizations, conservation groups and government agencies.
- Promoting conservation practices in agricultural areas that enhance local habitats, encourage productive uses of the land and sustain the family farm.
 - Diversifying the farm income.
- Maintaining natural areas on the farm such as woodlands, wetlands and grasslands.

The Development Priorities are separated into two categories. The Primary Priorities are directly linked to the conservation and restoration of the natural environments associated with the Assiniboine River. These Priorities are also associated with the conservation programs and organizations already in operation in the province. The Secondary priorities are those related to conserving the river and region's natural heritage through other means. These are related to community development, human heritage and sustainable economic development.

Primary Priorities

- Habitat Conservation
- Wetland Development
- Riparian Development

Secondary Priorities

- Heritage Site Development
- CHRS Designation
- Tourism Development
- Sustainable Farm Practices
- Education

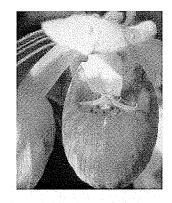
Habitat Conservation

The Assiniboine river has a Routine Protection level as determined by the Manitoba Surface Water Quality Objectives of 1977. This classification regulates the effluent limitations of the river. The Assiniboine is also regulated according to Tier One Water Quality Standards. This is a standard level of protection that is applied to all surface water in Manitoba. These standards offer requirements for "best practices" to be followed by municipalities, urban areas, industry and agriculture.

The Habitat Conservation Priority emphasizes raising the current standard level of the Assiniboine to Tier Two in the Water Quality Objectives of Manitoba. This would give the river habitats more protection because stronger limits to new discharge into the river would be in place. This level also limits the amount of new development on the river that degrades the state of the water. The Assiniboine River supports more than 40 species of fish. It is a valuable aquatic environment that should be protected to the same extent as a terrestrial environment.

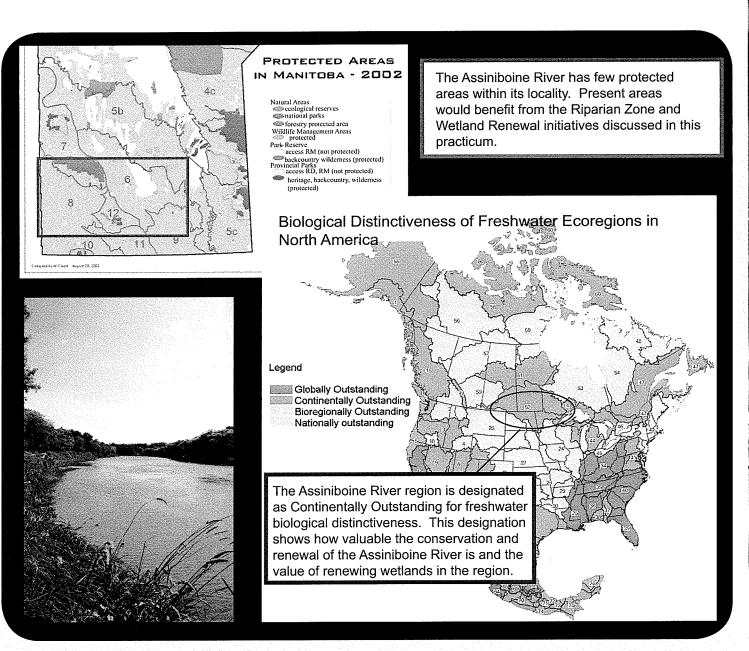
Southern Manitoba contains the Prairie-Pothole Region. This area is an important nesting ground for migratory birds and waterfowl. Spruce Woods Provincial Park is the home of the only variety of Lizard found in Manitoba. The Assiniboine River itself contains many fish species, reptiles and provides the food and resources many animals need for survival.

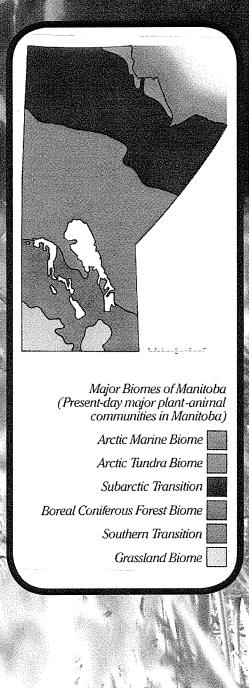
The region surrounding the Assiniboine has few protected areas. These areas are disconnected and have become habitat islands in an agricultural sea. The goal of the Habitat Conservation Priority is to increase the amount of habitat patches in the region, connect these patches through the establishment of a river corridor and improve the quality of habitats found in the region. This process will be a cooperative process between all the conservation priorities.















Ducks Unlimited Canada evolved from a group of sportsmen who in 1938 set out to raise funds for habitat conservation projects in Canada. DUC is a private, non-profit, charitable organization that focuses on:

Wetland conservation
Wetland restoration
Wetland management.
These efforts are concentrated on providing maximum benefits for North American waterfowl, wildlife and people.

DUC, with help from its supporters has completed more than 6,800 habitat projects in Canada, influencing nearly 25 million acres of habitat.

Wetland Development

The Prairie Pothole region of Southern Manitoba is located in an intensive agriculture area. This has resulted in the drainage of many wetland habitats. The benefits of restoring these wetlands are high. Constructed and reclaimed wetlands can play a vital role in the restoration of a drainage basin.

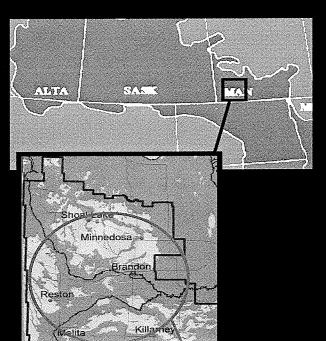
Manitoba is facing a water crisis. The province's watersheds have seen an increase in water salinity and E. coli contamination. Lake Manitoba and Lake Winnipeg are both being contaminated due to high nutrient and pollution loads, due in part to agricultural run-off and urban pollutants entering the Assiniboine River.

Wetlands are tools for improving the selfpurification capacity of a river system and reduce the pollutant loads in a river network. (Palmen & Bendoricchio) They are also capable of reducing peak flows of floodwater, something that would be beneficial to the Assiniboine Region. Wetlands produce biomass. In fact, wetlands produce more biomass than most environments and they are the principle ecosystems for recycling the Earth's essential elements of life.

Wetland renewal in the Assiniboine River region is essential to the drainage-basin design approach taken by this practicum. The benefits of cleaner water will affect the plant and animal communities that rely on the Assiniboine for life.

This Priority encourages private landowners to use government programs to renew wetlands on their property, encourages communities to revitalize existing wetlands and marshes into recreation and conservation areas and proposes that the five industrial users of the river implement wetland treatment cells for all effluent water being dumped into the Assiniboine. Together these steps will decrease the amount of point-source and non-point source pollution entering the river.

Prairie Pothole Region



The Prairie Pothole Region extends throughout the Prairie provinces of Canada and into the northern United States. This region is a vital habitat for migratory birds and waterfowl. It is an area that is slowly being destroyed through the drainage of small wetlands and marshes for agriculture.

The small map insert shows the Minnedosa Potholes region of Manitoba. This area has become the focus of rehabilitation projects by Ducks Unlimited Canada and the Manitoba Habitat Heritage Corporation. The proximity of this area to the Assiniboine River provides the opportunity to connect the river and the rural landscape. The Assiniboine River and the Wetland Development initiatives discussed by this practicum will increase the linkages between the Minnedosa Potholes and other wetland areas (Indicated in yellow).

The area indicated in pink shows the focus of Wetland Development along the Assiniboine River Heritage Canoe Route. Wetland projects undertaken in this area will increase connectivity between pothole and marsh habitats and can be used to connect river users to the rural landscape.

maps of Prairie Pothole Region taken from Manitoba Habitat Heritage Corporation and the Northern Prairie Wildlife Research Center

Wetland Facts

- Wetlands provide food, shelter and habitat for over 600 species of wildlife in Canada.
- Canada is home to nearly one quarter of the world's wetlands.
- It is estimated that almost 70% of Canada's original wetlands have disappeared. This disappearance is attributed to urban development, drainage and land conversion, especially for agricultural uses.

Functional Values of Wetlands

- Recreation
- Education
- Flood water alteration and reduction
- Aesthetics
- Water purification, sediment and toxicant retention, nutrient removal and nutrient transformation
- Bank stabilization and protection
- Groundwater recharge and discharge
- Increased Biological Diversity

Constructed Wetlands

These types of systems are created on dry sites. They are different from reclaimed, natural wetlands and if designed properly, can be more efficient than natural ones.

Types of Constructed Wetlands

- Sub-surface Flow
- Surface Flow
- Pond

Capital Costs of Constructed Wetlands

- Excavation
- Liner
- Gravel
- Plants
- Distribution & Control Structures
- Fencing (if applicable)
- Miscellaneous Maintenance & Care

Wetland Design Principles

- Locate where nitrogen load is high to maximize removal per area
- Ellipse shapes maximize hydraulic flow
- Side slope gradient must below to minimize erosion and promote plant establishment
- Deep water sections increase life expectancy of the system
- Alternate deep/shallow areas to establish a mixture of emergent & submergent vegetation to enhance nitrogen removal.

These principles are based on

- Hydraulic Capacity
- Residence Time (of water)
- Loading Rates
- Water Temperature
- Plant Density

Benefits of Healthy Riparian Zones

Water Quality

Acts as a buffer that traps sediment, nutrients, chemicals and wastes from run-off before they enter the water. This reduces algae blooms that can result in lower water quality, fish kills and recreation problems.

Wildlife

Vegetation near the water's edge provides habitat, creates animal corridors and shade for fish, helps regulate water temperature, supports insects that are food sources for river dwelling creatures and dead trees that fall into the river become hiding and feeding places for fish.

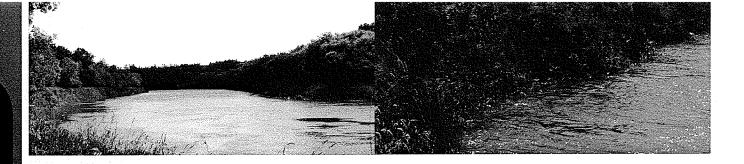
Water Management

Slow flood water, decrease erosion, reduce flash flood risk and allows for ground water recharge by slowing down run-off

Sediment Reduction

Minimizing erosion along the riverbank decreases sediment loads that can destroy fish spawning habitat, damage beaches, increase waterway maintenance and affect water treatment costs.

(Sustainable Agriculture Facts: Growing for tomorrow Technical Information for Conservation Farmers, Manitoba Conservation)



Riparian Development

The Riparian Zone is the land bordering a water body or water course. These are fragile areas that support a variety of plants and trees. When denuded of vegetation, the saturated soil of these areas becomes susceptible to erosion.

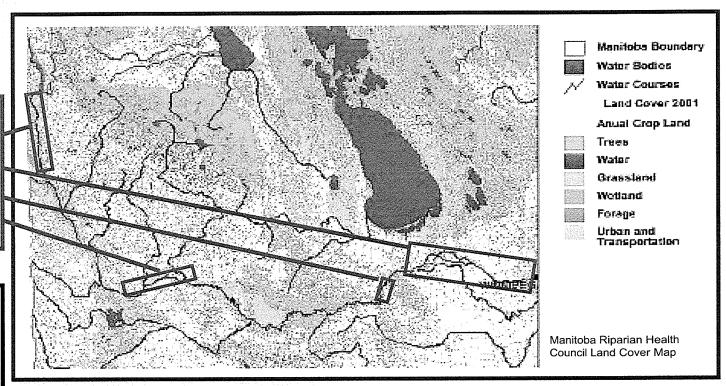
Native prairie habitats are essential for biodiversity and ecosystem health. The riparian areas along rivers often contain remnant river-bottom forests and other unique habitats. The riparian zone is essential along a river. It provides nesting grounds for waterfowl, habitat for many species of animal, creates connections between habitat patches, reduces erosion, filters run-off, allows for ground water recharge and plays a role in maintaining and improving water quality. (MHHC 2002)

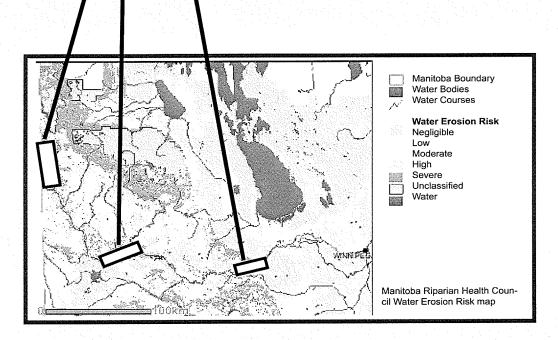
The goal of the Riparian Development Priority is to increase Riparian management and renewal along the Assiniboine River. Today, Riparian Zones account for less than 5% of the agricultural land in Manitoba. (Oborne, 2004) Residential, recreational, agricultural and industrial development has contributed to the decline of these areas. (Manitoba Agriculture and Food)

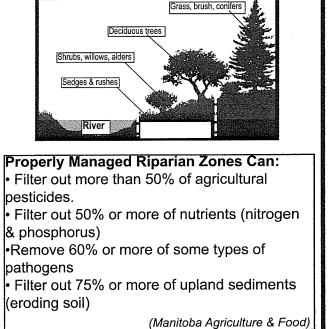
The province of Manitoba is lucky in that it has many new programs that foster riparian development. Agriculture organizations have begun to recognize the benefit of establishing and maintaining riparian zones. Planting forages and establishing woodlots on private lands along the Assiniboine river have become a focus in rural areas. Riparian zones work with sustainable farm practices and do not detract from the farm income if managed properly.

The land cover maps and inserts indicate how depleted the riparian areas are along the Assiniboine River. The areas highlighted in red show were the most severe cases are located. These areas will become the focus of the Riparian Development Initiatives discussed in this practicum.

The Water Erosion Risk map shows areas in red that have a severe risk of erosion. The areas indicated will be integrated inti the Riparian Development Initiatives to decrease sediment loads in the Assiniboine River and to stabilize the river banks.









Riparian Development & Sustainable Agriculture

Allowing livestock unrestricted access to water has resulted in many problems that affect animal health as well as that of the river. Many Farmers in Manitoba have recognized the problems with unrestricted access to water and riparian zones and have begun to restrict access to it. This trend has resulted in a focus on Riparian Health and management for agricultural gain.

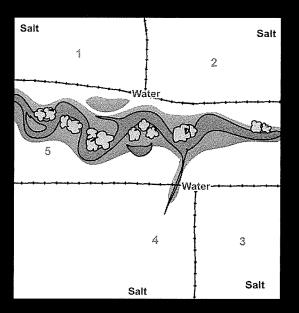
Agricultural Functions of Riparian Zones

- Provide reliable and high quality source of forage
- Protect and conserve water for livestock use
- Provide shade for livestock during summer months

Continuous access to riparian areas destroys the forage production potential, degrades water quality and compromises overall function of the riparian zone. Animal waste is another potential hazard to the riparian area.

Riparian Zones should only be used for pasture lands during certain times of the year. Wet spring conditions make soils in riparian areas susceptible to trampling and erosion and young woody plant growth is easily damaged when browsed in spring Riparian vegetation stays succulent longer during dry periods. This makes it an ideal grazing option when upland vegetation has

dried out n late summer. The following diagram shows a five pasture grazing system that relieves pressure on Riparian Zones. This system has off-stream watering sites that keep animals back from the river's edge and a larger riparian pasture that does not confine livestock to the riverbank.

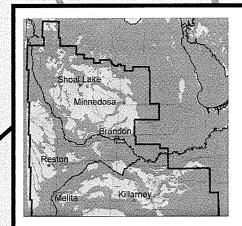




The photos show before and after shots of a riparian area that switched to restricting livestock access. (Manitoba Agriculture & Food, Managing the Water's Edge)

These boxes indicate where the Riparian Development along the Assiniboine will be focused. These areas have the least amount of existing riparian vegetation and have a severe soil erosion classification.

These zones will be linked by the Heritage Canoe Route river corridor and will increase animal movement, decrease sediment loads in the river and improve the health of the river and its watershed.



The area indicated by the black circle shows were wetland development will be focused in the primary stages of development. This area links the Minnedosa Pothole region of Manitoba with the Assiniboine River and its associated wetlands. This linkage will prove to be important for animal movement, habitat development and as a connection between the Heritage Canoe Route and rural Manitoba.

The red line indicates the river corridor that will be established along the Assiniboine River Heritage Canoe Route. This corridor will increase connectivity between habitat patches, habitat and animal movement. It will also support recreational uses along the river.

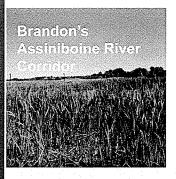
The small black circles indicate where constructed wetlands for industrial waste water treatment will be developed. Brandon and Portage La Prairie contain the 5 Industrial Users of the Assiniboine that are allowed to dump effluent into the river.



Rideau River Biodiversity Project

This project on the Rideau Canadian Heritage River is an example of the environmental, educational and conservation benefits that come from designation to the CHRS. This project was based on the principle of habitat and ecosystem health and the need to maintain and monitor the basic health of a heritage River. It was initiated by the Canadian Museum of Nature and was a collaboration between scientists and community groups.

The goal of the project was to encourage people to learn about the wildlife and plants along the Rideau River, local and global diversity issues and how residents could keep the river healthy. (CHRS, 2002) It was a unique way to involve people with the natural heritage of the river and was a positive way to teach people about the relationship they have with the environment and the role we play in the sustainability of an ecosystem.



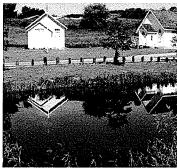
The City of Brandon has developed its riverbanks into a recreation and tourism destination that is based on conserving and interpreting the river-bottom forest environment. The Assiniboine Corridor is a network of over 17 kms of trails that weave through the heart of Brandon. The Centre feature of this is the Riverbank Discovery Centre. This is the starting point for the trail system and is also the home of Ducks Unlimited's rural offices. Adjacent to he Centre is a series of Interpretive ponds and native prairies. These teach valuable lessons on environmental stewardship, habitat conservation and the natural processes of the Earth.

Secondary Priorities

The Primary Conservation
Priorities are dependent upon
the Secondary Priorities. These
priorities support the three main
ones discussed previously to
ensure that the Heritage Canoe
Route benefits the natural
heritage of the Assiniboine
River. Each of the four
Secondary Priorities has
relevance to each of the three
primary Priorities. This
relationship strengthens the
theme of Conservation.







Heritage Site Development

heritage of the Assiniboine River. Conservation in this sense applies to the natural as well as cultural elements of the river. Pairing natural conservation sites and heritage

Heritage Site Development combines the cultural and natural sites links the river to outlying attractions. Many heritage sites could be developed to include native prairie plants and habitats. Developing the heritage sites within a historical landscape contex benefits cultural experience and biodiversity.

CHRS Designation The CHRS places a great deal of importance on the proper

stewardship of Canada's river environments and creating a balance between preservation, profit and the use of resources to maintain the natural and scenic values of an area. These

rivers are also maintained in order to be the best examples of Canadian rivers. A designation to this system would benefit the Assiniboine River and its environments.

Tourism Development

Sustainable tourism development, especially in the eco-tourism sector will benefit the conservation of the rich environments of the Assiniboine River. Eco-tourism relies on first hand experiences with the environment and is also an important tool for teaching stewardship principles and the value of healthy

ecosystems. Tourism developments can also be means in explaining about the land, how the Heritage Canoe Route supports the landscape and the natural processes of the region.

Sustainable Farm Practices

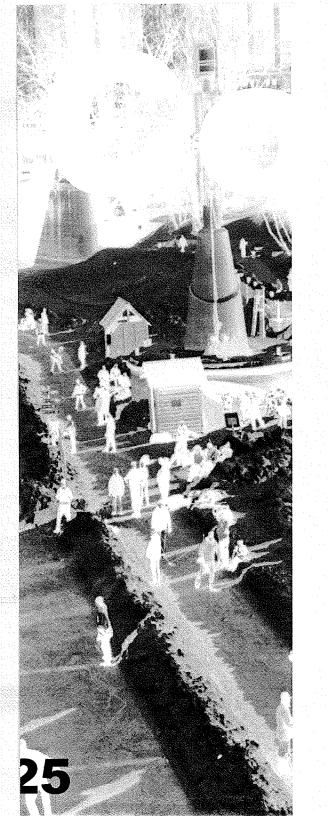
Habitat conservation in agricultural areas relies on the willing participation of private landowners. Farm and Conservation Organizations in Manitoba are encouraging farmers to adopt more sustainable practices that improve native habitats,

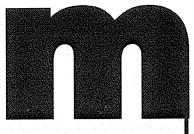
biodiversity and conservation while diversifying the farm income. Conservation Agreements with the MHHC are being used to conserve habitat on private lands, the Manitoba Forage Council is increasing its emphasis on native prairie grasses and wetlands are being retained on agriculture land.

Education

Many of the developments proposed in this practicum teach lessons in conservation. Wetlands and riparian zones are tools for teaching about how the environment works, how nutrients cycle through it and how we affect it. Display farms teach

the value of sustainable agriculture and river monitoring programs would involve community members with the Heritage Canoe Route and teach valuable environmental lessons.





Canadian Heritage River Designation Environmental Education **Habitat Conservation** Heritage Site Development Riparian Development Sustainable Economic Development Sustainable Farm Practices Tourism Development

Wetland Development

The theme of Community focuses on sustainable development opportunities in Southern Manitoba. These opportunities are centred on the Heritage Canoe Route proposed for the Assiniboine River. Expanding the tourism product in rural areas is the main goal for this theme.

Tourism Opportunities

Manitoba has the means to create renewed interest in the rural areas of the province. The tourism sector is expanding and new venues for tourism are being developed that relate to the goals and intent of this practicum.

The culture and history, rich natural environments and vast recreational opportunities possessed by Manitoba makes the province a destination of choice for many Canadians and tourists. Manitoba ranks fifth in Canada as a tourism destination, and since 1997 the province has seen an increase in tourism expenditures of over 11%. (2001 Tourism Forum) The estimated tourism expenditures in the 2001/2002

season was 1.3 billion dollars. (2001 Tourism Forum) The largest portion of this revenue comes from Manitobans travelling within their own province. This practice contributed 607 million dollars to the total tourism revenues of the year 2000. (2001 Tourism Forum)

As a whole the tourism industry of Manitoba is not meeting its full potential. The Manitoba culture, Heritage and Tourism Annual Report for 2001/2002 lists six long-term goals for the tourism industry. These goals are:

- Increase participation in community development and individual well-being
- Fully engage community partners
- Provide access to information that leads to enhanced knowledge for informed decision making
- Obtain global recognition of Manitoba's advantages and quality of life
- Create a vibrant and sustainable economy
- Create a strong sense of pride in the province.

These goals show a desire to move toward tourism development that relies on community driven initiatives and involvement. These goals are similar to those of the Heritage Canoe Route proposed by this practicum.

If Manitoba is to become a leader in Canadian Tourism destinations it must become competitive with the more publicized and traditional Canadian Tourist areas such as Banff. To accomplish this Manitoba must expand and upgrade its Tourism Industry. The Manitoba Culture, Heritage and Tourism Annual Report for 2001/2002 identifies this need and lists three Development Priorities for the province.

- 1. Improve and expand Manitoba's Cultural and Heritage Based tourism product.
- 2. Improve and expand Manitoba's Nature Based tourism product.
- Create additional opportunities for Manitoba.

These priorities show the importance and suitability of a development such as the Heritage Canoe Route proposed by this practicum. These priorities have also resulted in a plan by the province that would increase tourism resources in Manitoba. This plan emphasizes:

- Developing and improving ecotourism, adventure tourism, outdoor and extreme outdoor recreation ventures within the province with an emphasis in winter ,four-season and aboriginal tourism
- Developing, expanding and linking heritage and cultural tourism products with an emphasis placed on upgrading key cultural and heritage attractions, enhancing interpretation of these sites and promoting the unique experiences offered by aboriginal heritage tourism.

Ecotourism

- Enlightened nature based travel experience that is respectful of the ecological, cultural and economic integrity of the host community
- Links low impacts on the resource base and host community, environment conservation, sustainable economic activity and learning by the consumer.
- Is a significant and lucrative portion of the largest growth industry on Earth.
- Promotes positive environmental ethics.
- Benefits wildlife & the environment.
- Provides a first-hand experience with natural areas and traditional cultural sites.
- Involves appropriate modes of travel to natural areas and cultural sites.
- Heightens the visitor's awareness, understanding and respect for the area's natural and cultural environments through education and interpretation.
- Adapted to be respectful of the natural environment and local culture.
- Has a high cognitive and affective experiential dimension.
- •Leaves economic benefits & knowledge that supports the protection of natural environments and socioeconomic well being of the host community
- Is not facility intensive

Eco, Cultural & Adventure Tourism

One of the fastest growing sectors of the tourism industry is eco-tourism.

Eco-tourism is a sustainable practice because it recognizes that tourism in an area must be limited by the carrying capacity of the environment. It encourages the use of appropriate transportation to natural areas and cultural sites and it is not facility intensive. Facilities that are developed for ecotourism ventures are used to support the encounter but do not become the focus of the experience.

A similar form of tourism that is related to ecotourism is Adventure Tourism. This activity is gaining in popularity within Canada and the world. The Tourism Company defines adventure tourism as any leisure activity that takes place in an unusual, exotic or remote destination and it is associated with high levels of activity by the participants. Adventure tourism can be further classified as either soft or board depending of the intensity of the experience. Adventure tourism along the Assiniboine River could have both hard and soft elements due to the harshness of the winter climate. The goal of this form of tourism is recreation, not education or interpretation of the natural or cultural resources of an area.

Southern Manitoba has an underdeveloped adventure tourism industry even though many hunters and sport fishers enjoy the province's attractions. The success of adventure tourism relies on the setting in which the activity takes place. Unique and spectacular natural environments provide the main attraction for these types of enthusiasts. A diversified experiences, and stimulating, challenging activities such as those offered by the proposed Heritage Canoe Route are also important.

Cultural tourism has always been a popular activity. It has grown in popularity in recent years due to the growing population of retirees and the relative ease of world travel. It is considered to be a special interest tourism where culture forms the basis of either attracting people of motivating them to travel. (McKercher, 2002) This type of activity provides an experience where a person has contact with the unique social fabrics, heritage and the special characters of places. (McKercher)

A sustainable cultural tourism venture focuses on the quality and authenticity of the attraction and ensures that it is managed in a way that is not damaging. High visitation, repair, lifestyles and cultural traditions of the local community are considered when developing cultural tourism sites. Modifications to the sites must not have a negative impact on the community resources and wellbeing. Cultural tourism has a high market appeal. Many of these destinations are national icons or symbols and are well known outside the local area. The ambience, setting and evocative character of the place or experience determines whether the development will succeed.

All three of these growing tourism sectors will benefit Manitoba. Together these experiences create a unique package that interests a wide variety of people. By not limiting the development to a certain sector of the population, the tourism economy of Manitoba would grow. The flexibility of these tourism strategies ensures a sustainable tourism base would support the Heritage Canoe Route. Their compatibility and adaptability is another attractive feature that would benefit the Assiniboine River region. The best characteristics and practices of each type can be merged together into a package that offers educational, cultural experience that is exciting and offers unique recreational experiences.

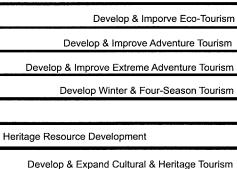
The following matrix shows how the proposed Heritage Canoe Route shares complimentary characteristics with the goals of Tourism Manitoba.

Shared Characteristic Matrix:

Manitoba Tourism Development Plan & the Assiniboine River Heritage Canoe Route

Heritage Site Development
Recreational Canoeing Trail
Overnight Lodge & Camp Facilities
Wetland Reclaimation & Developmen

Zone Renewal



Manitoba Tourism Development Plan

Outdoor Recreation Development

Link Cultural & Heritage Tourism Attractions

Enhance Interpretation of Attractions

Promote Aboriginal Heritage Tourism

Cultural Tourism

Successful Cultural Tourism Attractions:

- Are Evocative/ tell a story
- Are participatory experiences
- Are distinguished from local settings
- Focus on Quality & Authenticity
- Have an interesting or attractive Ambience & Setting
- Use sites well known outside of local area
- Use national Icons or symbols
- Relate to other tourism products in the area
- Are in close proximity to other cultural & heritage attractions

Cultural Tourism Values

- Aesthetic Value
- Historical Value
- Educational Value
- Social Value
- Scientific Value
- Rareness (regionally, nationally)

Incidents of Adventure Tourism in Manitoba
Manitoba Culture, Heritage & Tourism. Manitoba Market Survey, July 2000

Unsure

2%

Outdoor

dventure

Eclectic

Adventurer

Urban

The Primary Priorities associated with the theme of Community are:

- Tourism development
- Heritage Site Development

Both of these focus on improving the rural economy and strengthening the relationship between communities and the Assiniboine River Heritage Canoe Route.

The Secondary Priorities are interrelated, support the economy of the communities and strengthen the connection between the Assiniboine River, the Heritage Canoe Route and rural Manitoba. These Priorities are:

- Designation to the CHRS
- Environmental Education
- Habitat Conservation
- Riparian Development
- · Wetland Development
- Sustainable Farm Practices
- Sustainable Economic Development





Tourism Development

This Priority focuses on:

- Developing of a canoe experience in southern Manitoba that encourages and advances eco, adventure and cultural tourism ventures in the province.
- Identifying tourism venues in the Assiniboine river region that compliment the Heritage Canoe Route.
- Expanding the Tourism product into the Four-Season and Winter Tourism markets that could be associated with the Heritage Canoe Route.

The following matrix indicates where the levels of high and medium compatibility exist between the three different tourism types discussed by this practicum. These areas guided the development of the tourism goals of this Priority.

Priority Goals:

1. Establish a recreational corridor that provides a cultural experience of Manitoba life, past and present while increasing the recreational enjoyment

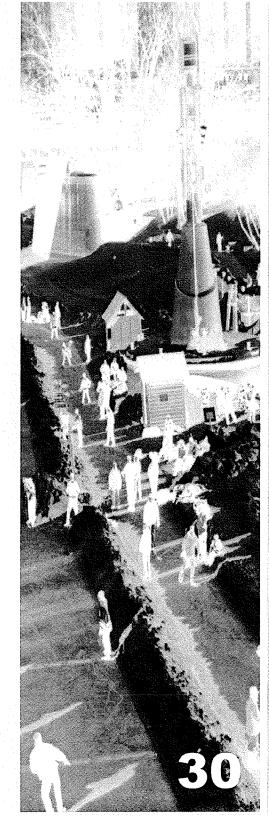
- of the river. The recreational corridor would provide the land base for the canoe route's overnight lodge and tenting facilities, riparian development and habitat corridors.
- 2. Create a canoe experience that acts as a connection to the natural and human heritage associated with the Assiniboine River in a manner that provides recreational enjoyment of the river environments.
- 3. Provide the opportunity for growth of the rural economy through sustainable tourism ventures; including eco, adventure, cultural, winter and four-season tourism.

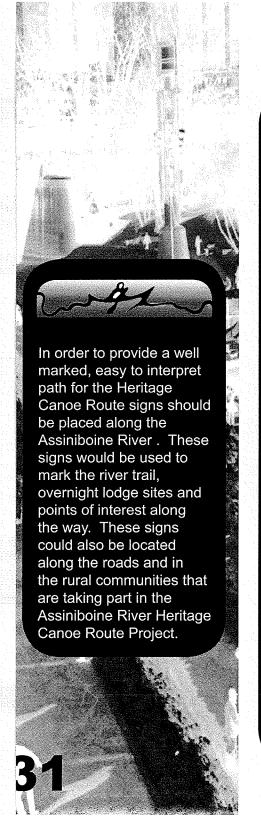
The combination of urban and rural environments along the Assiniboine River ensures that there is a wide variety of interesting entertainment and recreation opportunities to be enjoyed. The Heritage Canoe Route will facilitate increased exposure to these attractions and stimulate use and economic growth.

Tourism Types Shared Characteristic Matrix

This matrix indicates what characteristics each tourism type has and the shared characteristics that became the focus of tourism development discussed in this practicum. The red indicates areas with a high degree shared characteristics and the green indicates areas with medium degrees of shared characteristics.

	Tot	Cult	Ecc	Adv
Primary Characteristics				
Low-impact on Resource Base				
Environment = Most Important Feature			•	
Activity = Most Important Feature				•
First-hand Experience with Natural Areas			•	•
First-hand Experience with Cultural Sites		•	·	
Educational Experience		•	•	
Recreational Experience			•	•
Cultural Experience		•	•	
Promotes Understanding & Respect of Environment				
Economic Benefits kept in Host Community			•	•
Encourages Grass-Root Involvement				
Limited by Carrying Capacity of Environment				
Uses Appropriate Transportation to Features		•	•	
Facility Intensive				
Activity Intensive			•	•



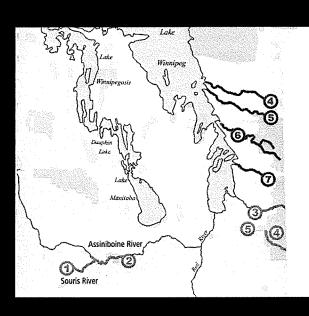


Heritage Canoe Route River Corridor

The Assiniboine River Heritage Canoe Route is an expansion of the existing canoe route shown in the following map. Currently, this route is centred on the Spruce Woods Provincial Park area due to its spectacular scenery and accessibility to the river. This canoe route is a three day excursion that can be done in smaller segments, with many different camping, hiking and access point along the way. The Assiniboine river Heritage Canoe route is a staged process. It involves:

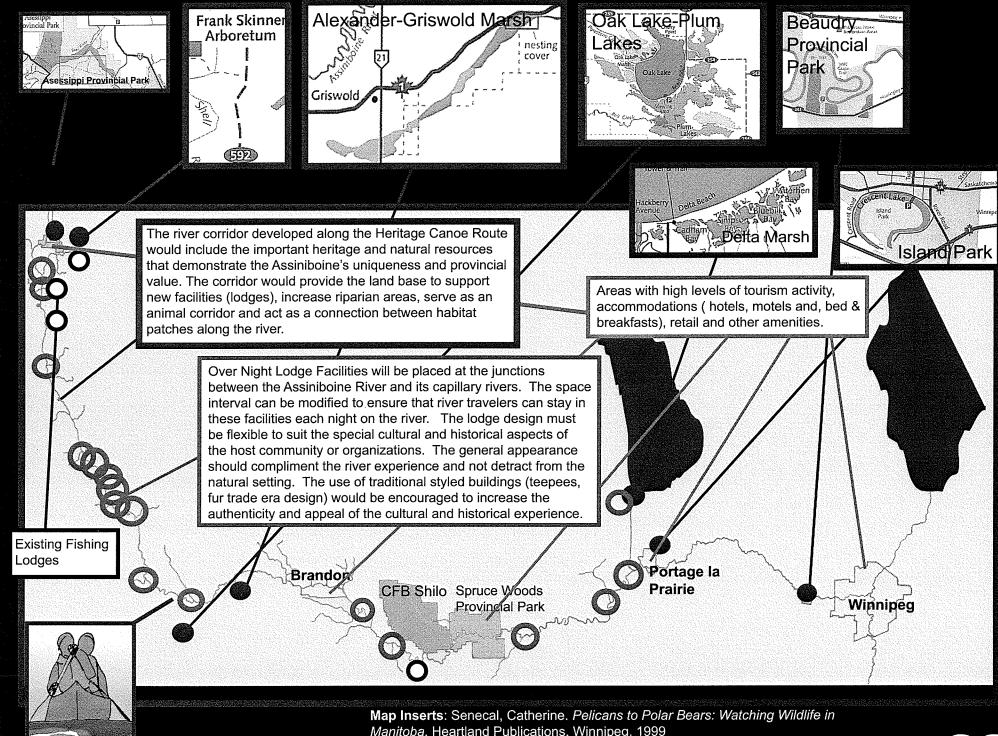
- 1. Expanding the existing Canoe Route to include the entire Manitoban portion of the Assiniboine River.
- 2. Identifying sites for overnight lodges and camping facilities along the river.
- 3. Proposing a River Corridor that contains the land base required for support facilities and links the Heritage Canoe Route with outlying features that contribute to the interpretation, enjoyment and experience of the river. This corridor would be related to Riparian Zone initiatives along the river.

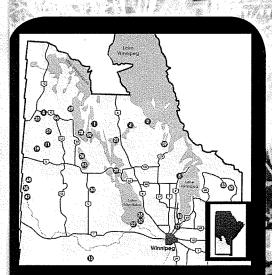
By integrating the Heritage Canoe Route, river corridor and outlying natural, cultural and historic sites, The Assiniboine River Region will have a tourism resource unique in Manitoba. The cultural, environmental and recreational combination of the Heritage Canoe Route has a wide appeal that provides development opportunities for many communities.



Outlying Features Linked to Heritage Canoe Route River Corridor

- ·Alexander Griswold Marsh, Griswold
- Asessippi Provincial Park, Ski Area & Winter Park
- Beaudry Provincial Park
- CFB Shilo & Canadian Artillery Museum, Shilo
- Crescent Lake & Island Park, Portage la Prairie
- Delta Marsh and Research Station
- Frank Skinner Arboretum, Roblin area
- Inglis Grain Elevators National Historic Site, Inglis
- Oak Lake Plum Lakes, Oak Lake
- S.S. Alpha & Stockton Ferry Site, Glenboro
- Spruce Woods Provincial Park
- The Church Caffee, Shellmouth





Sport Fishing in Manitoba

Each year hundreds of anglers find hours of enjoyment on the waters of Manitoba. Fishing for sport has become a sustainable tourism venture in most of the province. As indicated in the above map, The Assiniboine River has many lodges located along it. These lodges represent a small portion of the local industries that are required to support this popular activity. Each industry from bait harvesting to guiding and accommodation represent more money for the local economy of the communities of the Assiniboine River.

Sustainable Tourism & the Rural Economy

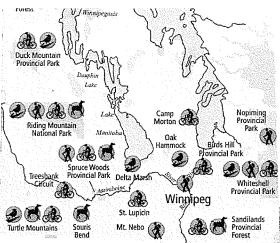
Four Season Tourism

The Assiniboine River Region is already home to many recreational opportunities that provide year round enjoyment of the area. (Refer to maps) Canoeing, cross country skiing, snowmobiling, mountain biking, hiking, bird watching and trail riding are popular activities with residents and visitors to southern Manitoba.

These activities occur along the river and can be expanded upon to increase the diversity in activities provided for in the proposed Heritage Canoe Route. These activities also create linkages between the river experience and the rural landscape. Bringing these activities outside the boundaries of Provincial Parks is another way to increase connectivity between the Heritage Canoe Route and the communities along the river. Currently much of the region's outdoor recreational activity is centred in Spruce Woods Provincial Park. The Assiniboine region has the potential to expand on its outdoor, adventure tourism base through the development of new venues and by identifying recreational alternatives outside the Provincial Parks.

Winter tourism activities should be encouraged in the region. Snowmobiling

is a popular activity throughout Manitoba, the Prairie Provinces and the northern United States. Snowmobiling opportunities in the Assiniboine River region are underdeveloped, with no designated trails available for use. Providing winter trails for snowmobiles would bring tourism revenue into rural communities during a nontraditional tourism season and could be used to connect Southern Snowmobile Trails to others in the province. These trails could be used for horseback riding, ATVs, mountain biking and hiking in the warmer months.



map taken from Travel Manitoba's *Manitoba: Great Outdoor Adventure* guide showing recreation activities present in the Assiniboine River region.

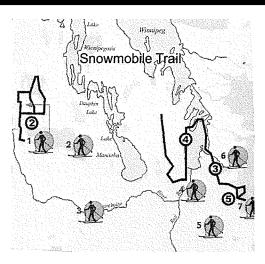
Winter on the Assiniboine

Manitobans like to remain active even in the coldest months of the year. The city of Winnipeg is the centre of winter festivities in the province and is the proud home to many exciting winter activities.

The Forks historic site provides a venue for many activities such as tobogganing, snowboarding, skating and skiing. The city celebrates the CBC's Hockey Day in Canada here with a large community hockey tournament. Le Festival du Voyageur, Canada's second largest french winter festival is an annual Winnipeg event with venues and activities at The Forks and on the Assiniboine. This festival attracts people from all over the province and North America.



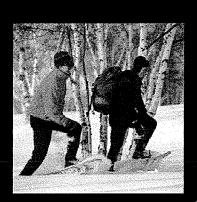
Winnipegers enjoying a game of Hockey on the Assiniboine River photo by Danika Proven



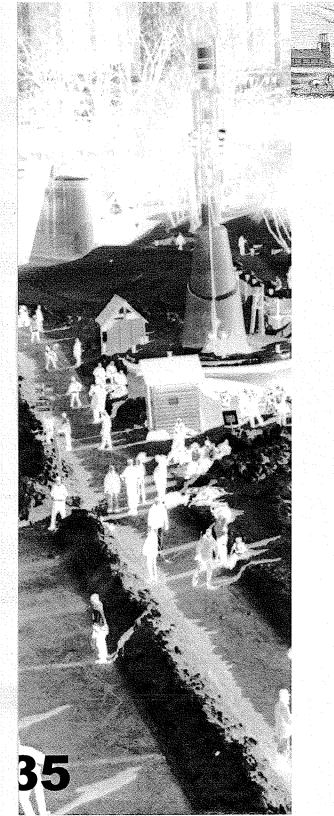
Cross Country Skiing & Snowmobiling in the Assiniboine River region. map taken from Travel Manitoba's *Manitoba: Great Outdoor Adventure* guide showing















Heritage Site Development

The Assiniboine River area has a rich cultural history that should be shared and enjoyed. Rivers can be the keepers of important cultural stories that are lost to modern memory.

The Assiniboine River was an important trade route for the first peoples of Canada and was a means for technology and culture to be shared throughout North America. The Assiniboine River also became an important trade route for the Canadian Fur Trade industry. Many trading posts and forts were established along its banks by rival companies. With the forts came settlements, first Metis communities and then immigrant founded towns became established in the region.

The Heritage Site Development Priority focuses on identifying, preserving and developing heritage resources along the Assiniboine. The significant cultural and historical heritage that is found along the river has the potential to become a feature attraction in the Heritage Canoe Route and the province of Manitoba The sites of First Nation's Encampments and Fur Trade era structures that abound in the area offer unique glimpses into the

province's past. Heritage related fairs and festivals in the region offer glimpses into Manitoba's past and have the ability to transport visitors into a different era, at least for an afternoon.

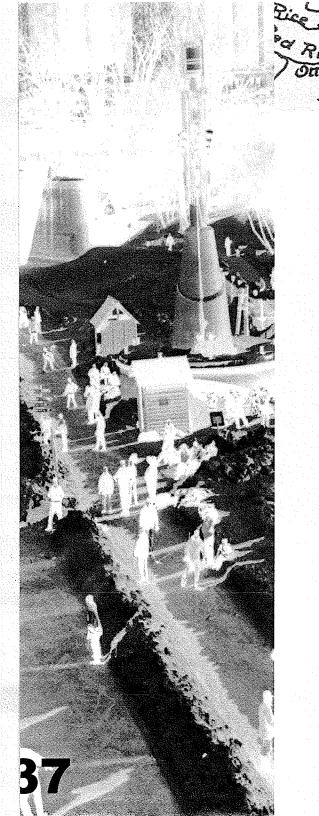
The goals of this priority are to:

- Compile a list of Cultural and Historical Attractions in the Assiniboine River Region that are relevant to the proposed Heritage Canoe Route.
- Determine which areas, containing sites of cultural and historical importance, have the potential for development as tourism resources.
- Identify how these sites can be integrated into the Heritage Canoe Route experience to interpret the region's history, encourage river users to venture into the surrounding communities and bring new economic ventures into the Assiniboine River region.



Assiniboine River Region Heritage Resources The Assiniboine River is associated with many historical and archaeological sites including historic river crossings, shipwrecks, ferry sites, burial mounds, petroforms, **Structures** Medicine Wheels and Paleo-Indian encampments. The old homesteads, churches and agricultural buildings of the region are also important heritage sites for exploration. There are many heritage sites in the region from the Forks historic site in Winnipeg **Sites** to the St. Anne's Church. Many different people are associated with the area from the Assiniboine First nations Voyageurs and Fur Traders, the Metis, the Northwest Mounted Police and pioneers People to the great explorers and surveyors Henry Hind, David Thompson, J.B. Tyrell, Alexander MacKenzie and Lewis and Clark. Historic events associated with the area include the Riel Rebellion, surveying expeditions, The Canadian Fur Trade. Other Heritage related events occur annually **Events** in the area and celebrate the history of the various communities and cultures in the area. The Legend of the White Horse is the most well known folklore associated in the **Folklore** region. Many other legends and tales have developed in the area.





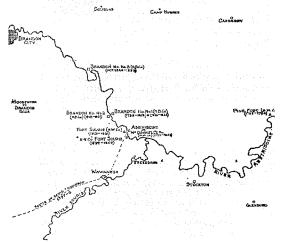
Potential Heritage Development Sites

The Assiniboine River's history of use by aboriginal groups, Fur Traders and early settlers has left a legacy of human heritage along the river's edge. These areas have the potential to be used for tourism development and community economic ventures.

Areas that have the greatest potential for community benefits are those associated with historic aboriginal use and early fur trade sites. These sites can:

- Interpret the historical and cultural legacy of Manitoba
- Interpret the importance of the Fur Trade to the development of Canada.
- Provide the opportunity for river related activities and festivals
- Showcase historic artifacts and cultures
- Create links between the Heritage Canoe Route, communities and surrounding rural landscape

The cultural and historic heritage of the Assiniboine River could become a feature attraction in Manitoba's Tourism industry. Community lead initiatives along the Assiniboine River would be encouraged. The mutual benefits to these developments creates a sustainable relationship between the Heritage Canoe Route and the rural communities.



Fur Trade Forts and Ferry sites on the Assiniboine near present day Brandon.

Development Case Study

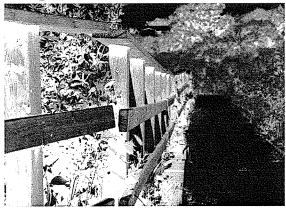
Minnedosa Heritage Village

The town of Minnedosa has developed a tourism attraction based on the history of this small, prairie town. This site blends together interpretive features that are activity driven, allow for interaction with the community's heritage and natural areas.

This site is an example of how a small community can increase its tourism through cultural and adventure tourism. This type of development could be used by the small towns that are related to the Assiniboine River.

The site includes:

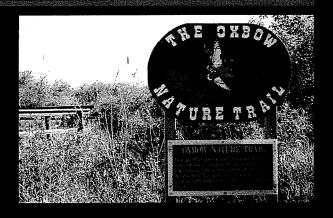
- Historic buildings/ museums
- Past technology (windmills, waterwheels)
- Hiking/nature trails

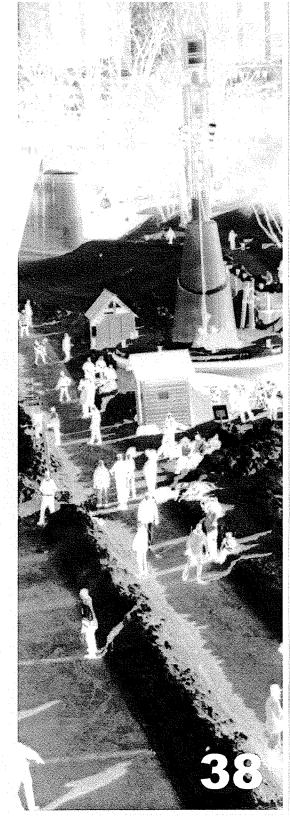


- Trout pond
- Swinging bridge

The site is also a staging ground for town fairs and cultural demonstrations such as Powwows.







Fraser Basin Council

This is an example of the community benefits that are associated with a development of a Canadian Heritage River It is an example of how a community can become more involved with a Heritage River.

The council was established to work with the CHRS guidelines and policy while expanding the focus of protection to the entire Fraser River Basin. The goal of the committee was to maintain principles of sustainability such as strong communities, healthy environments and a stable economy. These goals pushed the management of the Fraser Heritage River towards a broader and more adaptable path that would suit changing community needs.

Secondary Priorities

These Priorities work together to support the Primary Priorities. They also bring new opportunities to the theme of Community by diversifying the opportunities in the Assiniboine River area. The benefits of the interrelatedness of the Secondary

Priorities is in the creation of a broader foundation for development, resource use, education and the fostering of connections between the three practicum Themes of Conservation, Community and Celebration.

Designation to the CHRS

The Canadian Heritage River System emphasizes the importance of community involvement in the process of Heritage River Nomination, Designation and Management. It fosters a cooperative relationship between communities, conservation groups, historic groups and many other organizations that are working towards protecting, managing and monitoring the

valuable Canadian Rivers participating in the CHRS. Designation of the Assiniboine would increase the public awareness in the river and the efforts of the communities along its course. The status would also mean a growth in public awareness about the value, beauty and recreational opportunities in the Assiniboine, increasing tourism into the area.

Environmental Education

This priority is about the involvement of communities, groups and individuals with the educational benefits of the Heritage Canoe Route. The stewardship lessons taught through this development are beneficial and easily learned. It is also related to the habitat,

wetlands and riparian developments along the river, that are also valuable teaching aids on environmental processes, nutrient cycling and ecosystem function.

Habitat Conservation



The Tourism Industry of Manitoba relies heavily on the spectacular wildlife viewing opportunities in the province. This Priority will be benefit this practice, create new tourism opportunities and in turn bring more economic gains to the communities along the Assiniboine. An

increase in habitat can increase animals, which can increase tourism activities such as hunting, fishing and animal viewing. These activities are related to many support industries such as Bed & Breakfasts, hunting and fishing lodges, guiding and retail.

Riparian Development



The Riparian Development Priority, Like the Habitat Conservation and Wetland Development Priorities, increases habitat and connects habitat patches to encourage animal movement and use. This will increase the potential of animal related

tourism ventures in the area. Riparian Development will also provide support for environmental education, the Heritage Canoe Route infrastructure and tourism developments and provide connections with the river related communities.

Wetland Development



Wetland development can provide opportunities for larger tourism development within a community. The functional values of wetlands also greatly benefit the communities that they are

located in. Increased animal habitat and animal related tourism and support industries are also community benefits resulting from the Wetland Development Priority.

Sustainable Farm Practices



The environmental benefits of Sustainable Farm Practices affect the communities near, and indirectly related to the Assiniboine River. Decreasing nutrient, chemical and fertilizer loads in the Assiniboine, increases the recreational potential of the river, improves the tourism

resources in the area and elevates water quality in the entire watershed. Sustainable Farm practices also bring new revenue sources to farmers through woodlots, agricultural display farms and tours and increased forage lands.

Sustainable Economic Development



This Priority is directly related to the Primary Priority of Tourism Development. Sustainable Economic Development in Communities would be based on the Heritage Canoe Route and the area's Tourism Opportunities. Support Industries such as lodging, retail, guiding companies

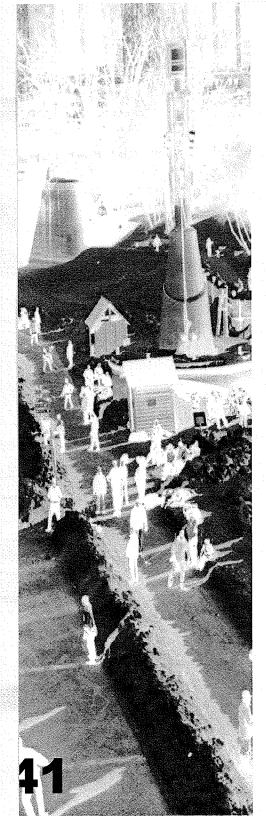
and others would continue to be important aspects of the Heritage Canoe Route because they provide resources that are vital to the use and enjoyment of the Assiniboine River and its environments.

Crescent Lake & Island Park

The Crescent Lake at Portage La Prairie is a remnant of the Assiniboine River's meandering course across the land. It is an oxbow lake that was documented by Henry Youle Hind during his expedition of 1858.

This site has hosted many different activities and attractions. It was a hay field, housed a race track, stables and grand stand, a golf course, park, and small farms. It became a wildlife sanctuary in 1912 and now protects many different habitats from river bottom forest with basswoods, bur oak and green ash to parkland, lake shore, wetlands and ponds.

Today this area has been developed into Island Park. It has many attractions from play grounds and recreation facilities, trails and mazes and Splash Island, an outdoor water park. The Crescent Lake has become an example of sustainable economic development that is balanced with habitat and wildlife conservation.



Canoe Access:

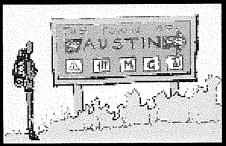
Connecting Communities & the Assiniboine River

The Landscape of the Assiniboine River provides many challenges for creating connections between heritage Developments, Overnight Lodges and rural communities. The banks of the river are steep in many areas, making launching and landing of canoes difficult. This gradient can be overcome through walkways, ramps and staircases in extreme cases. With each of these solutions comes the problem of canoe storage. Docking apparatus and canoe racks should be provided at each entrance and exit point along the river. These facilities will enable paddlers to secure their canoe and explore the riverbank and towns along the Assiniboine river.

Making visitors and users of the Heritage Canoe Route aware of the attractions in Southern Manitoba is another challenge to be solved. Communities could adopt Overnight Lodge sites and develop them into satellites of their town. These lodges would be designed to relate to the host community, contain interpretive and information elements about the

town and encourage people to visit the communities that they are passing by.







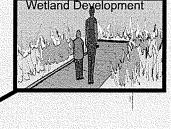
Overnight Lodges and tenting areas along the Assiniboine River.

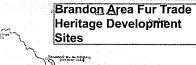
Areas with High Tourism and Activity Use

These areas have an established connection to the Assiniboine River and developed recreation, heritage and tourism venues. These Areas could be complemented by developing related sites along the river.

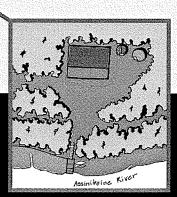
Heritage Canoe Route Corridor

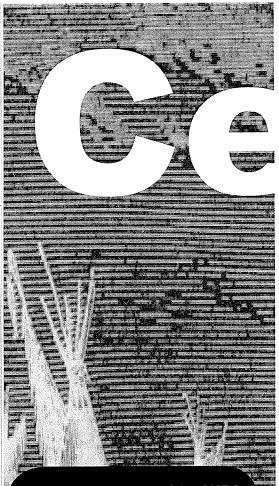
This corridor provides the land required for the overnight lodges and camping facilities. It is also used to increase connectivity between local communities, river users and the Heritage Canoe Route resources in the area.











The main objective of the CHRS is to give national recognition to the important rivers of Canada and ensure their future management such that; the Natural Heritage Values, Human Heritage Values and their Recreational Values which they represent are conserved, interpreted and appreciated by the residents and visitors of Canada.

(Parks Canada)



Canadian Heritage River Designation

Cultural and Historical Value

Environmental Education

Habitat Conservation

Heritage Site Development

Importance of the River in Provincial Identity

Sustainable Economic Development

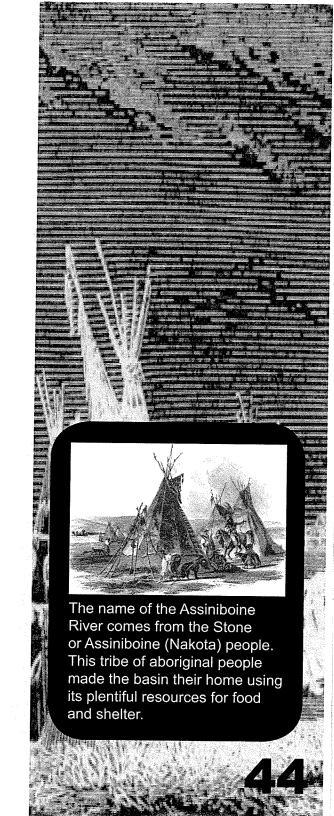
Tourism Development

The theme of Celebration applies to all aspects of this practicum. It is an important part of this work because it is a means to showcase, explore and interpret the rich culture, history, people and environments that are found along the Assiniboine River. Each part of this practicum contributes to the Celebration of the experience of the Assiniboine River Heritage Canoe Route.

Celebration is a multi-layered concept. This practicum expands upon this theme to include the celebration of the entire proposed Heritage Canoe Route by examining the Canadian

Heritage River System. I will discuss the possible place and relationship that the Assiniboine could have with the CHRS and the importance to such a designation to the status, enjoyment and use of the Assiniboine River.

Celebration can be a personal and private experience between a canoeist and the river and it can also be a large, dynamic experience of a country fair or group event. Each scale of celebration is important and relevant to the enjoyment of the Heritage Canoe Route experience. Facilitating opportunities for celebration is another aspect of the Priorities of this theme.





Primary Priorities

The theme of Celebration focuses on one Primary Priority which is the designation of the Assiniboine River as a Canadian Heritage River. This designation would be sought upon realization of the Heritage Canoe Route proposed by this practicum.

Secondary Priorities

The CHRS Priority is supported through the Secondary Priorities of:

- Cultural& Historical Value
- Environmental Education
- Habitat Conservation
- Heritage Site Development
- Importance of the River in Provincial Identity
- Sustainable Economic Development
- Tourism Development

CHRS Designation

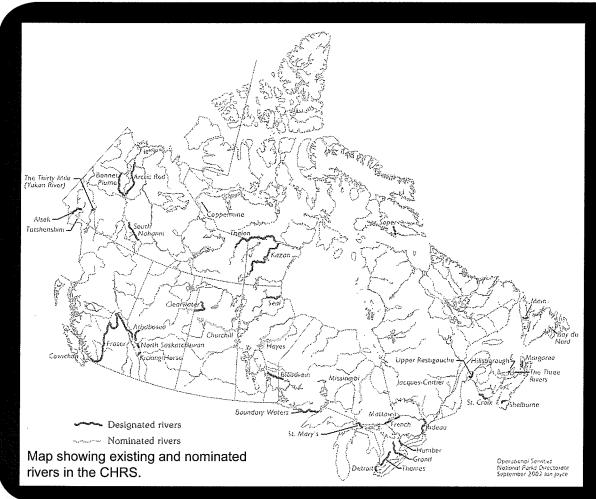
The Primary priority for the theme of Celebration is to examine the place that the Assiniboine River could have within the Canadian Heritage River System once the Heritage Canoe Route was established. Designation as a Canadian Heritage River would be a way to celebrate the river's cultural, historical and natural heritage as well as the communities that participated in the establishment of the Heritage Canoe Route. This Priority:

- Investigates the Canadian Heritage River System, its mandate and the possible benefits related to inclusion within it.
- Discusses how the Assiniboine River is eligible for nomination to the Canadian Heritage River System

• Identifies the unique opportunities that the Assiniboine River brings to the Canadian Heritage River System.

The Assiniboine River would be eligible for designation as a Canadian Heritage River due to its rich Human Heritage Values. It has many features which make it important to the people of Manitoba and its heritage makes it important to the entire country. With the creation and operation of the Heritage Canoe Route and the conservation initiatives discussed later in this practicum, the Assiniboine River could also be nominated based on Recreational Values.









Presently, 30 rivers have been designated as Canadian Heritage Rivers and an additional nine are being processed for designation within the next three years. (CHRS Annual Report 2001-2002) The rivers are located all across the country, with representatives from every province and territory. These rivers depict the varied and spectacular landscape that is the Canadian Experience. The Canadian Heritage River System hope to have achieved its mandate goal by 2006 an d be a valuable precedent for river and watershed management and conservation. The CHRS has already been responsible for the designation of 9836 kilometers of Canada's rivers for conservation and protection.

Canadian Heritage Rivers in Manitoba

Manitoba has three rivers participating in the Canadian Heritage River System. These rivers are wilderness rivers and are located in the northern portion of the province. The Seal, Bloodvein and Hayes Rivers are remote, wild, northern rivers. Of these rivers, the Hayes is the only one with a strong representation of European Settlement. These rivers also lack a strong representation of contemporary and urban culture and industrial culture themes.

Seal River 1994 Bloodvein River 1998 Hayes River 2004

The Canadian Heritage River System

The CHRS was formed for the purpose of preserving the important artifacts of human culture in Canada. It can be seen as a tool for celebrating what it means to be Canadian. This system creates a balance between preservation, profit and the use of resources that ensures that the natural and scenic values of a protected area are maintained while boosting economic ventures through tourism initiatives.

The mandate of the Canadian Heritage River System is "to give national recognition to the valuable cultural and natural heritage that built this country, the role of the river in the creation of Canada and the fostering of recreational use and enjoyment of Canada's rich river resources". The mission of the CHRS is to "Develop a river conservation program that is nationally valued, internationally recognized and reflects the significance of the rivers in the identity and history of Canada; and ensure that the natural. cultural and recreation values for which rivers are designated are managed in a sustainable manner." (CHRS)

The CHRS allows the precious natural and historical landscapes of Canada to be preserved and protected. It represents a shift away from the traditional, designed landscape parks of Canada. Its focus is on the spiritual values embedded in the associated landscape, the layers of historical experienced in the evolved landscape and the meaning residing in the linear landscapes and historical corridors of Canada's geography. (Hucker, 1999)

This system is governed by three values. These determine if a river will be accepted for designation. These three values are:

- 1. Natural Heritage
- 2. Human Heritage
- 3. Recreational Opportunity

A river can be nominated to the CHRS based one or all three values. The values that a river is nominated for must also meet the CHRS Integrity Guidelines to ensure that the river is suitable as a representation as an important Canadian river.

CHRS Process Pre-Screening Reoprt Background Study Submission of Nomination Document Approval of Nomination Document by **CHRS Board** Management Plan Acceptance of Management Plan by CHRS Board Designation as a Canadian Heritage River

CHRS: Operational Guidelines

Natural Heritage Value

A river nominated to the CHRS must exhibit one or more of the following requirements. The river and its immidiate environment:

- 1. Is an outstanding example of river environments as they are affected by the major stages and processes in the Earth's evolutionary history which are represented in Canada.
- I.e. Show evidence of geological time and major changes.
- **2.** Contains outstanding representations of significant ongoing fluvial, geomorphological and biological processes.
- i.e. Show ongoing process in the evolution and form of the river and associated plant and animal communities.
- **3.** Contain along its course unique, rare or outstanding examples of natural phenomena, formations, features or areas of exceptional beauty.
- i.e. Contain rare or endangered species or habitats.

Human Heritage Value

A river nominated to the CHRS based on this value:

- 1. Is of outstanding importance owing to its influence, over a period of time, on the historical development of Canada through major impact upon the region in which it is located.
- I.e. Presence of historical themes such as fur trade, settlement patterns, people, transportation.
- **2.** Is strongly associated with persons, events or beliefs of Canadian significance
- **3.** Contain historical or archaeological structures, works or sites which are unique, rare or of great antiquity.
- **4.** Contains concentrations of historical or archaeological structures, works or sites which are representative of major themes in Canadian history.

This value is often hard to determine due to the layers of use present in many sites and the difficulty in finding records of use in cultures with oral traditions.

Recreational Values

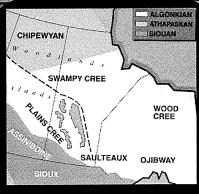
This value deals with the recreational opportunities that are present along the river and the potential the river has for increased recreational enjoyment. It is dependent upon:

- Visual aesthetics
- Diversity and quality of scenic beauty of the river
- River flow rates, navigability and rapids
- · Accessibility to the shoreline

The CHRS places great importance on a river's capacity to support recreational uses without significant loss or impact on its natural, historic and aesthetic values.

CHRS Integrity Guidelines

The CHRS uses Integrity Guidelines to further analyze a river's nominated values. These guidelines relate directly to each of the three Value Guidelines.



This map shows the Tribal Groups and Languages at the time of Native contact with Europeans in what is now Manitoba.

A History of Manitoba Volume One: Rupert's Land to Riel. Great Plains Publications, Winnipeg, Manitoba, 1993

Native Women & the Fur Trade

Native women had an important role in the economic relationships between Native Tribes and European Traders. Many native women became wives of traders and provided valuable information about local customs, languages, hunting and trapping. By marrying a trader, these women gained access to a richer material lifestyle, European goods and new technologies and education opportunities for their children.

These marriages were not recognized by the church and the "country wife" would be cast aside when a man took a white wife. Native wives and families also faced the pain of being left behind when the traders returned to their homeland.

The Metis

Today the name Metis is applied to all people with a mixed Native/ European ancestry. Historically the term refers to the descendants of Native women and French Canadian Voyageurs. This cultural group is separate from the "country-born" descendents of Native women and Scottish Hudson Bay Company employees who were not catholic or french speaking. Historically and culturally these two groups are distinct.

The Metis of the 1800's were the dominant, non-native culture in Manitoba. They controlled the Buffalo Hunt and supplied Transportation Employees for the Fur Trade. The Metis' cultural and political force declined after the railways opened the Canadian West to large scale immigration by Europeans.

The most famous Metis is Canadian History is Louis Riel.





Nomination of the Assiniboine River to the CHRS

Nomination of the Assiniboine River, upon completion of the Heritage Canoe Route goals, would be based on the CHRS Guidelines for Human Heritage Values and Recreational Values. The adaptation of the river at the Shellmouth Dam and Portage Diversion makes the Assiniboine ineligible for nomination based on Natural Heritage Values.

The history of human adaptation and use of the river actually makes the Human Heritage Value of the Assiniboine increase. The river's flood control modifications and location in Southern Manitoba makes the it an unique addition to the CHRS. The population and accessibility of the region also increase the appeal and the potential for use of the river.

Opportunities for the CHRS

Manitoba's designated CHRS rivers are located in remote, or hard to reach areas of the province. Travel to these areas is limited due to cost and accessibility. These rivers are also wild rivers and are suited for adventure tourism and expert paddlers.

The Assiniboine River showcases the southern part of Manitoba, its cultures, natural heritage and urban and rural life. The Assiniboine is easily accessible to people in Manitoba and Canada. The river travels through a densely populated and heavily traveled area, which brings a large number of people into its vicinity. The opportunities that the Assiniboine river would bring to the CHRS are:

- Designation of a prairie river in a working agricultural zone.
- A high level of public interest in the protection and enhancement of the river.
- A broad range of human heritage values with prehistoric, historic and contemporary themes.
- Numerous examples of flood control, environmental regulation and river crossing themes that are not represented by other CHRS rivers in Manitoba.
- Diverse recreational opportunities
- Unique geology, flora, fauna, habitats and river morphology.
- High Tourism Development potential

Nominated CHRS Values of the Assiniboine River

The river shows an influence over time on the historical development of Canada through major impacts on a region and beyond or through historical themes, native peoples, settlement patterns and transportation.

The Assiniboine was:

- A boundary for Native tribes
- A trade route that helped to open the continent
- A means of transportation for Native groups and Fur Traders
- A contributing factor in settlement development (Contains Manitoba's 2 largest cities)
- An important resource for the Fur Trade Industry of Early Canada

The river contains along its course concentrations of historical or archaeological structures, works or sites which are unique, rare or of great antiquity

Sites along the Assiniboine relate to:

- Paleo-Indian Occupation (burial mounds, petroforms & Medicine Wheels)
- Spiritual Meaning and legends (churches, Whitehorse)
- · Passenger transport (wreck of SS Alpha)
- River Crossings and Ferry sites

The river is strongly associated with person's, events or beliefs of Canadian

significance

The Assiniboine is associated with:

- Native Groups (Assiniboine, Saulteaux, Plains Cree and the Sioux)
- Explorers (La Verendrye, David
 Thompson, Alexander MacKenzie,
 Lewis & Clark, Henry Hind and JB Tyrell)
- Metis
- Fur Traders (Voyageurs, Hudson's bay Company, Northwest Company)
- Pioneers

The river contains along its course concentrations of historical or archaeological structures, works, sites which are representative of major themes in Canada's history.

Sites along the Assiniboine relate to:

- Native use
- Fur Trade Industry
- Flood control
- Agriculture
- Settlement (Churches, homesteads)

Recreational Value

As discussed earlier in this practicum, the Assiniboine River has valuable recreation opportunities along its course and has the potential to support new recreational ventures.

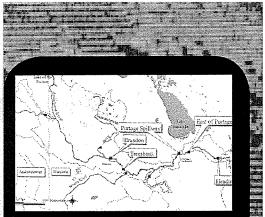
The elevation of water quality to an accepted recreational standard through the wetland and riparian initiatives, will also enhance the recreational potential of the Assiniboine.

Cultural Integrity Values

- The Nominated area is of sufficient size & contains all or most of the key interrelated and interdependent elements to demonstrate the key aspects of the features, activities or other phenomena which give the river its outstanding cultural value
- The visual appearance of the nominated section of the river enables an appreciation of at least one of the periods of the river's historical importance
- The key artifacts and sites comprising the values for which the river is nominated are unimpaired by impoundments and human land uses
- The water quality of the nominated section does not detract form the aesthetic appearance or the cultural experience provided by its cultural values.

Recreational Integrity Values

- The river possesses water of a quality suitable for contact recreational activities, including those recreational opportunities for which it is nominated
- The river's visual appearance is capable of providing river travellers with a continuous natural experience, or a combined natural and cultural experience, without significant interruption by modern human intrusions
- The river is capable of supporting increased recreational uses without significant loss of or impairment on its natural, cultural or aesthetic values.



Water Monitoring

The Assiniboine River has six monitoring stations along its course in Manitoba. These stations are located at:

Kamsack Brandon Treesbank the Portage Spillway East of Portage Headingly

These stations collect valuable information on nutrient loads, record water quality and are used as aids to establish water quality standards. These stations will be valuable assets to Environmental Education programs associated with the Heritage Canoe Route along the Assiniboine River and will record water quality changes resulting from the Wetland and Riparian Development initiatives discussed by this practicum.

Secondary Priorities

These Priorities support the establishment of the Assiniboine River as a Canadian Heritage River by improving and enhancing the values for which the river can be nominated. These Priorities celebrate the importance, heritage, beauty and opportunities of the Assiniboine River. The experiences do not require a designation to the CHRS to give the Heritage Canoe Route value as a provincial and national tourism destination, but are improved because of the title.

Cultural & Historical Value



As discussed throughout this practicum, the Assiniboine River has a rich heritage and cultural resource base. This resource base increases the Human Heritage Values of the river for nomination. It also increase the development opportunities along the

river and benefits tourism development in the local communities. Interpreting this heritage is essential for providing a powerful and meaningful tourism product in the area.

Environmental Education



Teaching lessons about stewardship and environmental responsibility is goal of the CHRS and the Heritage Canoe Route. This Priority focuses on monitoring programs to teach communities about the valuable contribution they are making to the river

through their involvement in the Heritage Canoe Route and CHRS. It also relates to community involvement with the river, wetlands and natural areas and the role these environments have in the teaching people about the functions of the Earth.

Habitat Conservation



This Priority provides a basis for recreation enjoyment of the river. It is related to the Environmental Education Priority, and can be a tool for teaching stewardship. Habitat Conservation will also improve the natural value of the area and ensure that

the popular wildlife related tourism products remain abundant. This Priority will also play a role in water quality enhancement, increasing the CHRS Recreational values of the Assiniboine.

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Heritage Site Development

Heritage Site Development along the Assiniboine river increases the tourism and recreation activities in the area. These developments are essential to the designation of the region. of the Assiniboine as Canadian Heritage River, the interpretation of the river's history and the increased enjoyment of the sites and history

of the river. This priority expands beyond the river's borders and includes the outlying areas that are still important to the heritage

Importance of River in Provincial Identity

The Assiniboine River helped to build the province of Manitoba into what it is today. This value extends to the entire country as well. Living along the water's edge has greatly and through the interpretation of the river's influenced people's lives. The Assiniboine and heritage. its annual flooding have become a test and

symbol of prairie spirit and resourcefulness. This role can be recognized and celebrated by including the Assiniboine in the CHRS,

Sustainable Economic Development



This Priority focuses on the maintenance of the river's water quality, habitats, wildlife and people through responsible development. The Heritage Canoe Route works toward conserving and renewing the environment and revoked. mproving the water quality of the Assiniboine.

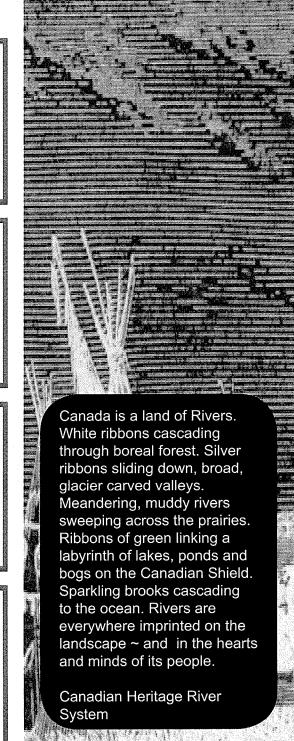
Encouraging sustainable resource use and development will ensure that these steps are not in vain and that the river's designation as a Canadian Heritage River will never be

Tourism Development



This Priority increases the recreation opportunities along the Assiniboine there by improving its recreational values for nomination. These tourism resources will also increase the amount of venues for enjoyment of the river and increase awareness of the

CHRS, its mission and the other Canadian Heritage Rivers.



To know the Spirit of the Assiniboine River requires an understanding of the rich community life, rural atmosphere, culture and history that is found along the river's banks. The Spirit of the Assiniboine River Region is one that is found in the voyage along the river as well as in the dynamic festivals, country fairs and cultural events that take place each year in the communities in the region.

These events provide a linkage between the users of the Heritage Canoe Route and the places they journey by. These experiences improve the recreational quality and cultural enjoyment of the river and bring the traveler into the lives of the people who live in the area. The glimpse into the rural lifestyle that is presented through the journey past the small prairie towns of Manitoba is the best way for the traveler to experience the Spirit of the region.

Understanding Spirit also requires an awareness of the history and human heritage of the area. The historical dynamics are ones that are still celebrated today in many communities and have become part of rural identity. Spirit of place can be personal and relies on the user to be made aware of the richness of the region. But, the appreciation of place will only be achieved if the Heritage Canoe Route is integrated in to the rural communities.

To celebrate Spirit is also to celebrate the river and its importance in Canadian and Manitoban identity. In this instance Spirit occurs at a larger scale, one that moves beyond the immediate scope of the Heritage Canoe Route.

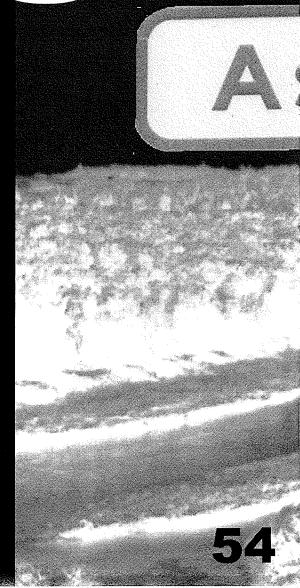
Manitoba is a land of echoes, telling tales of the past when the river flowed unaltered down through the forests and across the ocean of grass.

When you walk across the prairies you walk in the footsteps of others, the long dead wanderers and travelers who come to this place to find a home. The landscape is dotted with remnants of these long ago eras, when bison roamed, teepees stretched towards the sky, wagon trains lumbered the grasslands and trains roared across the open fields. In the forgotten places remnants of who we were lie crumbling and a legacy of history turns to dust.

The mystery of the region is held within the whispering waters of the Assiniboine

River. This humble river provided resources and life to many different people and cultures. It is a river that helped to build the nation of Canada. This heritage must be commemorated with more than a small road sign beside a bridge.

The Heritage Canoe Route acknowledges the vast heritage of the river and the region. It provides a means to bring people back into contact with the river, renewing old relationships and becoming enlightened to the importance and influence of the muddy waters. It is also a way to preserve this heritage for future generations so that the history of who we are is never forgotten.



The Assiniboine River is the twelfth longest river in Canada. Its headwaters are in eastern Saskatchewan but 60% of its drainage basin is located in Manitoba. This basin contains a rural population of 100,000 people. The habitats and environments along the Assiniboine play an important role in the region. They offer rare and unique natural areas, recreation opportunities and

contribute to the economy of the region. This practicum works toward creating relationships between people and their environment.

The landscape of Canada is a rich tapestry composed of many different fabrics bound together by the river. The river is the thread that weaves together the natural and human elements of Canada.

(CHRS)

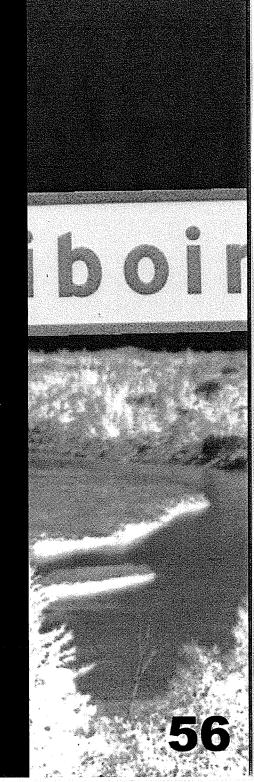
The importance of the river and its environs to our national identity has been obscured be Canada's progress into the modern world. The history that was forged along the banks of Canada's first highways is slowly being encroached upon by the expansion of a growing population and industry. The loss of this heritage, both cultural and natural, would be a very harsh blow to a country

that has always celebrated its accomplishments and history.

The Landscape of the Assiniboine River should be commemorated and celebrated. The journey along the river and the interactions people have with the land and water creates a bond with the landscape.

The Heritage Canoe Route proposed by this practicum

connects the parks and special places along the river that are already important parts of Manitoban life with the people who call this province home. This linkage brings a new layer of recognition and use to these special places.



The proposed Heritage Canoe Route along the Assiniboine River requires many different elements to be brought together to enable the project's future to be bright. The various developments discussed in this practicum provide the foundation for further explorations and research into the Assiniboine River and its surrounding environments. The Heritage Canoe Route is not the end point of this exploration into sustainable river development, it is a beginning of a journey.

In order to ensure that a development of this type was to be successful in the region, further research must be carried out. Specialized data and knowledge is required if this project were to be carried beyond the point discussed in this practicum. A plan of Action for further development towards the implementation, design and operation of the Heritage Canoe Route would require:

• The establishment of socio-political relationships. These relationships are required for the success of a project such as the Assiniboine River Heritage Canoe Route and must be fostered. The designation and development of an Assiniboine River Heritage Canoe Route Committee should be organized before any new stage of the project. This committee can act as a facilitator of project goals, provide education and information

to communities, governments and private landowners and oversee the operation and development of the Heritage Canoe Route. This committee would also be responsible for encouraging community involvement with the Heritage Canoe Route and creating publications and guides for the route.

- A more complete and detailed inventory of tourism facilities and attractions that are related to the natural and cultural heritage of the Assiniboine River must be compiled. This information would expand upon existing data provided by (and discussed in this practicum) Tourism Manitoba.
- Detailed designs of entrance and exit point to the Assiniboine River Heritage Canoe Route must be made. These designs must take into consideration the steep banks of the river, the annual change in water levels and the extreme Manitoba Climate.
- Collaboration between different professional fields and experts. This would be done to ensure that the Heritage Canoe Route achieves success and is an example of sustainable river development. Expert knowledge in the fields of conservation, resource management, constructed wetlands, tourism development, sustainable development and Manitoba's cultural heritage and history is vital to the success of the Heritage Canoe Route's goals.

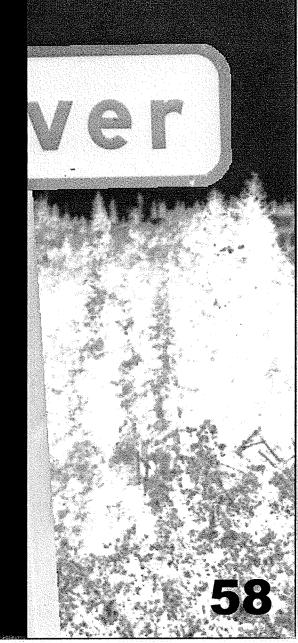


Gonclusion

Celebration, Conservation, Community, these themes carried an idea through to completion. They are interchangeable and interrelated. The Assiniboine River Heritage Canoe Route proposes a way to explore and commemorate Manitoba's history, prairie culture and life. It is a way to share the diverse habitats, environments and wildlife with the world and to create responsible stewardship initiatives that work to ward renewing and revitalizing the landscape. Conservation expands beyond the landscape to take on new and equally important roles in the Heritage Canoe Route. It moves toward conserving not only the environment, river and watershed but also the history, heritage, rural lifestyle and culture found in the prairie towns along the way.

The Priorities of the Heritage Canoe Route will work towards a more sustainable future for the Assiniboine River. Habitat Conservation, Riparian Development and Wetland Development work together to enhance the natural landscape, the health of the watershed and the lives of the people and animals that inhabit the region. Tourism Development, Heritage Site Development and the Designation of the Assiniboine as a Canadian Heritage River will provide a new foundation for tourism in the region. This increase in tourism and revenue will make the region's economy grow, while supporting the agricultural lifestyle of rural Manitoba.

By teaching the present about the past, the Heritage Canoe Route can work to keep our knowledge of the peoples who shared the landscape with us in our minds. The Heritage Canoe Route along the Assiniboine is a way to enrich the provincial and community, as well as local. It provides enriched opportunities within the rural sphere that will help to decrease the exodus of young people from the communities along the river. The Heritage Canoe Route builds community ties that create a shared experience along the river that unifies individuals and groups, towns and cities under the goal of improving their home and the river we all share.



Images

Cover: Assiniboine River & Road Collage photographs by Danika Proven

Inside Cover: Assiniboine River Collage photographs by Danika Proven

Pages i-10: Background Image: David Thompson Map, Kavanagh, The Assiniboine Basin. Centennial Edition. Gresham Press, 1966

Page 4: Map Insert: Assiniboine Drainage Basin, Towards a Sustainable Water Strategy for the Assiniboine River. Assiniboine river Management Advisory Board, 1999-2000

Page 12: Map: Manitoba's Natural Regions, Manitoba Conservation

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Page 9-22: Background Image: Marsh in Blue, Danika Proven

Page 13: Photograph Insert: Assiniboine River, Danika Proven

Page 15: Photograph Insert: Deer, Brian Wolitski: Senecal, Catherine. *Pelicans to Polar Bears Watching Wildlife in Manitoba*.

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Page 16: Map Insert: Manitoba Protected Areas, Manitoba Conservation
Biological Distinctiveness of Freshwater Ecoregions in North America, Freshwater Ecoregions of North

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Page 17: Photograph inserts: Swan, Senecal, Pelicans to Polar Bears
Moose, Senecal, Pelicans to Polar Bears
Cattails & Marsh, Danika Proven
Turtle, Senecal, Pelicans to Polar Bears

- Page 18: Map Inserts: Prairie Pothole Region, Northern Prairie Wildlife Research Center web site
 Minnedosa Potholes, Manitoba Habitat Heritage Corporation web site
- Page 19: Photograph Insert: Assiniboine River at Brandon, Danika Proven
 Riparian Vegetation, Danika Proven
- Page 20: Diagram Insert: Riparian Zone Section, adapted from Sustainable Agriculture Facts, Growing For Tomorrow Map Insert: Land Cover map and inserts, Water Erosion Map, Riparian Health Council Manitoba
- Page 21: Diagram Insert: Riparian Zone Pasturing, Managing the Water's Edge, Manitoba agriculture & Food
 Photograph Insert: Riparian Zone Management, Managing the Water's Edge, Manitoba Agriculture & Food
- Page 22: Map Insert: Minnedosa Prairie Pothole Region, Manitoba Habitat Heritage Corporation web site
- Page 23: Graphic Insert: Voyageur Silhouette, Voyages: Canada's Heritage Rivers. Edit. Lynn E. Noel. Breakwater Press, 1995
 Photograph Insert: Assiniboine River, Minnedosa heritage Village, Danika Proven
- Page 24: Photograph Insert: Agriculture Field near Brandon, Marsh, Minnedosa Heritage VIIIage, Danika Proven
- Page 25 41: Background Image: Winter at the Forks in Yellow, Danika Proven
- Page 28: Graphic Insert: Tourism Pie Chart, Manitoba Market Survey, Manitoba Culture, Heritage & Tourism, July 2000
- Page 29: Photograph Insert: Child in Canoe, CHRS

 Moose, Senecal, Pelicans & Polar Bears
- Page 31: Map Insert: Canoe Routes of Manitoba, Manitoba Great Outdoor Adventure Guide, Tourism Manitoba Sketch Insert: Assiniboine River Heritage Canoe Route Marker: Danika Proven
- Page 32: Map Inserts, Senecal, Pelicans & Polar Bears Sketch Insert: Danika Proven

Page 33: Map Insert: Manitoba Fishing Lodges, Manitoba 2004 fishing & Hunting Guide, Tourism Manitoba Recreation Activity, Manitoba Great Outdoor Adventure Guide, Tourism Manitoba

Page 34: Photograph Insert: Hockey at the Forks, Danika Proven

Winter Camping, Snowshoers, Snowmobiles, Manitoba Great Outdoor Adventure Guide, Tourism

Manitoba

Map Insert: Winter Activities in Manitoba, Manitoba Great Outdoor Adventure Guide, Tourism Manitoba

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Old Forks Sketch, Hind, Henry Youle

Souris & Assiniboine River Forks, Hind, Henry Youle

Old Forks at Winnipeg, Hind, Henry Youle

Aboriginal Encampment, Hind, Henry Youle

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Page 37: Map Insert: David Thompson, Alexander McKenzie, Brandon Fur Fort Sites, Kavanagh, The Assiniboine Basin

Page 38: Photograph Insert: Minnedosa Heritage Village Images, Danika Proven

Page 39: Photograph Insert: Moose, Senecal, Pelicans to Polar Bears

Page 40: Photograph Insert: Forest, Agricultural Field and Wetlands in the Brandon Area, Danika Proven

Page 41: Map: Assiniboine Heritage Canoe Route, Community Theme

Photograph Insert: Wooden Staris, Danika Proven Sketch Insert: Community Sign Prototype, Danika Proven

- Page 42: Graphic Insert: Brandon Fur Trade Forts Sites, Kananagh, The Assiniboine Basin Sketch Insert: River Lodge, Paddlers: Danika Proven
- Page 43-52: Background Image: Aboriginal Encampment, Hind, Henry Youle
- Page 44: Graphic Insert: Aboriginal Encampment, Hind, Henry Youle
- Page 46: Map Insert: CHR System Map, CHRS Annual Report 2002
 Graphic Insert: Voyageur Silhouette, Voyages. Edit. Lynn E. Noel
 Photograph Insert: Child & Canoe, CHRS Calendar
- Page 48: Map Insert: Aboriginal Groups & Language Families of Manitoba, Manitoba A History Volume 1
- Page 49: Photograph Insert: Louis Riel Portrait, Manitoba A History, Volume 1
 Turtle, Senecal Pelicans to Polar Bears
 Modern Forks Market, Danika Proven
 Brandon Folkfest, Manitoba 2004 Vacation Guide
 Graphic Insert: Old Forks at Winnipeg, Hind, Henry Youle
- Page 51: Map Insert: Assiniboine River Water Monitoring Stations, Bourne, Armstrong, Jones. A Preliminary Estimate of Total
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 Graphic Insert: Aboriginal Encampment, Hind, Henry Youle
 Photograph Insert: Pelican, Senecal, Pelicans to Polar Bears.
- Page 53-58: Background Image: Assiniboine River Collage, Danika Proven

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