

PREFACE

The Crow Wing Study Region is located in the south central portion of the Province of Manitoba, and occupies an area approximately 80 km long and 50 km wide (50 x 30 miles), situated east of the Red River and south of the Trans Canada Highway. The study region takes its name from the famous Crow Wing Trail, a portion of which traversed the region north to south, and for a time during the middle of the 19th century gained fame as a major transport and supply route connecting the Red River Settlement with the steamboat and railway connections located in St. Paul, Minnesota. The region possesses a rich and varied history, telltale remnants of which still exist on the landscape, but which are also slowly and continuously being altered and removed from both the physical landscape and the public consciousness.

The pages which follow are intended to quite simply provide glimpses of an evolving cultural landscape to help the reader acquire a better image and understanding of, not only how the landscape of this region was formed, but also how it changed, and what it has now become. Should this study succeed in making a point, it will be simply in illustrating that the landscape is always changing and is always more than meets the eye. The study is dedicated to helping those who read it capture a clearer understanding and a sharper perception of cultural landscapes in Manitoba, and how and why the heritage resources within them are, in many cases, threatened. Through gaining knowledge and understanding of what heritage landscapes are, and how they evolve, perhaps a greater shared responsibility and interest in their preservation and development may be generated.

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THE CULTURAL LANDSCAPE OF THE CROW WING STUDY REGION OF SOUTHEASTERN MANITOBA

1.0 INTRODUCTION

Since the proclamation of The Heritage Resources Act (Manitoba) in 1986, the provincial Historic Resources Branch has focused much of its resources on the identification, designation, and restoration of buildings and structures of historic or architectural significance. The number of protected heritage sites in Manitoba increased from only six in 1985 to over 300 in 2002. The fact that two-thirds of these sites have been protected by municipal councils using enabling powers shows that heritage preservation is generally accepted as a legitimate responsibility of both municipal and provincial levels of government in Manitoba. Similarly, the general public accepts heritage preservation as an important social cause and economic opportunity, and therefore worthy of public tax dollars and government involvement. Clearly, heritage preservation in Manitoba has made great strides during the past fifteen years.

In an attempt to build upon this success in 2001, the Manitoba Heritage Council recommended that a pilot study be undertaken to investigate the feasibility of identifying landscapes, even entire regions, of special cultural/heritage significance for planning, policy, and public awareness purposes. The Council felt that looking at heritage from a regional, rather than a localized, perspective might reveal new and potentially significant types of heritage resources that were being overlooked in the thematic confines of site specific studies. As well, it was thought that special relationships between the physical environment and broad patterns of settlement and resource development might similarly be revealed through a regional investigation.

It is well understood that heritage resources do not consist only of individual site-specific elements, such as a special bridge, building, or scenic lookout. Often combinations of natural and man-made elements combine to create an entire landscape of heritage significance and appeal. Winnipeg's Exchange District is Manitoba's premier example of such a special heritage landscape incorporating a variety of physical elements. Such urban districts, like their rural landscape counterparts, cannot be protected, preserved, enhanced, or even properly appreciated simply by protecting a few of their more noteworthy elements. It is often the sum of many types of sites and elements which gives a landscape its special quality and unique sense of place.

Clearly then, the protection of significant rural-based cultural landscapes requires a broad-based approach. Similar to the Exchange District, in addition to some individual sites being designated to protect them, other types of controls and guidelines must be instituted to enhance and protect lesser elements, which together help to create the special look and feel of the area. In the Exchange District, these ancillary elements include building height, construction materials, signage design, setback, vegetation, etc. Rural districts possessing a special appeal are similarly made up of a combination of lesser ancillary elements, in addition to individually well-known landmark sites. Again, designation alone is not likely sufficient to effectively protect and enhance the province's special rural heritage regions. While rural Manitoba does not possess anything to rival the richness of Winnipeg's Exchange District, it nevertheless does possess many special places and districts, each with its own unique charm and heritage significance. Up to now, little attention has been given to the study of rural landscapes in Manitoba, or to alternatives to heritage site designation for the protection of heritage resources in rural areas.

This pilot project is intended as a first step in developing a broader-based, heritage landscape perspective for heritage resource management in rural Manitoba. Through the liberal use of visual materials, particularly maps, and through the use of short summary descriptions, this report is intended to serve as an educational tool. Hopefully it will appeal to and enlighten a wide readership - government officials, heritage agencies, tourist groups, and the general public.

PROJECT OBJECTIVES 1.1

The Manitoba Heritage Council discussion paper entitled "Environmental Policy and Heritage Resources" identified the Council's main concerns and observations concerning cultural landscapes in Manitoba as follows:

The interaction of people with their environment has resulted in various cultural uses and the creation of special places of social, cultural and economic value. Such cultural resources, which are not necessarily associated with specific locations and can involve large geographic areas, are too numerous and ever evolving in their meaning to be easily classified or systematically protected for all time as designated sites under The Heritage Resources Act. Given the breadth of this subject, it is necessary to develop greater public awareness of and responsibility for documenting change in cultural heritage landscapes in order to create a permanent record and to guide future development.

Subsequently, Council recommended "the development of a pilot project to create public awareness of and appreciation for the ways in which cultural heritage landscapes can be documented and incorporated into community life." In light of the above statements, four core objectives were devised to guide the pilot project. Simply stated, they are:

- 1. To briefly describe the development of the cultural landscape of a selected test region.
- 2. To identify sites and areas of potential significance for planning and policy purposes.
- 3. To involve and encourage the cooperation and participation of various other government departments.
- 4. To produce a final report with multimedia capabilities for general public awareness.

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1.2 STUDY METHODOLOGY

In an attempt to attain a degree of success in each of the four objectives, a somewhat simplistic, yet experimental, approach to research and documentation was adopted. It is one that involves the liberal use of maps and other illustrative materials, field trip site photographs, and short capsulated histories. These elements are used to create a modular format, which should be readily adaptable to a variety of multimedia presentations, such as PowerPoint demonstrations, web sites, hard-copy book form, CD-ROM's, and stand-alone handouts.

1. Maps and illustrative materials.

Much of Manitoba has been documented in map form. From the first explorers, traders, and officials, to later government administrators, scientists and scholars, virtually everything, from the natural landscape, to settlement patterns, to economic activity and even the distribution of telephone lines has been recorded in cartographic form. As research source material, maps have also often been overlooked and underutilized. However, if photographs are said to be worth a thousand words, a good map should be worth considerably more, particularly when seeking a regional perspective. It was the intent of this pilot study to locate, copy and make liberal use of various types of maps for both information and presentation purposes. Maps can speak volumes if used and read correctly. While the availability and possible technical difficulty of digitally copying and reproducing a large number of maps was largely unknown, it was decided to pursue this type of methodology regardless of the potential risks.

2. Site photos.

In spite of their complexity and ever-evolving nature, all heritage landscapes are made up of a combination of individual natural and man-made elements. Among these, there are individual 'landmark' sites and sightlines that give a landscape its own set of unique characteristics. Locating and photographing examples of these 'defining' elements was the focus of several field excursions into the study region. Time and resources would not permit the undertaking of a comprehensive systematic photographic inventory of all noteworthy sites. However, obtaining photographs of a cross section of site types was deemed possible and necessary. These site photos would also be used liberally in the final report to show their current situations.

3. Capsulated histories.

Given the enormous number of possible themes and sites to identify and describe in this type of project, it was acknowledged that detailed descriptions would not be possible. Preparing simple 'capsulated histories' of no more than one page in length was determined the best approach, particularly in view of the desired 'multimedia/public awareness' aspect of the final report. In such a presentation, individuals want to be briefed on a subject rather than flooded with detail. Brevity and a 'big-picture' perspective was the intent of each description prepared for the various themes and sites characterizing the cultural landscape of the study region. It was also hoped that such capsulated histories might lend themselves to "stand alone" use, whereby individual 'Info-Sheets' could be created for educational or tourism purposes on a 'pick-and-chose' basis dependent upon the interests of the individual or group using them.

1.3 THE STUDY REGION

In selecting an appropriate region to undertake this pilot study, several prerequisites were formulated. It was determined that the study region should:

- 1. Include at least two major physiographic zones or features, in order to determine how differences in the physical landscape might have affected patterns of human settlement and resource use in each area.
- 2. Include at least two major cultural settlement groups, in order to identify possible relationships between the physical environment and settlement areas.
- 3. Be of sufficient size to be largely self-contained in terms of its major cultural or physical characteristics.

The region finally selected was the eastern half of the Red River valley in the area south of the Trans Canada Highway and north of the American Border. Initially, only the southern half of this region was selected; however, because it was found to be lacking in both cultural and physical diversity, the area was enlarged to include all of the Francophone 'river-lot' communities and the former 'Mennonite East Reserve.' The name of the study region was chosen to honour the former HBC ox-cart transport route, the Crow Wing Trail, part of which traversed the entire length of this region.

The Crow Wing Study Region is a rough quadrangle, approximately 80 km in length by 55 km in width (50-35 miles). It is bound on the west by the east bank of the Red River, on the north by the route of the Trans Canada Highway, on the east by a line extending north and south through the community La Broquerie, and on the south by the American boundary. See Figure 1.3.2. These boundaries are not considered 'firm' and reference is made to sites and events occurring at least short distances beyond them.

The Study Region includes all or portions of nine rural municipalities, including: Franklin, De Salaberry, Hanover, Ste. Anne, Tache, La Broquerie, Stuartburn, Montcalm, Morris, and Ritchot. See Figure 1.3.3.

The major communities located with the study region include: St. Adolphe, Ile des Chêne, Lorette, Ste. Anne, Niverville, Steinbach, Grunthal; St. Pierre-Jolys, St. Malo, Dominion City, Emerson and Tolstoi. Located just outside the western edge of the study area, on the west bank of the Red River are the communities of Letellier, St. Jean-Baptiste, Morris, St. Norbert, as well as the City of Winnipeg. These outlying communities are, on occasion, referred to in the report because of their proximity to, and influence on, development in the study region.



1.3.1 Above: Key map of Manitoba showing the location of the Crow Wing Study in the southeastern portion of the Province. (Map Title: Manitoba Lakes & Rivers basemap, Source: HRB Map #052.)

1.3.2 Below: Detail from a 2001 Manitoba Highways Map showing the general location of the Crow Wing Study Region, its waterways, roads, railways and communities. (Map Title: Manitoba Official Highway Map, 2000-2001. Source: Manitoba Highways and Government Services Highways.)





Division.)

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1.3.3 Above: Map showing the Rural Municipalities and incorporated communities in the study region. (Map Title: Municipalities & Local Government Districts, 1999. Source: Manitoba Conservation, Land Information

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1.3.4 Above: Physiographic Zones. Basemap of the general study region showing the two main physiographic zones and the 'ridgeline' boundary between the two highly different landscape types. (Map Title: Municipalities & Local Government Districts, 1999. Source: Manitoba Conservation, Land Information Division.)

1.4 THE CROW WING STUDY REGION - KNOWN CLAIMS-TO-FAME

In selecting and labeling the Crow Wing Study Region for this pilot project, it was already known to the author that the region possessed a rich cultural history. Its natural history was somewhat less known prior to reviewing the research maps and the few textual sources consulted. However, the obvious dichotomy of the basic surface landform types in the Red River valley flatlands and the wooded stony uplands suggested that it likely possessed an interesting natural heritage. Among the region's known major 'claims to fame' are as follows:

- 1. The eastern edge of the Canadian Prairies runs north-south through the centre of the study region. The transition from open grasslands to wooded uplands is quite sudden and dramatic in places, if somewhat subtle in terms of elevational change.
- 2. The Roseau River, a historically important aboriginal and fur trade canoe route to and from the Lake of the Woods district and more easterly points.
- 3. The former Crow Wing Cart Trail, which also traversed the length of the region, was a significant early transportation artery for the Hudson's Bay Company and the Red River Settlement, as it connected Upper Fort Garry with what is now St. Paul, Minnesota. The name chosen for study region recognizes this trail, its history and use, and for the terrain that it traversed.
- 4. The Pembina Branch of the Canadian Pacific Railway, which was completed in 1879, and which also runs the length of the study region, was the first operating railway line in western Canada, predating the arrival of the transcontentinal by several years.
- 5. The region possesses an unusual mix of survey systems, including two variations of the Québec style 'river-lot' system and Dominion Township survey systems. Within each system, vastly different roadway and settlement patterns were formed.
- 6. The region is the Francophone heartland of rural Manitoba, with as many as fourteen individual communities of French cultural origins.
- 7. The region possesses a microcosm of the province's rural settlements groups. All of the major early settlement groups are represented in the study region, including Métis, French Canadian, Anglo-American, Mennonite, Ukrainian and German.
- 8. The region possesses several atypical communities that were established and survived - without ever possessing a railway connection. Consequently, the town plans for these communities are guite unusual as well.

The Cultural Landscape of the Crow Wing Study Region

1.0 The Natural Landscape

The natural landscape of the study region, its relief, surface materials, soils, vegetation, and waterways, guite clearly influenced the manner in which the region's cultural landscapes developed as human settlement and use of the land steadily increased. Thus, a cultural landscape study such as this must begin with a close look at the purely natural aspects of the Crow Wing Study Region.

1.1 Elevation & Relief

The Manitoba Lowlands 'trough'

The natural relief of the study region is largely the product of the last great Ice Age, which ended approximately 10,000 years ago. The weight of the two kilometre (1.3 mile) thick ice sheet was so great that it actually compressed the earth's crust, particularly in the northern regions. In advancing, the ice scoured the land right down to the bedrock, obliterating the former local topography. As the ice advanced out of the northwest and passed over the various types of bedrock, a band of softer limestone existing in a broad swath through the centre of Manitoba was ground deeper than the harder bedrock on either side of it. Eventually, as the ice sheets advanced and retreated many times, a large trough-like depression was created in the bedrock, now referred to as the Manitoba Lowlands physiographic region. It is the area and level to which most of the rivers in western Canada flow, and is well illustrated in an 1875 map produced by G.M. Dawson, (Figure 1.1.1). The Red River Valley occupies the lower end of the Manitoba Lowlands region, while the Lakes Manitoba, Winnipeg, and Winnipegosis dominate the northern section. As noted on the inset map detail, the The Crow Wing Study Region is situated in the southeastern corner of the Manitoba Lowlands region.

Glacial Lake Agassiz

After the ice-sheet finally melted away, a new layer of surface materials had been deposited over the bedrock base. However, the Manitoba Lowlands region and large portions of what are now Ontario and Minnesota were submerged beneath the cold murky waters of a huge and ever-changing melt water lake, now referred to as glacial Lake Agassiz. The wave action of the lake, and the glacial spillways which entered into it, ended up blanketing the lowest depths of the lake with fine grained clays, and the more shallow, outer regions of the lake with 'wave-action' mixed gravels and tills. Glacial Lake Agassiz, and its role in creating the surface deposits and parent materials currently found in the study region is described in greater detail in the section following.

Local Elevation

The lowest elevation in the study area lies along its western boundary, marked by the course of the Red River, which flows in a meandering switch-back fashion northward over a very gentle grade towards Lake Winnipeg and Hudson Bay beyond. The elevation change along the river bottom is incredibly slight, as little as 2.5 cm per km (2 inches per mile). It is so level that, as the earth's crust continues to slowly rebound from the weight of the now absent ice sheets, in roughly 10,000 years the Red River will apparently reverse its course and flow southward into the Mississippi watershed. From the banks of the Red River the land rises gently towards the east. In actual terms, the elevation in areas nearest to the river is about 240 metres (775 feet) above sea level. Towards the east the land rises in an almost imperceptible manner for a distance of between 20 to 50 km (12-25 miles) where, at roughly the 250 metre (800 foot) contour, it rises abruptly 20 metres (75 feet) above the valley floor. Above this escarpment, or 'ridgeline', the land becomes gently rolling in nature and rises somewhat slightly more rapidly for a distance of another 30 to 50 kilometres (20-25 miles) before encountering the sand deposits of the Sandilands Forest Reserve and elevations rising up to 366 metres (1,200 feet). The prevailing slope of the land, and thus natural drainage, is from the southeast to the northwest, in the direction of the last Pleistocene ice sheet.

Sites Significant for their portrayal of Elevation & Relief features: See Sites Maps in Part III for locations.

The natural relief of the study region is quite interesting in itself - but more because of the absence of a significant elevation change rather than the presence of it. Also significant in terms of surface relief, is the 'ridgeline' transition, which demarks the sudden change from the flatlands of the Red River valley to the rolling ridge lands of the southeastern highlands. Specific sites would include:

- 1. The 'ridgeline' area just north of the community of Ste. Anne, where the Trans Canada Highway exits the southeastern highlands region and dips down onto the flats of the Red River valley.
- 2. The 'empty horizon' sightlines afforded along various sections of Provincial Road 200 in Ritchot and Morris municipalities. These viewpoints are the only known sites located in the study area offering a completely unobstructed view of the Red River valley 'flats' - and some of the flattest land to be found anywhere in the world. The best of these viewpoints is located in the area just south of Aubigny.





1.0 The Natural Landscape

1.1.2 Below: Relief Contour Map of Southern Manitoba

Detail from a Relief Map of Manitoba produced by Thomas Weir in 1960. The contour lines and colour changes represent one hundred feet of elevation change. The 'trough' nature of the Manitoba Lowlands is clearly depicted on this map. (*Map Title: Relief Map of Southern Manitoba, by Thomas Weir. Source: The Economic Atlas of Manitoba, 1960. Page 7. HRB Map# 003.*)





1.1.3 Above: Relief Profile

Profile through southern Manitoba just above the 49th Parallel, illustrating Relief, Natural Vegetation, Physiographic Divisions and Surface Materials. Note the 'Lacustrine Deposits' of the low-lying Red River Plain (A), and the 'Ground Moraine' highlands lying east of the Red River Plain (B). This illustration also notes the various natural vegetation types along the profile line. *(Illustration Title: Profile through Southern Manitoba. Source: The Economic Atlas of Manitoba, by Thomas Weir, 1960. Page 6. HRB Map #069.)*

1.1.4 Right: 'Empty horizon' sightline near Aubigny

View of the Red River 'flatlands' from a roadside location along Provincial Road 200 just south of Aubigny. Once commonplace, such sightlines, showing a boundless empty horizon, are now rare in the region east of the Red River, due to intensive shelterbelt plantings and farmstead developments. (Photo: Historic Resources Branch.)



1.1.5 Left: The 'Ridgeline' near Ste. Anne View of the area where the Trans Canada Highway leaves the open farmland of the Red River Valley and enters the wooded eastern highlands. The high visibility of the site and the suddenness of the change of landscape type makes this site noteworthy for interpretative possibilities. *(Photo: Historic Resources Branch.)*



1.2 Surface Deposits & Parent Materials

Glacial Lake Agassiz

The successive advance and retreat of the ice sheets during the last Pleistocene scoured the land in the study region down to bedrock. As the ice sheet slowly melted away and the front retreated, the whole of the region was blanketed by glacial mixed drift which had been caught up by the ice. These materials ranged from deposits of fine sands and gravels, to stones, rocks, and even huge boulders. These primary deposits were added to and often modified by the action of the accumulating glacial melt waters. Because of the compression of the earth's surface by the huge ice sheets, the land sloped towards the north, and as a result, the melt waters collected along the front edge of the ice sheet, forming a huge lake, now called glacial Lake Agassiz. The rising waters had no natural outlet, so they simply rose and rose until a height of land was breeched and temporary outlets were formed, first to the south, and later, as the lake followed the ice front north, to the southeast. Finally the ice front retreated sufficiently north that the ice dam was broken and melt waters could follow the natural slope of the land, and flow north into Hudson Bay.

Sediment Basins

Under the waters of glacial Lake Agassiz the original till deposited by the melting ice was washed and reworked by wave action. Huge swift-flowing glacial spillways flowing in from the west, such as the Assiniboine and Souris river spillways, deposited a tremendous amount of new material into the lake, most of it fine-grained sands and silts. Upon entering the lake, the heavier materials settled to the lake bottom fairly quickly, creating large gravel and sand deltas, of which the Carberry Sandhills is the largest. The finer materials remained suspended in the water for longer periods and were deposited farther out in the lake. As the lake levels eventually began to drop, wave action stirred up the lake bottom deposits, re-suspending the finer materials again and again, leaving the rocks and coarser materials on the shallow lake bottom, and allowing the finer clays and silts, over time, to settle in the undisturbed deepest part of the lake. The largest of these sediment basins became the Red River valley. The surface of the Red River sediment basin is virtually level since there were few forces to modify it, except for the occasional iceberg dragging along the lake bottom and creating tracelines.

Beach Deposits

As the level of Lake Agassiz periodically rose and dropped, and eventually retreated to the few remnants which remain today, beach deposits were formed where the levels remained stable for a period of years. The most dramatic series of beach ridges are to be found along much of the length of the Manitoba Escarpment, which marked the western shores of the former lake for much of its existence. However, a series of smaller beach ridges were deposited in the study region at lower lake levels. These tended to be laid down across the natural slope of the land, affecting and interfering with local drainage patterns in many places. These beach ridges are accurately shown in a wonderful map produced by the Canada Department of Mines in 1931. These sand and gravel beach deposits have been extensively mined in recent years. None are currently protected within provincial natural conservation areas, and it is unlikely that any of the ridges have been assessed with an eye to their potential value as natural landmarks.

General Topography

In roughly this manner, the surface deposits and drainage systems that exist in the study region today were formed. It is from these glacial parent materials that the topsoil levels were developed. Underlying the black topsoils of the Red River valley is a deep bed of very fine Lacustrine clay material - the well-known 'Red River Gumbo'. The clay is largely impervious to water infiltration, preventing water seepage and thus adding to the problem of surface drainage on the Red River flats. In the highlands of the eastern portion of the study region, the land is a gently undulating mix of stony plains, gravel and sand deposits, marshes, and beach ridges, with the occasional level area of alluvial soils, created in river areas by annual flooding.

Sites noteworthy for their portrayal of glacial history and surface deposits in the study region include:

- 1: The St. Pierre-Jolys and Ridgeville 'transition' areas which also feature beach ridge deposits.
- 2: An unknown number of surviving beach ridges located in the RMs of Hanover and La Broquerie.
- 3. The "empty horizon' sightline views of the Red River flats near Aubigny and St. Adolphe.





1.0 The Natural Landscape

1.2.1 Left: Glacial Surface Deposits

This somewhat unusual map, produced by Griffith Taylor in 1947, emphasizes the major physical relationships between the extent of former glacial Lake Agassiz, elevation and surface deposits. Note the many beach ridges along the western Manitoba Escarpment, and the areas of shield 'with' and 'without' silt in eastern Manitoba. (*Map Title: The Topography of Manitoba Showing Glacial Lake Agassiz, 1947, by Griffith Taylor. HRB Map #040.*)



1.2.3 Right: Surface Deposits

Section of a very detailed Canada Department of Mines map printed in 1931, showing surface deposits in the eastern Red River valley. Note in particular the configuration of the boundary line between zone '4: Glacial till' and 'zone 5: Lakebed deposits'. It coincides closely with changes in elevation, soil, and vegetation characteristics shown in upcoming maps. Note also the many beach ridges in zone 4, shown as sinuous red lines, particularly in the areas of the communities of La Broquerie, Marchand, and Sandilands.

(Map Title: Surface Deposits in Manitoba, Canada Department of Mines 1931. Source: PAM, uncatalogued map "P2068, Map 254A". HRB Map #059.)







1.2.4 Above: View of the 'ridgeline' south of St. Pierre-Jolys, at a distance of about one kilometre

The transition from the flatlands of the Red River valley to the rolling ridges of the eastern highlands in places is quite sudden and dramatic, albeit rather modest in terms of actual elevation change. Several sites are particularly noteworthy. One such area is located a few kilometres south of St. Pierre-Jolys. Driving east off PTH 59 along any one of several municipal roads, one passes through an open level landscape with deep black soils, before reaching a sudden rise of 10–15 metres (30-40 feet) and an instant change to a rolling landscape of scrub woodland with thin soils, sandy ridges, and frequent surface boulders. The St. Pierre-Jolys ridgeline area is one of only a few such locations in the study region where this transition is so clear and dramatic. (Photo: Historic Resources Branch.)



1.2.6 Above: Beach Ridges

View just above the ridge near St. Pierre transition zone, showing an impromptu borrow-pit for sand. This undeveloped road allowance serves as the Crow Wing Trail portion of the Trans Canada Trail, which runs through the length of the study area. (Photo: Historic Resources Branch.)



1.2.5 Above: The Southeastern Highlands

View of the scrub vegetation and rock-strewn pasture land typically found in the areas east of the ridgeline in the region south of St. Pierre-Jolvs. (Photo: Historic Resources Branch.)



1.2.7 Above: St. Pierre-Jolys transition area View of the prairie/highland transition just northeast of St. Pierre-Jolys. The ridge is not as prominent in this location because of the type and land use. (Photo: Historic Resources Branch.)

1.0 The Natural landscape

effect of Joubert Creek in the area. Nevertheless the change in the physical landscape is just as sudden and dramatic in terms of soil

1.3 Soils and Vegetation

Soils and natural vegetation types are often related to one another as well as to the type of underlying parent materials and the local effects of elevation and relief. Just how directly related these can be, is superbly illustrated by some of the soils and vegetation maps obtained of the general Crow Wing Study Region. They reveal an amazingly tight geographic relationship.

Soils

After the glacial melt waters drained away vegetation soon re-established itself on the land. Initially, this vegetation had to survive on what nutrients it could find in the raw, glacial surface materials. Over time the decaying plant material began to mix and be absorbed into the top layer of the glacial material, forming various basic types of soils. In the eastern half of the study area, the tall prairie grasses, growing and dying off annually on the clay sediments, eventually built up a thick rich layer of Black soil. On the other hand, the slow growing coniferous forests that formed on the higher upland elevations, atop the gravels and sands, resulted in the creation of thin, acidic soils of the Podzol soil group. Located between these two vastly different soil types is a transition zone, possessing a Parkland type of 'mixed woods and meadows' vegetation cover. The soils here tend to be only moderately acidic and are known as the Grey Wooded variety. The transition in soil zones correlates to the transition in parent material, natural vegetation types, and to elevation, as seen in Figures 1.2.3, 1.3.1, and 1.3.3.

Currently, the soils in the study region are very much the same as they were prior to agricultural settlement. After more than 100 years of intense cultivation, they are most likely somewhat less fertile than in 1870, but are nevertheless still the same type of soils. The Red River valley still possesses rich, stone-free Black soils, overlying a thick layer of fine clays. The parkland transition areas still possess the lighter and stonier Grey Wooded type soils, and the coniferous and mixed forests of the eastern highlands are still characterized by acidic Podzol soil types overlying sand, stone, and gravel-laden materials.

Vegetation

While the soil types may have survived relatively unchanged, the natural vegetation within the study region appears to have been greatly altered by the effects of settlement and agricultural production since the 1870s. Most dramatically, the original tree belts, which once lined almost all the watercourses in the Red River valley, have been largely denuded, except for a very narrow band along the immediate riverbank areas of some rivers. And even more sweeping, but expected, virtually all the original areas of Tall and Mixed Grass prairie growth have been plowed under to make way for agricultural practices. Less than one half of one percent of the former Tall Grass Prairie area in Manitoba currently survives. Significantly, most of the few natural preserves are located just above the ridgeline in the southeastern portion of the study region, in a pristine 'Parkland' setting. Also, quite significant was the clearing of what had been an area of 'woodland bluff' growth in the area north of Dominion City. Shown on many early maps, the area is now open cropland. Finally, and sadly, it is clear that, while the open prairie of the Red River valley has been systematically 'treed', the wooden southeastern uplands have been systematically cleared, and continue to be. This has resulted in a landscape comprised of a general mix of open fields and forest bluffs throughout most of the study region. The clear dichotomy, which once existed between the areas of open prairie and the wooded uplands, is increasingly being lost, except in a few areas such as the 'ridgeline' transition areas. On the positive side, in addition to possessing several sites of Tall Grass meadows, the study region lays claim to possessing Manitoba's largest tree, in terms of girth, in the so-called 'Lang' Cottonwood located on the bank of the Roseau River near Roseau Rapids.

Sites noteworthy because of their portrayal of the region's original natural vegetation:

- 1 St. Pierre-Jolys, Carlowrie, and Ridgeville transition areas.
- 2 Tall Grass Prairie Preserve, Gardenton area largest natural prairie preserve.
- 3 The 'Lang' Cottonwood tree with the largest girth in Manitoba.

1.3.1 Right: Basic Soil Types Detail from a map showing the general soil types in the Red River valley region.

The area marked '<u>2a</u>' denotes the rich Black soils of the Red River valley, established under grassland conditions.

The area marked '<u>8'</u> denotes areas of thin Podzol soils on the eastern highland portions of the study region. They cover the region of glacial till parent material, and were formed under a cover of coniferous forest, typically Jack Pine. These soils are inferior for agriculture and are rarely cultivated.

The transition soils, located between the Black grassland soils and the acidic Podzols, are of the Grey Wooded type. These soils, noted as <u>'3'</u> on the map, are usually formed in areas where grassland vegetation has been invaded by mixed woods, creating a Grass-Woodland transition, slightly degraded, soil type. Created by a small accumulation of leaf matter at the surface, the Grey Wooded soils are not well suited to grains. This zone is usually devoted to mixed farming, with emphasis on hay crops and dairying.

(Map Title: Soils Map of Southern Manitoba. Source: Economic Atlas of Manitoba, by T.J. Weir, 1960, page 13. HRB Map #037.)



1.3.2 Right: Natural Vegetation

Detail of a rather unusual Natural Regions map produced by Ernest Thompson Seton in 1905. Uncharacteristic by its freehand style and mix of information, and produced without the aid of aerial photographs or extensive field surveys, this map successfully integrates information from a wide variety of sources into a simplistic, yet accurate, physiographic map of southern Manitoba. Intended primarily as a vegetation map, it also shows regional names, place names, railroads, physiography, and several isotherms. These elements are quite accurately portrayed. Of particular note to this study, are the belts of trees along the Seine. Rat. and Roseau rivers, the large forest bluff located near the mouth of the Roseau River, and the 'Ancient Lake Ridge' located along the tree line east of the Red River.

(Map Title: Manitoba showing forests Etc. in 1905, by Ernest Thompson Seton. Source: Historical Atlas of Manitoba, page 456. HRB Map# 034).





1.3.3 Left: Natural Vegetation c.1879

Detail from an 1879 Dominion Lands map showing vegetation and landscape features in the study region prior to agricultural development. The map was compiled from the field notes and sketches recorded by the Dominion Surveyors who staked out the region during the early 1870s.

Many noteworthy landscape elements and features are portrayed, one of the most obvious being the distinct treeline marking the abrupt transition between the southeastern wooded uplands and the open grasslands of the Red River valley. Other noteworthy features portrayed in this wonderfully detailed map include: the Pembina Trail, skirting the west bank of the Red River; the newly completed Pembina Branch of the C.P.R.; the Crow Wing Trail lying east of the Red. The maps also show the tree-lined routes of the Roseau, Rat, and Seine rivers and on the open prairie, many small wooded bluffs and low-lying sloughs.

Also depicted is the large woodland bluff cradled in a large bend of the Roseau River. This bluff also appears on Seton's map. The straight edge line running through the bluff is clearly an error and likely resulted from conflicting information as provided by different surveyors, some of whom noted features lying only directly along the survey lines. Fortunately, most surveyors' sketchbooks included information on general vegetation and landforms across the townships, resulting in this superb and 'almost' accurate portrayal of the natural landscape of southern Manitoba, just prior to widespread agricultural development.

(Map Title: Map of Part of Manitoba & the North West Territory published to Illustrate the Regulations for the Disposal of Certain Dominion Lands for the Purpose of the Canadian Pacific Railway, July 9, 1879. PAM # H3 614.1 gbbd 1879 c.1. HRB Map #003.)

1.3.4. Right: Vegetation Cover c.1999

Detail from a computer generated 'false color' map produced by Manitoba Conservation around 1999, from aerial and satellite photographs of vegetation and landscape features in the study region. Note that the large woodland bluff in the Dominion City area has been cleared, as has much of the vegetation which had existed along the regions' watercourses. Notable also is the combination of land clearing in the wooded uplands and shelterbelt plantings in the Red River valley, resulting in an erosion of what had been a very distinct line separating the open grasslands of the Red River valley and the wooded uplands of the southeastern till plain.

The green areas on the map denote deciduous forest cover; the dark-yellow denotes grassland areas; light yellow denotes croplands; and the purple denotes mixed-wood forests. (*Map Title: Woodmore tile, Vegetation Cover. Source: Province of Manitoba, Manitoba Land Initiative.*)





1.0 The Natural Landscape



1.3.5 Left: Red River Treebelt, 1875

Detail from an 1875 map of the Parish of Ste. Agathe near Morris showing, among other minor items: the river-lot surveys along the Red River; township survey beyond the two-mile line; trails; and, in particular, the continuous 'river bottom' woodland belt skirting the riverbank areas. Species noted include: Oak, Ash, Poplar, and Willow. (*Map Title: Plan of River Lots in the Parish of Ste. Agathe, Province of Manitoba, January 1, 1875. HRB Map #081.*)



1.3.6 Above: Red River Treebelt, 1957 Detail of the same area as depicted in a federal topographic map, printed in 1957. Note the amount of land clearing undertaken in the intervening 45 years. (*Map Title: Map Sheet 62 H/6P 1:50,000 topographic map, published 1957.*)

1.3.7 Right: Red River Treebelt, 1991

Detail from a 1991 series 1:50,000 Topographic map showing the same area between Morris and St. Jean Baptiste. Note that virtually all of the 'river bottom' forest areas have been cleared off and converted to open cropland. The same has occurred over the entire length of the river between Winnipeg and Emerson, except for a few minor scattered locations near St. Adolphe and a large remnant on the Roseau River First Nations reserve. (Map Title: Map Sheet 62 H/6P 1:50,000 topographic map, published 1991.)





1.3.8 Above: Parkland Area of privately-owned natural parkland vegetation along a section of the St. Pierre-Jolys 'ridgeline' transition area. *(Photo: Historic Resources Branch.)*



1.3.10 Above: Tall Grass Prairie

View of a portion of the Tolstoi Tall Grass Prairie Preserve, showing information markers and visitors along a mowed pathway. The Tolstoi Preserve is the largest of several natural areas owned and managed by the Manitoba Nature Conservancy. (*Photo: Historic Resources Branch.*)



1.3.9. Above: 'River Bottom' Treebelt

View of the treebelt along the Rat River, near its junction with the Red River. As with the Red River, only the immediate riverbank areas of the Rat River still have the natural 'river bottom' treebelt in its natural form. The waterway is not developed for canoeing or other recreational, or naturalist pursuits, despite its natural beauty. (*Photo: Historic Resources Branch.*)



1.3.11 Above: Red River Tree belt

View of a surviving section of original Red River treebelt, south of Winnipeg, being cleared for commercial development. The area between St. Adolphe and St. Germain contains the largest surviving sections of original treebelt vegetation. These few vestiges, however, are not protected and are increasingly under attack by urban development. (*Photo: Historic Resources Branch.*)

1.0 The Natural Landscape



1.3.12 ' Lang' Cottonwood

View of the Lang Cottonwood, as it is known locally in the Dominion City region, because of its location on the original Fred Lang homestead. This majestic specimen has been growing near the bank of the Roseau River for an estimated 300 years. Visited since settlement days, the tree now possesses a girth of 9 meters (30 feet) at its base, and is recognized as the largest tree in Manitoba. This photograph of the tree, along with several members of the Lang family, was taken around 1910. (Source: Arnaud - Through The Years, page 186.)

1.4 Rivers and Natural Drainage

'Blind Creeks and Great Marshes'

The Crow Wing Study Region possesses an elevation profile similar to that of a soup bowl, as shown earlier in Figure 1.1.3. Outwards from the centre it has a flat bottom, then rises steeply to a distinct lip, followed by a moderate rise to the outer edges. The steeper pitch of the surface in the eastern portions of the region causes fallen rainwater to form fairly distinct and stable watercourses, which flow northwest – in the direction of the advance and retreat of the last great ice sheets. The main rivers flowing from the study region's highlands are the Roseau, the Rat, and the Seine, all of which join the Red River. In their natural state, each of these rivers flowed over the 'lip' and onto the almost level surface of the Red River flood plain, where the water 'pooled' in many places, forming large shallow marshes, the larger ones labeled as the "Great Marshes" on some early maps. The Red River valley, however, is not quite perfectly flat, and to the west of the Great Marshes the waterways again formed distinct channels and continued to meander slowly towards the lowest level in the valley and join with the Red River. In addition to these 'broken' watercourses, there were also a number of smaller creeks and waterways that completely lost their channels upon reaching the flats, forming smaller marshes. Such waterways were known as 'blind creeks' because these smaller marshes generally possessed no outlets. Mosquito Creek, just south of present day St. Malo, was a well-known example, and was frequently shown on maps. Figure 1.4.1, a superbly detailed map, clearly portrays the major rivers, the many blind creeks, and the great marshes which the study region possessed in its natural state.

Surface Sloughs

In addition to the larger marshes, formed by the ponding of waters carried by the larger waterways, smaller scale ponding appears to also have occurred. Rainfall and snow melt occurring on the flood plain would pool in the numerous, shallow, low spots which existed on a micro-relief scale throughout the valley floor, and as shown on the map detail in Figure 1.4.2. Sedge-lined sloughs would form during the spring melt, and likely would slowly dry each year under the hot summer sun. During wet cycles these sloughs would likely remain for several years, and possibly converge on one another, covering large areas of the valley floor with stagnant surface water. Early Anglo settlers of the Ridgeville district spoke, at times, of having to walk through water up to their knees for miles before getting to the higher and drier land close to the lip of the ridge. The problem of surface water drainage due to the almost level landscape on the 'flats', was exacerbated by the almost impervious nature of the deep deposits of fine clay which underlies the top layer of black soil and grassland vegetation. Despite all of this surface water, in places there quite probably was sufficient high ground on the open prairie for an individual to hike or ride across the valley floor. Crossing the waterways, however, would have been difficult and likely quite dangerous at times.

Considering the abundance of rivers, creeks and marshes which originally existed in the Red River valley, and the richness of the soils in the valley, it is not surprising that many drainage works have been undertaken in the study region since initial settlement in the 1870s. All of the great marshes have now been drained, as well as the vast majority of the smaller sloughs. As well, all of the old blind creeks now appear to be connected to nearby rivers by various drainage canals. Nevertheless, there are several sites which are noteworthy for their portrayal of some of the natural characteristics of the region's drainage and watercourses. Also, each of the regions larger rivers possesses sections of outstanding natural beauty, as well as its own particular natural history. Access points to such riverside areas are few and largely undeveloped. The few that are known to exist should therefore be considered significant.

Sites noteworthy because of their representation of the region's original watercourses:

- 1. Seine River waterway access sites bridge sites; riverside park sites.
- 2. Oak River waterway access sites Ile des Chênes settlement site.
- 3. Rat River Waterway access sites Senkiw bridge location; St. Malo Provincial Park; Gardenton bridge site.
- 4. Roseau River Waterway sites Roseau Rapids; Roseau River Wayside Park

1.4.1 Right: Marshes and Blind Creeks

This map produced by the Dominion Militia Department in 1878 offers a superb view of the natural drainage patterns in the study region, before any drainage projects were undertaken. Note the general NW–SE orientation of the watercourses, with most of the lesser ones ending in marshes, or simply disappearing once they reach the Red River floodplain. The map also accurately shows settlement locations, trails, and the as-yet uncompleted Pembina Branch of the C.P.R. This map is quite unusual in that it does not show either the Parish or Township surveys, yet all natural and cultural features portrayed appear to be quite accurately located, a difficult task without the aid of the survey grid for reference. (Map of Manitoba prepared by the Department of Militia Intelligence Branch of, 1878. Source: Manitoba Historical Atlas, page 482. HRB Map #029.)



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1.4.2 Above: Sloughs and Potholes

This detail of a map printed in 1872 shows the section survey grid and various landscape features in the area near the junction of Joubert Creek and the Rat River, prior to the surveying of the Rat River Settlement and the formation of the community of St. Pierre-Jolys. Note the many small sloughs in the area back from the river courses, out on the open prairie. Also of interest are several short low-lying ridges, possibly surviving remnants of former glacial Lake Agassiz beach deposits, which are rare but not unheard of on the Red River flats. Also noted on the map is the route of the Crow Wing Trail, and the location of several early French Métis homesteads in what would later be known as the La Rochelle area. Note also the 'blind creek' located just to the southeast of the 'Laferrai House', near the bottom of the map. (*Title: Map of the Province of Manitoba Shewing Surveys Effected in 1871 and 1872. Source: PAM # H7 614.1 bj 187 state 1. HRB Map #019.*)



1.4.3 Above: The Red River 'flats'; Greenridge district

Two views of the Red River flats, east of Dominion City, photographed after a day of intense rainfall in June of 2002. The first view (above) looks west towards the Red River from atop the ridgeline, and the other (below) looks east from the flats toward the ridgeline. Despite the presence of several drainage canals in the area, the surface water remained for several days before draining off. Before the construction of the drainage works, the water likely would have remained for most of the summer. (*Photo: Historic Resources Branch.*)

1.0 The Natural Landscape

1.4.4 Seine River Waterway

In it's natural state, the Seine River provided the best example of the ponding effect caused by the extreme flatness of the Red River plain in the study region, as clearly shown on the map below. After exiting the eastern highland area, the river formed not one, but two large permanent marshes, each about 10 km (6 miles) square, before coming together into a stable river channel for a third time, flowing northward and finally joining with the Red River, in what is now downtown Winnipeg. The first of these marshes, which began about 10 km downstream from 'the ridge', was commonly referred as 'The Great Marsh'. Interestingly most early maps of the area, such as the one below, show a narrow, but guite distinct ridge of high ground separating the Great Marsh from an unconnected river channel, located to the north of it, which was fed by a small headwater marsh. This smaller marsh, which was likely fed by underground infiltration from the Great Marsh, was only a short distance north of where the upper Seine entered the Great Marsh, making the job of connecting the two channels, and starving the source of the Great Marsh, a simple matter of dredging a short 5 km (3 mile) drainage ditch. Just such a channel was dug during the early 1880s. A second large marsh, located farther downstream, was similarly drained, by dredging another short canal. Currently, several sections of the Seine River are publicly visible and potentially accessible, because of long sections of roadway which were constructed close to both the north and south banks of the river. None of the other minor watercourses is quite as accessible or visible from area roadways, making the Seine quite unique and significant in this regard.

(Title: Map of Part of Manitoba & the North West Territory published to Illustrate the Regulations for the Disposal of Certain Dominion Lands for the Purpose of the Canadian Pacific Railway, July 9, 1879. Source: PAM # H3 614.1 gbbd 1879 c.1. HRB Map #003.)





1.4.5 Above: Seine River

View of the Seine River near Ste. Anne. The river level in the Ste. Anne area is maintained artificially high for aesthetic purposes by a small dam. (Photo: Historic Resources Branch.)



1.4.6 Above: Seine River Seine River channel. Photo: Historic Resources Branch.)

A view of the connecting channel dug west of Ste. Anne to join the two original unconnected sections of the

1.4.7 Oak River Waterway

The Oak River was also a very interesting waterway. It too, exhibited the ponding effect and created a large marsh. Its channel exited the eastern highlands about 15 km (10 miles) south of the Seine River exit. Although much smaller than the Seine, it too continued to flow in a distinct channel northwest for 10 to12 km (6 to 8 miles), parallel to the course of the Seine, then opened its banks and disappeared into a large permanent marsh, (see Figure 1.4.4). This marsh was located just to the south of the Seine's "Great Marsh', and was separated, in one spot, by a strip of land less than one kilometre wide. On all of the maps located and consulted, except for one, this Oak River marsh had no western outlet connecting it to the Red River. An 1869 map of the Red River plain based on an 1857 map by Hind, (below) shows a long river channel, labeled as the 'Oak River'. flowing through the area between the Seine and the Rat. Most maps, such as Figure 1.4.4, show the Oak River to be a 'blind creek' with no outlet. It is likely that there actually was a shallow channel connecting the marsh with the Red, but water only actually flowed through it in years of high precipitation or during wet cycles. Further evidence to this is suggested by the location of a major drainage canal, the Manning canal, dug years later, which seems to follow the route of the Oak River quite closely. Also, of some interest is the existence of a short 5-km section of river channel beyond the NW point of this marsh. This short section is shown on most maps, and later would become the location of the lle des Chênes 'river-lot settlement', even though the 'river' in question was only 5 km long, and likely was never even regarded a river.

(Map Title: Plan for the Survey of the Red River Plain, 1869. "Rough Diagram, Based on Hind's Map, intended to illustrate Report of this date on Township Surveys - Red River Territory, Ottawa, February 12th, 1870, J. Stougton Dennis, P.L.S." Source: Manitoba Historical Atlas, page 246. Hrb Map #027.)





1.0 The Natural Landscape

1.4.10 Rat River Waterway

Detail from a 1922 Dominion Sectional Map Series (right) showing the Rat River and its two major tributaries, now known as Joubert Creek and the Marsh River. The Rat River has its headwaters in the district south of the Sandilands sand hills and flows in a west-north-westerly direction for 140 km (85 miles) to the Red River. Twenty kilometres (12 miles) back from the junction with the Red River, the Rat River receives the waters of the 20-km long Joubert Creek. It was also known for a time as the East Branch of the Rat River. Just 4 km (2.5 miles) before joining with the Red, the Rat River merges with a second major tributary, the Marsh River. Also known as the 'Rivière aux Marais' and on some maps as the West Branch of the Rat River, this 40 km (25 miles) long watercourse drains the area between the Red and the Rat Rivers, and originates in the open prairie northwest of present-day Arnaud. For almost the entire length of its course, the banks of the Marsh River are low, and as a result it had a reputation during the 1800s and early 1900s as being especially difficult to cross. Many carts and wagons, horses and riders became mired in the mud and soft ground at its margins and crossings. One early map-maker labeled it the "The Treacherous Morass". There apparently were only two places one could cross in relative safety.

Currently, the Rat River exists in a fairly natural state. The riverbanks in the valley continue to be fairly well lined by a belt of willow and woodland. Agriculture has not yet removed very much of the woodland and meadow lining the river in the upland areas. Access and sightlines, however, are fairly sporadic along its length, save perhaps for the St. Pierre-Jolys / St. Malo areas where the roadways tend to parallel the river for some distance. The river is most visible to the general public at St. Malo, where it passes under PTH 59 just south of the community, and at a short distance upstream from there it has been dammed, and developed into a popular man-made lake, provincial park and campground. (Map: Detail from 1922 Sectional Map (Sheet No. 23. Source: Maps & Surveys Branch. HRB Map#035.)

> 1.4.11 Right: View of the 'forks' at the junction of the Rat and Red River Undeveloped and public ally accessible, this site is one of only a few access points along the Rat or Red rivers in the study region. (Photo: Historic Resources Branch.)



1.4.12 Above: The Rat River near St. Pierre-Jolys (Photo: Historic Resources Branch.)

1.4.13 Right: Red River Cart stuck in marshy terrain

The low lying nature of many of the study region's water courses made for difficult crossings in the decades prior to widespread settlement and the construction of bridges and elevated roadways. (Source: Provincial Archives of Manitoba.)









(Photo: Historic Resources Branch.)

1.4.14 above: View of Marsh River from P.R. 205 bridge crossing

1.4.15 Roseau River Waterway

A detail of a 1964 Soil Reconnaissance Survey map (below), provides an interesting view of the Roseau River within the study region. Of particular note is the wider channel within which the river meanders back and forth, in a slow constant process of creating new cutoffs and bends. These subtle river valleys also exist along the other major watercourses in the study region, and typically supported a 'river bottom' treebelt of well-established willow, softwood and hard wood trees. These riverbank treebelts could be seen from long distances on the open prairie. Also, in those few locations where the valley was narrower and the waters more shallow, early travelers in the region found the possibility of crossing the river in a relatively easy and safe manner. One such location was 'Roseau Crossing' the site where Dominion City was later established. The other was Roseau Rapids, where the Crow Wing Trail crossed the Roseau River in two nearby places. Such crossings were major elements of the early cultural landscape of the region, and were highly significant in their day.

Another interesting aspect of the Roseau River is its course. As noted and illustrated earlier, most of the waterways in the study region flow in a northwesterly direction, following the direction of the last glacial ice advance. This direction of water flow is generally maintained throughout the study region, even on the flats of the Red River valley. That is, except for the Roseau River, which after it enters the flat lands, seems not to know in which direction to go. It first flows west, then southwest, then northwest, then turns abruptly and flows straight south, towards its junction with the Red.

The map also clearly shows the presence of a series of narrow ridges along the edge of the eastern uplands, very prominently oriented NW/SE, with creek beds or narrow marshes located between them. Originally these coulees simply spilled their water onto the Red River plain, but by 1964 (when the map was published) all appeared to have been connected by drainage ditches directly into the Roseau River. Note that these drainage canals also following the NW/SE natural lay of the land in this district.

Another noteworthy point concerning the natural aspects of the Roseau River is the deeply cut nature of the channel in several places upstream from the rapids. One particularly notable area is in the area of Senkiw, where cliffs tower 40 to 50 feet above the level of the river. The Roseau River appears to possess an unusually wide variety of interesting riverside environments and sites. Other significant access points include the vicinity of the Senkiw School Suspension Bridge, the crossing at Roseau River of PTH 59, and at Stuartburn and Gardenton. Such public access points are relatively few, and are therefore significant landscape sites. Preserving and providing public assess to such sites undoubtedly would enhance public knowledge of, and appreciation for, the waterway. (Map Title: Soil Reconnaissance. Survey of Manitoba. 1966, Morris Region. Source: PAM H7 614.3 gcac Series 1, Morris 1964. HRB Map #005.)



1.4.18. Right: Roseau River Headwaters

A portion of the first official map of the Province of Manitoba, drawn by A.L. Russell in 1871, showing the full length of the Roseau River and its two upsteam branches, located across the US border in northern Minnesota. (*Map Title: Map of the Province of Manitoba, Febry. 1871. Source: The Historical Atlas of Manitoba, by Warkentin and Ruggles for the Manitoba Historical Society, 1970, page 249, HRB Map #084.*)



1.4.17 Right: Roseau River public access point near Senkiw

This view shows the steep riverbank cliffs located along this section of the Roseau River. This site, near the old Senkiw School suspension bridge, was donated to the R.M. of Franklin and is held as public reserve. (*Photo: Historic Resources Branch.*)



1.0 The Natural Landscape

1.4.16 Left: View of the Roseau River near Dominion City (Photo: Historic Resources Branch.)

