SEINE RIVER GREENWAY: VISION & ACTION PLAN

Reach 1: Red River to Happyland Park

gpparchitecture inc

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Introduction

GPP Architecture was retained by the City of Winnipeg, in partnership with the community group Save Our Seine to develop a Vision and Action Plan for the portion of the Seine River Corridor, defined as Reach 1 and stretching from the Red River to Happyland Park. In acknowledgement that the corridor is more than just the river and its adjacent banks, past studies have viewed the river corridor as a *Greenway*. In this way the constituent components of land, water, cultural and natural resources are considered as interlocking pieces of a larger whole, rather than isolated entities with little connection to each other.

In its larger context, the Seine River connects to many rural communities to that south east of the province, such as Ste. Anne. Within the city proper, urban development is slowly encroaching on the Seine River corridor and threatens to deplete the natural area. Attention must be given to the unique character of this area and efforts to preserve it natural state.

The Seine River Greenway provides a unique and valued "urban wilderness" heritage to local residents. The action plan, completed in consultation with local stakeholders, seeks to protect, nurture and enhance the Seine River for the enjoyment of present and future generations and prevent exploitation, destruction and neglect of this valuable resource.

According to a 1998 recent survey the City of Winnipeg owns approximately 44% of the total riverbank for that portion of the river between the Red River and the diversion at the Red River Floodway. This level of riverbank ownership has only increased given recent residential development along the southern portion of the greenway.

This is the first of a series of planning studies of the parkland, property and neigbourhoods aligning the Seine River Greenway. Through identification of major goals and objectives the Action Plan will establish a framework for future development along the river. This initial study will focus on that portion of the greenway beginning at the mouth along the Red River and extending south to Happyland Park where the Seine crosses Rue Marion. Subsequent Vision and Action Plans will build on and extend the proposed framework for development.

Methodology

The methodology, which was geared to the specific needs of the client and the project, broke the formation of the Vision and resulting Action Plan down into a series of clearly defineable stages and constituent steps. This clearly identifies aspects of planning, preparation, set-up, review and reporting leading to the production of the final report.
The Seine River Vision and Action Plan included the following stages:

A. Existing Conditions/Review of Past Studies and Current Plans:

- Site Investigation and Assessment of existing conditions, opportunities and constraints within the study area.
- Interviews with Parks Superintendent and Urban Designer/Landscape Architect.
- Confirmation of priorities with City of Winnipeg and Save Our Seine Group (SOS).
- Review of Seine River Greenway Study and all ancillary studies (as many as five identified to date). Summarize finding and direction from these. Draw design direction from these and apply to site mapping in order to create composite map incorporating the directives emanating from all previous studies.
- Review of upcoming projects that Client group may be planning (rail bridge improvements, etc.)
- Prepare and deliver summary report and preliminary study boards of findings.

B. Stakeholder Consultation:

- Initial meeting(s) with Project Steering Committee comprised of City staff and SOS members to clarify keys steps and deliverables, identify potential stakeholders and partners and define stakeholder consultation process. From this process, at the Client's suggestion, we may widen the circle of potential development partners.
- Identify stakeholder groups and identify appropriate forum to meet groups based upon level of ownership. Interviews and/or focus group consultation with key resident and non-resident stakeholders and partners including S.O.S., Festival du Voyageur, trails/paddling groups, Old St. Boniface Residents Association, Enterprise Riel, local area residents, local businesses/industries backing onto the Seine River, Maison Gabrielle Roy, etc.
- Interviews/meeting with relevant City staff including, City Naturalist, Parks Superintendent, Waterways Engineer, Urban Designer and others as defined by the Project Steering Committee.
- Compilation of stakeholder feedback and facilitation of additional Planning/Visioning Session(s) to confirm key priorities and opportunities for the Vision Plan.
- Prepare and deliver summary report and preliminary study boards of findings.

C. Vision and Action Plan:

- Development of a comprehensive Vision Plan for the study area, based on stakeholder feedback and direction from the Project Steering Committee.
- Present same to all stakeholder groups for feedback. Identify potential development partners and partnerships.
- Based upon feedback, make final adjustments to boards, and prepare final documents.
- Meet with the groups and undertake ranking exercise that will help determine priorities, schedule, achievability and partnerships.
- Prepare summary report, concept plans and conceptual sketches as well as list of priorities.

Goals, Objectives and Purpose

The purpose of the Vision is not to provide yet another study for an area that has been extensively over-studied. It is to create as consensus driven document, which represents the will and direction of all of the affected area stakeholders; be they government, industry, residents or volunteers that all have a stake in the sound and progressive development of this highly cherished area. It is not a list of projects that are to be undertaken by the City of Winnipeg, but rather an open invitation to all participants to create partnerships that will assure the longterm stable and sustainable development of the area.

These partnerships will champion each project and find the person-power and funding to see these projects become a reality. This Vision will identify local champions and be used as a promotional tool to seek out other funding opportunities.

Geographic Location

Figure 1. Geographic Location of study area and larger Seine River Valley.

The study area is located east of downtown Winnipeg, along the Seine River Valley in the neighbourhood of St.Boniface. (Fig 1) Beginning in the north where the Seine flows into the Red River near Whittier Park the study area extends southward to Happyland Park where the Seine river crosses rue Marion. Its lateral boundaries are defined by Archibald to the East and des Meurons to the West. Though contained within the neighbourhood of St.Boniface, the study area includes or touches on several communities along either side of the river. The Seine River itself is a slow flowing and extensively meandering river. Depending on how its river corridor is treated and "developed" the river can either connect or divide these communities. Semi-formal walking trails and bike paths currently exist along portions of the backs on either side of the river.

Containing many historic elements, it is rich in francophone and métis history and culture. The fastest growing residential community in Winnipeg at present surround the river to the south. Urban development is slowly encroching on the Seine River corridor, and threatens to deplete the natural area. Proposed residential development will soon surround the river up to the river up to the perimiter.

In its larger context, the Seine River connects to many rural communities in the south east of the province, such as Ste. Anne. Many of these communities are studying the potential recreational aspect of the river as tourist lickages to Winnipeg. It is therefore important to keep in mind that the study area is part of a large river valley, both within Winnipeg and southern eastern Manitoba.

Historical Overview

The Seine River is an unassuming tributary to the larger and more well know Red River. Its history can be divided into two periods; pre- and post settlement. Its river valley traditionally provided an excellent wildlife habitat because of the diverse environments afforded by it. Prior to settlement in the area, it had a relative importance as a supplier of game for native hunters. Subsequent to settlement the river valley was exposed to a series of interventions. Drainage ditches, bridges, agricultural cultivation and urban settlement all contributed to changes to the river basin, the flow of the river and the river itself. The most recent and dramatic of these was the construction of the Red River Floodway in 1967.

While no significant archeological pre-settlement sites have been discovered along the river, anecdotal evidence of Aboriginal presence in the area does exist. In the early part of the Nineteenth Century, lands given to Roman Catholic Church encompassed the greenway. This was to form the basis of the community that has come to be known as St. Boniface. As a result several historically and culturally significant sites, pertaining to early settle and growth of the area, exist adjacent or in close proximity to the Seine River; as abundant as those along the larger Red River. The concentration of these is higher in the areas of the river valley addressed by the vision than in other portions of the river further upstream to the south. Both individually and collectively they offer opportunities for development, transforming the river into a corridor linking the various heritage resources and re-uniting individuals with both the past and the river.

For a listing of sites along with their specific locations refer to the Historic Sites Map (map 1). Some of the more noteable of these are:

Jean-Baptiste Lagimodiére/Marie-Anne Gaboury Homestead.
The foundation of the Canadien-Métis or francophone community by the Lagimodieres and their extended families is strongly identified with the north end of the Seine River valley in the immediate vicinity along the Seine River (Fig. 2). Many of their descendents went on to become farmers and establish a permanent community along the Seine River.

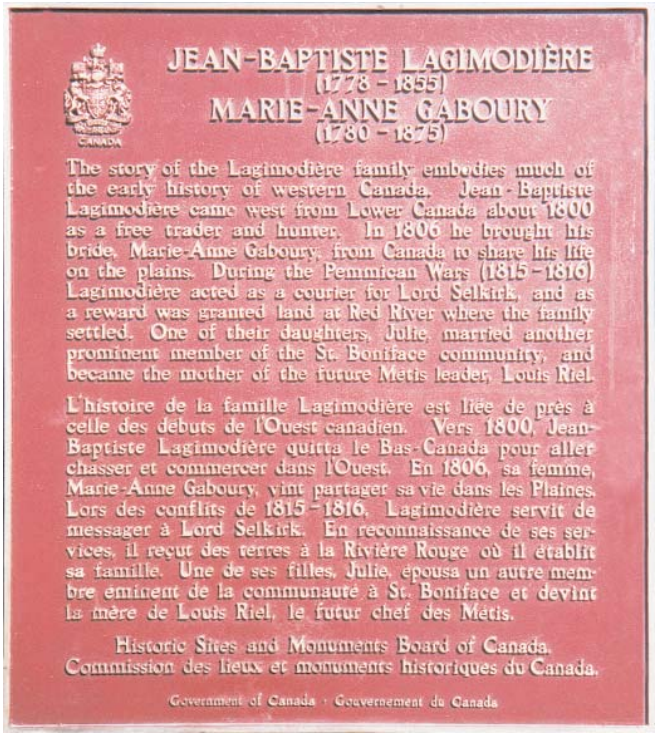


Figure 2: Parks Canada plaque installed at the Lagimodiére/Gaboury Homestead

Historical Overview

Gabrielle Roy family home (Figure 3)
Considered the first female novelist of *Québécois literature*, Gabrielle Roy was a writer of international stature and recognition. Her writings immortalized the rue Deschambault, the street on which she was born and raised. Her first novel Bohneur d'occasion earned her France's prestigious Prix Fémina.

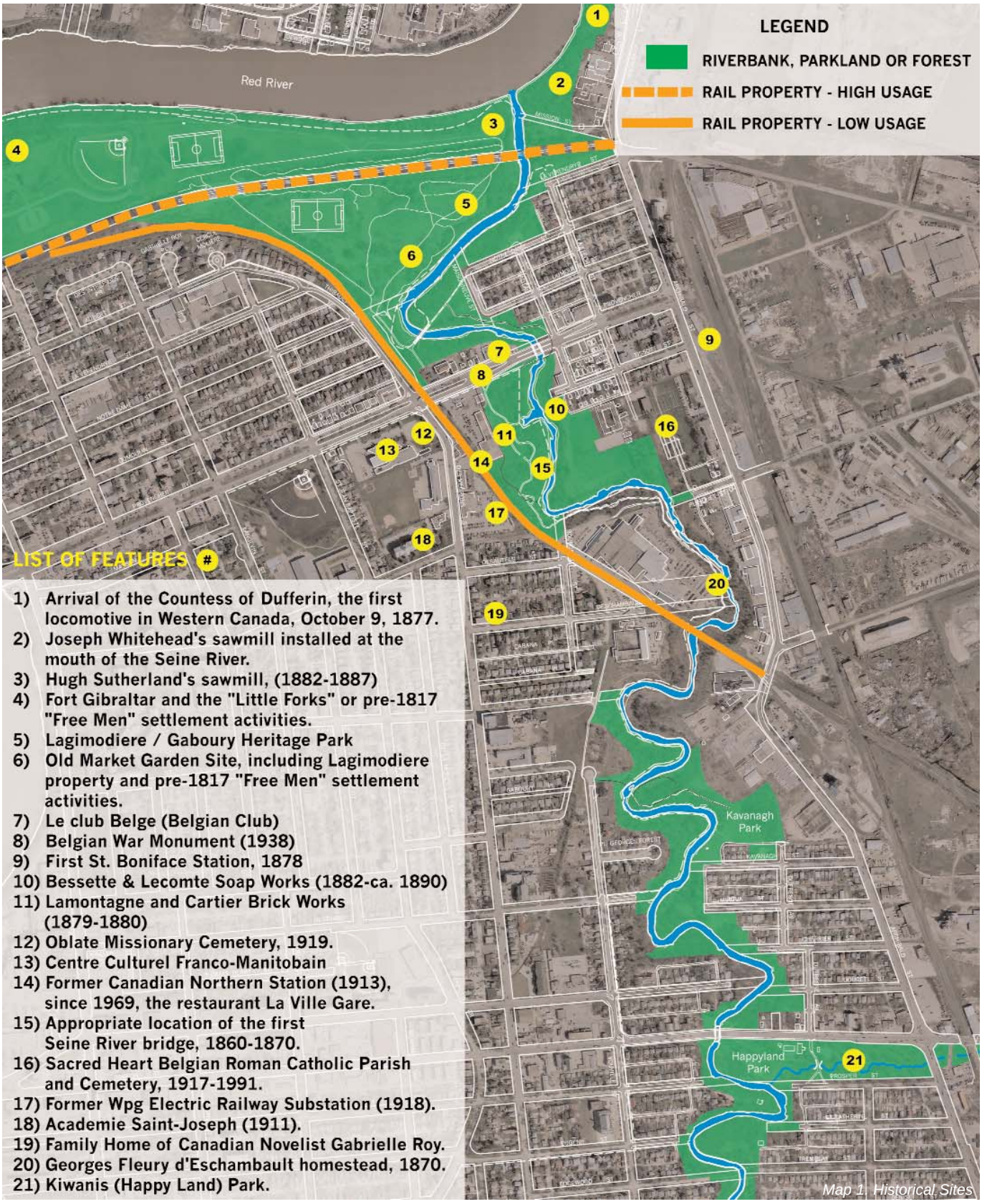
Figure 3. The family home of Gabrielle Roy at 375 rue Deschambault

Sacred Heart Belgian Roman Catholic Cemetary
Representative of the early pioneers that settled in the surrounding neighbourhood, the cemetary and (now demolished) parish church answered the spiritual needs of the Flemish immigrants and their descendents. The markers within the cemetary provide a physical record of the early Belgian peoples that arrived in this area.

The areas along both sides of the river have experienced urbanization and development as St. Boniface and Winnipeg grew and expanded. Though the Seine River has not been spared from the negative impacts of development, elements of its natural beauty still remain. Rejuvenation of this greenway into a sustainable "urban wilderness" within the City of Winnipeg remains an achievable goal. One that if achieved has the potential to become one of the most beautiful and valued landscapes within the City of Winnipeg.[1]

[1] *Seine River Study; Final Report of Seine River Task Force*, P10

Historical Sites



Map 1: Historical Sites

Ownership of the riverbank within the study area varies considerable. North of Provencher, the City of Winnipeg owns almost all of the land adjacent to the river. Though no heritage trees have been identified in this area, approximately half of the land in this area is considered to be high quality habitat. Five sites have been identified as Wildlife Enhancement and Vegetation Restoration Areas.[1] The riverbank adjacent to the Belgian Club (located along the north side of Provencher) has been negatively impacted by its parking lot along the river. Previous filling operations when the land was used for market gardening have created complex and steep riverbanks. One major riverbank failure has occurred in this area. The area hosts nine identifiable historic sites, of which Lagimodière/Gaboury Homestead is the most notable, in addition to countless others, related to the settlement's early history. History remains a potent source for future development.

South of Provencher city ownership of riverbank lands falls to only about 25%. This is entirely comprised by Kavanagh Park; the only city owned park in this segment. Large portions on the east side of the river are zoned and occupied by industrial use. The most notable of these is the IKO site, which is slated for an environmental clean-up affecting both riverbanks along the site. The remaining lands are comprised of institutional and detached residential developments. Land use on the westside of the river is similar, thought the percentage of residential or planned residential development is higher. Should the industrials relocate, new residential developments are planned for these lands.

Though the majority of the riverbank is privately owned, much of this area can be accessed by means of existing unofficial trails. No formal easements at present exist with the owners of these lands. Less that 10% of the riverbank are considered to be of high quality habitat. Fifteen Wildlife Enhancement and Vegetation Restoration areas have been identified and eight possible heritage trees have been located.[2] Seven riverbank failures have been identified and a significant failure at Kavanagh St. has been rectified.

Significant portions of the riverbank have been previously built-up with concrete rubble to allow greater site development and reduce erosion due to flooding. As a result of S.O.S.'s efforts some of these materials have been removed. Their complete removal, dependant of the available funds, is essential to improve river navigation and prevent blockage of the river.

For owners of riverbank property, their property line along the shore typically extends the "high waterline". Many owners do not know this and instead believe their property extend all the way down to the river. The land between the river waters and there property line is owned by the city. When an area is being developed for a residential development the C.O.W. is obligated to buy along the riverbank up to the high waterline at the set rate of $15,000.00/acre. In Winnipeg, five to ten acres of riverbank properties are acquired every year by the city through this process.

As previously mentions industrial development along the Seine River has damaged or destroyed the natural habitat. The most notable of these within the current study area is the IKO site located along the river's east bank. The site is highly contaminated. An environmental remediation of the site is scheduled to begin 2007 and will involve both sides of the river. As part of this work, the river will experience significant disruption with the flow of the river temporarily redirected around the remediation area. This ironically provides a significant opportunity for upgrading the riverbank.

Many of the current river crossings, both vehicular and pedestrian, interfere with navigation of the river. All new bridges are to conform to new guidelines put in place by the city. These require all new bridges not to interfere with recreational navigation of the river.

Habitat Restoration

As noted above, significant portions of high quality habitat, suitable for supporting wildlife, exist along portions of the river. Preservation of these areas and restoration of lands impacted by previous development are key to the action plan's success. The natural habitat will draw local wildlife. These in turn will be a draw to users; encouraging them to hike, cycle or canoe the length of what will be known as the Greenway.

The success of any greenway requires the continuity of the natural habitat along its entire length. Gaps and breaks in the habitat isolate the greenway into discreet pockets and prevent or discourage the migration of wildlife along its length. Until recently, the typical city park was comprised of manicured lawns, clipped hedges and possible addition of floral plantings. This approach eliminated or excluded use of indigenous plant species sought by wildlife. For this reason the greenway needs to be expanded; gaps filled in; damaged lands restored.

The city has adopted a policy of naturalization, which encourages the planting and return of native grasses, shrubs, trees and wildflowers. In essence, naturalization encourages the return of prairie grasslands, woodlands or wetlands native to Winnipeg, restoring habitat sought by local wildlife. Naturalization can be either passive or active. Passive naturalization returns an area to its natural state by decreasing or eliminating mowing of the area, allowing the indigenous species to return over time. Active naturalization is the reintroduction of native species into a selected area. To educate the public concerning the concept the city has produced some information materials on the subject. It may need to be expanded or more highly publicised, else the public may interpret these conditions as a lack and civic maintenance rather than good environmental policy.

The width of a greenway has an importance similar to that of the continuity along its length. Not all plants and wildlife require the same habitat width. For some it can be rather narrow. Others require a more significant width, without which they cannot reside in the area regardless of the quality of the habitat. The City of Winnipeg has identified the preferred width of the greenway to be 350 feet. In most cases this cannot be achieved due to existing development. However, as part of the naturalization process it should be sought wherever possible.

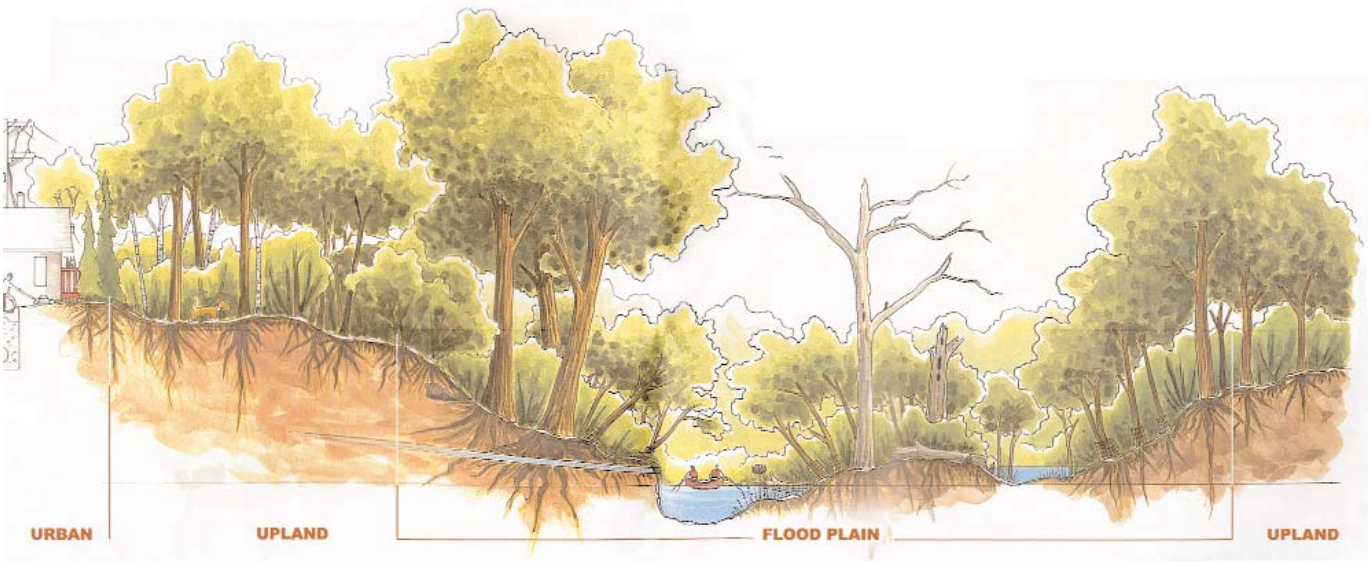


Figure 4. River habitat comprised of the river, its immediate riverbanks and the adjacent uplands.

Trails

A series of formal and informal river trails align portions of the study area. These trails are predominately, though not exclusively, located along the west side of the Seine River. Both pedestrians and cyclists utilize the trials, though some of the more isolated sections tend to experience less usage. The more informal portions of the trials, which run close to the river and tend to be surrounded by woodlands, need periodic attention to avoid becoming overgrown. Where this occurs it tends to preclude use of the trials except by for the most hardy. Such conditions also tend to feed into concerns about safety, which further discourage use of the trail system. A responsive maintenance program is important to encourage and promote the public's use of the trail system. This could be a role for Save Our Seine in the context of a regular maintenance agreement with the City of Winnipeg.

The absence of trails along the east bank, the limited number of river crossing points and the low level of city ownership along the east side generally precludes public use on this side of the river. Additional river crossing points and obtainment by the city of either ownership or public easements for additional trails would be required to alter this situation. Residents along the eastside have been cool to such suggestions, preferring the isolation of their current situation. However this situation also precludes the residents' use of the trail system to the west. As the city has already done elsewhere, it may be possible to renovate the existing railway bridge at Deschambault to include a pedestrian crossing. A crossing at this location though removed from the Tissot and Dufresne enclaves provides an additional crossing point at the approximate mid-point between the other existing crossing at Provencher and Marion.

Pedestrian crossing of Provencher, adjacent to where it meets the Seine River, is a hazard due to the speed and volume of vehicular traffic along this artery and discourage potential trial users crossing from one side to the other. Installation of a crosswalk or some alternative means is required to alleviate this situation.

Expansion of these trails has been proposed by groups such as Prairie Pathfinder. Expansion would see the trail system extended along the Red River to Whitter Park and the incorporation of winter trails for cross country skiing, ensuring year round usage. Connection to the Trans Canada Trial and proposed bike path along the CPR Marconi line are also being planned for.

Trail Safety

There are two main categories affecting trail safety: Physical Character and City By-laws. Physical character includes trail surface, grading, trail maintenance, fencing (need to see through), entrance and exits, signage and lighting (in terms of visibility and admission of natural light). Where as City By-laws controls hours of use (dusk-til-dawn), presence of open fires, By-law enforcement, and contact authorities.

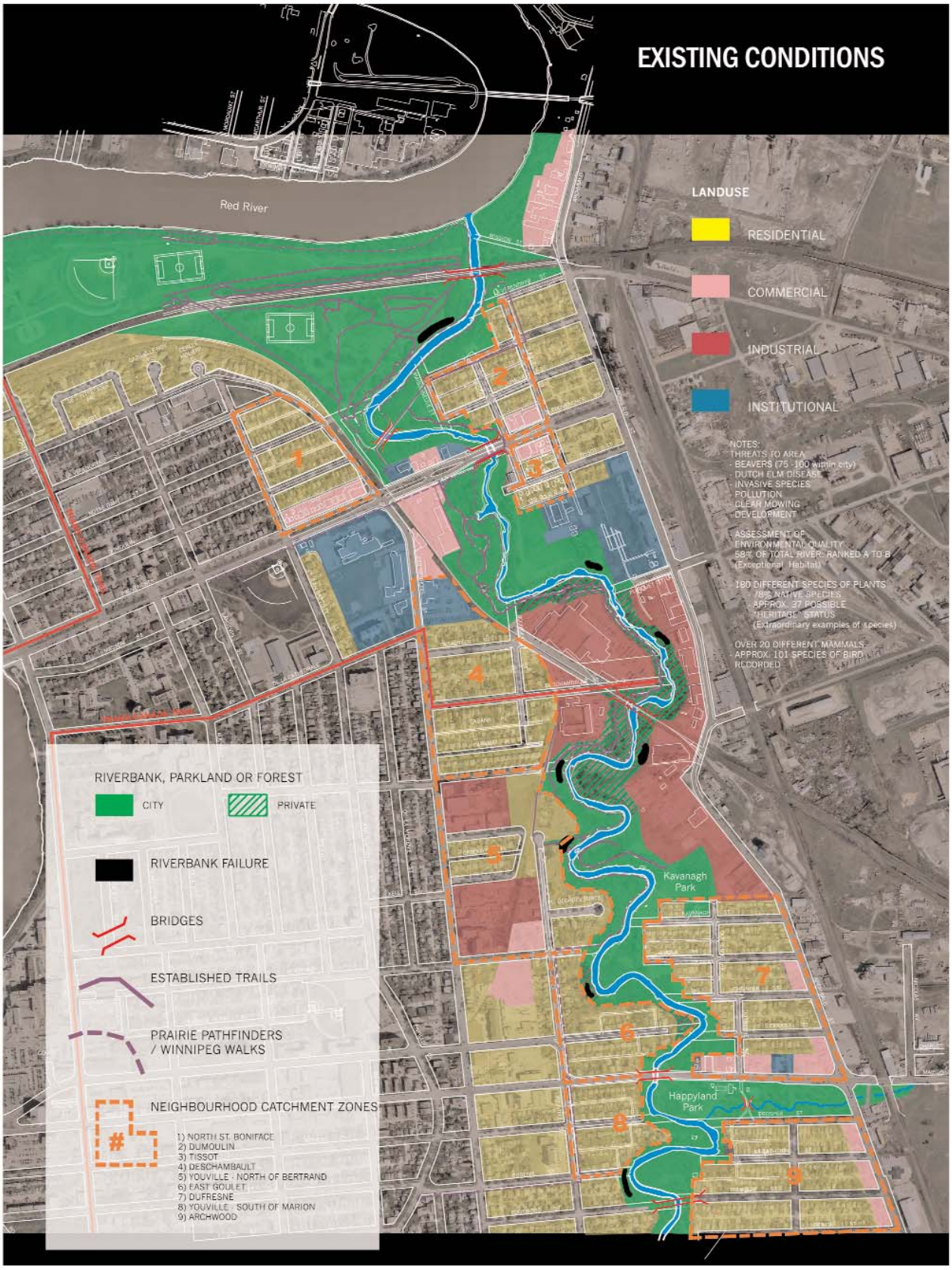
For reasons of safety, pedestrian and bike trails may wish to avoid long unbroken and secluded segments, with limited access points, and blind corners. These can make users feel vulnerable and discourages their use of the trails. Visual or active supervision of the trials is also a key concern, especially for the protection of female users.

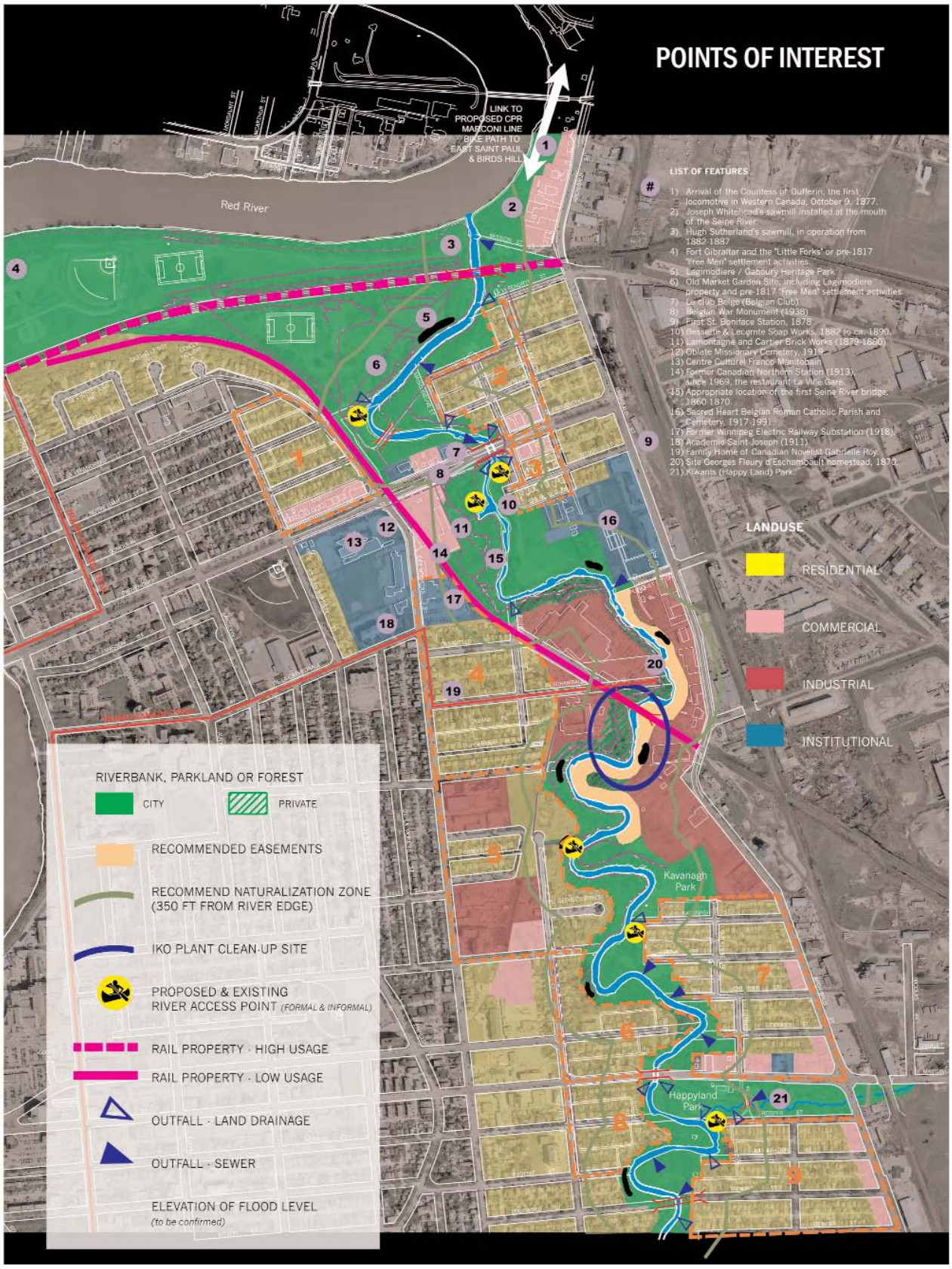
New trails should be located to leave certain areas (such as river points) undisturbed and instead provide small spur lines in place of the main trail through these areas. This can help to improve site lines for users, which also improves safety.

Lighting along trails and related areas is a key consideration with respect to user safety. Fixture selection and lighting levels need careful consideration. Light fixtures need to be durable and resistant to vandalism. Illumination levels need to be high enough for user safety, but not so bright as to scare away wildlife.

1 *Seine River Study; Final Report of Seine River Task Force*, P55

2 Ibid, P58


EXISTING CONDITIONS
Red River
LANDUSE
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
INSTITUTIONAL
NOTES:
THREATS TO AREA
- BEAVERS (75 -100 within city)
- DUTCH ELM DISEASE
- INVASIVE SPECIES
- POLLUTION
- CLEAN MOWING
- DEVELOPMENT
ASSESSMENT OF ENVIRONMENTAL QUALITY
58% OF TOTAL RIVER: RANKED A TO B (Exceptional Habitat)
180 DIFFERENT SPECIES OF PLANTS
- 78% NATIVE SPECIES
- APPROX. 37 POSSIBLE "HERITAGE" STATUS (Extraordinary examples of species)
OVER 20 DIFFERENT MAMMALS
- APPROX. 101 SPECIES OF BIRD RECORDED
RIVERBANK, PARKLAND OR FOREST
CITY
PRIVATE
RIVERBANK FAILURE
BRIDGES
ESTABLISHED TRAILS
PRAIRIE PATHFINDERS / WINNIPEG WALKS
NEIGHBOURHOOD CATCHMENT ZONES
1) NORTH ST. BONIFACE
2) DUMOULIN
3) TISSOT
4) DESCHAMBAULT
5) YOUVILLE - NORTH OF BERTRAND
6) EAST GOULET
7) DUFRESNE
8) YOUVILLE - SOUTH OF MARION
9) ARCHWOOD
Kavanagh Park
Happyland Park


POINTS OF INTEREST
LINK TO PROPOSED CPR MARCONI LINE BIKE PATH TO EAST SAINT PAUL & BIRDS HILL
Red River
LIST OF FEATURES
1) Arrival of the Countess of Dufferin, the first locomotive in Western Canada, October 9, 1877.
2) Joseph Whitehead's sawmill installed at the mouth of the Seine River.
3) Hugh Sutherland's sawmill, in operation from 1882-1887.
4) Fort Gibraltar and the "Little Forks" or pre-1817 "Tree Men" settlement activities.
5) Lagimodiere / Gaboury Heritage Park.
6) Old Market Garden Site, including Lagimodiere property and pre-1817 "tree Men" settlement activities.
7) Le Club Belge (Belgian Club).
8) Belgian War Monument (1938).
9) First St. Boniface Station, 1878.
10) Bessette & Lecomte Soap Works, 1882 to ca. 1890.
11) Lamontagne and Cartier Brick Works (1879-1880).
12) Oblate Missionary Cemetery, 1919-.
13) Centre Culturel Franco-Manitobain.
14) Former Canadian Northern Station (1913), since 1969, the restaurant La Vieille Gare.
15) Appropriate location of the first Seine River bridge, 1860-1870.
16) Sacred Heart Belgian Roman Catholic Parish and Cemetery, 1917-1991.
17) Former Winnipeg Electric Railway Substation (1918).
18) Academie Saint-Joseph (1911).
19) Family Home of Canadian Novelist Gabrielle Roy.
20) Site Georges Fleury d'Eschambault homestead, 1870.
21) Kiwanis (Happy Land) Park.
LANDUSE
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
INSTITUTIONAL
RIVERBANK, PARKLAND OR FOREST
CITY
PRIVATE
RECOMMENDED EASEMENTS
RECOMMEND NATURALIZATION ZONE (350 FT FROM RIVER EDGE)
IKO PLANT CLEAN-UP SITE
PROPOSED & EXISTING RIVER ACCESS POINT (FORMAL & INFORMAL)
RAIL PROPERTY - HIGH USAGE
RAIL PROPERTY - LOW USAGE
OUTFALL - LAND DRAINAGE
OUTFALL - SEWER
ELEVATION OF FLOOD LEVEL (to be confirmed)
Kavanagh Park
Happyland Park

Challenges to Greenway Habitat

The Seine River Greenway is faced by a variety of challenges, both nature and man-made, which threaten the health and sustainability of the river, its adjacent riverbanks and immediate uplands. Each of these offers unique and serious challenges to the long-term health and sustainability of the river. Where possible some initial steps have been taken, however more is required to adequately address the threats posed.

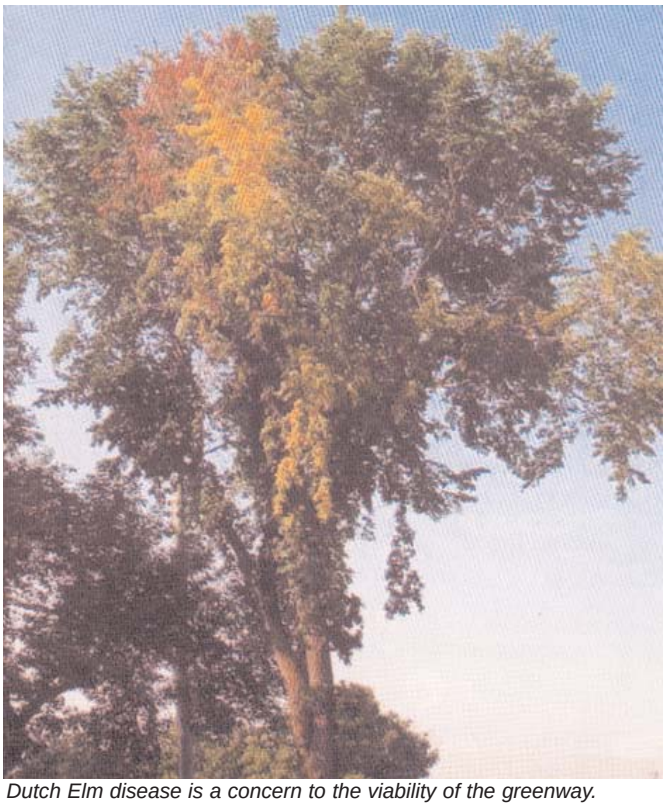
Beavers

It is estimated at present there are between 50-100 beavers along the Seine River Greenway. The absence of natural predators from the area has removed natural checks and balances on the beaver population, allowing it to continue to grow. The current beaver population in the greenway takes a heavy toll on the mature trees lining the banks of the river, which are felled by them for construction of their dams and dens. The problem this poses is significant and rated from moderate to high in importance with respect the success and health of the greenway.

The canopies of mature trees in addition to providing shade and habitat for other animals in the greenway, help to stabilize the riverbanks and protect it from erosion. Removal of large numbers of mature trees therefore negatively impacts the greenway and the animal habitat it can provide. Planting of new young trees, though important, does not immediately make-up for the loss of older mature trees. This can only be remedied by time.

Wrapping the base of trees with stucco wire is an effective means of protecting them against beavers. Community volunteers have undertaken the wrapping of older mature trees; approximately one hundred fifty have been wrapped so far. An audit of the area's trees is needed to identify those of significance requiring immediate protection. However, given the overall length of the Seine River Greenway and the number of trees that would need to be wrapped, this is not a practical solution to the problem. Simply dismantling beaver dams is no solution either. Rather it causes the destruction of additional trees as beavers construct new dams. An updated estimate on the beaver population is required for an accurate picture on the extent of the problem. At present removal of beavers through discrete trapping is the only effective of alleviating this problem.

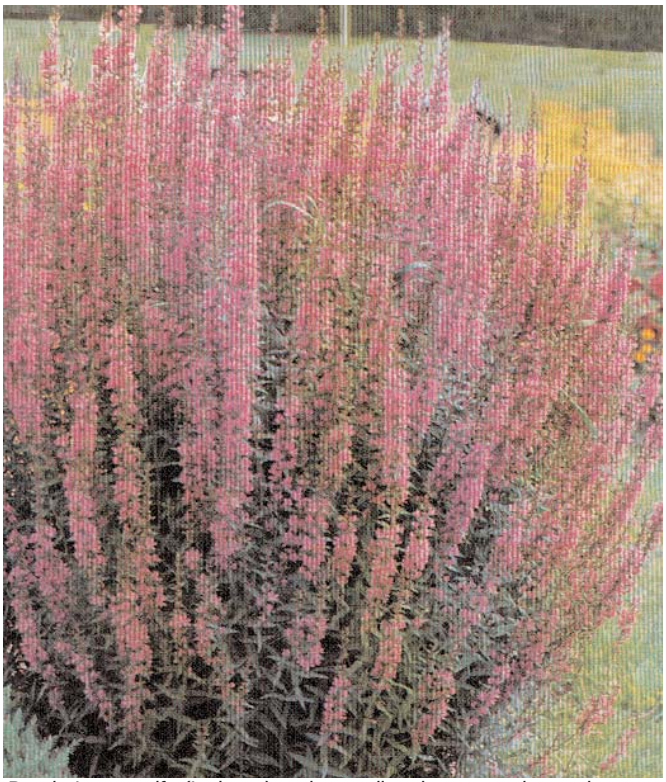
Challenges to Greenway Habitat



Dutch Elm disease is a concern to the viability of the greenway.

Dutch Elm Disease

Dutch elm disease is a major environmental concern for the greenway. Though chemical treatments do exist for protecting uninfected trees, these are expensive and difficult to administer on a large scale. At present, there is no treatment or cure for trees infected with the disease. Removal of infected wood is the only means of addressing the problem. Early detection of infection is therefore critical to containing the spread of the disease. Preventative measures such as tree banding by volunteers has been carried out in the past. To be effective such measures require an on going effort, both for the banding of trees in mid-September and removal of the bands in mid-May. The city of Winnipeg has assisted through the public information campaigns. Reliance on volunteers for on going tree banding may prove problematic as the greenway expands in size.



Purple Loosestrife (Lythrum) replaces all native vegetation and destroys wetlands areas.

Invasive Species

The preservation and restoration of existing natural habitat is challenged by invasive species, such as Purple Loosestrife and European Buckthorn. As they are foreign to the region, there are no native insects to check their advance. The hardiness of such species typically makes it difficult, though not impossible, to eradicate them from infected areas once they become established. Where public resource are not available, local volunteers can be used to respond these problems. The City of Winnipeg and Ducks Unlimited Canada have published information pamphlets to make groups aware both of the problem and the proper corrective approaches.

European Buckthorn has taken over large tracks of riparian forest.

Challenges to Greenway Habitat

Development

New development along the greenway needs to be carried out in such a way as to avoid further damage to river habitat. Where new development along the river must occur, it needs to be done as sensitively as possible and should ideally take place on previously developed lands. In this way the potential negative impact is minimized.

Riverbank Stabilization

Several locations within the current study area and along the length of the greenway show signs of riverbank failure. This is a result of natural erosion of the bank over time. Riverbank restoration efforts are involve and expensive undertakings. Efforts to stabilize the riverbank against failure have been undertaken by means of active tree planting programs.

Challenges to Greenway Habitat

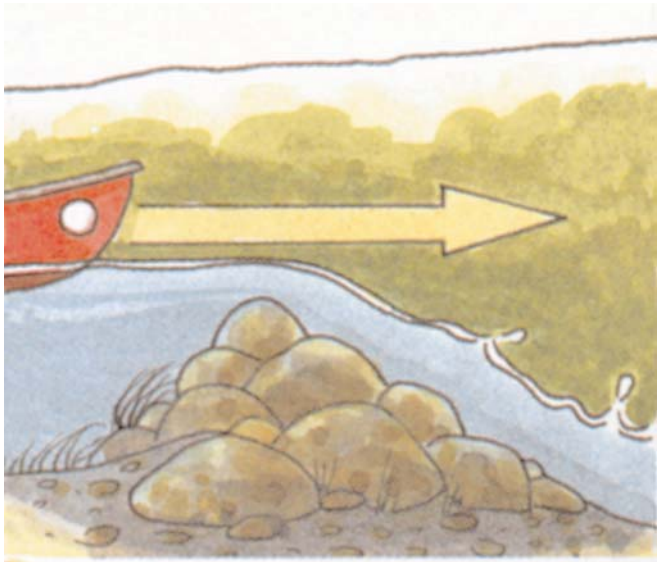


Figure 5: The stone structures of riffles act like dams, making a higher water level upstream of the structure.

Water Management

Maintaining a minimal water level in the Seine River for navigation by canoes and small boats is problematic at present. The diversion of waters from the Seine River Basin for economic development and local flooding protection has negatively impacted the river's water level and quality. During years with low precipitation the river running dry and river habitat and fish populations suffer. The diversion of water largely takes place outside of the city, beyond the jurisdiction of the municipal government. Efforts to change existing diversions require support from the provincial government and need to be pursued if the water conditions in the river are to be further improved.

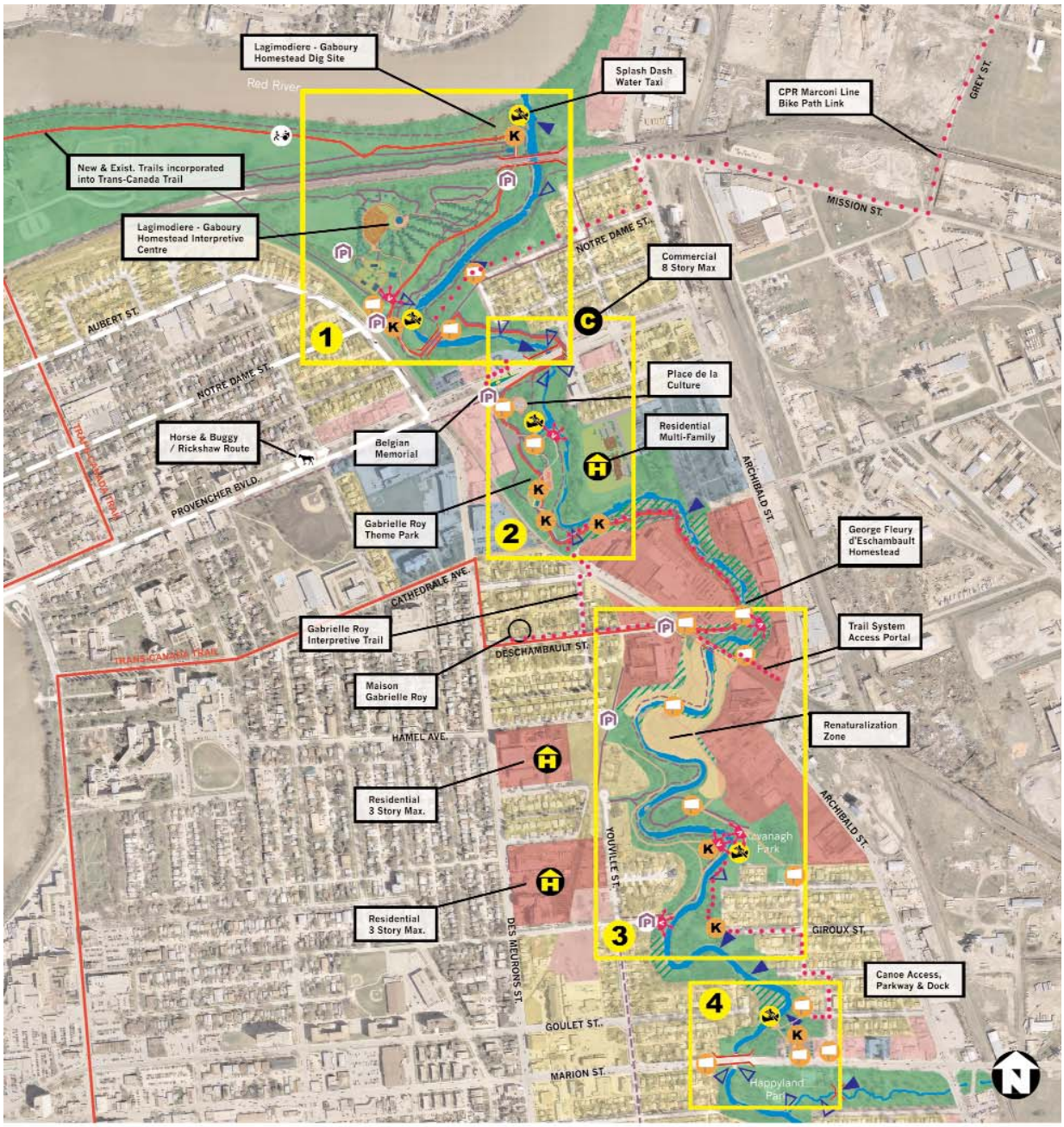
The community group Save Our Seine, with the support of government, has organized the construction of riffles in the river in response to this situation. (Fig. 5) Riffles are artificial stone structures that act as dams and mimic the effect of rapids. (Fig. 6) In this way they help to raise river water levels, dissolve oxygen into the water and provide a continuous migration route for fish. (Fig. 7) The deeper pools of water created by the riffles have lower water temperatures creating better fish habitat. Expansion of the riffle system is to proceed as resources become available. Save Our Seine has also proposed nine additional artificial spawning beds for the improvement of subsurface habitat.

Figure 6: Although water is squeezed through the stone riffles, they allows fish to pass up or down stream.

Figure 7: By disturbing the surface of the river, riffles add dissolved oxygen to the water.

Seine River Greenway: Vision & Action Plan

Reach 1: Red River to Happyland Park



GENERAL OVERALL IMPROVEMENTS

Riverbank stability

River clean-up

Riverflow improvements (riffles)

Improve trail condition
- Maintenance
- Universal accessibility
- Lighting
- Security
- Portals into Greenway
- Formalized Canoe Launches

Increased winter activity
- Festival du Voyageur events
- Dog Sledding
- Snow shoe, Cross country skiing, Ice skating rental kiosks

SYMBOL LEGEND

- River Point Access
- Bridges
- Established (Formal) Trails
- Prarie Pathfinders, *Winnipeg Walks* (Informal) Trails
- Trans-Canada Trail (including Boni-Vital Parkway & Seine River Greenway)
- Vistas / Lookouts

SYMBOL LEGEND

- New Paths / Trails
- Greenway Entrance Portal
- Kiosks
- Housing
- Commercial
- Horse & Buggy Route
- Rickshaw Route

SYMBOL LEGEND

- Signage
- Outfalls Drainage / Sewer
- Easments

FOCUS AREAS

1) Lagimodiere-Gaboury Park
2) Gabrielle Roy Park
3) Post Industrial
4) North Marion Street

ZONE LEGEND

- Greenspace
- Residential
- Commercial
- Institutional
- Industrial

Seine River Greenway: Vision & Action Plan

Reach 1: Focus Area 1 - Lagimodiere-Gaboury Park

SYMBOL LEGEND

- Buildings
- Fence
- Vistas / Lookouts
- Entrance Portal
- Kiosks
- Signage
- River Access
- Bridge

SYMBOL LEGEND

- New Paths
- Trans-Canada Trail (including Boni-Vital Parkway & Seine River Greenway)
- CPR Marconi Line Bike Path Link to Birds Hill
- Horse & Buggy Route
- Rickshaw Route

NOTE LEGEND

1.1 Lagimodière-Gaboury Protected Archeological Dig Site with Reasearch & Storage Building

- Riel Senior Homestead
- Regiment Saint-Boniface
- Metis Settlement
- Heritage Intepretation
- Dig Site Programing

1.2 Splash-Dash Water Taxi

- Only arrivial point for Splash-Dash on Seine River. Comes with canoe mapping & Seine River mapping as well as storage kiosk.

1.3 Lagimodière-Gaboury Interpretive Park

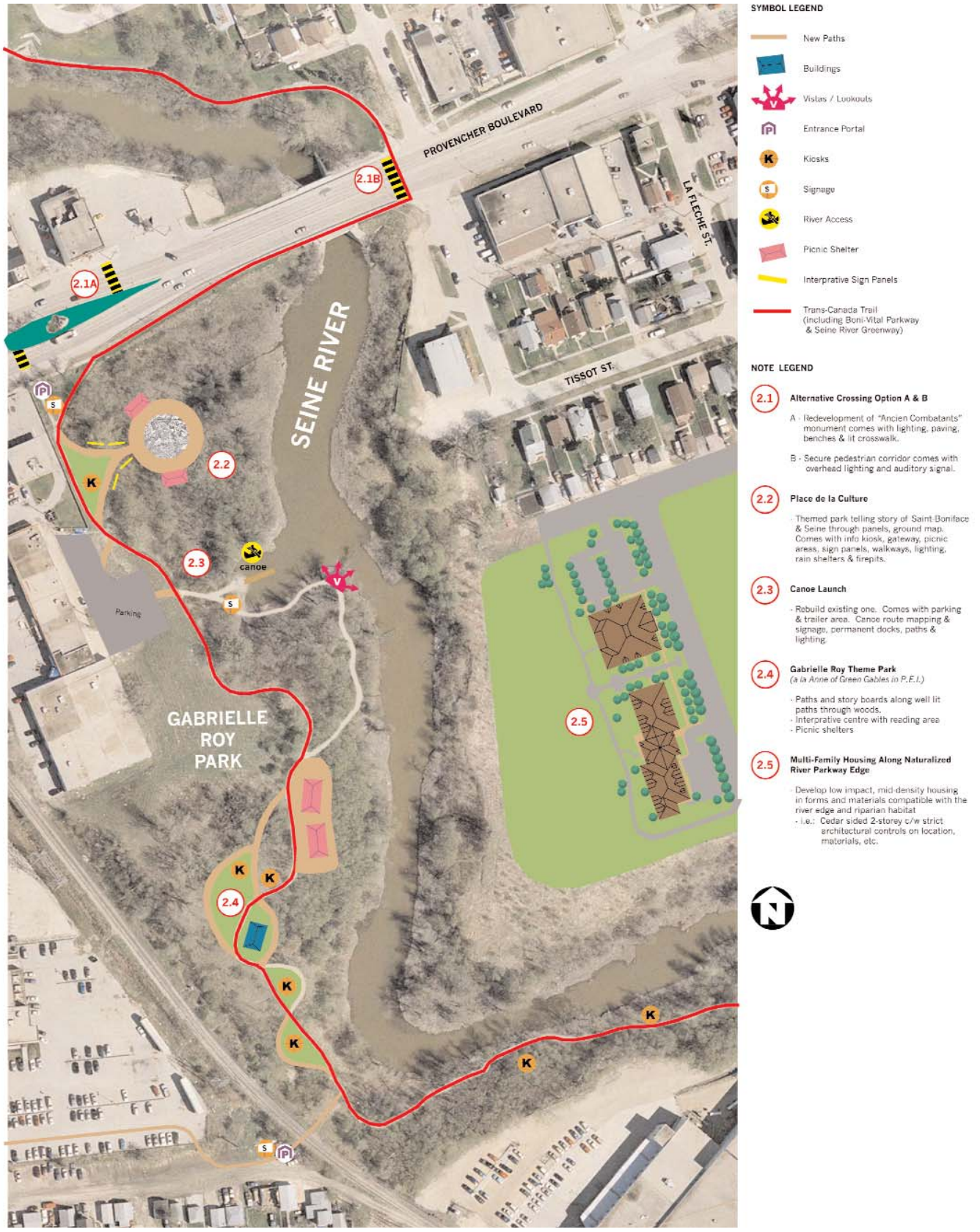
- Thematic recreation of a typical French-Canadian Red River Valley farm settlement.
- Interpretive Centre at gateway to exposition farmyard.
- Recreation of typical farm yard with interactive displays, sign-boards, crop samples, sheds and auditory features.
- Lagimodiere-Gaboury hilltop belvedere with educational walking path to summit. From summit you see the "Lotissement" land award system typical to area complete with agricultural display, native & crop species.

1.4 Trans-Canada Trail

- New & existing Seine River Greenway & Boni-Vital Parkway trail system links to and becomes part of the Trans-Canada Trail.

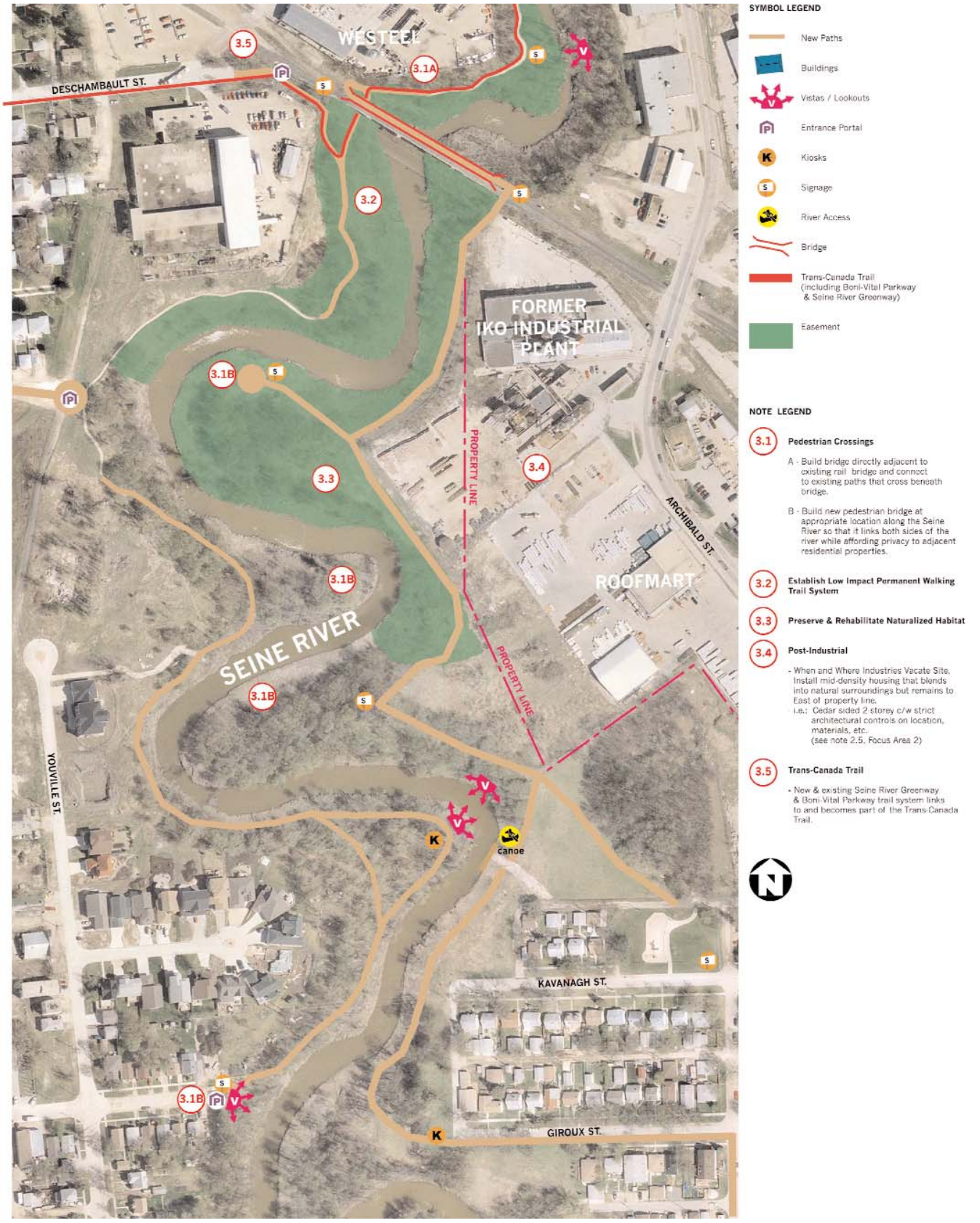
Seine River Greenway: Vision & Action Plan

Reach 1: Focus Area 2 - Gabrielle Roy Park



Seine River Greenway: Vision & Action Plan

Reach 1: Focus Area 3 - Post Industrial



Seine River Greenway: Vision & Action Plan

Reach 1: Focus Area 4 - North Marion Street

SYMBOL LEGEND

- New Paths
- Buildings
- Vistas / Lookouts
- Entrance Portal
- Kiosks
- Signage
- River Access
- Picnic Shelter

NOTE LEGEND

4.1 **Continuation of New Path to its Terminus at the Marion Street Canoe Parking Area**

4.2 **Develop Existing City Owned Lot into Canoe & Trailer Parking Site**

- Comes with permanent dock, signage, lighting, kioske, rain/sun shelter for preperation of canoeing equipment and picnic activities.

Literature Review

Publications; Studies:
Riverbank Stability Characterization Study of the Seine River in Winnipeg, MB (1994)

An assessment of Vegetation and Wildlife Habitat Quality for the SEINE RIVER PARKWAY (1995)

The Seine River Corridor: its history and suggestions for its interpretation (1995)

Hydrological and Hydraulic Modeling of Flows and Levels of the Seine River. (1996)

Seine River Study; Final Report of Seine River Task force (1998)

Seine River Greenway Study, (2000)

Seine River Stability Characterization, (1994)

An assessment of vegetation and wildlife habitat quality for the Seine River Parkway, (1995)

Hydrological and hydraulic modeling of flows and levels of the Seine River (1996)

Seine River Interpretive Trail; A feasibility and design study, (1995)

Seine River Park Study, (1980)

Bois des Esprits Park Plan, (2001)

IPEG 2020 Vision, City of Winnipeg

Lagimodière-Gaboury Homestead; Master Plan and First Phase of Development (1999)

Crime prevention through environmental design, City of Victoria, Amended 2004

Publications; InformationPamphlets:
Dutch Elm Disease, Province of Manitoba
European Buckthorn, City of Winnipeg
Health tips for Healthy Streams, Government of Canada
Purple Loosestrife in Western Canada, Ducks Unlimited Canada
Tree Banding, City of Winnipeg

Books:
How Parkways Work: A Handbook on Ecology by Janathan Labaree, 1992

Websites:
How Greenways Work:
www.americantrails.org

City of Winnipeg; Public Works – Naturalization in Winnipeg:
www.winnipeg.ca/publicworks/parks/Naturalization.asp

Waterfront Living; Safeguard your Health and Wealth:
www.livingbywater.ca

National Trials training Partnership:
www.americantrails.org/resources/greenways/NPSintroGrnwy.html

Save Our Seine:
www.saveourseine.com

Manitoba Clean Water Guide; Manitoba: Environment Water Quality Management Section.
www.gov.mb.ca/waterstewardship/index.html?water_guide/toc.html

Appendix A:
Exit Survey Summary; Final Vision and Action Plan

Below is the summary of the opinions and preferences expressed with regard to the questions asked

Which projects are of most interest to you? (indicate by title, board or item number)?
(x1) 1.2 Splash-Dash Water Taxi
(x1) 1.3 Lagimodière-Gaboury Interpretive Park

(x2) 2.1 Provencher Pedestrian Crossing
(x1) 2.2 Place de la Culture
(x1) 2.3 Provencher Canoe Launch
(x5) 2.4 Gabrielle Roy Theme Park

(x2) 3.1 Pedestrian Crossing Bridge
(x2) 3.2 Low Impact Permanent Trail System
(x2) 3.3 Preserve & Rehabilitate naturalized Habitat
(x1) 3.4 Post Industrial Housing Infill

(x3) 4.2 Marion Street Canoe Launch

Do you have any concerns with any of the projects proposed? If so, which ones and why?
(x1) 2.4 Suitable portal & parking for Gabrielle-Roy Park
(x1) 2.5 Encroachment of Residential Development

(x3) 3.1 Proper consultation process critical, needs resolution through stakeholders working together, unspecific crossing siting

Proper access for canoes & kayaks

Consistent, unique and aesthetically pleasing signage

Developing long and short-term Vision Plan

What would be your three most important projects for implementation in the 2007 construction season?
(x1) 1.2 Splash-Dash Water Taxi
(x2) 1.3 Lagimodière-Gaboury Interpretive Perk

(x2) 2.1 Provencher Pedestrian Crossing
(x3) 2.3 Provencher Canoe Launch
(x5) 2.4 Gabrielle-Roy Theme Park

(x2) 3.1 Pedestrian Bridge Crossing
(x1) 3.2 Low Impact Permanent Walking Trail System

(x4) 4.2 Marion Street Canoe Launch

How would/could you like to see yourself or your group participating in the projects that you have priorized? Have you planned to contribute labour, or funds to the project?
Dufresne Residents Group – Dufresne Residents Brief – Contribute labour.

Maison Gabrielle-Roy – Literary Path & Park development – Can contribute funds granted through Winnipeg Foundation to completing Business Plan. Future funding for built elements may be forthcoming.

Northern Soul Wilderness Adventures – Various Canoe Projects – Can contribute knowledge, input for paddlers, design for boat launches.

Save Our Seine – various Projects along Seine – Can contribute Fundraising and funds, expertise & knowledge, promotion of events, activities & initiatives.

Do you have any ongoing or proposed projects that should be considered within this Vision plan?
Dufresne Residents Group – see Dufresne Residents Brief submitted to City of Winnipeg

Maison Gabrielle Roy – G-R literary walking tour in St-Boniface should be part pf Vision

SOS – IKO site restoration & dirt bike jumping park at Lagimodière-Gaboury Park

Appendix B:
Seine River Greenway: Reach 1; Summary Report

Table of Contents

Introduction

GPP Architecture was retained by the City of Winnipeg, on behalf of the community group Save Our Seine to develop a Vision and Action Plan for the portion of the Seine River Corridor, defined as Reach 1 and stretching from the Red River to Happyland Park. In acknowledgement that the corridor is more than just the river and its adjacent banks, past studies have viewed the river corridor as a *Greenway*. In this way the constituent components of land, water, cultural and natural resources are considered as interlocking pieces of a larger whole, rather than isolated entities with little connection to each other.

The Seine River Greenway provides a unique and valued "urban wilderness" heritage to local residents. The action plan to be completed, in consultation with local stakeholders, will seek to protect, nurture and enhance the Seine River for the enjoyment of present and future generations and prevent exploitation, destruction and neglect of this valuable resource.

According to a 1998 recent survey the City of Winnipeg owns approximately 44% of the total riverbank for that portion of the river between the Red River and the diversion at the Red River Floodway. This level of riverbank ownership has only increased given recent residential development along the southern portion of the greenway.

This is the first of a series of planning studies of the parkland, property and neigbourhoods aligning the Seine River Greenway. Through identification of major goals and objectives the Action Plan will construct a framework for future development along the river. This initial study will focus on that portion of the greenway beginning at the mouth along the Red River and extending south to Happyland Park where the Seine crosses Rue Marion. Subsequent Vision and Action Plans will build on and extend the proposed framework for development.

Goals and Objectives

The ultimate goal of the immediate study is to enhance the connection from Whitter Park, at the river's mouth, to Happyland Park to the south. Initial development will establish a heart for the overall project that will be extended overtime.

Develop next a "kit of parts" that can be used with subsequent phases of the planning study to tie the entire Vision together. This is the key to creating this connection.

Putting in place measures and strategies that counter existing threats (both natural and manmade) to the natural habitat along the river.

Fostering a sustainable natural landscape, with plant species natural to the region.

Striking a balance between the needs of people, plants and wildlife along the river. To mutually enriched and attract people and economic development while ensuring a natural habitat and cultural landscape of high quality for future generations.

Methodology

As a prelude to more extensive public and stakeholder consultation a preliminary information gathering exercise was conducted, drawing on previous studies and available base information for the area in question as well as through interviews with key representatives from Save Our Seine and the City of Winnipeg.

The process included identification of project goals and objectives, gathering of topological, typological and hydrological information and identification of potential stakeholders and partners (from the public and private sectors).

A summary of the findings from this process was assembled from which preliminary study boards were created. These were used to reconfirm the findings and direction with the key representatives. What follows is a summary report of the collected findings.

Findings Summary

Historic over view of Seine River Study Area

The Seine River is an unassuming tributary to the larger and more well know Red River. The Seine River valley traditionally provided an excellent wildlife habitat because of the diversity of environment it afforded. Prior to settlement in the area, it had a relative importance as a supplier of game for native hunters. Subsequent to settlement the river valley was exposed to a series of interventions. Drainage ditches, bridges, agricultural cultivation and urban settlement all contributed to changes to the river basin, the flow of the river and the river itself. The most recent and dramatic of these was the construction of the Red River Floodway in 1967.

While no significant archeological pre-settlement sites have been discovered along the river, anecdotal evidence of Aboriginal presence in the area does exist. In the early part of the Nineteenth Century, lands given to Roman Catholic Church encompassed the greenway. This was to form the basis of the community that has come to be known as St. Boniface. As a result several historically and culturally significant sites, pertaining to early settle and growth of the area, exist adjacent or in close proximity to the Seine River. The concentration of these is higher in the areas addressed by the current study than in other portions further upstream. They offer opportunities for development, re-uniting individuals with both the past and the river.

The areas along both sides of the river have experienced urbanization and development as St. Boniface and Winnipeg grew and expanded. Though the Seine River has not been spared from the negative impacts of development, elements of its natural beauty still remain. Rejuvenation of this greenway into a sustainable "urban wilderness" within the City of Winnipeg remains an achievable goal. One that if achieved has the potential to become one of the most beautiful and valued landscapes within the City of Winnipeg.[1]

Existing Context

Ownership of the riverbank within the study area varies considerable. North of Provencher, the City of Winnipeg owns almost all of the land adjacent to the river. Though no heritage trees have been identified in this area, approximately half of the land in this area is considered to be high quality habitat. Five sites have been identified as Wildlife Enhancement and Vegetation Restoration Areas.[2] The riverbank adjacent to the Belgian Club (located along the north side of Provencher) has been negatively impacted by its parking lot along the river. Previous filling operations when the land was used for market gardening have created complex and steep riverbanks. One major riverbank failure has occurred in this area. The area hosts nine identifiable historic sites, of which Lagimodière/Gaboury Homestead is the most notable, in addition to countless others, related to the settlement's early history. History remains a potent source for future development.

South of Provencher city ownership of riverbank lands falls to only about 25%. This is entirely comprised by Kavanagh Park; the only city owned park in this segment. Large portions on the east side of the river are zoned and occupied by industrial use. The most notable of these is the IKO site, which is slated for an environmental clean-up affecting both riverbanks along the site. The remaining lands are comprised of institutional and detached residential developments. Land use on the westside of the river is similar, thought the percentage of residential or planned residential development is higher. Should the industrials relocate, new residential developments are planned for these lands.

Though the majority of the riverbank is privately owned, much of this area can be accessed by means of existing unofficial trails. No formal easements at present exist with the owners of these lands. Less that 10% of the riverbank are considered to be of high quality habitat. Fifteen Wildlife Enhancement and Vegetation Restoration areas have been identified and eight possible heritage trees have been located.[3] Seven riverbank failures have been identified and a significant failure at Kavanagh St. has been rectified.

Significant portions of the riverbank have been previously built-up with concrete rubble to allow greater site development and reduce erosion due to flooding. As a result of S.O.S.'s efforts some of these materials have been removed. Their complete removal, dependant of the available funds, is essential to improve river navigation and prevent blockage of the river.

For owners of riverbank property, their property line along the shore typically extends the "high waterline". Many owners do not know this and instead believe their property extend all the way down to the river. The land between the river waters

and there property line is owned by the city. When an area is being developed for a residential development the C.O.W. is obligated to buy along the riverbank up to the high waterline at the set rate of $15,000.00/acre. In Winnipeg, five to ten acres of riverbank properties are acquired every year by the city through this process.

As previously mentions industrial development along the Seine River has damaged or destroyed the natural habitat. The most notable of these within the current study area is the IKO site located along the river's east bank. The site is highly contaminated. An environmental remediation of the site is scheduled to begin 2007 and will involve both sides of the river. As part of this work, the river will experience significant disruption with the flow of the river temporarily redirected around the remediation area. This ironically provides a significant opportunity for upgrading the riverbank.

Many of the current river crossings, both vehicular and pedestrian, interfere with navigation of the river. All new bridges are to conform to new guidelines put in place by the city. These require all new bridges not to interfere with recreational navigation of the river.

Habitat restoration

As noted above, significant portions of high quality habitat, suitable for supporting wildlife, exist along portions of the river. Preservation of these areas and restoration of lands impacted by previous development are key to the action plan's success. The natural habitat will draw local wildlife. These in turn will be a draw to users; encouraging them to hike, cycle or canoe the length of what will be known as the Greenway.

The success of any greenway requires the continuity of the natural habitat along its entire length. Gaps and breaks in the habitat isolate the greenway into discreet pockets and prevent or discourage the migration of wildlife along its length. Until recently, the typical city park was comprised of manicured lawns, clipped hedges and possible addition of floral plantings. This approach eliminated or excluded use of indigenous plant species sought by wildlife. For this reason the greenway needs to be expanded; gaps filled in; damaged lands restored.

The city has adopted a policy of naturalization, which encourages the planting and return of native grasses, shrubs, trees and wildflowers. In essence, naturalization encourages the return of prairie grasslands, woodlands or wetlands native to Winnipeg, restoring habitat sought by local wildlife. Naturalization can be either passive or active. Passive naturalization returns an area to its natural state by decreasing or eliminating mowing of the area, allowing the indigenous species to return over time. Active naturalization is the reintroduction of native species into a selected area. To educate the public concerning the concept the city has produced some information materials on the subject. It may need to be expanded or more highly publicised, else the public may interpret these conditions as a lack and civic maintenance rather than good environmental policy.

The width of a greenway has an importance similar to that of the continuity along its length. Not all plants and wildlife require the same habitat width. For some it can be rather narrow. Others require a more significant width, without which they cannot reside in the area regardless of the quality of the habitat. The City of Winnipeg has identified the preferred width of the greenway to be 350 feet. In most cases this cannot be achieved due to existing development. However, as part of the naturalization process it should be sought wherever possible.

Trails

A series of formal and informal river trails align portions of the study area. These trails are predominately, though not exclusively, located along the west side of the Seine River. Both pedestrians and cyclists utilize the trials, though some of the more isolated sections tend to experience less usage. The more informal portions of the trials, which run close to the river and tend to be surrounded by woodlands, need periodic attention to avoid becoming overgrown. Where this occurs it tends to preclude use of the trials except by for the most hardy. Such conditions also tend to feed into concerns about safety, which further discourage use of the trail system. A responsive maintenance program is important to encourage and promote the public's use of the trail system. This could be a role for Save Our Seine in the context of a regular maintenance agreement with the City of Winnipeg.

The absence of trails along the east bank, the limited number of river crossing points and the low level of city ownership along the east side generally precludes public use on this side of the river. Additional river crossing points and obtainment by the city of either ownership or public easements for

additional trails would be required to alter this situation. Residents along the eastside have been cool to such suggestions, preferring the isolation of their current situation. However this situation also precludes the residents' use of the trail system to the west. As the city has already done elsewhere, it may be possible to renovate the existing railway bridge at Deschambault to include a pedestrian crossing. A crossing at this location though removed from the Tissot and Dufresne enclaves provides an additional crossing point at the approximate mid-point between the other existing crossing at Provencher and Marion.

Pedestrian crossing of Provencher, adjacent to where it meets the Seine River, is a hazard due to the speed and volume of vehicular traffic along this artery and discourage potential trial users crossing from one side to the other. Installation of a crosswalk or some alternative means is required to alleviate this situation.

Expansion of these trails has been proposed by groups such as Prairie Pathfinder. Expansion would see the trail system extended along the Red River to Whitter Park and the incorporation of winter trails for cross country skiing, ensuring year round usage. Connection to the Trans Canada Trial and proposed bike path along the CPR Marconi line are also being planned for.

Trail Safety

There are two main categories affecting trail safety: Physical Character and City By-laws. Physical character includes trail surface, grading, trail maintenance, fencing (need to see through), entrance and exits, signage and lighting (in terms of visibility and admission of natural light). Where as City By-laws controls hours of use (dusk-til-dawn), presence of open fires, By-law enforcement, and contact authorities.

For reasons of safety, pedestrian and bike trails may wish to avoid long unbroken and secluded segments, with limited access points, and blind corners. These can make users feel vulnerable and discourages their use of the trails. Visual or active supervision of the trials is also a key concern, especially for the protection of female users.

New trails should be located to leave certain areas (such as river points) undisturbed and instead provide small spur lines in place of the main trail through these areas. This can help to improve site lines for users, which also improves safety.

Lighting along trails and related areas is a key consideration with respect to user safety. Fixture selection and lighting levels need careful consideration. Light fixtures need to be durable and resistant to vandalism. Illumination levels need to be high enough for user safety, but not so bright as to scare away wildlife.

Existing Challenges to Greenway Habitat

The Seine River Greenway is faced by a variety of challenges, both nature and man-made, which threaten the health and sustainability of the river, its adjacent riverbanks and immediate uplands. Each of these offers unique and serious challenges to the long-term health and sustainability of the river. Where possible some initial steps have been taken, however more is required to adequately address the threats posed.

Beavers

It is estimated at present there are between 50-100 beavers along the Seine River Greenway. The absence of natural predators from the area has removed natural checks and balances on the beaver population, allowing it to continue to grow. The current beaver population in the greenway takes a heavy toll on the mature trees lining the banks of the river, which are felled by them for construction of their dams and dens. The problem this poses is significant and rated from moderate to high in importance with respect the success and health of the greenway.

The canopies of mature trees in addition to providing shade and habitat for other animals in the greenway, help to stabilize the riverbanks and protect it from erosion. Removal of large numbers of mature trees therefore negatively impacts the greenway and the animal habitat it can provide. Planting of new young trees, though important, does not immediately make-up for the loss of older mature trees. This can only be remedied by time.

Wrapping the base of trees with stucco wire is an effective means of protecting them against beavers. Community volunteers have undertaken the wrapping of older mature trees; approximately one hundred fifty have been wrapped so far. An audit of the area's trees is needed to identify those of significance requiring immediate protection. However, given the overall length of the Seine River Greenway and the number of trees that would need to be wrapped, this is not a practical solution to the problem. Simply dismantling beaver dams is no solution either. Rather it causes the destruction of additional trees as beavers construct new dams. An updated estimate on the beaver population is required for an accurate picture on the extent of the problem. At present removal of beavers through discrete trapping is the only effective of alleviating this problem.

Dutch Elm Disease

Dutch elm disease is a major environmental concern for the greenway. Though chemical treatments do exist for protecting uninfected trees, these are expensive and difficult to administer on a large scale. At present, there is no treatment or cure for trees infected with the disease. Removal of infected wood is the only means of addressing the problem. Early detection of infection is therefore critical to containing the spread of the disease. Preventative measures such as tree banding by volunteers has been carried out in the past. To be effective such measures require an on going effort, both for the banding of trees in mid-September and removal of the bands in mid-May. The city of Winnipeg has assisted through the public information campaigns. Reliance on volunteers for on going tree banding may prove problematic as the greenway expands in size.

Invasive Species

The preservation and restoration of existing natural habitat is challenged by invasive species, such as Purple Loosestrife and European Buckthorn. As they are foreign to the region, there are no native insects to check their advance. The hardiness of such species typically makes it difficult, though not impossible, to eradicate them from infected areas once they become established. Where public resource are not available, local volunteers can be used to respond these problems. The City of Winnipeg and Ducks Unlimited Canada have published information pamphlets to make groups aware both of the problem and the proper corrective approaches.

Development

New development along the greenway needs to be carried out in such a way as to avoid further damage to river habitat. Where new development along the river must occur, it needs to be done as sensitively as possible and should ideally take place on previously developed lands. In this way the potential negative impact is minimized.

Riverbank Stabilization

Several locations within the current study area and along the length of the greenway show signs of riverbank failure. This is a result of natural erosion of the bank over time. Riverbank restoration efforts are involve and expensive undertakings. Efforts to stabilize the riverbank against failure have been

undertaken by means of active tree planting programs.

Water Management

Maintaining a minimal water level in the Seine River for navigation by canoes and small boats is problematic at present. The diversion of waters from the Seine River Basin for economic development and local flooding protection has negatively impacted the river's water level and quality. During years with low precipitation the river running dry and river habitat and fish populations suffer. The diversion of water largely takes place outside of the city, beyond the jurisdiction of the municipal government. Efforts to change existing diversions require support from the provincial government.

The community group Save Our Seine, with the support of government, has organized the construction of riffles in the river in response to this situation. Riffles are artificial stone structures that act as dams and mimic the effect of rapids. In this way they help to raise river water levels, dissolve oxygen into the water and provide a continuous migration route for fish. The deeper pools of water created by the riffles have lower water temperatures for better fish habitat. Expansion of the riffle system is to proceed as resources become available. Save Our Seine has also proposed nine additional artificial spawning beds for the improvement of subsurface habitat.

Opportunities for Development

All Visions and Action Plans rely on the interest and involvement of stakeholders and the building momentum to realize its implementation. The sooner a vision garners interest and support, the sooner it is likely to achieve completion. The same can be expected for the Seine River Greenway. It is important to identify and capitalize on opportunities to attract stakeholder interest. The Seine River Greenway in general and the area of Old St. Boniface addressed by the current study in particular offer some unique opportunities to do so.

Every February Old St. Boniface plays host to the Festival du Voyageur winter festival. Outdoor events for the festival are typically focused around Fort Gibraltar's facilities in Whittier Park, west of the Seine greenway, along the Red River. Select festival events held along or adjacent to the greenway, such as the annual dog sled races, could serve to raise public awareness of its presence and interest in its sustainability and development.

St. Boniface has historically been home to the city's Franco-Manitoban community, pre-dating the City of Winnipeg in its current entity. The community's coming Bicentennial will offer an opportunity to highlight the presence of St. Boniface within Winnipeg and spotlight the unique qualities of the greenway, especially at its intersection with the commercial strip of Boulevard Provencher.

Mention has also already been made of the presence of several culturally and historically significant sites along the greenway. The most notable of which is the Parc Lagimodière Gaboury. These sites offer potential points of departure for future development of park and interpretive facilities. Visitors drawn to them may then explore and appreciate the beauty of the Seine River.

An additional opportunity exists where lands are in the hands of industrial owners. The possibility of approaching such owners to discuss th potential of their selling their lands along the riverbank to the city should be examined further. Should these business choose to relocate sometime in the future selling of these lands for residential development would be a natural outcome. By the selling of this land to the city, these landowners may realize savings in property tax and insurance premiums. As these lands enter into the city's possession, the size and continuity of the public reserve along the river increases, making the creation of established trails along the river more achievable.

Glossary

Save Our Seine

A community based stewardship group whose mandate is to protect, preserve and enhance the Seine River Environment within the City of Winnipeg

Greenway

A linear open space connecting parks, nature preserves, and cultural and historical sites with each other, and with developed, populated areas. The greenway may contain formal elements to provide alternative transportation routes for pedestrians and bicyclists, or it may be total undeveloped.

Naturalization

The process of encouraging a landscape to return to natural state-prairie grasslands, wildflowers, wetlands and forests native to its region.

Literature Review

List of reports, studies, publications and websites reviewed as part of the information gathering process:

Seine River Greenway Study, 2000

Seine River Stability Characterization, 1994

Hydrological and hydraulic modeling of flows and levels of the Seine River, 1996

An assessment of vegetation and wildlife habitat quality for the Seine River Parkway, 1995

Seine River Interpretive Trail; A feasibility and design study, 1995

Seine River Park Study, 1980

Bois des Esprits Park Plan, 2001

IPEG 2020 Vision, City of Winnipeg,

Crime prevention through environmental design, City of Victoria, Amended 2004

City of Winnipeg; Public Works – Naturalization in Winnipeg

www.winnipeg.ca/publicworks/parks/Naturalization.asp

Waterfront Living; Safeguard your Health and Wealth

www.livingbywater.ca

National Trials training Partnership

www.americantrails.org/resources/greenways/NPSintroGrnwy.html

Save Our Seine

www.saveourseine.com

Pamphlets:

Dutch Elm Disease, Province of Manitoba

European Buckthorn, City of Winnipeg

Health tips for Healthy Streams, Government of Canada

Purple Loosestrife in Western Canada, Ducks Unlimited Canada

Tree Banding, City of Winnipeg

List of Stakeholders

The following is a list of organizations and governmental departments identified as stakeholders that will be asked to feedback as part of the Vision process used to formulate an Action Plan.

Principal Stakeholders

Save Our Seine

City of Winnipeg:

- *Planning, Property and Development Dept*
- *Water and Waste Dept.*
- *Riverbank Management Dept*
- *City Forestry Dept.*
- *City Naturalist*
- *Parks and Recreation*
- *Comm Services Dept. – Splash Dash Water Taxi*

Government Representatives (Federal, Provincial and Municipal)

St. Boniface Residents Association

Additional Stakeholders

Festival du Voyageur;

Entreprises Riel;

CDEM;

IKO;

Societe·Franco·Manitobaine;

Union nationale métisse Saint-Joseph du Manitoba;

Belgian Club

Norwood Grove Biz

Masion Grabielle Roy

Winnipeg Trial Association

Prairie Pathfinders

Paddle Manitoba

Marion School

Northern Soul Wilderness Adventure

Winnipeg Urban Angler Partnership

Manitoba Organization of Disc Sports

Shakespeare in the Ruins

Appendix C:
Exit Survey; Summary of Stakeholder Feedback

Strengths of the Seine River Greenway (attributes, features, etc)

Nature: High quality riparian environment within urban setting
Diverse animal and plant life
Improved cleanliness

Trails: Ideal walking/hiking paths
Promotes physical activity and family participation
Scenic commute to downtown

History Rich in French-Canadian and Metis Culture

Water ActivityCanoeing

Weaknesses of the Seine River Greenway (what is lacking to meet its potential)

Pollution: Open sewers
Raw sewage
Garbage Contamination/litter

Restricted areas Too much private property restricting access to river (C.O.W. to purchase)
Disjointed trail system (nimby)
No safe rail crossings
Not enough river crossing points
Not enough portals to trail system/river access

Water Levels Low levels
Not completely navigateable - Mapping
Stagnant

Lack of awareness Presence unknown

Safety Inadequate lighting (trails) (nodes)
Needs "Blue Light" panic alarm
Encourage users – use mile marker postings (Orient and locate)
Presence of homeless

Opportunities of the Seine River Greenway (what elements need to be developed)

Festival du Voyaguer Integrated into winter activities/festivities

History/Culture Trails could contribute to French Canadian interpretation
Link to major Franco-Manitobain sites (Cathedral,
Maison Gabrielle Roy)
Integrate more Belgian-Manitoban history

Bridges Unite communities across river

Improve water levels and flow

Trails Improve access (portals)
Preservation of natural elements
Improve trail quality
Better lighting
Link to other trail systems and to the forks

Rickshaw service

Bonfire pits in formal parks on a site-by-site consideration basis (where to get wood supply)

Threats to the Seine River Greenway (given its sensitive nature, what are the threats or harms that need o be addressed or that will need to be considered in future development)?

Development Industrial – right to water
Commercial – Trucking
Residential – excessive human traffic
Water Floodway diverts too much of the waterflow
Low water levels
Flooding
Lack of money & commitment
Pollution Raw sewage
Crime Vandalism
Vagrancy (loitering/partying/living in woods)
Assault & robberies

Which issue of the project are of particular significance to you?

Trails Long and connected
Accessibility (portals)
Signage
River crossings
Safe rail crossings
Safety (crime-prevention)
Floodway Improved water flow
History Represent Belgian history
Link to Ft Gibralter & Old St. Boniface
Nature Naturalization of developments
Protection of habitat & ecosystem
Clean-up
Canoeing
Residential development

Which items have not been addressed and need to be incorporated into the research?

Crossing Provencher Bvld.
Floodway effects
Waterflow & levels
Accessibility
Naturalization
Signage
Belgian History
Link to Ft. Gibraltar, Old St. Boniface & the Forks
Greenway promotion
Sewage Pollution
Clean-up of industrial waste
NIMBY
Canker worm infestation (no budget – do not do control in natural areas; do not manipulate wildlifecycle; no spraying along the river)

Which initiative that you are aware of should be incorporated into the research
Dog friendly areas so animals are not destroying habitat
Link between East & West side of river
Portal behind IGA

Which projects does your group have in planning that should be incorporated into this study
Discover the Seine in the Winter Hike (10-15 km) – Jan 13, 07 from Hindu Centre, St. Annes Rd
Preservation/Improvement of waterflow
Designated bond fire area
Vehicular access

Appendix D:

Exit Survey Collected Responses; Stakeholder Feedback

October 19, 2006 Vision Session

Respondants:
PP: Prairie Pathfinders Inc., Susan Leathers – 284-1652
Res.Duf: Resident-Dufresne, Will Milne – 233-3150/wmilne@mts.net
SOSsg: Save Our Seine, Suzanne Gessler – 284-7670 suzannegessler@hotmail.com
SOSdv : Save Our Seine, David D. Venema – 256-0341
SOSdd: Save Our Seine, Denis DePape – dadepapi@mts.net
SOSsdg : Save Our Seine, Sandy Gessler – 256-9205
SOStr: Save Our Seine, Tammy Rutherford – 254-5766

Strengths of the Seine River Greenway (attributes, features, etc)
PP
Scale: Small river, very sheltered
Perfect winter walkway
Res-Duf
Viable Habitat for preservation/restoration
SOSsg
French Canadian culture
nature in an urban environment (flora & fauna)
Gets individuals & families active and interested in becoming stewards
SOSdd
High quality riparian area
Paths along Seine
Proximity to historic St. Boniface
Centre of Belgian Manitoba history
Gaboury-Lagimodier Park
Important sites in Metis History
SOSsdg
Contribution to human health, mental & physical
Nice natural beauty
Area for walking, hiking
Wildlife appreciation
SOStr:
Natural habitat – feeling of being in the middle of nowhere

Weaknesses of the Seine River Greenway (what is lacking to meet its potential)
PP
Open storm sewers
Gaps: where private lands are not open to the public
SOSsg
Low water, pollution, developments that do not respect the greenway
SOSdv
Too much private property restricting continuation of trail
SOSdd
Lack of crossing across the river to Archibald
Unsafe rail crossing
No portal to path south of Marion
Lack of awareness of this area in Winnipeg

SOStr:
Sewage runoff – garbage contamination etc. – needs cleaning
Continuation of trails
Waterway not completely navigateable

Opportunities of the Seine River Greenway (what elements need to be developed)
PP
Winter parkway that could be used by Festival du Voyaguer
SOSsg
Plans should contribute to the "French Quarter"
Trails play up the French Canadian culture
Beautiful Bridges
SOSdv
Water levels to be controlled
SOSdd
Interpret history of Belgians in Manitoba, this is the main area where Belgians settled in Winnipeg – Belgian Club, Belgian Church Graveyard, Houses on Desautels
Link to key Franco-Manitoban sites on Cathedrale, Maison Gabrielle –Roy
River crossing around George Forest
SOSsdg
Historic Sites
Natural features
Trail access points
SOStr:
Trails
Walking bridge
Canoe route (unobstructed)

Threats to the Seine River Greenway (given its sensitive nature, what are the threats or harms that need to be addressed or that will need to be considered in future development)
Res.Duf
Development / Industrial Impacts
SOSsg
Developments that threaten the river (residential, commercial, industrial & institutional)
NIMBY
SOSdv
The flow of the river too much water being diverted from it's headwaters
Syphon at floodway limits levels has been repaired. SOS wanted all wter to flow through. Change it back and you just get more floodwater events – not raised seasonal levels.
Golf courses pumping irrigation water from Seine River to greens.
SOSdd
Industrial development right to water
Trucking businesses on Plinquet
Bank failure
Lack of funding to develop needed paths, portals, safety measures
SOSsdg
Many: Lack of money and commitment
Waterflow problems

SOStr:
PVW (Pembina Valley Water Diversion)/Floodway

Which issue of the project are of particular significance to you?
PP
Long connected pathways
SOSsg
Protecting habitat – work with the river & greenway
SOSdd
Pedestrian river crossing
Path portals
Making rail area crossing safer
350 acre zone for riparian habitat
Connecting Whittier Park to Happyland Park through trail network
SOSsdg
Walking paths
Preservation of eco-system
SOStr:
Keeping the Greenway as natural as possible
Acquiring riverbank
Safety

Which items have not been addressed and need to be incorporated into the research?
PP
Passage along the Seine under the Provencher Bridge
SOSsg
Impact of the floodway
NIMBY
Accessibility
Naturalization of developments so they do not affect the greenway
Signage
SOSdd
Belgian history
Link to Fort Gibraltar & Old St. Boniface historic area
SOSsdg
How to promote the greenway after it is developed so it is used well and in a non-destructive way
SOStr:
Clean up of what appears to be old industrial waste of dumping – ie. oil drums

Which initiative that you are aware of should be incorporated into the research?
SOSsg
Dog friendly areas so animals aren't destroying habitat
SOSdd
New link between east & west side of river
Portal behind IGA

Which projects does your group have in planning that should be incorporated into this study?

PP

January 13, 2007 “Discover the Seine in the Winter Hike” hike from Hindu Centre on St, Annes Rd. 10-15 km

SOSsg

All (or most of our projects have the potential to impact this planning)

SOSsdg

Preservation/improvement of waterflow

Appendix E:

Exit Survey Collected Responses; Stakeholder Feedback

November 13, 2006 Vision Session

Respondants:
ADRrr: Association des Résidents du Vieux Saint-Boniface, Robert Roy – 233-3616
ADRbl: Association des Résidents du Vieux Saint-Boniface, Bob Lafremere
ADReb: Association des Résidents du Vieux Saint-Boniface, Erin Bockstael – erinbocks@gmail.com
ADRtf: Association des Résidents du Vieux Saint-Boniface, Theressa Francois – 233-1825
DM : Denis Marion – 237-6636
Misc: *(Unsigned)*

Strengths of the Seine River Greenway (attributes, features, etc)
ADReb
Opportunity for residents for physical activity
Quality of life
Can allow residents to walk all the way downtown
Beautiful natural Area
ADRtf
Abundance of wildlife
A lot cleaner than it used to be – Bravo S.O.S.!
DM
Nice for canoeing
Misc.
Green space
Trails

Weaknesses of the Seine River Greenway (what is lacking to meet its potential)
ADRbl
Lack of waterflow
Too stagnant
Raw Sewage
ADReb
Maintenance
Lighting
Safety issues, needs a "blue light" security system, like U of M
Needs garbage cans/pick-up
DM
Area for Homeless
Misc.
Lighting on trails

Opportunities of the Seine River Greenway (what elements need to be developed)
ADRrr
Pathways
Bridges
Residential Lighting
ADRbl
Waterways
Rickshaws
ADReb
Tie-ins to other pathsystems, esp Forks

ADRtf
Bridge building – tip of Youville St. with Kavanaugh Park
Misc.
More access points

Threats to the Seine River Greenway (given its sensitive nature, what are the threats or harms that need o be addressed or that will need to be considered in future development)
ADRrr
Protect existing wildlife and nature
ADRbl
Raw sewage
Low water levels
ADReb
Vandalism
Flooding
Crime
Vagrancy (people partying/living in the woods
Raw sewage
ADRtf
Excessive human traffic

Which issue of the project are of particular significance to you
ADRrr
Residential
River access for canoeing
ADRbl
Clean/tidy river banks
DM
Residential
Misc.
Personal safety on the trails (homeless or shady characters linger on the trails)

Which items have not been addressed and need to be incorporated into the research
ADRbl
Tie-in with the Forks walkway
ADReb
Canker worms – paths awful last year – how can infestations be controlled

Which initiative that you are aware of should be incorporated into the research
ADRrr
Waterways
ADRbl
Stop raw sewage from entering the river

Which projects does your group have in planning that should be incorporated into this study
DM
Areas for bond fire
Access by car