

**MEEWASIN VALLEY  
TRAIL SYSTEM PLAN**

Submitted to:  
**MEEWASIN VALLEY AUTHORITY**

Submitted by:  

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## EXECUTIVE SUMMARY

### 1. INTRODUCTION

In 1982, Meewasin embarked on a project which has become its "flagship" project to date: the Meewasin Valley Trail. The more than 15 km of asphalt path, complemented with several kilometres of other trails, along both sides of the South Saskatchewan River, have proven to be immensely popular among residents of and visitors to the Saskatoon area. Indeed, trail use and demand levels have increased beyond Meewasin's expectations and the need has become apparent for a more comprehensive look at the existing trail system and for the development of an orderly approach to future development of the Meewasin Valley Trail System.

Therefore, Meewasin undertook the preparation of the Meewasin Valley Trail System Plan. The purpose of the plan was: "to develop an orderly approach to trail linkage development along the river valley as it passes through the City of Saskatoon and Municipality of Corman Park to provide a continuous river bank circulation system as a major recreation resource for the residents of Saskatoon and area".

The process followed in the preparation of the Meewasin Valley Trail System Plan consisted of three phases:

#### 1. Definition of a Model Trail System

- to put subsequent study phases in a proper planning context
- as an "ideal", the model was to be definitive
- to facilitate development and ensure a plan which is implementable, the model was to be flexible to accommodate diverse needs and changing circumstances

#### 2. Evaluation of the Existing Trail System

- to compare the existing trail system with the model
- identification of shortfalls, surpluses, problems and advantages that became the basis for an upgrading program

### 3. The Trail System Plan

- the action plan and the guidelines / recommendations for input to subsequent area specific planning

## 2. GOALS AND OBJECTIVES OF THE MODEL TRAIL SYSTEM

Two general goals were proposed for the Meewasin Valley Trail System. These goals were developed to give recognition to the growing needs for recreational (including interpretive) opportunity in the valley and the requirement to provide resource protection. They are as follows:

1. To provide an integrated network of linkages, throughout the length of the Meewasin Valley, which provides reasonable access (for all residents of, and visitors to, Saskatoon and area) to recreational and interpretive opportunities in and near the valley. **(THE RECREATION AND INTERPRETATION GOAL)**
2. To provide trail linkages of types and in locations that will assist in the conservation (or preservation, as appropriate) of the natural and cultural heritage resources and areas in the valley. **(THE RESOURCE PROTECTION GOAL)**

For each of the two proposed trail system goals, a series of subsidiary and more specific objectives were developed to address the major concerns and issues related to the trail system.

### **Recreation and Interpretation Objectives**

1. To provide a continuous primary corridor, suitable for safe multiple use, through the entire length of the Meewasin Valley on both sides of the river.
2. To emphasize the use of trails for recreational and interpretive purposes rather than (but not to the exclusion of) commuting purposes.
3. To provide trail linkages from the valley into areas away from the river that are popular recreation destinations or that are sources of significant recreational traffic.

4. To provide loops in the trail system (at a variety of scales) that will minimize the need for backtracking by trail users.
5. To designate and develop a variety of trail types to increase the range of recreational and interpretive opportunities throughout the valley.
6. To make the trail system accessible, on a year-round basis, for all individuals and groups, within the constraints posed by finance and resource protection needs.
7. To designate and develop a series of major and minor entry points to the trail system with appropriate support services, facilities and information.
8. In portions of the system other than the continuous primary corridor, to provide trail opportunities for single use (or limited complementary multiple use) purposes.
9. To develop facilities and services, appropriate to the purpose of each trail segment or type, that will support and encourage a wide variety of acceptable uses of the trail system.
10. To provide a comprehensive public information program soliciting public input to system developments and operation, promoting the opportunities for trail use and educating trail users in terms of safe and appropriate behaviour on the trails.
11. To designate and develop trails that complement plans and designs for recreational, interpretive and other development in the valley.

#### **Resource Protection Objectives**

12. To designate and develop trails and associated facilities to avoid negative impacts on significant natural and cultural heritage resources in the valley.
13. To coordinate trail development and use with existing and planned interpretive programs and opportunities.
14. To locate trails and related facilities in areas that avoid natural hazards or to ensure that trail design and development can accommodate the risks associated with such hazards without jeopardizing public health and safety.

### **3. PROPOSED MODEL TRAIL SYSTEM**

The proposed model trail system is premised on the concept of hierarchy. Hierarchy, in this case, relates to a number of system components, including the trails themselves, entry points to the trail system, connections to other circulation networks and open space systems and support services and facilities.

Seven broad categories of trail are proposed and, within some of these categories, sub-types have been identified.

#### **a. Primary Trails**

Primary trails represent the highest level in the proposed trail hierarchy. They are intended to form the key spine of the entire system. As such, they should extend continuously through the entire length of the valley, on both sides of the river. As multiple use trails, they should be designed and developed in a manner that will minimize conflicts among incompatible uses (e.g. cyclists and pedestrians). Two types of primary trail are proposed. Type 1 primary trails are proposed for much of the Saskatoon urban area of the valley and would be permanent, hard-surfaced trails, accessible to the disabled and used year round.

Type 2 primary trails are proposed for those urban situations where significant resources or natural hazards dictate that Type 1 primary trail development and/or use would result in unacceptable impacts, costs or risk to public health and safety. In addition, Type 2 primary trails are also proposed to provide the key continuous linkages along the valley outside the built up area of Saskatoon. These trails would follow a permanent alignment and would be open for multiple use but the trail surface would differ from Type 1 trails in that it would consist of such permeable, "soft" materials as gravel screenings, clay shale, crusher dust or wood chips, as appropriate to specific situations.

#### **b. Secondary Trails**

As the second level in the proposed trail hierarchy, secondary trails are intended to serve as connecting trails between the primary trails and other circulation networks and open space systems. In addition, secondary trails would serve as alternate routes along primary corridors, for the purposes of increasing accessibility of valley resources and attractions to all individuals and groups (in-



cluding the disabled), in situations where trail use levels or site conditions limit such accessibility along primary trails.

As with primary trails, secondary trails are of two types. The differences between Type 1 and Type 2 secondary trails, and the situations in which the two types of secondary trails would be developed, are identical to those for primary trails. However, secondary trails are not intended to accommodate the same levels of use as primary trails and they would thus be narrower. Further, they differ from primary trails in that cycling, while still permitted, would not be a use emphasized on secondary trails.

### **c. Tertiary Trails**

Tertiary trails are proposed to serve a more restricted set of user groups (primarily pedestrian). Development of tertiary trails would be less intensive than that of either primary or secondary trails, in that trail grade and geometric requirements need only meet the needs of pedestrians; and treadway development would consist only of application of wood chips or comparable materials, except in poorly drained or hazardous areas. Tertiary trails are seen as a means of providing increased access to the river edge and opportunities for hiking and skiing (as opposed to strolling) opportunities. They are considered as relatively permanent features of the trail system, and it is expected that their use need not be limited to the spring, summer and fall seasons, as they can be very attractive corridors for cross-country skiing.

### **d. Casual Trails**

Casual trails exist in many areas along the valley. These are trails created by repeated use of recreationists over an extended period, with no formal trail development. Although the impact of such trails on valley resources must be carefully monitored, they are considered a valuable and important component of the trail hierarchy, as they provide the special adventures and opportunities for exploring the river valley.

**e. Equestrian / Driving Trails**

As indicated by their name, these are speciality trails intended for use by horseback riders and wagon drivers. Although equestrian trails' surface requirements are very similar to those desired for hiking and strolling (i.e. natural soil or wood chips), trail width would be considerably greater. Nevertheless, it is likely that some use of these trails by pedestrians will occur and, provided that sufficient room is provided along the trails for safe passage, this should be considered appropriate.

**f. Interpretive Trails**

Although it is clear that interpretive opportunities will be (and should be) provided along many of the trail types described above, there may be instances where special-purpose interpretive trail development will be required. As a general principle, such interpretive trails should be developed in loop configurations wherever feasible. Two types of interpretive trails are proposed. Type 1 trails are intended to provide access to cultural heritage interpretive opportunities within urban built-up areas. Development of such trails will be highly dependent upon specific circumstances but, generally, it is expected that existing city sidewalks will form the primary means of access and circulation; and development efforts will be concentrated on related signage and other interpretive media for self-guided tours, etc.

Type 2 interpretive trails, on the other hand, are proposed to provide access to natural resource interpretation opportunities and to cultural heritage interpretive offerings that are situated in rural areas. Type 2 interpretive trail development will depend upon the level of anticipated use, but it is expected that development comparable to tertiary trails would be appropriate where relatively low levels of use are anticipated and that Type 2 secondary trail development would be required in high intensity use areas.

### **g. Ski Trails**

As a winter activity, cross-country skiing should not conflict with most other trail uses. However, given that primary and secondary trails will likely receive a significant level of winter pedestrian use, ski trails should be set separate from primary and secondary trails. Ideally, a continuous, uninterrupted and dedicated ski trail should extend through the length of the valley, closely paralleling the Primary Trail on both sides of the river. As temporary winter trails, ski trails can be modified or relocated from year to year.

### **Entry Points**

A three-level hierarchy of entries to the trail system is proposed. Major entries should be designated at widely-spaced locations on both sides of the river, where it is known or anticipated that relatively large numbers of trail users will enter the system. Typically, these entries would be located in association with major recreation attractions or developments in the valley and/or key linkages with backshore areas, other circulation networks or open space systems. Facility development associated with major entries should include identification signage (i.e. signage indicating that this is a major jumping off point on the trail system), orientation, directional and informational signage, vehicle parking, washroom/shelter facilities, bicycle racks, public telephone, drinking fountain, benches and other off-trail rest facilities.

Minor entries are proposed at a number of intervening points between major entries along both sides of the river. Typically, they would be located at points where connections to adjacent neighbourhoods exist (or are planned). Facility development at such entries would include orientation / directional signage, trail identification signage and benches/rest areas. Vehicle parking may or may not be provided at or near these entries but, if so, such facilities are expected to have relatively small capacities, reflecting the secondary role of these minor entries.

The third tier in this hierarchy of entries is the large number of casual entry points, where trail facility development can range from zero to the development of a secondary trail between the primary trail and the point of entry into the park or open space through which the primary trail runs. Good examples of casual entries are the points where city walks from Lawson Heights and River Heights terminate at Meewasin Park.

### Support Facilities & Services

With respect to frequency of occurrence of the various facilities and services, it is impossible to universally apply spacing criteria throughout the valley (in the same sense that a precise quantitative statement of required kilometres of trail per thousand population cannot be rigidly followed). However, a number of general principles are proposed for support services and facilities in the model trail system. They include the following:

1. Spacing between service facilities should be inversely proportional to intensity of trail use.
2. Trail junctions and entry points to the system are special locations where support services and facilities (including directional signage) should be considered important.
3. Elsewhere, siting of support services and facilities should be based on valley character, activity patterns, recreation opportunities and resource sensitivity, rather than on arbitrary spacing criteria.
4. On loop trails (especially interpretive loops) support services and facilities (with the exception of interpretive materials and information) should be concentrated at the trail head. This approach permits trail users to briefly and safely leave bicycles at a secure point (if necessary), traverse the loop on foot and return to their starting point and carry on down or up the valley.
5. Informational, orientational, directional and behavioural signage is a key element of all but casual trails, reflecting the importance of public understanding and awareness of the trail system, those trail activities that are considered appropriate and the "rules of the road" along the trails.

The following descriptions of the significant natural areas indicated on Map 1 are drawn directly from a draft discussion paper prepared by the Resource Conservation Unit in October 1986.

**a. Peturrson's Ravine**

This is a major piping failure just north of the federal correctional facility across from Meewasin Park. The ravine is unique. It contains a constantly flowing creek, a small marsh area, a variety of aquatic, woodland, and prairie vegetation, and wildlife ranging from nesting cliff swallows to white tailed deer. An abandoned farmstead is also part of the site.

Unfortunately the area has been used as a dump and as a gravel pit. These threats remain. With proper restoration and management the ravine could be kept as a beautiful and vital natural area providing exciting opportunities for both casual exploration and programmed interpretation. In addition, the restoration of the ravine would be a unique challenge.

This site was nominated as an International Biological Program Site, but did not qualify because of extensive damage. Nonetheless, few sites have as much traditional significance and the Natural History Society has promoted its protection for many years. Designation is warranted because of the rich variety of features, traditional significance, and educational value of the area.

**b. Riddel Site**

This paleontological site is located north of Sutherland adjacent to Central Avenue. Gravel extraction revealed this site to be a major source of fossils from the Pliocene Epoch.

Meewasin cleared garbage from this site in 1985, and restricted access to stop unauthorized dumping. In 1987, the Riddel site was visited by scientists from all over the world.

7. Upgrading of major entry point facilities at the Meewasin Valley Centre.
8. Minor entry point development.

Once more is known about future development in the Sutherland Beach area and once the timing of development at Wanuskewin Heritage Park has been confirmed, extension of the primary corridor from the Circle Drive Bridge to Peturrson's Ravine and from Meewasin Park to Wanuskewin will need to be incorporated into the program.

Similarly, once plans for Yorath Island and the Rifle Range property have been clarified, it will be possible to appropriately integrate and co-ordinate trail system extension south of the Grand Trunk Bridge on both sides of the river.

Section 5 of the main report sets out, in detail, proposed trail system development under the eight areas of emphasis noted above. Also recommended was the following:

- Extensions to the Primary Trail south to the vicinity of Yorath Island (on the west bank) and to the south end of the Rifle Range property (on the east bank) and north to Wanuskewin Heritage Park (on the west bank) and to Peturrson's Ravine and the Forestry Farm Park (on the east bank).
- Completion of an equestrian/driving trail loop in Diefenbaker Park, connected to a southerly extension of an equestrian trail to the Rifle Range property.
- Entry points and rest areas along the Primary Trail outside the built-up areas of the city.
- A continuous, uninterrupted "dedicated" cross-country ski trail, closely paralleling the Primary Trail (on both sides of the river) through the length of the valley, complemented with a series of park-based ski networks and other secondary ski trails.

## **6. IMPLEMENTATION STRATEGY AND DEVELOPMENT COST ESTIMATES**

Implementation of the Trail System Plan is proposed to occur in three phases, as follows:

Phase 1 (1989 - 1993)

Phase 2 (1994 - 1998)

Phase 3 (1999 & on)

Within each phase, development items are also associated with a development priority (high, moderate or low).

Some of the proposed development items are not included in the Implementation Strategy. These items are components of the trail system whose development would be undertaken as an integral component of overall open space or park development. In these cases, the determination of development timing is a function of river valley open space planning priorities rather than trail system priorities.

It should also be noted that the phasing and priorities assigned to each development item should be the subject of periodic review and revision as circumstances, budgets and trail system planning priorities change over time.

Total estimated costs to implement this Trail System Plan, in 1989 dollars, are as follows:

1989.....	\$ 164,350.00
1990.....	125,400.00
1991.....	131,700.00
1992.....	286,200.00
1993.....	231,000.00
1994.....	123,850.00
1995.....	182,500.00

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1996.....	755,700.00
1997.....	510,100.00
1998.....	86,600.00
Phase 3 - High Priority.....	695,700.00
Phase 3 - Moderate Priority.....	599,700.00
Phase 3 - Low Priority.....	<u>2,698,300.00</u>
<b>TOTAL.....</b>	<b>\$6,591,100.00</b>

Implementation of Phase 3 is estimated to require between 12 and 17 years to complete. Thus, completion of all development items noted in the plan should not be expected before the years 2010 - 2015.



### **2.3.2 Significant Resource Concentrations**

In the spring of 1988, Meewasin initiated a program of consolidating documented resource data into a single data base consisting of maps and resource data sheets. Although this program is only in its early stages, sufficient work has been completed to use the data base for the purposes of this study.

Map 1 indicates areas where there are significant concentrations of resources in the study area. These resources include not only biological, geological and paleontological resources (many of which are located within the significant natural areas described above), but also archaeological sites, historic sites and historic buildings.

Not all individual resources are identified. Rather, only those areas where the resources were "clustered", or concentrated, are noted. It is anticipated that, with a few possible exceptions, it will be these areas (rather than isolated individual resources) that will provide the greatest opportunity for recreation or need for "people" management and, thus, will have the greatest influence on the model trail system.

### **2.3.3 Significant Recreation Attractions & Developments**

Map 1 also indicates the distribution of significant recreation attractions in and adjacent to the Meewasin Valley. Included among these attractions are the major facilities and other developments which provide key recreational (including interpretive) opportunities. Also included, however, are those areas which, even without any formal development of facilities or services, are very popular among Saskatoon and area residents (e.g. the sandbars at the foot of Ravine Drive) for casual recreational use. Finally, known proposed developments and other recreational attractions are indicated.

## 2.4 GOALS AND OBJECTIVES OF THE MODEL TRAIL SYSTEM

In order to provide appropriate direction for the Meewasin Valley Trail System, specific goals and objectives must be set for it. Such goals and objectives must be framed by the preceding discussions of the Meewasin Valley planning context and the resource/opportunity analysis as well as a number of key issues and concerns summarized below.

### 2.4.1 Key Issues & Concerns

A number of important issues and concerns regarding the trail system were raised in the Terms of Reference prepared for this study prepared by Meewasin (December 1987). In addition, during the early phases of the study, two workshops were held to assist the consulting team in the further identification and prioritization of issues, concerns and needs related to the trail system. The first of these workshops involved interested members of the general public; the second was held with the Study Steering Committee. The results of these two workshops were summarized and these summaries may be found in Appendix 2 to this report.

From these primary sources, key issues and concerns have been identified and categorized under six main headings: integration and linkage; accessibility; user conflicts and safety; recreation and tourism; resource conservation; and support services and facilities.

#### **a. Integration & Linkage**

- There is a need to extend the trail system beyond the Saskatoon urban area to link the city with attractions, opportunities and resources in the Valley, both north and south of the city. **(EXTEND SYSTEM)**
- A number of river valley areas within the city are not presently accessible along the Meewasin Valley Trail. **(SYSTEM GAPS)**
- There is a need to integrate the Meewasin Valley Trail System with other trail systems, circulation networks and open space systems to provide linkages with attractions, opportunities, resources and "traffic generators" away from the river. **(INTEGRATION)**

- Interpretive opportunities and plans for interpretive development throughout the Valley should be integrated with and served by the trail system. **(INTERPRETATION)**
- There is a need for more river crossing opportunities in the trail system. **(RIVER CROSSINGS)**

**b. Accessibility**

- Points of entry to the trail system are not clearly defined or marked. **(ENTRIES)**
- More direct access is needed to the river's edge. **(ACCESS)**
- Use of the trail system by disabled persons must be considered as the system is planned and developed. **(USE BY DISABLED)**

**c. User Conflicts & Safety**

- There are a variety of uses to which the trail system is, or would be, put, including the following:
  - walking
  - hiking
  - jogging/running
  - roller skiing/roller skating
  - bicycling
  - horseback riding
  - nature interpretation
  - cultural heritage interpretation
  - cross-country skiing

In some cases, there are major trail use conflicts between user groups. Thus, there is a need to segregate conflicting uses and/or otherwise reduce/eliminate these conflicts. **(USER CONFLICTS)**

- The suitability and safety of at least portions of the trail needs to be enhanced for night-time use. **(NIGHT USE)**

**d. Recreation & Tourism**

- There is considerable potential and demand for providing a wide variety of trail-related recreation opportunities in the Meewasin Valley. (**OPPORTUNITY DEMAND**)
- Greater emphasis needs to be placed on the role of the trail system as a tourism asset in the Meewasin Valley and Saskatoon. (**TOURISM**)

**e. Resource Conservation**

- Many of the trail-related recreation and interpretation opportunities in the Meewasin Valley (and, indeed, many of the opportunities and attractions made accessible by the trail) are dependent upon the continued health or integrity of natural or cultural heritage resources. These resources exhibit a broad range of sensitivities to use or other human activity. There is therefore a need to ensure that trail system use is compatible with the conservation of that resource and that designation and development reflects resource values in particular parts of the valley. (**RESOURCE VALUES**)
- There are a number of natural hazards in the Valley. Most relate to river flooding and slope stability. There is a need to ensure that the trail system reflects the constraints posed by such natural hazards. (**NATURAL HAZARDS**)

**f. Support Services & Facilities**

- There is a major perception in the community that there are insufficient support or ancillary services and facilities associated with the trail system. Such services and facilities could include the following:
  - washrooms/shelters
  - rest stops/benches
  - picnic facilities
  - drinking fountains
  - bicycle racks
  - telephones
  - vehicle parking
  - information, orientation & directional signage

- hitching posts for horses
- viewpoints
- interpretive displays/information

Sufficient services and facilities should be provided in the trail system to encourage greater use and appreciation of the Valley, but only where they are compatible with trail function, resource values and resource sensitivities.  
(SUPPORT SERVICES)

#### 2.4.2 Proposed Goals & Objectives of the Trail System

##### **a. Goals**

Two general goals are proposed for the Meewasin Valley Trail System. These goals have been developed to give recognition to the growing needs for recreational (including interpretive) opportunity in the valley and the requirement to provide resource protection. They are as follows:

1. To provide an integrated network of linkages, throughout the length of the Meewasin Valley, which provides reasonable access (for all residents of, and visitors to, Saskatoon and area) to recreational and interpretive opportunities in and near the valley. **(THE RECREATION AND INTERPRETATION GOAL)**
2. To provide trail linkages of types and in locations that will assist in the conservation (or preservation, as appropriate) of the natural and cultural heritage resources and areas in the valley. **(THE RESOURCE PROTECTION GOAL)**

##### **b. Objectives**

For each of the two proposed trail system goals, a series of subsidiary and more specific objectives have been developed to address the major concerns and issues related to the trail system.

##### **i. Recreation and Interpretation Objectives**

1. To provide a continuous primary corridor, suitable for safe multiple use, through the entire length of the Meewasin Valley on both sides of the river. **(PRIMARY CORRIDOR)**

2. To emphasize the use of trails for recreational and interpretive purposes rather than (but not to the exclusion of) commuting purposes. **(RECREATION / INTERPRETATION EMPHASIS)**
3. To provide trail linkages from the valley into areas away from the river that are popular recreation destinations or that are sources of significant recreational traffic. **(BACKSHORE LINKAGES)**
4. To provide loops in the trail system (at a variety of scales) that will minimize the need for backtracking by trail users. **(LOOPS)**
5. To designate and develop a variety of trail types to increase the range of recreational and interpretive opportunities throughout the valley. **(VARIETY OF TRAILS)**
6. To make the trail system accessible, on a year-round basis, for all individuals and groups, within the constraints posed by finance and resource protection needs. **(ACCESSIBILITY)**
7. To designate and develop a series of major and minor entry points to the trail system with appropriate support services, facilities and information. **(ENTRY POINTS)**
8. In portions of the system other than the continuous primary corridor, to provide trail opportunities for single use (or limited complementary multiple use) purposes. **(SINGLE USE TRAILS)**
9. To develop facilities and services, appropriate to the purpose of each trail segment or type, that will support and encourage a wide variety of acceptable uses of the trail system. **(SUPPORT FACILITIES)**
10. To provide a comprehensive public information program soliciting public input to system developments and operation, promoting the opportunities for trail use and educating trail users in terms of safe and appropriate behaviour on the trails. **(PUBLIC INFORMATION)**
11. To designate and develop trails that complement plans and designs for recreational, interpretive and other development in the valley. **(COORDINATED PLANNING)**

ii. Resource Protection Objectives

12. To designate and develop trails and associated facilities to avoid negative impacts on significant natural and cultural heritage resources in the valley. (**IMPACT AVOIDANCE**)
13. To coordinate trail development and use with existing and planned interpretive programs and opportunities. (**INTERPRETATION**)
14. To locate trails and related facilities in areas that avoid natural hazards or to ensure that trail design and development can accommodate the risks associated with such hazards without jeopardizing public health and safety. (**NATURAL HAZARD AVOIDANCE**)

The above objectives have been related to the Meewasin's goals and planning principles, and to the key issues and concerns discussed in Section 2.4.1, to determine the degree to which all are addressed (Figure 2-1).

FIGURE 2-1: ISSUES / OBJECTIVES MATRIX

ISSUES		OBJECTIVES													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Primary Recreation Corridor	Recreation Emphasis	Backshore Linkages	Shoreline Loops	Variety of Trails	Accessibility	Entry Points	Single Use Trails	Support Facilities	Public Information	Coordinated Planning	Impact Avoidance	Interpretation	Natural Hazard Avoidance
<b>MEEWASIN GOALS</b>															
-resource protection						X			X		X				
-development	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
-awareness						X		X	X	X	X			X	
<b>PLANNING PRINCIPLES</b>															
-preservation						X			X		X		X		
-compatible development		X		X		X	X	X	X	X	X	X	X		X
-diversity	X			X	X	X	X	X	X						
-accessibility	X	X	X	X		X	X	X							
-public participation								X		X		X			
<b>KEY ISSUES AND CONCERNS</b>															
a. Integration and Linkage															
-extend system	X					X								X	
-system gaps	X					X								X	
-integration		X		X	X	X		X	X	X		X		X	
-interpretation				X	X	X			X			X		X	
-river crossings					X										
b. Accessibility															
-entries				X		X		X		X					
-access					X	X		X	X						
-use by disabled					X	X	X	X							
c. User Conflicts and Safety															
-user conflicts	X			X	X	X			X	X	X				
-night use	X		X			X				X					
d. Recreation and Tourism															
-opportunity demand	X		X	X	X	X	X	X	X			X		X	
-tourism	X	X	X	X	X	X	X	X		X			X	X	
e. Resource Conservation															
-resource values				X	X	X			X	X	X	X	X	X	X
-natural hazards				X	X	X							X	X	
f. Support Services															
-support services								X		X		X			



### **3. A PROPOSED MODEL TRAIL SYSTEM FOR THE MEEWASIN VALLEY**

#### **3.1 BASIC TENETS**

The development of a good trail system requires that consideration be given to the establishment and acceptance of several fundamental principles. One such consideration relates to the need for the trail system to be achievable. While the model system must challenge and create a stimulating environment for trail designation, it must also give recognition to application and attainment. Such attainment requires emphasis upon the dual principles of practicality and quality.

Thus, a compromised system of trail designation, which results in extensive development but does not meet expressed needs and implied intent, presents potential for major failure. At the same time, a system which strives only for purity and complexity in approach ensures failure of another sort: impracticality. Each is unworthy of a systems approach.

Instead, the model trail system must emphasize flexibility and simplicity to permit successful application. The trail system must be clear in intent while avoiding rigidity in achieving the goals and objectives set out for the system.

#### **3.2 JURISDICTIONAL INTERRELATIONSHIPS**

Four levels of jurisdiction can be involved in trail development and administration in and near the Meewasin Valley which can affect one another from a total systems perspective. These are:

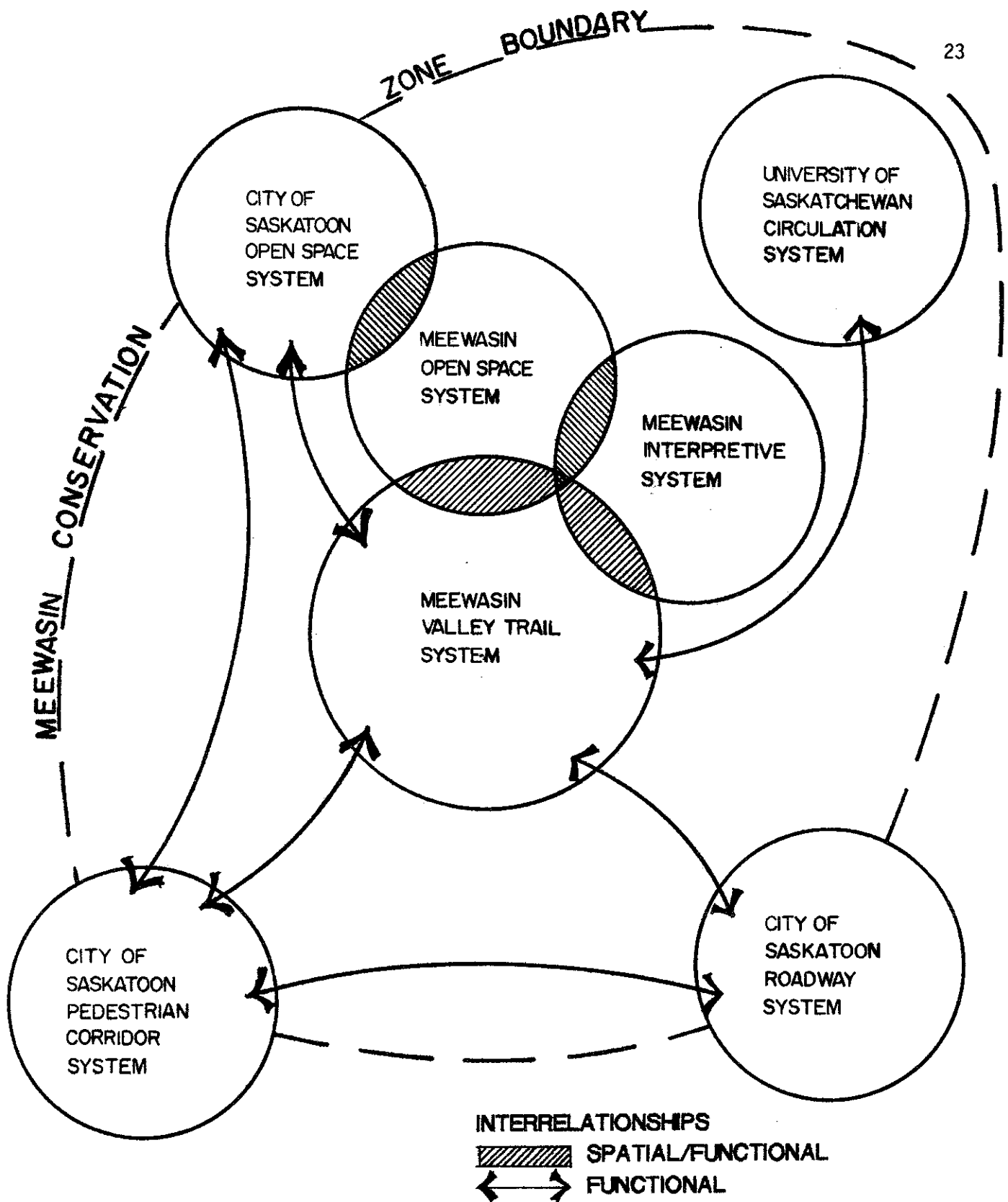
- the provincial government;
- municipal governments;
- the University of Saskatchewan; and
- the Meewasin Valley Authority.

It is essential to the rationalization and integration of all interacting circulation networks (both vehicular and non-vehicular) that recognition be given to the role each of these jurisdictional levels can play in the provision of linkages and associated recreation opportunities.

Given the variety of trails and other linkages available in and near the Meewasin Valley for the use of pedestrians and other prospective trail users (including streetside walks, municipal pathway connections, municipal parks, University pathways and public linkages provided in private developments), it is clear that the Meewasin Valley Trail System will be directly affected by development and use of linkages provided by other jurisdictions. While the model trail system for the Meewasin Valley cannot specifically address the broader issue of a fully integrated inter-jurisdictional trail and road system in the broader area, it should be cognizant of, and should reflect, apparent opportunities and needs for possible integration. Figure 3-1 is a schematic representation of key interrelationships between the Meewasin Valley Trail System and other circulation and open space systems in the area.

### 3.3 TRAIL SYSTEM COMPONENTS

The proposed model trail system is premised on the concept of hierarchy. Hierarchy, in this case, relates to a number of system components, including the trails themselves, entry points to the trail system, connections to other circulation networks and open space systems and support services and facilities. In all cases, this notion pertains to a hierarchical pattern of activity which can be identified (i.e. activity can be segmented, depending upon activity function, types of users and needs). For example, activity may be recreation-oriented or protection-oriented. Within each, a variety of sub-groups may exist (e.g. recreation activity may be interpretation-oriented, passive or active, pedestrian or vehicular, summer or winter).



**FIGURE 3.1 MEEWASIN VALLEY TRAIL SYSTEM :  
EXTERNAL INTERRELATIONSHIPS**

### **3.3.1 Classification of Trail Types**

Seven broad categories of trail are proposed and, within some of these categories, sub-types have been identified (Figure 3-2).

#### **a. Primary Trails**

Primary trails represent the highest level in the proposed trail hierarchy. They are intended to form the key spine of the entire system. As such, they should extend continuously through the entire length of the valley, on both sides of the river. As multiple use trails, they should be designed and developed in a manner that will minimize conflicts among incompatible uses (e.g. cyclists and pedestrians). As indicated on Figure 3-2, two types of primary trail are proposed. Type 1 primary trails are proposed for much of the Saskatoon urban area of the valley and would be permanent, hard-surfaced trails, accessible to the disabled and used year round.

Type 2 primary trails are proposed for those urban situations where significant resources or natural hazards dictate that Type 1 primary trail development and/or use would result in unacceptable impacts, costs or risk to public health and safety. In addition, Type 2 primary trails are also proposed to provide the key continuous linkages along the valley outside the built up area of Saskatoon. These trails would follow a permanent alignment and would be open for multiple use but the trail surface would differ from Type 1 trails in that it would consist of such permeable, "soft" materials as gravel screenings, clay shale, crusher dust or wood chips, as appropriate to specific situations.

#### **b. Secondary Trails**

As the second level in the proposed trail hierarchy, secondary trails are intended to serve as connecting trails between the primary trails and other circulation networks and open space systems. In addition, secondary trails would serve as alternate routes along primary corridors, for the purposes of increasing accessibility of valley resources and attractions to all individuals and groups (including the disabled), in situations where trail use levels or site conditions limit such accessibility along primary trails.



As with primary trails, secondary trails are of two types. The differences between Type 1 and Type 2 secondary trails, and the situations in which the two types of secondary trails would be developed, are identical to those for primary trails. However, secondary trails are not intended to accommodate the same levels of use as primary trails and they would thus be narrower. Further, they differ from primary trails in that cycling, while still permitted, would not be a use emphasized on secondary trails.

### **c. Tertiary Trails**

Tertiary trails are proposed to serve a more restricted set of user groups (primarily pedestrian). Development of tertiary trails would be less intensive than that of either primary or secondary trails, in that trail grade and geometric requirements need only meet the needs of pedestrians; and treadway development would consist only of application of wood chips or comparable materials, except in poorly drained or hazardous areas. Tertiary trails are seen as a means of providing increased access to the river edge and opportunities for hiking and skiing (as opposed to strolling) opportunities. They are considered as relatively permanent features of the trail system, and it is expected that their use need not be limited to the spring, summer and fall seasons, as they can be very attractive corridors for cross-country skiing.

### **d. Casual Trails**

Casual trails exist in many areas along the valley. These are trails created by repeated use of recreationists over an extended period, with no formal trail development. Although the impact of such trails on valley resources must be carefully monitored, they are considered a valuable and important component of the trail hierarchy, as they provide the special adventures and opportunities for exploring the river valley.

#### **e. Equestrian / Driving Trails**

As indicated by their name, these are speciality trails intended for use by horseback riders and wagon drivers. Although equestrian trails' surface requirements are very similar to those desired for hiking and strolling (i.e. natural soil or wood chips), trail width would be considerably greater. Nevertheless, it is likely that some use of these trails by pedestrians will occur and, provided that sufficient room is provided along the trails for safe passage, this should be considered appropriate.

#### **f. Interpretive Trails**

Although it is clear that interpretive opportunities will be (and should be) provided along many of the trail types described above, there may be instances where special-purpose interpretive trail development will be required. As a general principle, such interpretive trails should be developed in loop configurations wherever feasible. Two types of interpretive trails are proposed. Type 1 trails are intended to provide access to cultural heritage interpretive opportunities within urban built-up areas. Development of such trails will be highly dependent upon specific circumstances but, generally, it is expected that existing city sidewalks will form the primary means of access and circulation; and development efforts will be concentrated on related signage and other interpretive media for self-guided tours, etc.

Type 2 interpretive trails, on the other hand, are proposed to provide access to natural resource interpretation opportunities and to cultural heritage interpretive offerings that are situated in rural areas. Type 2 interpretive trail development will depend upon the level of anticipated use, but it is expected that development comparable to tertiary trails would be appropriate where relatively low levels of use are anticipated and that Type 2 secondary trail development would be required in high intensity use areas.

### **g. Ski Trails**

As a winter activity, cross-country skiing should not conflict with most other trail uses. However, given that primary and secondary trails will likely receive a significant level of winter pedestrian use, ski trails should be set elsewhere. Other general principles to be considered in cross-country ski trail development include the following:

- ideally trails should consist of approximately one-third uphill, one-third downhill and one-third level segments;
- continuous sheltered areas afford the greatest opportunity for snow accumulation and retention;
- trail loops, of a variety of lengths, provide opportunities for all levels of skiing ability (novice, intermediate, expert);
- trails should be sufficiently distant from roads to avoid problems created by road salt and sand that can be thrown off the roadway by traffic and snowplows;
- by locating "dedicated" ski trails in an alignment that closely parallels cleared trails for the use of non-skiers, both groups can move through the same areas with a minimum of conflict.

As temporary winter trails, ski trails can be modified or relocated from year to year.

### **3.3.2 Entry Points**

A three-level hierarchy of entries to the trail system is proposed. Major entries should be designated at widely-spaced locations on both sides of the river, where it is known or anticipated that relatively large numbers of trail users will enter the system. Typically, these entries would be located in association with major recreation attractions or developments in the valley and/or key linkages with backshore areas, other circulation networks or open space systems. Facility development associated with major entries should include identification signage (i.e. signage indicating that this is a major jumping off point on the trail system), orientation, directional and informational signage, vehicle parking,



washroom/shelter facilities, bicycle racks, public telephone, drinking fountain, benches and other off-trail rest facilities.

Minor entries are proposed at a number of intervening points between major entries along both sides of the river. Typically, they would be located at points where connections to adjacent neighbourhoods exist (or are planned). Facility development at such entries would include orientation / directional signage, trail identification signage and benches/rest areas. Vehicle parking may or may not be provided at or near these entries but, if so, such facilities are expected to have relatively small capacities, reflecting the secondary role of these minor entries.

The third tier in this hierarchy of entries is the large number of casual entry points, where trail facility development can range from zero to the development of a secondary trail between the primary trail and the point of entry into the park or open space through which the primary trail runs. Good examples of casual entries are the points where city walks from Lawson Heights and River Heights terminate at Meewasin Park.

### **3.3.3 Support Facilities & Services**

Figure 3-3 illustrates the proposed relationships between support facilities or services and the various categories of trail and entry points proposed for the model trail system. With respect to frequency of occurrence of the various facilities and services, it is impossible to universally apply spacing criteria throughout the valley (in the same sense that a precise quantitative statement of required kilometres of trail per thousand population cannot be rigidly followed). However, a number of general principles are proposed for support services and facilities in the model trail system. They include the following:

1. Spacing between service facilities should be inversely proportional to intensity of trail use.
2. Trail junctions and entry points to the system are special locations where support services and facilities (including directional signage) should be considered important.
3. Elsewhere, siting of support services and facilities should be based on valley character, activity patterns, recreation opportunities and resource sensitivity, rather than on arbitrary spacing criteria.

4. On loop trails (especially interpretive loops) support services and facilities (with the exception of interpretive materials and information) should be concentrated at the trail head. This approach permits trail users to briefly and safely leave bicycles at a secure point (if necessary), traverse the loop on foot and return to their starting point and carry on down or up the valley.
5. Informational, orientational, directional and behavioural signage is a key element of all but casual trails, reflecting the importance of public understanding and awareness of the trail system, those trail activities that are considered appropriate and the "rules of the road" along the trails.

FIGURE 3-3: SUPPORT FACILITIES AND SERVICES

SITUATION	SUPPORT FACILITIES AND SERVICES										
	Washrooms / Shelters	Rest Stops / Benches	Picnic Facilities	Drinking Fountains	Bicycle Racks	Public Telephones	Vehicle Parking	Signage	Hitching Posts	Viewpoint Development	Interpretive Materials
*****											
PRIMARY TRAILS											
Type 1	*	*	*	*	*	*	*	*	*	*	*
Type 2	X	*	X	X	X	*	*	*	X	X	X
*****											
SECONDARY TRAILS											
Type 1	*	*	X	X	X	X	*	*	X	X	X
Type 2	*	*	X	X	X	X	*	*	X	X	X
*****											
TERTIARY TRAILS											
	X	X					*	X	X	X	
*****											
CASUAL TRAILS											
*****											
EQUESTRIAN TRAILS											
	X	X	X				X	*	*	X	X
*****											
INTERPRETIVE TRAILS											
Type 1	X				X		X	*	X	X	*
Type 2	X	*			X		X	*	X	X	*
*****											
CROSS-COUNTRY SKIING TRAILS											
	X				X		X	*		X	
*****											
ENTRIES											
Major	*	*	X	*	*	*	*	*	X	X	X
Minor	*	*	X	X	X	X	*	*	X	X	X
Casual	X	X	X				X				
*****											

LEGEND: \* - at appropriate intervals throughout length of trail  
 X - only at locations where specific opportunities or needs are identified

## **4. THE EXISTING TRAIL SYSTEM**

### **4.1 INTRODUCTION**

This section is devoted to a documentation and analysis of existing conditions in the Meewasin Valley Trail System, in terms of the objectives of the Model Trail System and in terms of the resource and opportunity context provided in the valley.

### **4.2 INVENTORY**

Several techniques were used to document existing conditions along the Meewasin Valley Trail. First, a field workshop was held, in which members of the planning team toured much of the trail with members of the Steering Committee and other Client representatives and concerns / problems with the trail system were discussed and noted. Second, the planning team reviewed previous inventories and analyses of facilities and services in the Meewasin Valley and consulted with Meewasin and City of Saskatoon staff regarding recent trail and associated facility development. Finally, a "ground truth" program was initiated to confirm, update and / or revise findings on the basis of direct field observations.

Map 2 graphically portrays the inventory of the existing trail system. Included in the inventory were the following:

- General alignments and extent of trails by type and (for hard surfaced trails) width.
- Distribution of a variety of support facilities, including:
  - trash units
  - benches
  - shelters
  - bicycle racks
  - playgrounds
  - picnic facilities
  - parking
  - drinking fountains
  - signage



- LEGEND**
- HARD SURFACED TRAIL OVER 3 m
  - HARD SURFACED TRAIL 2.4 - 3 m
  - HARD SURFACED TRAIL UNDER 2.4 m
  - SOFT SURFACED TRAIL
  - EQUESTRIAN TRAIL
  - DIRT TRAIL
  - \*13 TRASH UNIT
  - BENCHES (QUANTITY)
  - SHELTER
  - BICYCLE RACK OR LEANING POST
  - PLAYGROUND
  - DEVELOPED ENTRANCE (PEDESTRIAN)
  - DEVELOPED ENTRANCE (VEHICLE PARKING)
  - MOVABLE PICNIC TABLE
  - PICNIC PAD
  - DF DRINKING FOUNTAIN
  - D DOCK
  - SIGN (TRAIL INFORMATION)
  - INTERPRETIVE SIGN

Existing Conditions **2a**

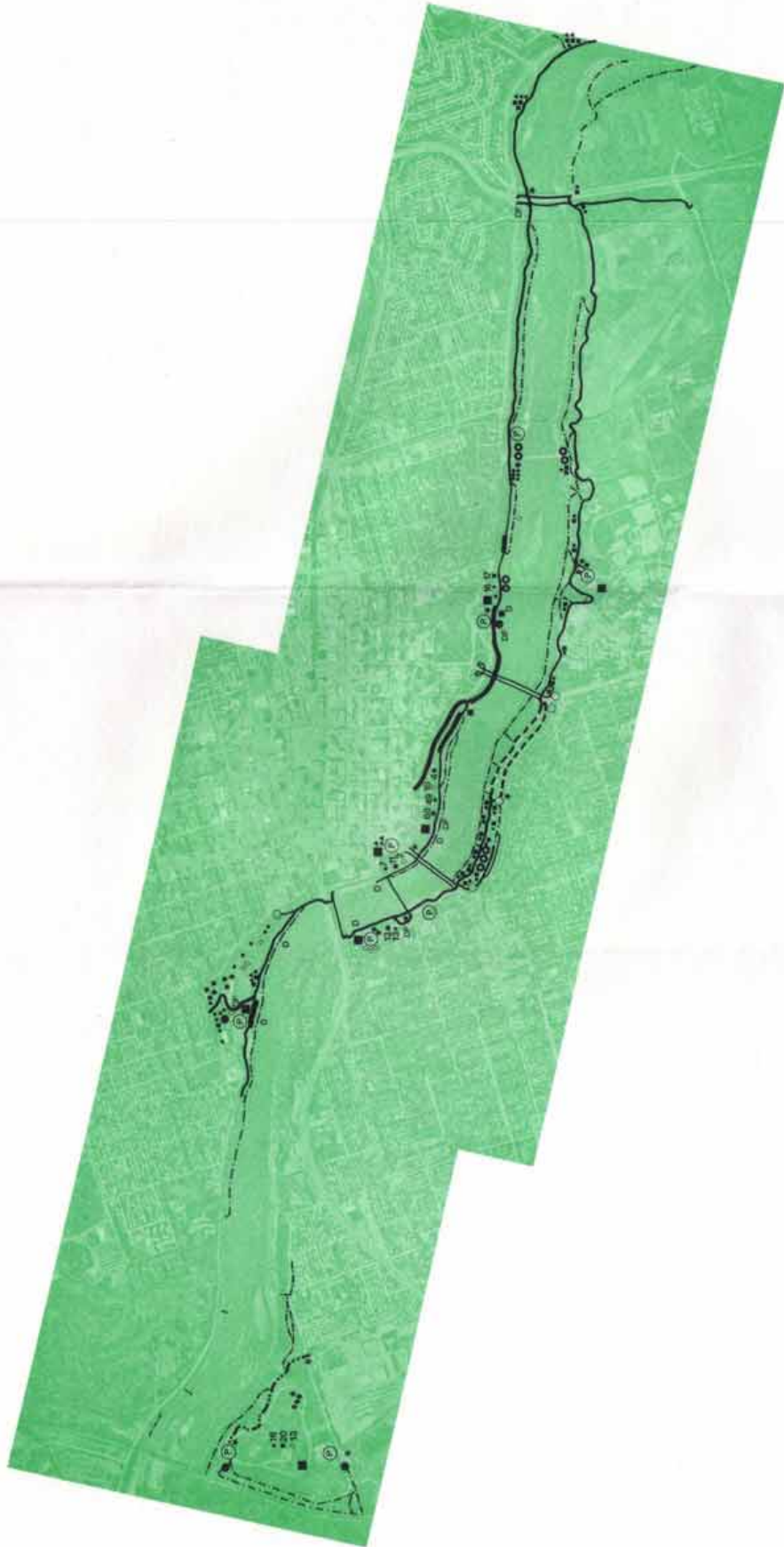


# Meewasin Valley

# TRAIL SYSTEM PLAN

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**Meewasin**



- LEGEND**
- HARD SURFACED TRAIL OVER 3 m
  - HARD SURFACED TRAIL 2.4 - 3 m
  - HARD SURFACED TRAIL UNDER 2.4 m
  - SOFT SURFACED TRAIL
  - EQUESTRIAN TRAIL
  - ORT TRAIL
  - TRASH UNIT
  - BENCHES (QUANTITY)
  - SHELTER
  - BICYCLE RACK OR LEANING POST
  - PLAYGROUND
  - DEVELOPED ENTRANCE (PEDESTRIAN)
  - DEVELOPED ENTRANCE (VEHICLE) PARKING
  - MOVEABLE PICNIC TABLE
  - PICNIC PAD
  - DRINKING FOUNTAIN
  - DOCK
  - SIGN (TRAIL INFORMATION)
  - INTERPRETIVE SIGN

Meewasin Valley

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Existing Conditions

2b







# LEGEND

- HARD SURFACED TRAIL OVER 3 m
- HARD SURFACED TRAIL 2.4 - 3 m
- HARD SURFACED TRAIL UNDER 2.4 m
- SOFT SURFACED TRAIL
- EQUESTRIAN TRAIL
- DIRT TRAIL
- TRASH UNIT
- BENCHES (QUANTITY)
- SHELTER
- BICYCLE RACK OR LEANING POST
- PLAYGROUND
- DEVELOPED ENTRANCE (PEDESTRIAN)
- DEVELOPED ENTRANCE (VEHICLE) PARKING
- MOVEABLE PICNIC TABLE
- PICNIC PAD
- DRINKING FOUNTAIN
- DOCK
- SIGN (TRAIL INFORMATION)
- INTERPRETIVE SIGN

Meewasin Valley

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Existing Conditions

2c



### 4.3 ANALYSIS

Once the inventory of existing conditions in the trail system was complete, the existing system was analyzed in terms of the success with which it is achieving the fourteen objectives of the Model Trail System set out in Section 2.

Map 3 illustrates the results of this analysis and the following discussion organizes these results under the fourteen objectives.

#### 4.3.1 Objective 1: Primary Corridor

- One gap in the existing primary corridor: Victoria Bridge to Idylwyld Bridge on west bank.
- Extensions to the primary corridor required in the central study area to achieve this objective:
  - Victoria Park to vicinity of Yorath Island (4.5 km +/-)
  - Idylwyld Bridge to Rifle Range Property (8 km +/-)
  - Circle Drive Bridge to Peturrson's Ravine (3 km +/-)
  - Meewasin Park to Wanuskewin Heritage Park (5 km +/-)
- Congestion problems and user conflicts apparent at a number of points along the primary corridor:
  - Rotary Park
  - Kiwanis Park behind and south of the Bessborough
  - Mendel Gallery to Circle Drive Bridge on west bank
  - Meewasin Park north of the pavilion.
- Safe night use of lighted portions of the existing system is problematic in several areas:
  - Under the Broadway Bridge on the east bank
  - Near the Thompson Belvedere
  - Adjacent to the University Hospital Parkade.



- Trail geometrics, view lines and width of path combine in a number of locations to create potentially unsafe situations:
  - Near the water treatment plant
  - Under the east end of the CP Bridge
  - Under the East end of the Circle Drive Bridge
  - Near the sewage pumping station on the west bank south of the Circle Drive Bridge.

#### **4.3.2 Objective 2: Recreation / Interpretation Emphasis**

- Based on resources in Meewasin Valley Trail User Surveys (Appendix 1), it is apparent that the vast majority of trail usage is for recreational and interpretive purposes.

#### **4.3.3 Objective 3: Backshore Linkages**

- The existing trail system has not successfully achieved this objective. Backshore linkages are required (or require strengthening) to the following areas:

On the east bank:

- to the Nutana neighbourhood up the Victoria Street hill from the Victoria Bridge
- along College Drive to Wiggins, Cumberland and Preston Avenues
- to the University of Saskatchewan Campus
- to Innovation Place
- beyond Preston Avenue to Sutherland residential areas.

On the west bank:

- to the Central Business District.
- As the primary corridor is extended, linkages will be required to:
  - the Exhibition Grounds / WDM
  - the Forestry Farm and adjacent neighbourhoods
  - Holiday Park

#### **4.3.4 Objective 4: Loops**

- Limited loops or circuits have been provided in areas such as Meewasin Park, Kiwanis Park and Cosmo Park.
- All bridges except the Grand Trunk (CN) Bridge also currently afford opportunities for loops. However, for cyclists, these bridges pose considerable difficulty and / or inconvenience.

#### **4.3.5 Objective 5: Variety of Trails**

- Very little variety is provided in the existing system of developed trails. The majority of the system consists of asphalt surfaced trail ranging in width from less than 2.4 m to more than 3 m.
- Other (relatively short) sections of developed trail have been surfaced with gravel screenings or crusher dust (e.g. Meewasin Park, Cosmo Park upper trail, short section in Rotary Park) or with wood chips (terrace trail in north end of Cosmo Park, Diefenbaker Park equestrian trail).
- Generally speaking, the existing system of developed trails offers a limited variety of experiences for trail users. Typically (and as an overgeneralization), asphalt trails do not pass through wooded areas or in very close proximity to the river.
- No interpretive trails have been developed to date.

#### **4.3.6 Objective 6: Accessibility**

- Although considerable lengths of the existing system (especially the hard surfaced pathways) are accessible to most, there are some key locations where the trail system is inaccessible to many disabled persons and, indeed, to certain able-bodied trail users (e.g. cyclists). These locations include:
  - Meewasin Valley Centre
  - foot of the Victoria Avenue hill
  - all river crossings

- As noted in Section 4.3.5, access to the river's edge for disabled persons and non-pedestrian trail users is severely limited.

#### **4.3.7 Objective 7: Entry Points**

- Development of designated entry points to the existing trail system is highly variable.
- Highest level of entry point development occurs in Meewasin Park.
- Major entry points have been developed (or are planned) at the following locations:
  - Victoria Park (south end)
  - Rotary Park
  - Mendel Gallery
  - University of Saskatchewan (Diefenbaker Centre)
  - Meewasin Park Pavilion.
- A major entry point exists at the Meewasin Valley Centre, but this entry requires significant upgrading.
- Additional major entry points to the existing system are not required. However, as the primary corridor is extended, major entry points will be required at the following locations:
  - Diefenbaker Park
  - Dumont Park
  - Sutherland Beach
  - Silverwood farmstead
  - Wanuskewin Heritage Park
  - Peturrson's Ravine
- Minor entries have been well developed at the following locations:
  - Meewasin Park (several sites)
  - Weir (west bank)
  - Cosmo Park
  - Victoria Park (north end).

- Upgrading of minor entry is required at the foot of the Victoria Avenue hill.
- New minor entries are required:
  - in Meewasin Park (north end)
  - adjacent to Richmond Heights / North Park.

#### **4.3.8 Objective 8: Single Use Trails**

- Inasmuch as there has been relatively little in the way of development of a variety of trails, it has not yet been possible to offer significant single use trail opportunities.
- No restrictions have been placed on potentially conflicting uses on trails or trail segments, although a short section of equestrian trail in Diefenbaker Park has been signed as such and surface treatment does make certain other uses (e.g. cycling) very difficult.

#### **4.3.9 Objective 9: Support Facilities**

- Provision of support facilities is generally quite good along the existing trail system. Only a few areas were noted where there may be shortfalls:
  - a. Rest Areas (e.g. benches, bike racks / leaning posts, trash units):
    - east bank from weir to Circle Drive Bridge
    - west bank from weir to Meewasin Park pavilion.
  - b. Picnic Facilities:
    - Cosmo Park
    - west bank from weir to Circle Drive Bridge.

#### **4.3.10 Objective 10: Public Information**

- Meewasin's long standing emphasis on community input to plans and development proposals, the 1988 program of hiring trail ambassadors, public information publications regarding trail safety and appropriate behaviour, all combine to see that this objective continues to be achieved.
- Achievement of this objective is an on-going operational consideration rather than a "one-shot" development consideration; continued commitment will be required.

#### **4.3.11 Objective 11: Co-ordinated Planning**

- To date, trail system development has generally complemented other development in the Meewasin Valley although, as noted in Sections 5.3.1 and 5.3.3, trail system capacities seem, in places, to be inadequate and some key linkages to attractions in and near the valley have not been developed.

#### **4.3.12 Objective 12: Impact Avoidance**

- Generally, developed trails in the existing system have successfully avoided major negative impacts on significant valley resources.
- Casual use trails are commonly associated with localized impacts (e.g. trampling, denudation, soil compaction, gully erosion).

#### **4.3.13 Objective 13: Interpretation**

- Considerable progress has been made in recent years in terms of interpretive development in the central study area. Examples of this type of development include the Cosmo Lookout, the Mendel Gallery Riverbank, Victoria Park, the Capilano Drive Lookout (sponsored by local Cosmo Clubs and the Rotarians) and the weir lookout. Considerable opportunity remains, however, for additional interpretive development at many points in the valley.

#### **4.3.14 Objective 14: Natural Hazard Avoidance**

- Developed trails in the existing system have generally avoided natural hazards or have been designed and developed to protect public health and safety from risks associated with such hazards.

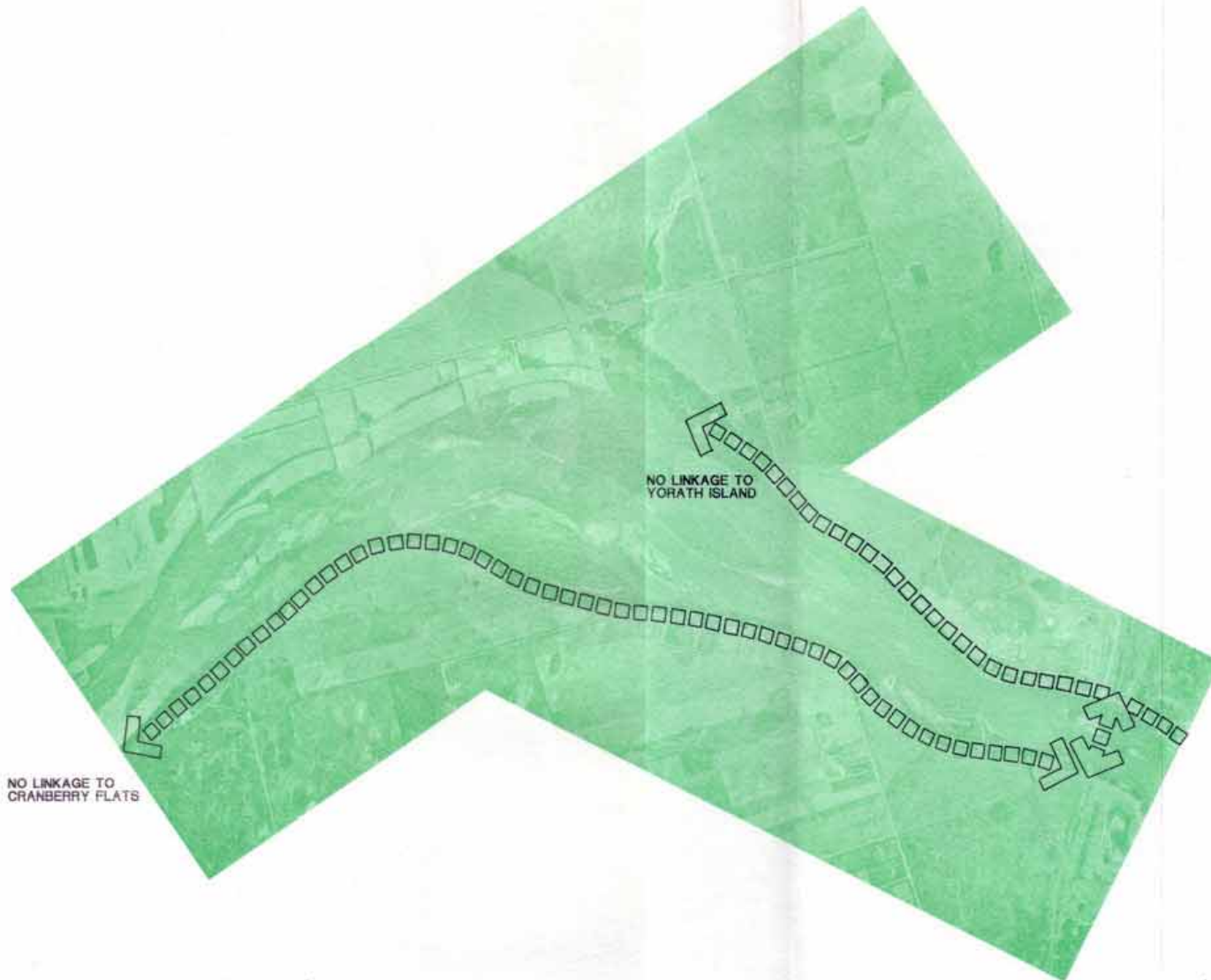
#### **4.4 TOWARD A PROGRAM FOR UPGRADING THE EXISTING TRAIL SYSTEM**

On the basis of the preceding analysis, it is clear that the existing trail system has successfully achieved (or is well on the way to achieving) a number of key objectives. It is equally clear, however, that the existing system falls well short of achieving a number of other objectives. It is suggested that, to ensure fulfilment of most key trail system objectives, any upgrading program for the existing system emphasize the following:

1. Filling the gap in the primary corridor between the Victoria and Idylwyld Bridges.
2. Extension of the primary corridor and development of associated entries from Idylwyld Bridge to Diefenbaker Park and from Victoria Park to the Grand Trunk Bridge.
3. Reducing congestion and increasing safety of multiple use along key portions of the primary corridor.
4. Development or strengthening of backshore linkages.
5. Enhancement of trail loop opportunities (including a trail river crossing at the Grand Trunk Bridge).
6. Interpretive trail and associated facility development.
7. Upgrading of major entry point facilities at the Meewasin Valley Centre.
8. Minor entry point development.

Once more is known about future development in the Sutherland Beach area and once the timing of development at Wanuskewin Heritage Park has been confirmed, extension of the primary corridor from the Circle Drive Bridge to Peturrson's Ravine and from Meewasin Park to Wanuskewin will need to be incorporated into the program.

Similarly, once plans for Yorath Island and the Rifle Range property have been clarified, it will be possible to appropriately integrate and co-ordinate trail system extension south of the Grand Trunk Bridge on both sides of the river.

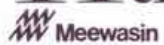


#### LEGEND

- MAJOR ENTRY
- MINOR ENTRY
- ▲ HAZARD AREA

- □ □ PRIMARY CORRIDOR EXTENSION
- ◁ □ □ BACKSHORE LINKAGE

# Meewasin Valley TRAIL SYSTEM PLAN



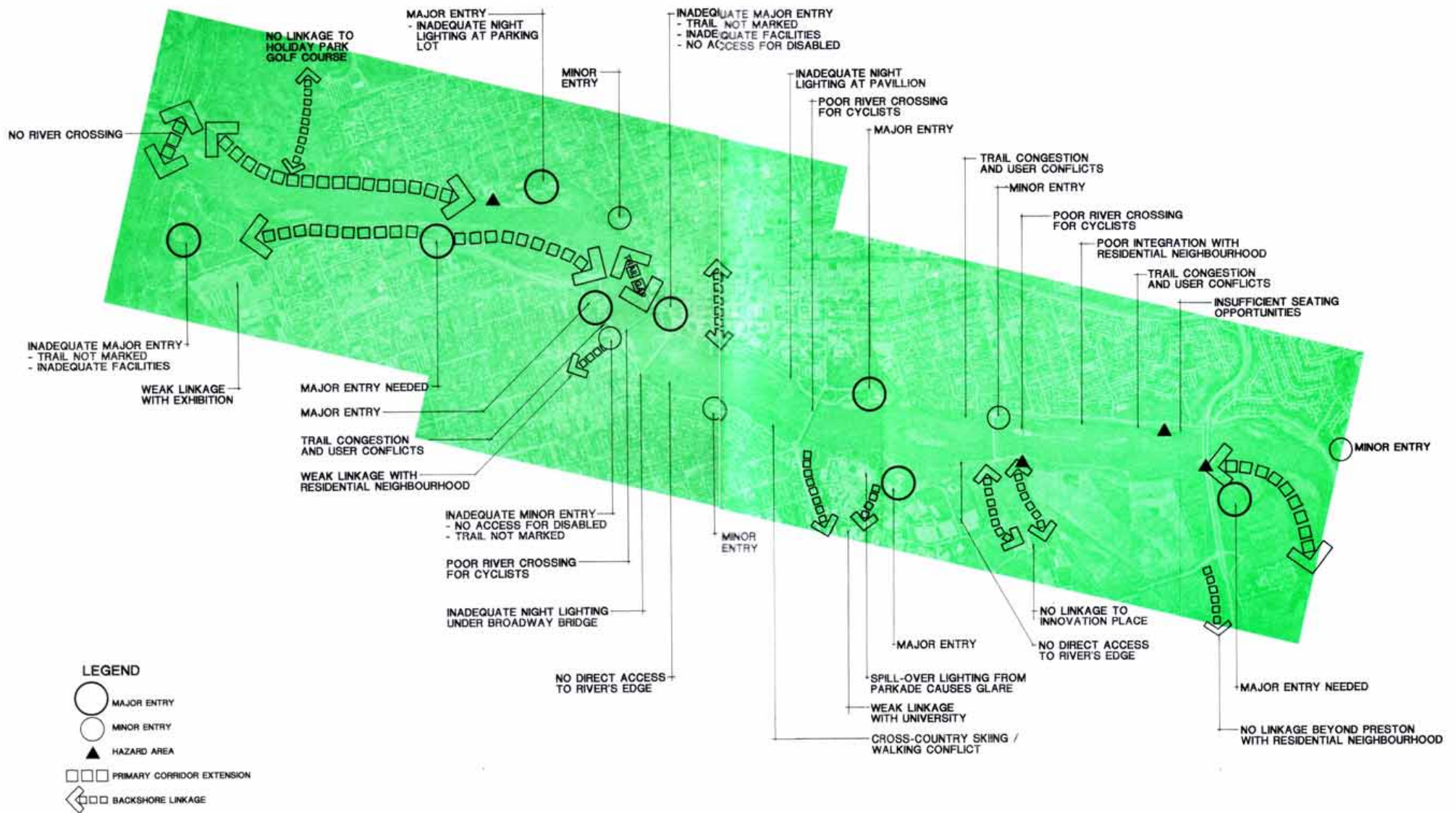
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Analysis

3a







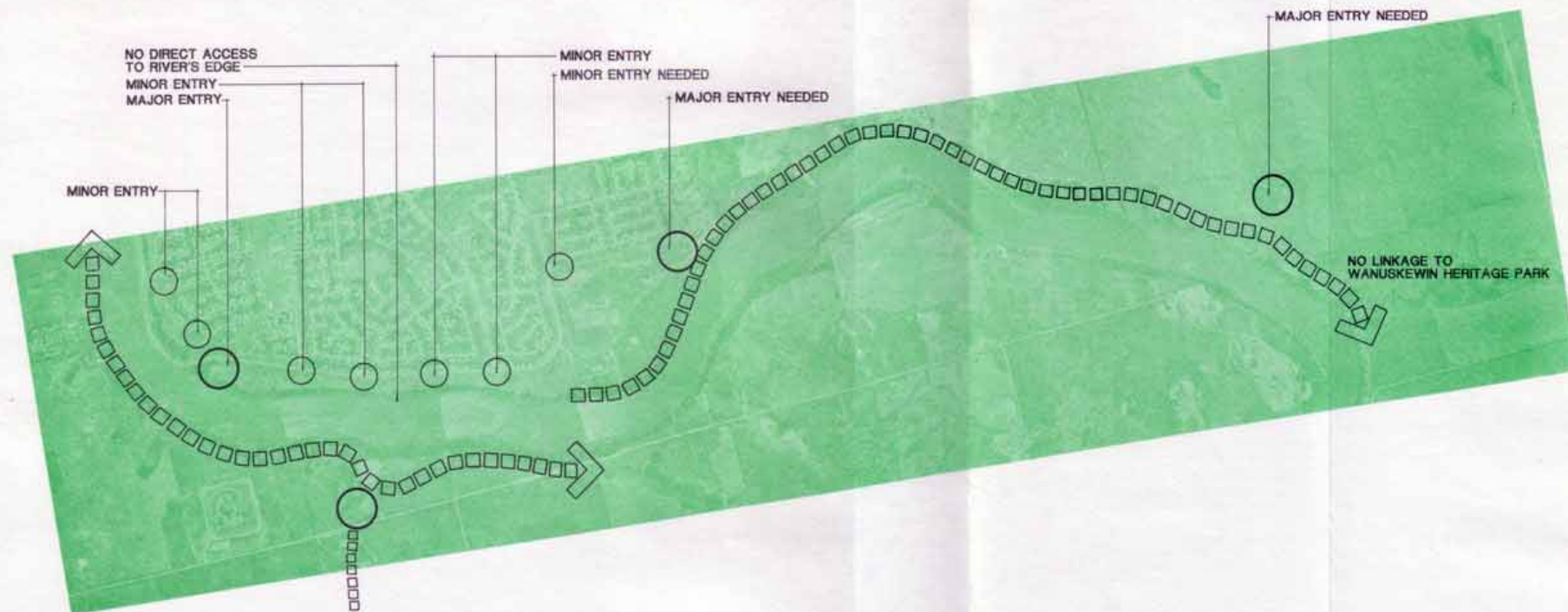
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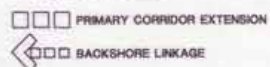
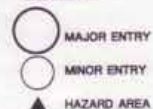
Analysis

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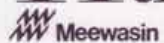




#### LEGEND



# Meewasin Valley TRAIL SYSTEM PLAN



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Analysis

3c



## **5. THE PROPOSED MEEWASIN VALLEY TRAIL SYSTEM**

Maps 4 and 5 illustrate the proposed ultimate configuration of the Meewasin Valley Trail System within the Central Study Area. On Map 4, both existing and proposed components of the trail system are shown whereas, on Map 5, only the proposed backshore linkages are indicated.

The components proposed for development are based on needs or shortfalls identified in Section 4. The following discussion organizes the proposed trail system components under the eight main areas of emphasis suggested for upgrading the existing trail system. A discussion of recommended further extensions to the trail system within the Central Study Area, some general guidelines for spacing of services and facilities, and a discussion of cross-country ski trails, complete the description of the proposed Meewasin Valley Trail System.

### **5.1 ELIMINATING GAP IN PRIMARY CORRIDOR**

- Map 4b - It is recommended that a temporary linkage be developed between the Victoria and Idylwyld Bridges until the South Downtown Development proceeds (with the inclusion of a permanent Type 1 Primary Trail).

### **5.2 SOUTHERLY EXTENSION OF PRIMARY TRAILS TO CNR BRIDGE**

- Map 4b - Along the west bank, a Type 1 Primary trail should be extended south from the Water Treatment Plant to the CNR Bridge.
- Minor entries should be developed at three points along this extension:
    - at Spadina Crescent and 11th Street, to include trail information, rest area, and lighting;
    - near the Sanatorium, where a backshore linkage is proposed to connect to the Primary Trail, to include trail information, rest area and lighting;

- at the CNR Bridge, where a backshore linkage and trail river crossing are proposed to connect to the Primary trail, to include a small parking lot, picnic facilities and bicycle stand.

Map 4b

- Along the East Bank, a Type 1 Primary Trail should be extended south from the Idylwyld Bridge, along Saskatchewan Crescent, into Dumont Park, and through Dumont Park to Diefenbaker Park. Private ownership of river edge lands between the Idylwyld Bridge and the Labatt's Brewery dictates that the trail should follow Saskatchewan Crescent through this residential area. "Trail development" along this section may, therefore be limited to low key signage, although consideration could be given to additional initiatives (in co-operation with neighbourhood residents) such as sidewalk widening, use of special trail surface materials (e.g. unit paving), etc. The key, in any case, will be to respect the residential streetscape and atmosphere of the area. Possible Sunday closure of Saskatchewan Crescent to all motor vehicles (except residents' and possibly buses) during the summer season should also be considered.
- A new major entry to the trail system should be developed at Gabriel Dumont Park. The development of this entry should be co-ordinated with plans for park development and should include parking, washrooms / shelter, bicycle stand(s), trail information, drinking fountain and picnic facilities.
- In addition to Primary Trail development in Dumont Park, opportunities are apparent for Tertiary Trails in portions of the park, depending upon the development program for the park itself.

- Minor entries should be developed at three points along this Primary Trail extension:
  - at Saskatchewan Crescent and 8th Street, where the Primary Trail is proposed to enter Dumont Park, to include trail information, rest area and lighting;
  - at the west end of Taylor Street, to include trail information, rest area and lighting;
  - at the west end of Hilliard Street, to include trail information, rest area and lighting.

### 5.3 REDUCE CONGESTION AND INCREASE SAFETY ALONG KEY PORTIONS OF PRIMARY TRAILS

- Map 4b - On the west bank near the proposed minor entry at 11th Street and Spadina Crescent, the Primary Trail should be widened and trail alignment should be adjusted to improve view lines and grades in this hazardous section.
- Map 4b - Night lighting of the parking lot area should be improved at the existing major entry at the south end of Victoria Park.
- Map 4b - The Primary Trail should be widened and safety signage / marking installed on the east bank between the Idylwyld and Broadway Bridges. The old snow dump area near the Broadway Bridge, if redeveloped and/or regraded, could afford significant opportunity for increased safety along this portion of the trail.
- Map 4b - Night lighting under the east end of the Broadway Bridge should be improved.
- Map 4b - Night lighting at the Thompson Belvedere should be improved.



- Map 4b - Measures are required to reduce the glare from lighting of the University Hospital Parkade. Installation of relatively large plant material is recommended.
- Map 4b - The Primary Trail should be widened between the Mendel Gallery and the weir along the west bank.

#### 5.4 DEVELOPMENT / STRENGTHENING OF BACKSHORE LINKAGES (MAP 5)

- West Bank - A Type 1 Secondary Trail is proposed to link the Montgomery Place neighbourhood to the Primary Trail. This backshore linkage would follow along the CNR main line and, perhaps ultimately, along the Circle Drive extension right-of-way.
- A Type 1 Secondary Trail is proposed to extend through the Sanatorium property to Holiday Park, Gordon Howe Park and the Holiday Park Industrial Centre.
  - A backshore linkage is proposed from Kiwanis Park to Midtown Plaza along 21st Street. This linkage would require little in the way of trail development as 21st Street is being upgraded as the first phase of Downtown streetscape enhancement. Trail signage and information is all that would be required.
  - A backshore linkage from the river and through the South Downtown area is proposed, in association with the South Downtown development and, north of 19th Street, using existing city walks and/or new pedestrian corridors that may be created as the area is redeveloped.
  - A backshore linkage is proposed along 33rd Street to the Kelsey Campus of S.I.A.S.T. This linkage is proposed to extend further west from the Kelsey Campus, along 31st Street and through Ashworth Holmes Park to the remnant Hudson Bay Channel Scar now occupied by Leif Erickson, Scott, Pierre Radisson and Henry Kelsey Parks. Between the river and Warman Road, this linkage should be developed as a Type 1 Secondary Trail lying between the CPR tracks and 33rd Street. Similarly, through all of the parks, the linkage should be developed as a Type 1 Secondary Trail with appropriate

signage. However, between Warman Road and Idylwyld Drive, through the Kelsey Campus and along 31st Street, it will likely be necessary to use city sidewalks or other existing pedestrian routes, and trail development in these area should be limited to appropriate signage.

- A backshore linkage is proposed in Archibald Park North to the Luther Heights seniors housing complex, connecting to existing pathways associated with the Circle Drive Bridge.
- A backshore linkage (using city sidewalks and signage) is proposed along Whiteswan Drive, from an existing Type 1 Secondary Trail connected to the north end of Meewasin Park, to W.J.L. Harvey Park. The existing trail network in Harvey Park provides excellent linkages with much of Silverwood Heights and the northern portion of Lawson Heights.
- A similar backshore linkage (city sidewalks and signage) is proposed from the proposed Silverwood Historic Site, west along Adilman Drive in the northern portion of Silverwood Heights.
- A backshore linkage is proposed along Kinnear Crescent to Warman Road and the Silverwood Industrial area.
- Finally, a long term opportunity may exist for a backshore linkage between the North Industrial / Agriplace areas to Tipperary Creek, Wanuskewin Heritage Park and a proposed northward extension of the Primary trail, along the channel scar which currently provides surface drainage to much of extreme northern Saskatoon.

East Bank - A roadside Equestrian/Driving Trail is proposed to extend from the south end of the Rifle Range Property into Riverside Estates (Map 1a).

- A Type 1 Secondary Trail is proposed to link the proposed Primary Trail in Diefenbaker Park to the Western Development Museum. From this point two further back-shore connections are suggested:
  - The first will follow the CNR main line to the Southridge neighbourhoods south of Circle Drive between Clarence Avenue and Highway 11.
  - The second will follow the north side of Circle Drive, along buffer strips, adjacent to the Avalon, Adelaide Park and Eastview neighbourhoods, then north along the buffer strips on the east side of Circle Drive to 14th Street. The linkage would then extend west along the north side of 14th Street to Preston Avenue, north on Preston to connect with the Meewasin Valley Trail extension previously proposed in the College Drive Streetscape Master Plan.
- In both of these backshore linkages, specific details regarding trail alignments and recommended means for crossing road rights-of-way will require further study (especially in the vicinity of Lorne Avenue and the proposed Circle Drive extension).
- Two backshore linkages are proposed from minor entries to Dumont Park:
  - The first, following city sidewalks and the pedestrian overpass of the freeway at Hilliard Street;
  - The second, following city sidewalks along Taylor Street.
- A backshore linkage is proposed from a minor entry at the head of the Broadway Bridge, along city sidewalks on Broadway Avenue.
- A backshore linkage is proposed from the University of Saskatchewan Campus at College and Cumberland, past Griffiths Stadium and the Fieldhouse, to Preston Avenue.



- A backshore linkage is proposed from the vicinity of Devil's Dip and the Cancer Clinic, connecting with the University of Saskatchewan pedestrian circulation system and extending via a Type 1 Secondary Trail from the University Campus, along 108th Street to Sutherland.
- One Type 1 Secondary Trail and one Tertiary Trail are proposed as backshore linkages from the Primary Trail to Innovation Place.
- A Type 1 Secondary Trail is proposed to extend east from the existing Secondary Trail on the south side of Circle Drive, across Preston Avenue and Circle Drive and into the Dutch Growers subdivision. Crossing of Circle Drive could occur via the CPR overpass; if this is not feasible, the crossing should follow the proposed Attridge Drive overpass.
- On the north side of Circle Drive and Attridge Drive, a Type 1 Secondary Trail is proposed to extend east across Central Avenue near the new Silverspring neighbourhood, to the Forestry Farm Park.
- Two backshore linkages are proposed to extend away from the river at Peturrson's Ravine:
  - The first is proposed as a Type 1 Primary Trail extending east and south to the Forestry Farm Park.
  - The second is proposed as a Type 1 Secondary Trail extending north and east to connect with future residential neighbourhoods and with the proposed City golf course.
- Specific alignments of these two backshore linkages must await decisions regarding treatment of remnant native prairie that may exist in the Northeast Sector and the implications of these decisions on the ultimate urban form of the area.

## 5.5 ENHANCEMENT OF LOOP OPPORTUNITIES

- Map 4b - A pedestrian / cyclist crossing structure is recommended along the CNR Bridge. This river crossing will close a loop extending along both sides of the river from the Idylwyld Bridge.
- Map 4b - A second pedestrian / cyclist crossing structure is recommended on the east (downstream) side of the Victoria Bridge. This second structure will serve a number of purposes, including the following:
- more effectively closing a loop (or series of loops) extending downstream from the Victoria Bridge on both sides of the river;
  - facilitating a backshore connection from the bridge to Nutana along the east side of Victoria Avenue;
  - reducing congestion and user conflicts between cyclists and pedestrians, thereby increasing the safety of this heavily used pedestrian / cyclist river crossing.
- It is also proposed that consideration be given to closure of the vehicle lanes of the bridge on Sunday afternoons (late spring, summer and early autumn only), turning bridge access over completely to pedestrians and cyclists at times when business activity and traffic levels in and near the Downtown are minimal and when recreational use of the valley is at peak levels.
- Map 4b - It is recommended that the upper Primary Trail (i.e. at street level) be completed along Saskatchewan Crescent at Cosmopolitan Park. Construction of this relatively short section of trail will close a very pleasant loop within Cosmo Park as well as larger loops in the central portion of the city.

- Map 4b - It is proposed that consideration be given to increasing the capacity of the University Bridge to accommodate pedestrians and cyclists. In addition to handling heavy volumes of vehicle traffic, it is likely that it also handles higher numbers of pedestrians / cyclists than any other river crossing in the city. Possible approaches to increasing this capacity include widening of the bridge deck (a costly approach which could also jeopardize the heritage aspects of the bridge) and construction of a pedestrian deck below the vehicle deck, within the arches of the bridge.
- Map 4b - It is recommended that a Tertiary Trail be developed, along the bottom of the east valley wall, between the Broadway and Circle Drive Bridges. Associated with this low-level Tertiary trail should be a series of Tertiary Trail connections to the higher Primary Trail. Most sections of this proposed Tertiary Trail have already been "developed" as Casual Trails. More formal development of the lower trail will result in the following:
- Creation of more loop opportunities along the east bank;
  - Increased access to the river's edge;
  - Provision of a greater variety of trails and trail experiences.
- Map 4b - The existing pedestrian crossing at the CPR Bridge should be upgraded to better accommodate cyclists and the disabled. Such upgrading is required at both ends of the bridge. Provision of better access to the bridge will enhance loop opportunities in both the upstream and downstream directions.
- Map 4b - It is recommended that the Secondary Trail in the "Upland Park" portion of Meewasin Park, be extended from the Capilano Drive lookout to Ravine Drive, Spadina Crescent and the Primary Trail. This extension would close an interesting trail loop within Meewasin Park.

- Map 4c - Consider construction of a pedestrian bridge across the river from Meewasin Park in the vicinity of Lenore Drive. This crossing would close a major loop, involving trails on both sides of the river, downstream of the Circle Drive Bridge.

## 5.6 INTERPRETIVE TRAIL AND FACILITY DEVELOPMENT

The recommendation of specific interpretive trail and facility development in the Meewasin Valley is beyond the scope of the Trail System Plan. Such recommendations are the product of interpretive development planning or comprehensive park / open space planning. However, the Meewasin Valley Trail System does include trail types designated for the purposes of interpretation in a variety of situations. Further, existing trails pass through or in close proximity to resources / features that have been previously identified as being potentially worthy of interpretation. Within the Central Study Area, opportunities thus exist for interpretive trail development in a number of areas, including the following:

### Type 1 Interpretive Trails

- Downtown Saskatoon
- Nutana (Broadway / Victoria area)
- University Drive / Saskatchewan Crescent Area
- University of Saskatchewan Campus

### Type 2 Interpretive Trails

- Cosmopolitan Park
- in-city river marsh (Kiwanis Park)
- Devil's Dip
- Sutherland Beach
- Peturrson's Ravine
- Silverwood Historic Site
- Wanuskewin Heritage Park

### **5.7 MAJOR ENTRY POINT DEVELOPMENT AND UPGRADING**

There is presently a need for upgrading some of the existing major entry points to the trail system. As the trail system expands, there will be a need for further major entry point upgrading and development of new major entry points.

Current needs for major entry point upgrading include:

Map 4b - The major entry at Rotary Park should be upgraded, primarily to address aesthetic concerns. Although the services and facilities provided generally meet the requirements set out for major entries in the Model Trail System, the age and design of structures suggest that renovation and remodelling would be appropriate to better fit the atmosphere and context of Rotary Park. Trail information and signage should also be provided.

Map 4b - The major entry at the Meewasin Valley Centre should receive major upgrading, reflecting the importance of this area to the Meewasin Valley, to the MVA and to the City. Although some required facilities are provided at the Centre, additional facility development should include vehicle parking, trail information and signage, direct access from the Centre to the Primary Trail and provision of disabled access to the Trail.

- Map 4b - The major entry at the Diefenbaker Centre also requires some upgrading, although most facilities already exist at and near the Centre. Upgrading should include provision of trail information / signage and bicycle racks.

Future needs for upgrading of major entries and development of new major entries will include the following:

- Map 4a - A new entry should be developed at the south end of the Rifle Range property. Decisions regarding whether this entry should be a major or minor entry are dependent upon future development of the Rifle Range property. At the least, facility development at this entry should include hitching posts and provision of trail information / signage. Development of this entry should be co-ordinated with extension of the Primary Trail south from Diefenbaker Park.

- Map 4a - A new major entry is proposed in the vicinity of Yorath Island at the terminus of a proposed southerly extension of the Primary Trail (refer to Section 6.9). Timing of entry development should be co-ordinated with Primary Trail extension and entry facility development, which should be co-ordinated with plans for development on Yorath Island, should include parking, washrooms / shelter, bicycle racks, drinking fountain, picnic area and trail information / signage.

- Map 4b - The major entry at Diefenbaker Park will require upgrading when the Primary Trail is extended south from the Idylwyld Bridge to the Park (refer to Section 5.2). Recommended development includes washrooms / shelter, bicycle racks, drinking fountains and food services.

- Map 4b - A new major entry will be required in Dumont Park as the park is developed and as the Primary Trail is extended upstream from the Idylwyld Bridge. Recommended development is described in Section 5.2.

- Map 4b - A new major entry is proposed at Sutherland Beach. Timing of entry point development should be related to extension of the Primary Trail downstream from the Circle Drive Bridge toward Peturrson's Ravine. Facility development, which should be co-ordinated with development plans for the Sutherland Beach area, is proposed to include parking, washrooms / shelter, drinking fountain, bicycle racks and picnic facilities.
- Map 4c - A new major entry is proposed at Peturrson's Ravine. Timing of entry point development should be related to the northerly extension of the Primary trail from Sutherland Beach. Facility development, to be co-ordinated with plans for development of Peturrson's Ravine, should include parking, washrooms / shelter, drinking fountain, bicycle racks and picnic facilities.
- Map 5 - A new major entry is proposed at the Forestry Farm Park. Required facilities exist at the Forestry Farm for a major entry; the time at which this point would begin to serve as a major entry to the Meewasin Valley Trail System would depend solely on the provision of the proposed backshore linkage from Peturrson's Ravine to the Forestry Farm.
- Map 4c - A new major entry is proposed at the previously proposed Silverwood Historic Site, west of the Water Pollution Control Plant. Timing of entry point development should relate to a proposed northern extension of the Primary Trail from Meewasin Park (refer to Section 5.9). Facility development, to be co-ordinated with Silverwood Historic Site development plans, is proposed to include parking, washrooms / shelter, drinking fountain, bicycle racks and picnic facilities.
- Map 4c - A new major entry is proposed at Wanuskewin Heritage Park. Timing of entry point development should relate to a proposed northerly extension of the Primary Trail to the Park (refer to Section 5.9). Facility development, to be co-ordinated with plans for Park development, are proposed to include parking, washrooms / shelter, drinking fountain, bicycle racks and picnic area and, of course, a network of interpretive trails.

NOTE RE: NEW ENTRY POINTS - Initial development of these points should, except where related open space facility development permits, be as minor entry points, but this development should be based on plans which reflect the ultimate role of these points as major entries.

## 5.8 MINOR ENTRY POINT DEVELOPMENT AND UPGRADING

A series of minor entries are proposed at strategic locations throughout the Central Study Area. At a minimum, facility development at these minor entries will include trail information / signage but, as circumstances require, other proposed facilities could include parking, lighting, bicycle racks, rest areas and / or picnic facilities.

Minor entry point upgrading or development is proposed at the following locations:

- Map 4a - south end of Rifle Range property
- Map 4b
  - Spadina Crescent and CNR Bridge
  - Spadina Crescent at the Sanatorium
  - Spadina Crescent and 11th Street
  - West end of Hilliard Street
  - West end of Taylor Street
  - Saskatchewan Crescent and 8th Street
  - South end of Victoria Bridge
  - Spadina Crescent and 21st Street (upgrade)
  - East end of University Bridge, north of College Drive
  - Devil's Dip / Cancer Clinic area
  - Ski Jump Coulee
  - East end of CPR Bridge
  - Spadina Crescent and 33rd Street
  - Spadina Crescent and Windsor Street (Archibald Arena)
  - East abutment of Circle Drive Bridge
  - Spadina Crescent and Ravine Drive
- Map 4c
  - east end of Adilman Drive
  - Kinnear Crescent (Silverwood Industrial Area)



## 5.9 ADDITIONAL TRAIL SYSTEM DEVELOPMENT RECOMMENDATIONS

In addition to the eight main areas of emphasis suggested for trail system development, a number of proposals are made, related to extension of the Primary Trail Corridor and other trails throughout the Central Study Area. These proposals include the following:

- Map 4a - Southerly extension of a Type 2 Primary Trail from the CNR Bridge to the vicinity of Yorath Island. Further, trail access from the City to Yorath Island could be provided (if desired).
- Map 4a - Extension of Type 2 Primary Trail to the south end of the Rifle Range property and the vicinity of Riverside Golf Club is proposed. This extension would require crossing under the CNR main line, possible future crossing of the proposed Circle Drive extension and reliance on a roadside trail configuration for a stretch of approximately 1 km where private residential land abuts the top of a very steep section of valley wall.
- Map 4a - Extension of an equestrian/driving trail is proposed from Diefenbaker Park, south to the Rifle Range property.
- Map 4b - Completion of an equestrian/driving loop in Diefenbaker Park, connected to the proposed southerly extension of the equestrian trail to the Rifle Range property.
- Map 4b & 4c - Northerly extension of a Type 2 Primary Trail from the Circle Drive Bridge to Peturrson's Ravine, connecting to a Type 1 Primary backshore linkage to the Forestry Farm and a Type 1 Secondary backshore linkage to the northeast.
- Map 4c - Northerly extension of a Type 2 Primary Trail from the north end of Meewasin Park, past the proposed Silverwood Historic Site to Wanuskewin Heritage Park. From Meewasin Park to the proposed Historic Site, the trail is proposed to follow between the Pollution Control Plant property and the river, along a Casual Trail that already exists. From the Silverwood Site to the 64th Street trunk storm sewer outfall, the Primary Trail is proposed to follow the crest of the valley wall. An alternate, Tertiary Trail is proposed along this section to provide closer access to the river,

greater variety of trail experiences and a relatively short loop. North of the 64th Street outfall, the Primary Trail is proposed to follow along the lower valley wall, past Saskatoon Chemicals, across the Saskatoon Chemicals terrace and up the valley wall to Wanuskewin Heritage Park.

#### **5.10 SPACING OF TRAIL SERVICES AND FACILITIES**

Within the built-up area of Saskatoon, the location of support services and facilities along the Primary Trail will be determined by two principal factors:

1. The location of major and minor entry points.
2. Park and open space facility development.

In areas outside the city where the Primary Trail is proposed to pass through areas where there is no associated park or open space facility development, the following guidelines are proposed for the spacing of support services and facilities.

1. Entry points should be developed at intervals of approximately 3 - 3.5 km.
2. Rest areas should be developed at intervals of approximately 1 km.

Both of the above guidelines should be considered flexible, in that site conditions, access and other factors may dictate the location of support services / facilities at points somewhat at variance with the recommended spacing.

### 5.11 CROSS-COUNTRY SKI TRAILS

Cross-country skiing is a very popular winter leisure-time activity in the Meewasin Valley. To reflect this popularity, and the nature of the activity, the trail system should provide opportunity for a continuous network of ski trails throughout the length of the valley on both sides of the river. It is clear that development of such a network will be made more difficult as a result of the complex interactions among various components of winter urban life, including the following:

- insufficient room to accommodate ski trails, roads, the Primary Trail and the snow, salt and sand mixtures cleared from the roads;
- excessive slopes, natural ice dams or lack of protective vegetation cover;
- road salt and sand falling from bridges onto underlying trails;
- road crossings; and
- other winter trail users who are not skiers.

Despite the potential for conflicts and the difficulties that may result from these conflicts, it is recommended that, wherever feasible, a continuous, uninterrupted, double track cross-country ski trail be developed through the length of the Meewasin Valley, on both sides of the river. As a key principle, this "dedicated ski trail" should closely parallel (but be separate from) the Primary Trail wherever possible. By closely paralleling the Primary Trail, the ski trail will offer generally the same views and experiences as those offered on the Primary Trail, thus reducing the tendency for non-skiers to walk on the ski trail "because it's nicer". This tendency will be further reduced by regularly clearing the Primary Trail of snow, thereby making it the easier (and therefore the preferred) route for non-skiers to follow. Finally, strategically placed signage, clearly indicating the dedicated ski trail and the trail available for non-skiers, should help alleviate user conflicts.

It is recognized that along some portions of this dedicated ski trail, the trail is fully exposed to the elements and skiers will be afforded little or no shelter by vegetation. Amelioration of these problems should only occur, however, after a determination of resource protection concerns, the preferred resource management approach and the open space image considered desirable for such areas and then only in accordance with such approach and image.

It is also recognized that there may be specific design and operational considerations which will enhance opportunities for uninterrupted skiing through the length of the valley. These must be the subject of further examination at later design and development stages as the Trail System Plan is implemented.

Complementing and supporting the notion of a dedicated skiing corridor, on both sides of the river, will be a network of "secondary" ski trails, developed either along Tertiary or Casual Trails or following routes dictated by the desires of skiers themselves. Further, it is suggested that the dedicated skiing corridor provide linkages among a series of park-based ski networks in areas where there would appear to be sufficient room and opportunity to avoid (or at least minimize) conflicts or problems related to the factors noted above. Such networks are proposed in the following areas:

Holiday Park Golf Course

Diefenbaker Park

Dumont Park

Victoria Park

Cosmopolitan Park

Kinsmen Park

Sutherland Beach

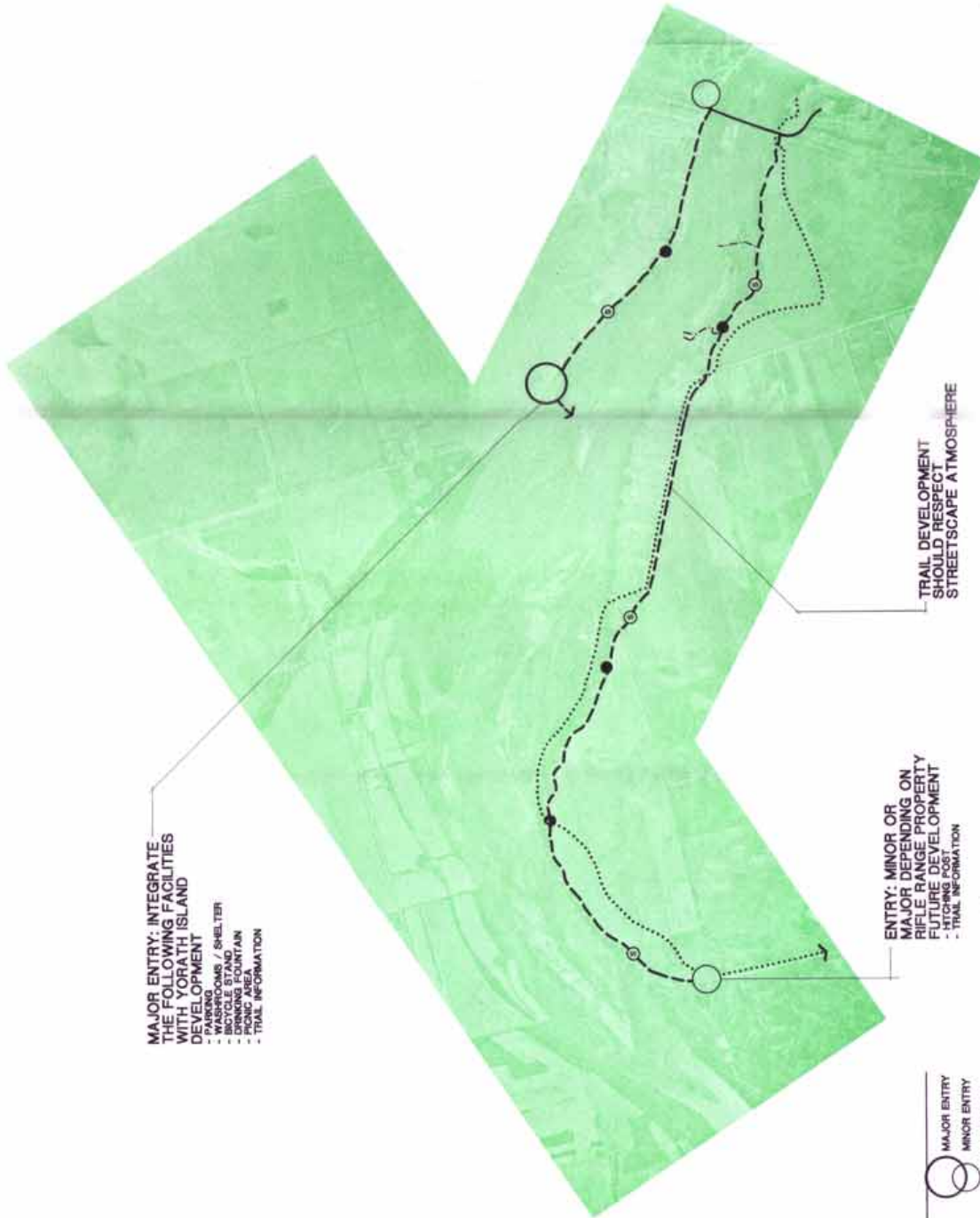
Meewasin Park

Silverwood Golf Course

Forestry Farm Park

It is noted that the City of Saskatoon, the Nordic Ski Club and

Meewasin have already been working co-operatively toward development and maintenance of such networks in a number of these areas.



#### LEGEND

- PRIMARY TRAIL: TYPE ONE
- - - PRIMARY TRAIL: TYPE TWO
- ..... SECONDARY TRAIL: TYPE ONE
- . - . SECONDARY TRAIL: TYPE TWO
- ..... CASUAL TRAIL
- MAJOR ENTRY
- MINOR ENTRY
- REST AREA
- EQUESTRIAN TRAIL

## Proposed Trail System 4a

FEBRUARY 1989 | revised February 1993

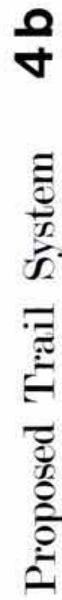


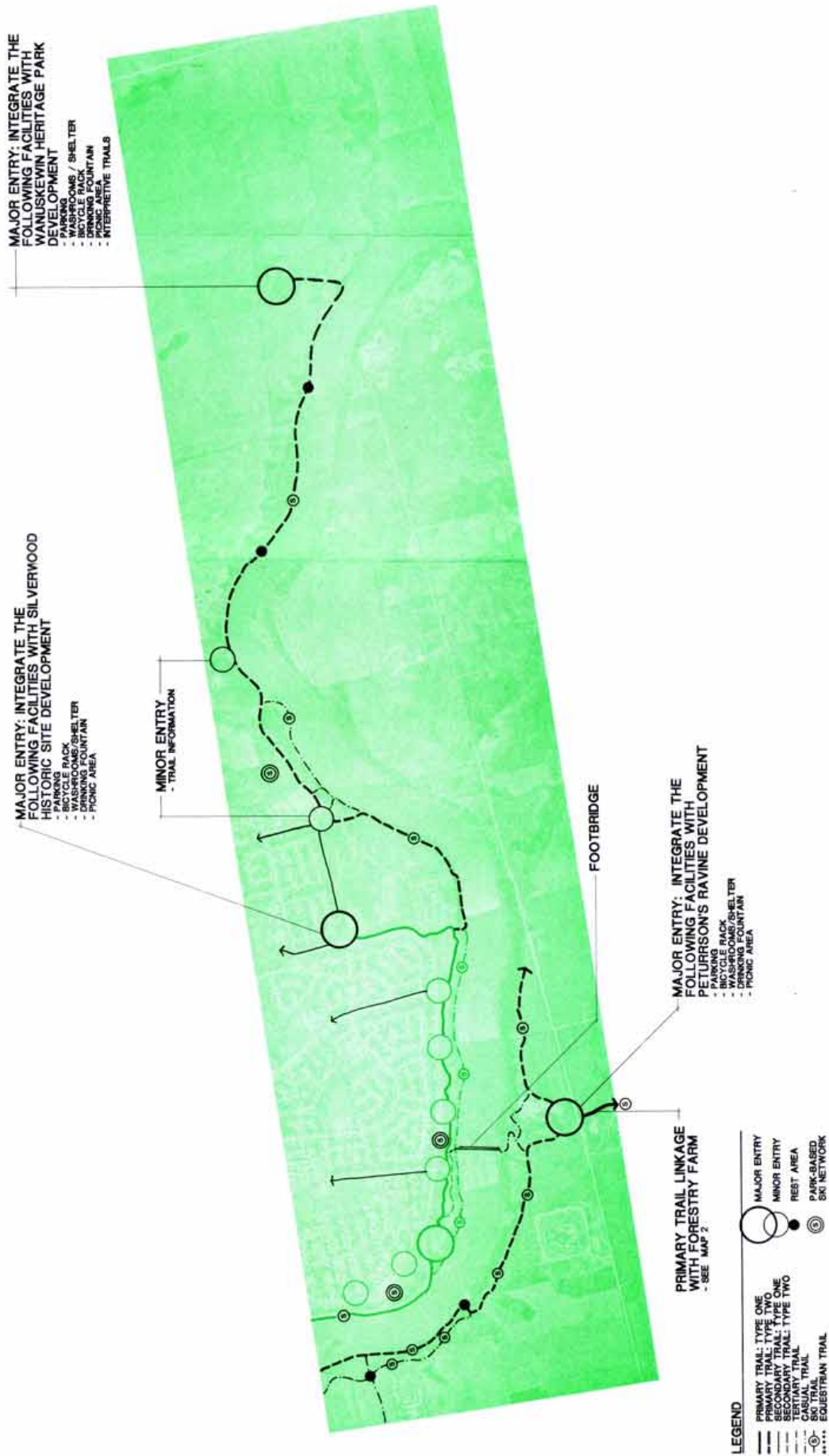
# Meewasin Valley TRAIL SYSTEM PLAN

HILDERMAN WITTY CROSBY HANNA & ASSOCIATES  
Landscape Architects & Planners · Saskatoon









## Proposed Trail System 4c

FEBRUARY 1989 revised February 1990

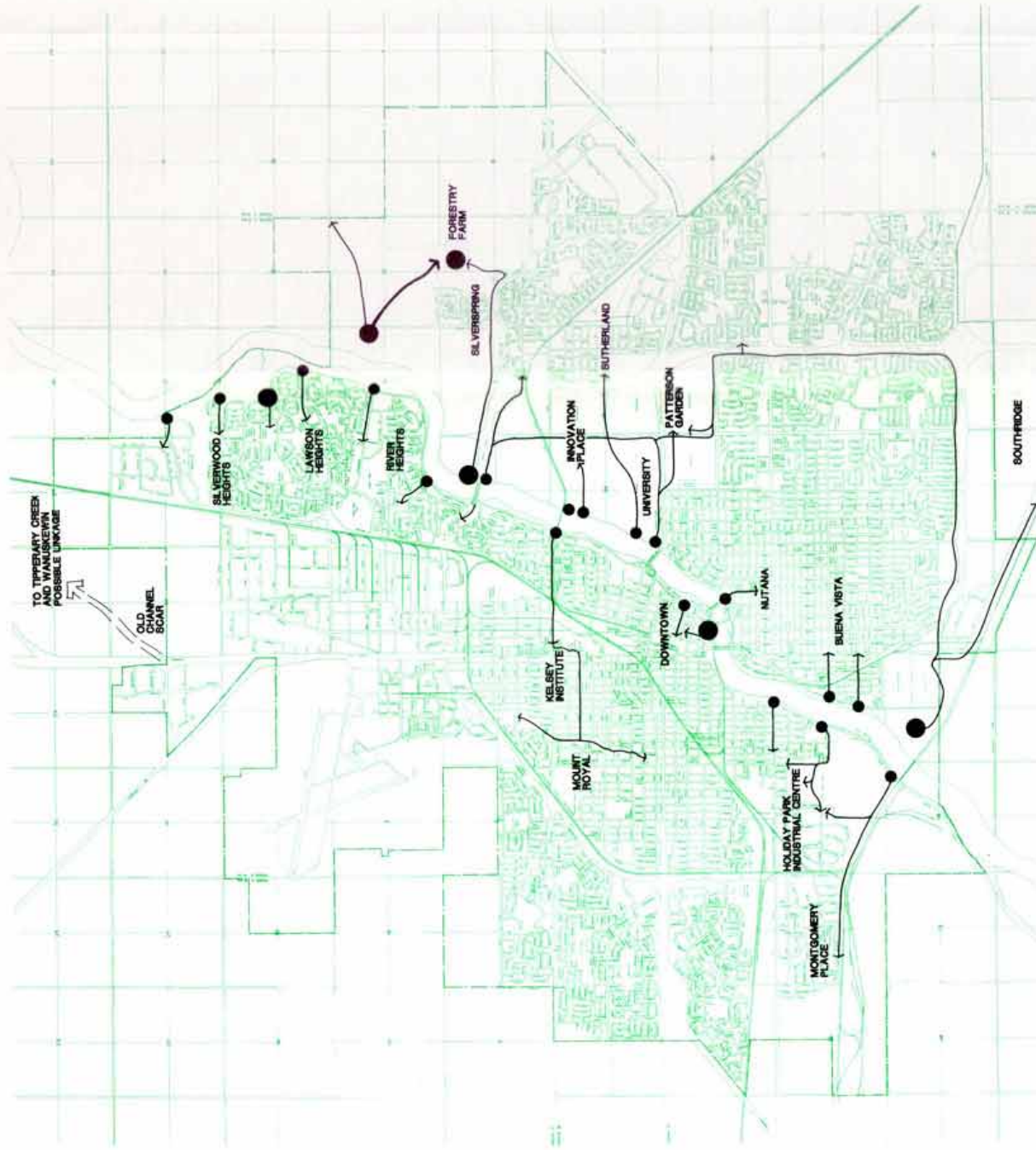


# Meewasin Valley TRAIL SYSTEM PLAN

HILDERMAN WITTY CROSBY HANNA & ASSOCIATES  
Landscape Architects & Planners - Saskatoon







LEGEND  
 ● MAJOR ENTRY  
 ○ MINOR ENTRY  
 — SECONDARY TRAIL TYPE ONE

FEBRUARY 1989



# Meewasin Valley TRAIL SYSTEM PLAN

HILDERMAN WITTY CROSBY HANNA & ASSOCIATES  
 Landscape Architects & Planners · Saskatoon



## **6. IMPLEMENTATION STRATEGY**

Three implementation phases are suggested for this plan. They are as follows:

Phase 1 (1989 - 1993)

Phase 2 (1994 - 1998)

Phase 3 (1999 & on)

Within each phase, development items are also associated with a development priority (H-high, M-moderate, or L-low).

Some of the development items noted in Section 5 are not included in the Implementation Strategy. These items are components of the trail system whose development would be undertaken as an integral component of overall open space or park development. In these cases, the determination of development timing is a function of river valley open space planning priorities rather than trail system priorities.

It should also be noted that the phasing and priorities assigned to each development item should be the subject of periodic review and revision as circumstances, budgets and trail system planning priorities change over time.

Finally, proposed budget responsibilities are noted for each item (i.e. Meewasin Valley Trail System budget, City of Saskatoon, University of Saskatchewan or other MVA budgets). These proposed responsibilities have not been formally submitted to or accepted by any of the parties. Further, no consideration is given, in this implementation strategy, to increased operation and maintenance costs that will be associated, to varying degrees, with the development proposed in this plan.

## 6.1 PHASE 1 (1989 - 1993)

The following items are proposed for development during the 1989 - 1993 period (items already completed have been noted with an asterisk - \*):

### 6.1.1 High Priority

- Temporary Type 1 Primary trail between the Victoria and Idylwyld Bridges on the west bank. **(Proposed budget responsibility: 100% Meewasin Valley Trail System).\***
- Widen and re-align Type 1 Primary Trail near the water treatment plant. **(100% Meewasin Valley Trail System).**
- Improve lighting at Victoria Park parking lot. **(100% Meewasin Valley Trail System).\***
- Improve night lighting at the Thompson Belvedere. **(100% Meewasin Valley Trail System).**
- Improve night lighting under the east end of the Broadway Bridge. **(100% Meewasin Valley Trail System).**
- Reduce glare from University Hospital Parkade. **(100% MYA river-bank naturalization budget).\***
- Upgrade (i.e. widen) Type 1 Primary Trail from the Mendel Gallery to the weir. **(100% Meewasin Valley Trail System).**
- Backshore linkage from Spadina Crescent to Midtown Plaza on 21st Street. **(100% Meewasin Valley Trail System).**
- Minor entry at 21st Street and Spadina Crescent. **(100% Meewasin Valley Trail System).**
- Complete upper Type 1 Primary Trail at Cosmopolitan Park. **(100% Meewasin Valley Trail System).**
- Upgrade Type 1 Primary Trail between Idylwyld and Broadway Bridges on east bank. **(100% Meewasin Valley Trail System).**
- Construct a portion of the large east side backshore linkage / loop along Preston Avenue from 14th Street to North of College Drive **(100% City of Saskatoon).\***

### 6.1.2 Moderate Priority

- Type 1 Primary Trail extension south from water treatment plant to CNR Bridge. (100% Meewasin Valley Trail System).
- Minor entry at Spadina Crescent and 11th Street. (100% Meewasin Valley Trail System).
- Minor entry near the Sanatorium. (100% Meewasin Valley Trail System).
- Minor entry at the CNR Bridge (west bank). (100% Meewasin Valley Trail System).
- Backshore linkage to Luther Heights. (100% Meewasin Valley Trail System).
- Upgrade major entry at Diefenbaker Centre. (100% Meewasin Valley Trail System).
- Complete equestrian / drive

### 6.1.2 Moderate Priority

- Type 1 Primary Trail extension south from water treatment plant to CNR Bridge. **(100% Meewasin Valley Trail System).**
- Minor entry at Spadina Crescent and 11th Street. **(100% Meewasin Valley Trail System).**
- Minor entry near the Sanatorium. **(100% Meewasin Valley Trail System).**
- Minor entry at the CNR Bridge (west bank). **(100% Meewasin Valley Trail System).**
- Backshore linkage to Luther Heights. **(100% Meewasin Valley Trail System).**
- Upgrade major entry at Diefenbaker Centre. **(100% Meewasin Valley Trail System).**
- Complete equestrian / driving loop in Diefenbaker Park. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Upgrade major entry at Meewasin Valley Centre. **(cost shared between Meewasin Valley Centre and Meewasin Valley Trail System).**

### 6.1.3 Low Priority

- Extension of Type 2 Primary Trail and Tertiary Trail from Meewasin Park to Wanuskewin Heritage Park (including rest stops). **(100% Meewasin Valley Trail System).**
- Backshore linkage to Montgomery Place. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Backshore linkage to Holiday Park and Gordon Howe Park. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Primary Trail from Idylwyld Bridge to Diefenbaker Park. **(Dumont Park portion: 100% MYA Open Space Development budget; Saskatchewan Crescent: 100% Meewasin Valley Trail System).**

- Major entry at Dumont Park. (100% MVA Open Space Development budget and / or City of Saskatoon).
- Tertiary trails in Dumont Park. (100% MVA Open Space Development budget and / or City of Saskatoon).
- Minor entries to Dumont Park at 8th Street, Taylor Street and Hilliard Street. (100% MVA Open Space Development budget and / or City of Saskatoon).

## **6.2 PHASE 2 (1994 - 1998)**

Proposed trail system development during the 1994 - 1998 period includes the following:

### **6.2.1 High Priority**

- Backshore linkage from South Downtown riverbank to 21st Street. (100% Meewasin Valley Trail System).
- Type 1 Secondary and Tertiary backshore linkages to Innovation Place. (cost shared between University of Saskatchewan and / or SEDCO and Meewasin Valley Trail System).
- Backshore linkage through U. of S. Field Facilities to Preston Avenue. (cost shared between University of Saskatchewan and Meewasin Valley Trail System).
- Minor entry upgrade at east end of University Bridge. (cost shared between University of Saskatchewan and Meewasin Valley Trail System).
- Major entry at Diefenbaker Park. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Minor entry at, and backshore linkage along, Adilman Drive. (100% Meewasin Valley Trail System).
- Minor entry at, and backshore linkage along, Kinnear Crescent. (100% Meewasin Valley Trail System).
- Backshore linkage to WJL Harvey Park. (100% Meewasin Valley Trail System).

### 6.2.2 Moderate Priority

- Backshore linkage on Taylor Street. **(100% Meewasin Valley Trail System).**
- Backshore linkage on Hilliard Street. **(100% Meewasin Valley Trail System).**
- Backshore linkage on Broadway Avenue. **(100% Meewasin Valley Trail System).**
- Backshore linkage to S.I.A.S.T. (Kelsey) and Hudson Bay Parks. **(Trail: cost shared between City of Saskatoon and Meewasin Valley Trail System; Signs: 100% Meewasin Valley Trail System).**
- Backshore linkage from Devil's Dip to Sutherland. **(Trail: cost shared between City of Saskatoon and Meewasin Valley Trail System; Signs: 100% Meewasin Valley Trail System).**
- CNR Bridge crossing structure. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Backshore connection from Circle Drive Bridge to Silverspring and Forestry Farm Park. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Minor entry at east end of Circle Drive Bridge. **(100% Meewasin Valley Trail System).**

### 6.2.3 Low Priority

- Pedestrian crossing structures one east side of Victoria Bridge. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Portion of large east side backshore linkage / loop along Preston Avenue from College Drive north to Circle Drive. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Backshore connection to Dutch Growers subdivision. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**
- Backshore connection from Diefenbaker Park to Western Development Museum. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**

- Upgrade minor entry at Spadina Crescent and 33rd Street. **(100% Meewasin Valley Trail System).**
- Minor entry at south end of Victoria Bridge. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**

### **6.3 PHASE 3 (1999 and on)**

Trail system development after 1998 is proposed to include the following:

#### **6.3.1 High Priority**

- Type 2 Primary Trail from Circle Drive Bridge to Peturrson's Ravine. **(100% Meewasin Valley Trail System).**
- Type 2 Primary Trail from Diefenbaker Park to the Rifle Range. **(100% Meewasin Valley Trail System).**
- Equestrian / Driving Trail from Diefenbaker Park to the Rifle Range. **(100% Meewasin Valley Trail System).**
- Equestrian / Driving Trail circuit at the Rifle Range. **(100% Meewasin Valley Trail System).**
- Minor entry at Rifle Range. **(100% Meewasin Valley Trail System).**
- Upgrade access to CPR bridge crossing. **(100% Meewasin Valley Trail System).**
- Secondary trail connection from Capilano Lookout to Primary trail at Ravine Drive. **(100% Meewasin Valley Trail System).**
- Minor entry at east end of CPR Bridge. **(100% Meewasin Valley Trail System).**
- Minor entry at Spadina Crescent and Ravine Drive. **(100% Meewasin Valley Trail System).**
- Type 1 Primary Trail from Peturrson's Ravine to Forestry Farm Park. **(cost shared between City of Saskatoon and Meewasin Valley Trail System).**



### **6.3.2 Moderate Priority**

- Backshore linkage to Southridge neighbourhood. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Completion of large east side backshore linkage / loop (14th Street, Circle Drive from 14th Street to Freeway, and freeway from Circle Drive to Lorne Avenue. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Tertiary Trail along east bank between Broadway and Circle Drive Bridges. (100% Meewasin Valley Trail System).
- Upgrade major entry at Rotary Park. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Minor entry at Ski Jump Coulee. (cost shared between University of Saskatchewan and Meewasin Valley Trail System).
- Minor entry at Archibald Arena. (100% Meewasin Valley Trail System).

### **6.3.3 Low Priority**

- Increase trail capacity across University Bridge. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Type 2 Primary Trail from CNR Bridge to Yorath Island area. (100% Meewasin Valley Trail System).
- Secondary backshore linkage from Peturrson's Ravine to Northeast Golf Course. (cost shared between City of Saskatoon and Meewasin Valley Trail System).
- Pedestrian Bridge from Meewasin Park to east bank. (cost shared between City of Saskatoon and Meewasin Valley Trail System).

#### 6.4 OTHER IMPLEMENTATION CONSIDERATIONS

In addition to the development of the specific items noted above, there are a number of related and/or supporting decisions or actions that should be taken to further enhance the development and operation of the Meewasin Valley Trail System. They include the following:

1. Before specific decisions or actions can be taken with regard to managing multiple use of trails, it will be necessary to clearly define the legal status of bicycles (as vehicles) and pedestrians in different situations within the system. Once this status is clarified, it will be necessary to make decisions regarding the following:
  - how best to communicate the "rules of the road" to trail users in different parts of the system (e.g. signage, public awareness campaigns, etc.)
  - establishment of design guidelines for various trail types, recognizing that specific site conditions may dictate variance from the guidelines.
2. As part of the process for establishing design guidelines for developed trails, guidelines should be prepared for the dedicated skiing corridor intended to run the length of the valley. Again, it is noted that site conditions may require that actual trail development be at variance to the guidelines in some situations.
3. Although the role of the Meewasin Valley Trail System in tourism development was not a factor to be addressed in this System Plan, it is clear that the trail system can be a significant component in Saskatoon's "package of tourist attractions" and a significant part of the tourism infrastructure in the city. There are, therefore, opportunities for Meewasin to work with the City and Saskatoon Tourism with regard to the following:
  - providing information on the Trail System to Saskatoon Tourism (and perhaps other groups) that could be incorporated into promotional literature, tourist maps, directories, etc.
  - identifying tourist (and tourist industry) needs that could be addressed by the Trail System and related development.

## **7. ESTIMATED DEVELOPMENT COSTS & CAPITAL PROGRAM**

This section sets out estimated costs for trail system development. These costs are based on a number of sources, including Meewasin files and the consultant's costs estimate files. Where neither source contained suitable information for estimating development costs, estimates were based on professional experience and judgement.

Development items have been assigned to specific construction years, on the basis of the recommended phasing and priorities set out in Section 7. In addition, specific recommended development timing was based on the sharing of budget responsibility among a number of Meewasin budgets and budgets of other agencies.

All costs are in 1989 dollars and, since they were not based on any site-specific designs, should be considered to be preliminary only. Indicated costs are total costs and do not reflect any breakdown in cost sharing arrangements. It is also important to note that the proposed timing of development noted in this capital program is a framework only; specific timing of development must be reviewed annually as this capital program is updated and capital budgets are set.

### **7.1 PHASE 1 (1989 - 1993)**

#### **7.1.1 1989**

- Temporary Type 1 Primary Trail between Victoria & Idylwyld Bridges on west bank.....	\$ 13,500.00
- Widen & re-align Type 1 Primary Trail near water treatment plant.....	2,500.00
- Improve lighting at Victoria Park parking lot.....	10,000.00
- Improve lighting at Thompson Belvedere.	6,000.00
- Improve lighting under east end of Broadway Bridge.....	6,000.00
- Reduce glare from University Hospital parkade.....	4,500.00

- Backshore linkage on 21st Street.....	2,000.00	
- Minor entry at Spadina Crescent and 21st Street.....	1,000.00	
- Construct a portion of the large east side backshore linkage / loop along Preston Avenue from 14th Street to North of College Drive.....	35,000.00	
- Upgrade Type 1 Primary Trail between Idylwyld and Broadway Bridges on east bank.....	18,100.00	
- Widen Type 1 Primary Trail from Mendel Gallery to Weir.....	20,000.00	
- Complete upper Type 1 Primary Trail in Cosmopolitan Park.....	<u>11,250.00</u>	
		\$ 129,850.00
- Plus 15% contingency.....		<u>19,500.00</u>
		149,350.00
- Plus 10% design / management fee.....		<u>15,000.00</u>
- <b>1989 Capital Budget estimate.....</b>		<b>\$ 164,350.00</b>

#### 7.1.2 1990

- Type 1 Primary Trail extension south from water treatment plant to CNR Bridge....	<u>\$ 99,000.00</u>	
		\$ 99,000.00
- Plus 15% contingency.....		<u>15,000.00</u>
		\$ 114,000.00
- Plus 10% design / management fee.....		<u>11,400.00</u>
- <b>1990 Capital Budget estimate.....</b>		<b>\$ 125,400.00</b>

**7.1.3 1991**

- Minor entry at Spadina Crescent and 11th Street.....	\$ 11,700.00	
- Minor entry near Sanatorium.....	11,700.00	
- Minor Entry at CNR Bridge (west bank).. <td>31,900.00</td> <td></td>	31,900.00	
- Backshore linkage to Luther Heights....	4,500.00	
- Upgrade major entry at Diefenbaker Centre.....	900.00	
- Complete equestrian / driving loop in Diefenbaker Park.....	33,600.00	
- Upgrade major entry at Meewasin Valley Centre.....	<u>9,800.00</u>	
		\$ 104,100.00
- Plus 15% contingency.....		<u>15,600.00</u>
		\$ 119,700.00
- Plus 10% design / management fee.....		<u>12,000.00</u>
- <b>1991 Capital Budget estimate</b> .....		<b>\$ 131,700.00</b>

**7.1.4 1992**

- Backshore linkage to Montgomery Place..	\$ 90,000.00
- Backshore linkage to Holiday Park and Gordon Howe Park.....	60,000.00

- Primary Trail from Idylwyld Bridge to Diefenbaker Park.....	41,700.00	
- Minor entries at 8th Street, Taylor Street and Hilliard Street.....	<u>34,500.00</u>	
		\$ 226,200.00
- Plus 15% contingency.....	<u>34,000.00</u>	
		\$ 260,200.00
- Plus 10% design / management fee.....	<u>26,000.00</u>	
- <b>1992 Capital Budget estimate.....</b>		<b>\$ 286,200.00</b>

#### 7.1.5 1993

- Extension of Type 2 Primary Trail from Meewasin Park to Wanuskewin Heritage Park.....	<u>\$ 182,600.00</u>	
		\$ 182,600.00
- Plus 15% contingency.....	<u>27,400.00</u>	
		\$ 210,000.00
- Plus 10% design / management fee.....	<u>21,000.00</u>	
- <b>1993 Capital Budget estimate.....</b>		<b>\$ 231,000.00</b>

### **7.2 PHASE 2 (1994 - 1998)**

#### 7.2.1 1994

- Backshore linkages to Innovation Place. \$	25,800.00
- Backshore linkage through U. of S. Field Facilities to Preston Avenue.....	65,000.00

- Minor entry upgrade at east end of University Bridge.....	5,450.00	
- Backshore linkage from South Downtown riverbank to 21st Street.....	1,200.00	
- Backshore linkage to WJL Harvey Park...	<u>400.00</u>	
		\$ 97,850.00
- Plus 15% contingency.....		<u>15,000.00</u>
		\$ 112,850.00
- Plus 10% design / management fee.....		<u>11,000.00</u>
- <b>1994 Capital Budget estimate.....</b>		<b>\$ 123,850.00</b>

#### 7.2.2 1995

- Minor entry at, and backshore linkage along, Adilman Drive.....	\$ 800.00	
- Minor entry at, and backshore linkage along, Kinnear Crescent.....	800.00	
- Major entry at Diefenbaker Park.....	<u>142,800.00</u>	
		\$ 144,400.00
- Plus 15% contingency.....		<u>21,500.00</u>
		\$ 165,900.00
- Plus 10% design / management fee.....		<u>\$ 16,600.00</u>
- <b>1995 Capital Budget estimate.....</b>		<b>\$ 182,500.00</b>

**7.2.3 1996**

- Backshore linkage on Taylor Street.....	\$ 1,200.00	
- Backshore linkage on Hilliard Street...	1,200.00	
- Backshore linkage on Broadway Avenue...	2,400.00	
- Backshore linkage to S.I.A.S.T. (Kelsey) and Hudson Bay Parks.....	49,600.00	
- Backshore linkage from Devil's Dip to Sutherland.....	43,200.00	
- CNR Bridge crossing structure.....	<u>500,000.00</u>	
		\$ 597,600.00
- Plus 15% contingency.....		<u>89,400.00</u>
		\$ 687,000.00
- Plus 10% design / management fee.....		<u>68,700.00</u>
- <b>1996 Capital Budget estimate.....</b>		<b>\$ 755,700.00</b>

**7.2.4 1997**

- Backshore connection from Circle Drive Bridge to Silverspring and Forestry Farm Park.....	\$ 133,000.00
- Minor entry at east end of Circle Drive Bridge.....	200.00
- Pedestrian crossing structure on east side of Victoria Bridge.....	200,000.00



- Portion of large east side backshore linkage / loop along Preston Avenue from College Drive north to Circle Drive.....	<u>70,000.00</u>	
		\$ 403,200.00
- Plus 15% contingency.....	<u>60,500.00</u>	
		\$ 463,700.00
- Plus 10% design / management fee.....	<u>46,400.00</u>	
- <b>1997 Capital</b> <b>Budget estimate.....</b>		<b>\$ 510,100.00</b>

#### 7.2.5 1998

- Backshore connection to Dutch Growers subdivision.....	\$ 15,750.00	
- Backshore connection from Diefenbaker Park to Western Development Museum.....	35,000.00	
- Upgrade minor entry at Spadina Crescent and 33rd Street.....	11,200.00	
- Minor entry at south end of Victoria Bridge.....	<u>6,500.00</u>	
		\$ 68,450.00
- Plus 15% contingency.....	<u>10,300.00</u>	
		\$ 78,750.00
- Plus 10% design / management fee.....	<u>7,850.00</u>	
- <b>1998 Capital</b> <b>Budget estimate.....</b>		<b>\$ 86,600.00</b>

### 7.3 PHASE 3 (BEYOND 1998)

Because annual capital budget projections become increasingly uncertain over time, the estimated development costs for Phase 3 items recommended for 1999 and beyond are not itemized on an annual basis. Rather, they are listed by priority grouping only. Costs shown (in 1989 dollars) are, again, total costs, with no indications of cost sharing breakdowns.

#### 7.3.1 High Priority

- Type 2 Primary Trail from Circle Drive to Peturrson's Ravine.....	\$ 60,000.00
- Type 2 Primary trail from Diefenbaker Park to Rifle Range.....	177,000.00
- Equestrian / Driving Trail from Diefenbaker Park to Rifle Range.....	154,000.00
- Equestrian / Driving Trail Circuit at Rifle Range.....	48,000.00
- Minor entry at Rifle Range.....	2,750.00
- Upgrade access to CNR Bridge crossing..	13,500.00
- Secondary Trail connection from Capilano lookout to Primary Trail at Ravine Drive.....	16,500.00
- Minor entry at east end of CPR Bridge..	200.00
- Minor entry at Spadina Crescent and Ravine Drive.....	10,500.00

- Type 1 Primary Trail from Peturrson's Ravine to Forestry Farm Park.....	<u>67,500.00</u>	
		\$ 549,950.00
- Plus 15% contingency.....	<u>82,500.00</u>	
		\$ 632,450.00
- Plus 10% design / management fee.....	<u>63,250.00</u>	
- <b>Total Estimated Cost - High Priority Items.....</b>		<b>\$ 695,700.00</b>
- Estimated elapsed time for development... 6 - 8 years		

### 7.3.2 Moderate Priority

- Backshore linkage to Southridge neighbourhood.....	\$ 140,000.00	
- Completion of large east side backshore linkage / loop.....	238,000.00	
- Tertiary Trail along east bank between Broadway & Circle Drive Bridges.....	40,800.00	
- Upgrade major entry at Rotary Park.....	25,500.00	
- Minor entry at Ski Jump Coulee.....	19,700.00	
- Minor entry at Archibald Arena.....	<u>10,200.00</u>	
		\$ 471,200.00
- Plus 15% contingency.....	<u>71,000.00</u>	
		\$ 545,200.00
- Plus 10% design / management fee.....	<u>54,500.00</u>	
- <b>Total Estimated Cost - Moderate Priority Items.....</b>		<b>\$ 599,700.00</b>
- Estimated elapsed time for development... 3 - 5 years		

### 7.3.3 Low Priority

- Increase trail capacity across University Bridge..... \$1,000,000.00
- Type 2 Primary Trail from CNR Bridge to Yorath Island area..... 63,000.00
- Secondary backshore linkage from Peturrson's Ravine to Northeast Golf Course..... 70,000.00
- Pedestrian bridge from Meewasin Park to east bank..... 1,000,000.00
- \$2,133,000.00
- Plus 15% contingency..... 320,000.00
- \$2,453,000.00
- Plus 10% design / management fee..... 245,300.00
- **Total Estimated Cost - Low Priority Items..... \$2,698,300.00**
- Estimated elapsed time for development... 3 - 4 years
- Total estimated elapsed time for Phase 3 development: 12 - 17 years.

#### 7.4 SUMMARY OF COSTS AND TIMING

Total estimated costs to implement this Trail System Plan, in 1989 dollars, are as follows:

1989.....	\$ 164,350.00
1990.....	125,400.00
1991.....	131,700.00
1992.....	286,200.00
1993.....	231,000.00
1994.....	123,850.00
1995.....	182,500.00
1996.....	755,700.00
1997.....	510,100.00
1998.....	86,600.00
Phase 3 - High Priority.....	695,700.00
Phase 3 - Moderate Priority.....	599,700.00
Phase 3 - Low Priority.....	<u>2,698,300.00</u>
<b>TOTAL.....</b>	<b>\$6,591,100.00</b>

Implementation of Phase 3 is estimated to require between 12 and 17 years to complete. Thus, completion of all development items noted in the plan should not be expected before the years 2010 - 2015.

**APPENDIX 1**

**Meewasin Valley Trail User Surveys**



Meewasin Valley Authority  
Sustainable Development  
STATION  
1000

Meewasin

## Memorandum

To: Wes

Date: November 7, 1986

Phone:

From: Susan

Your File:

Re: 1986 Trail Survey

### BACKGROUND:

Meewasin staff has been concerned for sometime about the possibility of safety problems on the trail. Leslie Sanders was contracted by Meewasin to do some background research and come up with a plan to address the problem. As part of that plan, we hired a summer student to do some research on the trail. She would survey potential safety problems and get comments on some solutions to be tested this summer by Bela Barabas and his staff.

### THE REPORT:

A summary of the report results is enclosed. A second phase of this program with more survey questions will take place next year.

Susan Lamb  
Public Affairs Coordinator

## 1986 TRAIL SURVEY

- Approximately 4 hours were spent at each site.
- Site #5 and #12 were done twice because the pavement markings were laid down and we wanted to check for awareness.
- Diefenbaker Park was done on 'Sunday in the Park'.
- See Appendix A for list of sites.

I. Cyclists - 230	66%
Pedestrians - 117	34%
Other	
- roller skater - 1	.3%
- wheelchair - 1	.3%
<u>TOTAL SURVEYS</u>	<u>349</u>

### II. TRAIL USAGE

"On average, how often do you use the trail?"

more than once a week	215	62%
once a week	57	16%
once every two weeks	27	8%
once a month	19	5%
less than once a week	13	4%
less than once a month	3	.9%
twice a month	1	.3%

#### % on bike

100% - 75%	166	48%
75% - 50%	42	12%
50% - 5%	22	6%

#### % walking/running:

100% - 75%	79	23%
75% - 50%	40	11%
50% - 1%	62	18%

#### % on other

roller skates

90% on roller skates

10% walking/running



III. "When biking do you use the trail mostly for transportation or recreation?"

transportation	117	34%
recreation	316	91%

\*note - many of the participants indicated trail usage for both recreation and transportation.

IV. "Meewasin is concerned with safety on the trails. Have you ever had any problems?"

No	138	40%
----	-----	-----

Yes

a) Cyclists passing too quickly	63	18%
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Comments:

- Also passing too quietly and not indicating intentions.
- Some cyclists using trail to work out, therefore, going much too fast.
- People passing too fast on narrow, blind curves.
- Take up too much room, even when approaching head-on traffic expect pedestrians to move to one side.
- Passing too quickly on bridges - on 25th supposed to walk bikes and people do not walk them.
- Pedestrians afraid to use trail because of cyclists.

b) Walkers wandering all across the trail	69	20%
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Comments:

- Too many abreast - 4 or 5 people at times and cyclists can't pass.
- Split the trail - would help situation.
- At the Bessborough Hotel - pedestrians coming down slope on to trail and not looking out for traffic.
- Not knowing where to move for passing cyclists.

c) Pets not on a leash	43	12%
------------------------	----	-----

Comments:

- Doing their eliminations on or near the trail.
- Woman from Natural History Society very concerned about unleashed dogs. Scaring nesting birds on the banks and will be writing a letter concerning this matter.

d) Blind spots on trail	40	11%
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Comments:

West Bank: Idylwyld and CPR Bridges

East Bank: 42nd Street Bridge - ramp  
 CPR, Idylwyld, Broadway, University Bridges  
 Gazebo - north of Kiwanis Park  
 North of Mendel where a tree is  
 Water Treatment Plant - Victoria Park  
 Cosmopolitan Park - wood chipped trail

e) Trail surface 30 11%

Comments:

Broken: north of Mendel damaged  
 Victoria Park - holes accumulate with water  
 Kiwanis Park - upper trail and near tree roots  
 dirt on trail before 25th Street Bridge  
 Rotary Park - pot holes and sand on trail  
 parking lot weir area  
 gravel on trail south of 25th Street Bridge - east bank  
 bumps north of 25th Street Bridge  
 gravel - Broadway Bridge - west side

Glass: 42nd Street Bridge - on and under the bridge - beer bottles  
 weir area  
 north of Meewasin Park shelter

f) children unattended 15 4%

g) trail too steep 17 5%

Comments:

- Idylwyld Bridge - west side
- 42nd Street Bridge - east side at ramp approach
- Victoria Park - near pump station
- Victoria Bridge - west and east side
- University access - northeast side of 25th Street Bridge
- past weir
- Archibald Park - sewage pump station
- Rotary Park - steep hill near tennis courts

h) trail too narrow and congested 23 7%

Comments:

- weir area
- 25th Street Bridge - bollards on foot bridges
- CPR Bridge - east bank
- tree north of Mendel
- north of Bessborough where trail divides and reconnects
- between Circle Drive and Mendel
- under the bridges in general
- Kiwanis Park bandshell - Sunday night
- Hairpin turns area north of 25th Street Bridge - east

i) other and suggestions 32 9%

Comments:

- dog feces a problem
- Bessborough area too bumpy
- wood chipped trail (Cosmo Park) make inaccessible for cyclists because of blind corners; ruts produced in bad weather; people go there to get away; narrow paths
- use posted signs indicating bicycle usage
- Kiwanis Park trail needs rebuilding and should be widened

- signs indicating proper trail usage for pedestrians (e.g.. walk on right side of trail)
- University Bridge hair pin curves hard to handle - too steep too many
- Rotary Park - near tennis courts - very steep hill
- mark bollards with more yellow, fluorescent strips
- divide the trail with a line running down the middle
- few cracks on trail north of 42nd Street Bridge
- cranberry stickers on signs being torn off
- trail sign missing at Meewasin Park shelter
- tree bites into trail just north of the Mendel - dangerous at night
- too sharp a curve at the weir
- place bicycle racks closer to playground unit at Meewasin Park shelter
- increase maintenance of garbage cans at weir area
- east side - 42nd Street Bridge - steep and no guard rails
- kids speeding around in Mendel parking lot
- sharp blind turn at water treatment plant station
- found someone unconscious on sharp curve north of CPR Bridge
- tree overhanging trail - south of weir - can obstruct vision
- people not aware, not alert of their situation
- old man between Broadway and University Bridges hassles and swears at dog owners and tries to hit their dogs - a lot of dog owners have encountered this person
- people (pedestrians and cyclists) using portable stereos
- people not keeping to the right of the trail
- spray for mosquitoes (CPR area)
- what about enforcement of laws like dogs and their feces, bells, etc. Employ summer students to give out tickets to offenders and patrol the trail system. Enforce bells, lights, dogs, etc. by above measure
- more drinking fountains and garbage cans (school board area)
- teenagers/kids - no respect for pedestrians
- how about a bike ramp for the east side of CPR Bridge
- person with Natural History Society concerned about unleashed dogs on riverbank - scare birds and destroy habitat and nests. She also said she would be writing a letter on this situation
- lights installed for night between University and CPR Bridges (night classes)
- verbal communication of passing cyclists
- Advertise multiusage trail system
- put down arrows to indicate traffic flow
- nude man seen on August 13th just off wood-chipped trail near 25th Street Bridge
- cyclists go too fast on bridges - scaring pedestrians especially senior citizens
- lack of lighting on Spadina Crescent area (trees)
- congestion of people on Spadina Crescent - weekends
- trail not wide enough passing problems
- Meewasin Park shelter - sharp curve - vandalism problems - glass
- Archibald Park area has railing between street and trail and no good linkage between trail and sidewalk on park side and also no defined crosswalks

- make bells compulsory for cyclists or encourage use of them
- establish trail throughout the city
- cyclists using trail to work out - go much too fast
- extend trail in front of Bessborough
- University west side too dark, dangerous at night because of hair-pin turns and ravines
- CPR - east bank - blind corner - people stop to look at view dangerous, build a lookout here - Site #6
- Victoria Park - broken trail surface, holes in pavement that are marked with red paint
- puddle always forms near the tennis courts in Victoria Park because of low spot and proximity to a sprinkler
- pedestrian/cyclist separation - build separate trails, widen, split trail with a line
- designate areas for BMX bikes
- security patrol between 8:00 and 10:00 p.m. along downtown sections where older people use the trail the most
- control of bicycle traffic
- Idylwyld Bridge treacherous for bikes - put guard rail along trail edge under this bridge
- trail is beautiful, best thing in the city
- entrance from 42nd Street Bridge west side; the rocks past the "T" section are dangerous and block trail at times
- gravel on trail south of 25th Street Bridge - can cause problems
- people not following trail rules
- many skunks past CPR - east side
- two small foot bridges approaching 25th Street Bridge - the bush should be cleared for better visibility
- drinking parties also lysol parties being held on banks
- good job being done on MV trail

V. a) "As a cyclist have you ridden over the safety bumps"

People not surveyed because safety strips were not laid down this summer.

b) "As a pedestrian or a cyclist are you aware of pavement markings warning of trouble areas?"

No	37	11%
Yes	32	9%
aware of weir pavement markings	19	5%
aware of CPR pavement markings	21	6%

\*Note: the numbers will not equal 100% because not everyone was surveyed.

VI. "Have you had any accidents on the trail?"

No	320	92%
Yes	15	4%

- If yes, where:

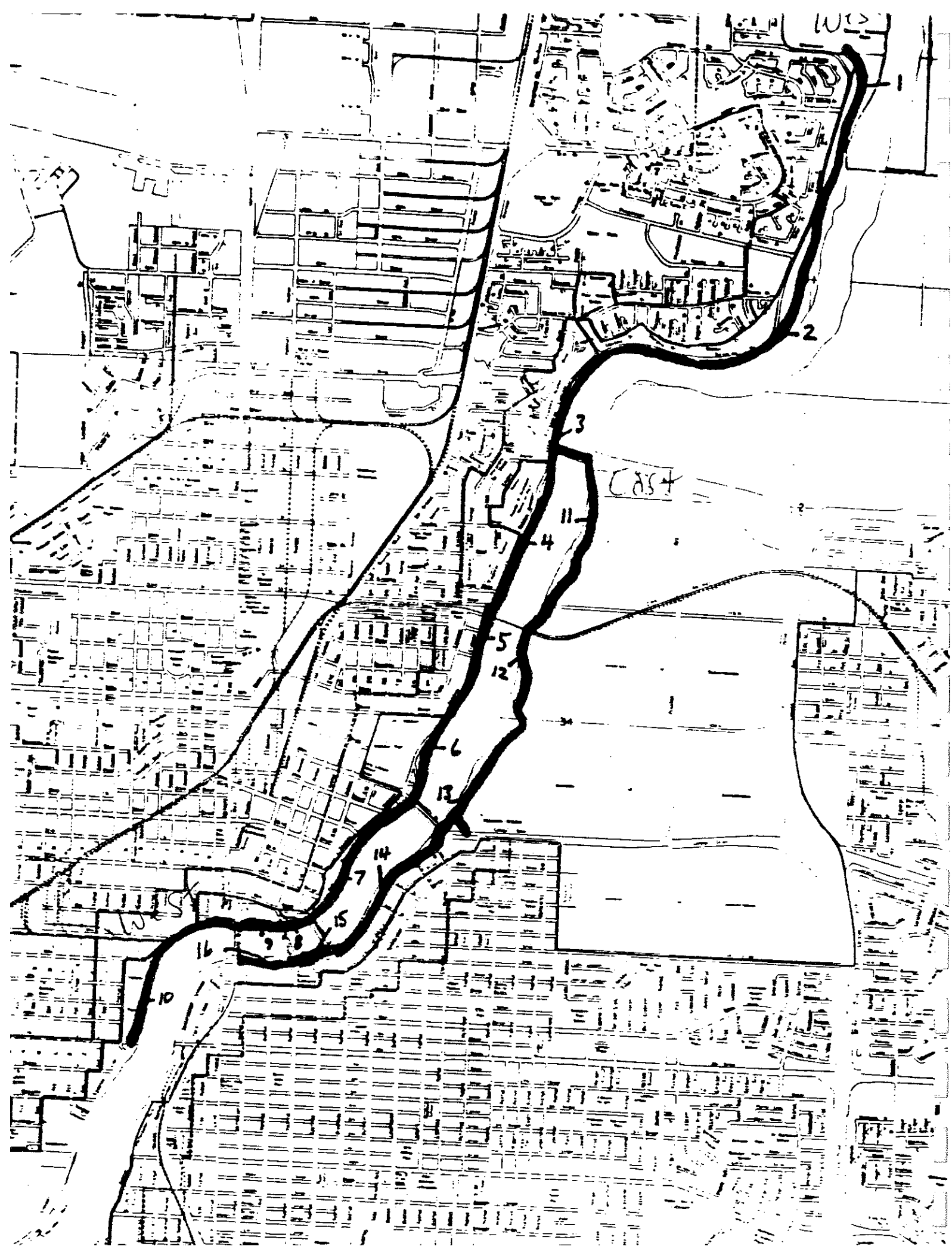
- Ravine Drive area - hit gravel spot on trail
  - Mendel Art Gallery - careless driving - hit ditch (10 year old - single accident)
  - careless driving - single accident caused by flat tire - did not indicate where on trail
  - White Swan Drive area - Meewasin Park - speeding (exercising) on bike and hit an unleashed dog. Dog was hurt but not killed.
  - one person - two accidents - 25th Street Bridge, Spadina Avenue on the way to the landfill
  - east side of 42nd Street Bridge - going too fast on roller skates on the exit ramp
  - under Broadway Bridge - hit bollards. They have been modified since then.
  - minor accident - it had been raining and tried to get back on trail but edge was sharp and person wiped out. No indication of where the accident was on the trail system
  - at the weir was cutting across the parking lot and hit ruts and wiped out
  - someone saw a bad accident - at Meewasin Park - someone missed a sharp curve and went into the boulder field
  - west bank - CPR Bridge - June, 1986 - cyclist hit a person
  - behind the water treatment plant on the curve heading east - 1985
  - fell and wrecked body and bike - reason was trying to avoid a head-on collision and went off the trail
  - by the Renaissance Hotel - a sprinkler was going and person skidded on wet pavement
  - blind curve behind water treatment plant. Hit cyclist coming from opposite direction. Person indicated a mid-stripe would be a good idea
  - skateboarding in Rotary Park and hit bumps. Person needed stitches
  - hit by a jogger - victim was walking and was hit from behind
- \*Note - the numbers will not equal 100% because not everyone was surveyed.

Theresa Hohne  
October 23, 1986

4/1/48

SURVEY SITES ON M.V.A. TRAIL

1. Meewasin Park Trail Head
2. Meewasin Park Shelter
3. 42nd Street Bridge - North Side, West Bank
4. Archibald Park Access
5. Weir - West Bank
6. Mendel
7. Behind Bessborough - upper trail - lower trail
8. Park Bench
9. Lower trail - Public School Board
10. Victoria Park
11. 42nd Street Bridge - East Bank
12. C.P.R. Bridge - East Bank
13. University - Trail Bridge
14. Cosmo Lookout
15. Hill top
16. Rotary Park



1. Today are you a Cyclist \_\_\_\_\_ or a Pedestrian \_\_\_\_\_
2. On average, how often do you use the trail?
  - \_\_\_\_\_ more than once a week
  - \_\_\_\_\_ once a week
  - \_\_\_\_\_ once every two weeks
  - \_\_\_\_\_ once a month
  - \_\_\_\_\_ less than once a week
- % on bike \_\_\_\_\_ %walking/running \_\_\_\_\_
3. When biking do you use the trail mostly for transportation \_\_\_\_\_ or recreation \_\_\_\_\_
4. Meewasin is concerned with safety on the trails. Have you ever had any problems?
  - Yes \_\_\_\_\_ No \_\_\_\_\_
  - If yes:
    - were they
      - \_\_\_\_\_ cyclists passing too quickly?
      - \_\_\_\_\_ walkers wandering all across the trail?
      - \_\_\_\_\_ pets not on a leash?
      - \_\_\_\_\_ blind spots on trail?
      - \_\_\_\_\_ trail surface broken or slippery/glass on gravel?
      - \_\_\_\_\_ children unattended?
      - \_\_\_\_\_ trail too steep?
      - \_\_\_\_\_ trail too narrow and congested? \_\_\_\_\_ where?
      - \_\_\_\_\_ other?
5. Meewasin is considering some physical changes to the trail to decrease the potential of injuries.
  - a. As a cyclist have you ridden over the safety bumps? \_\_\_\_\_ Yes \_\_\_\_\_ No
    - Were they effective in reducing your speed? \_\_\_\_\_ Yes \_\_\_\_\_ No
    - Would you recommend they be used at various points in the trail to control speed? \_\_\_\_\_ Yes \_\_\_\_\_ No
    - Why or why not?
  - b. As a pedestrian or a cyclist are you aware of pavement markings warning of trouble areas? \_\_\_\_\_ Yes \_\_\_\_\_ No
    - If so what area did you see them?
6. Have you had any accidents on the trail? Please identify the area.

date survey completed \_\_\_\_\_





Meewasin Valley Authority  
345 - 3rd Avenue South  
Saskatoon, Saskatchewan  
S7K 1M6  
(306) 665-6887

Meewasin

## Memorandum

To Wes Bolstad  
Executive Director

Date March 6, 1987

Phone

From Heather MacKnight  
Planning and Development Review Co-ordinator

Your File

Our File

Re Meewasin Valley Trail Survey

I have attached a copy of the results of a survey done by Hugh MacKenzie, Planning Technician, of Meewasin Valley Trail users. The survey was undertaken from January to June 1986.

Highlights of the survey include:

1. 80% of users come from their home to use the park.
2. Major access/egress points along the trail are Meewasin Park, the weir (west), Kiwanis Park and the University.
3. Almost one-half ( $\frac{1}{2}$ ) of the users live less than three blocks from the trail. About one-third ( $\frac{1}{3}$ ) live more than 9 blocks away.
4. About 60% of users walk to the trail. About one-quarter ( $\frac{1}{4}$ ) cycle.
5. Two-thirds ( $\frac{2}{3}$ ) of the trail users are on the trail for less than one hour.
6. 91% of those surveyed used the trail once a week or more.
7. Users generally liked the trail. There were concerns expressed for the pedestrian/cycle conflicts, dogs, water and ice on the trail, and the absence of a trail on the west side between the Traffic and Idylwyld Bridges. Users would like more washrooms, water fountains, garbage receptacles and benches.
8. About 65% of the users wanted the trail extended but there were no strong preferences as to direction.

Heather MacKnight  
Heather MacKnight

Attachment

## VISITOR SURVEY RESULTS

### A. INTRODUCTION

From January of 1986 to June of 1986, a survey was conducted of Meewasin Valley Trail users. There were 144 surveys collected from ten locations along the trail. The purpose of the survey was to collect information about who uses the trail and what they like or dislike about it.

The first part of the survey asked where users come from, how they arrived, where they entered the trail, and how long and frequently they use it. The second part of the survey asked them what they liked or disliked about the trail, what could be changed and where the trail could be extended.

### B. RESULTS

We attempted to cover all ten locations in one day to get an accurate sample during similar weather conditons. Surveys were also taken outside "regular" working hours to reflect trail use during noon hours, after work and weekends.

The ten locations are as follows (see figure 1):

#### WEST BANK

1. Meewasin Park
2. Weir
3. Mendel Art Gallery
4. Kiwanis Park
5. Victoria Park

#### EAST BANK

6. Rotary Park
7. Cosmopolitan Park
8. University
9. Weir
10. Circle Drive Bridge

# The Meewasin Valley Trail

Total Trail Distance 15.35 km &

	West Bank	East Bank
Victoria Park to Idylwyld	1.2 km	
Idylwyld to Victoria	.35 km	.4 km
Victoria to Broadway	.2 km	.3 km
Broadway to University	1.2 km	1.25 km
University to CPR	1.4 km	1.85 km
CPR to Circle Drive	1.4 km	1.4 km
North of Circle Drive	4.4 km	

Meewasin Trail - / -

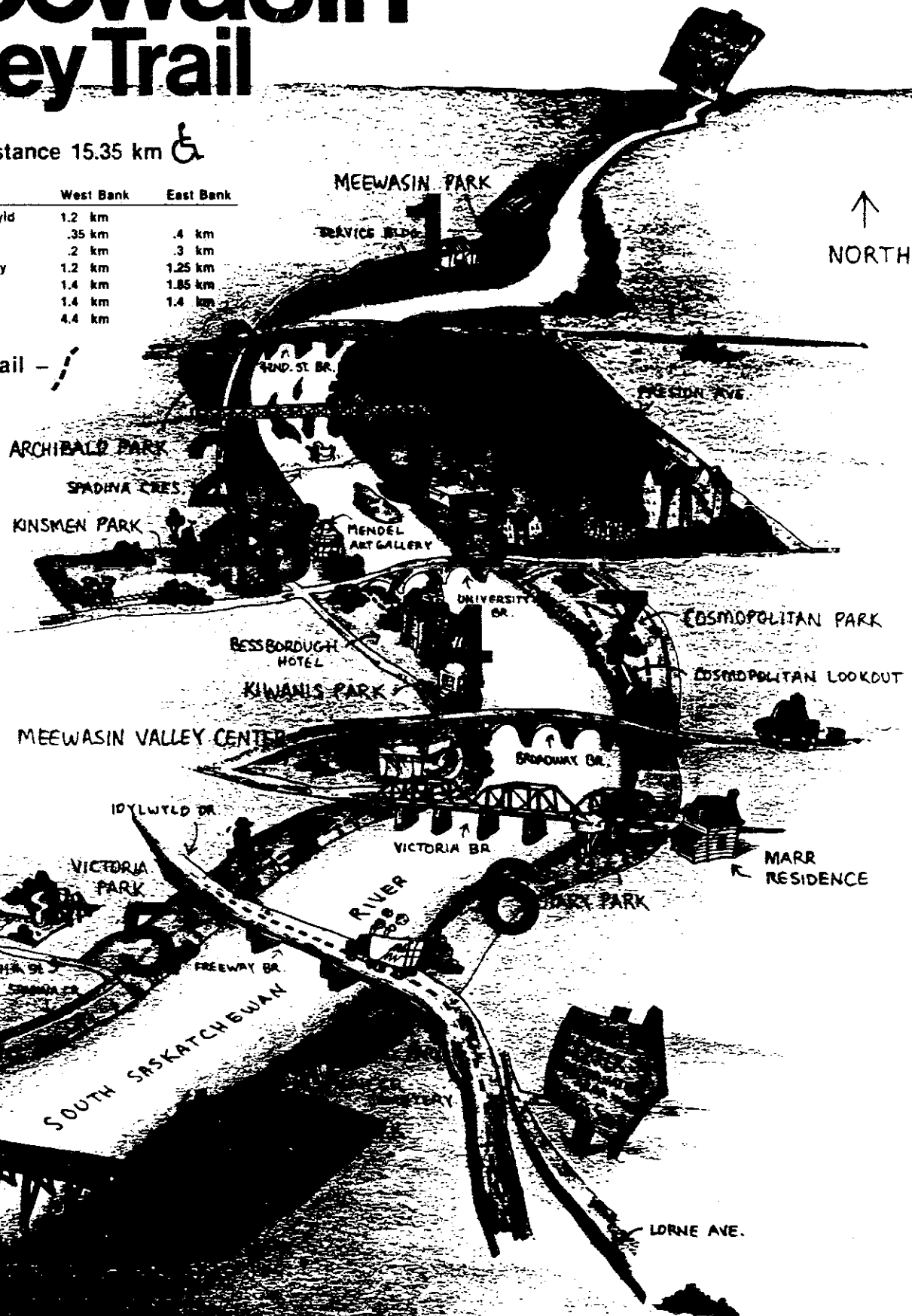


FIGURE 1

**1. When you came to the trail today, where did you come from?**

80% (112) home

9% (12) place of work

7% (9) school

4% (6) other (specify) \_\_\_\_\_

Most of those surveyed, 80%, came from home to use the trail. Those choosing the category "other" came from downtown hotels.

**2. Where did you enter the trail?** \_\_\_\_\_

**Where did you leave the trail?** \_\_\_\_\_

LOCATION	#ENTER	#LEAVE	LOCATION	#ENTER	#LEAVE
1. Meewasin Park	22	21	6. Rotary Park	15	15
2. Weir (west)	20	17	7. Cosmo Park	12	14
3. Mendel Art Gallery	6	9	8. University	31	34
4. Kiwanis Park	21	18	9. Weir (east)	5	5
5. Victoria Park	8	10	10. Circle Drive Br.	1	1

Major points of access and egress were Meewasin Park, the Weir (west), Kiwanis Park, and the University. These sites either have adjacent or on site parking.

**3. How far did you travel to get to the trail?**

47% (66) less than 3 blocks

30% (43) more than 9 blocks

21% (30) 3 - 8 blocks

2% (2) out-of-town

Most of those surveyed, 47%, live less than 3 blocks away from the trail. A large number of users, 30%, live more than nine blocks away.

**4. How do you usually get to the trail?**

59% (84) walk

1% (1) public transit

13% (19) automobile

3% (5) other (specify) \_\_\_\_\_

24% (34) cycle

Almost 60% of those surveyed walked to the trail. The number who cycle, 24%, appears low since part of the survey was conducted in winter months. A low 1% use public transit to get to the trail.

If you came by automobile, where do you usually park? \_\_\_\_\_

LOCATION	# PARKED	LOCATION	# PARKED
1. Meewasin Park	5	6. Rotary Park	3
2. Weir (west)	3	7. Cosmopolitan Park	5
3. Mendel Art Gallery	1	8. University	4
4. Kiwanis Park	2	9. Weir (east)	0
5. Victoria Park	0	10. Circle Drive Bridge	0

5. How long will you be using the trail today?

<u>26% (37)</u> less than 1/2 hour	<u>23% (32)</u> 1 to 1 1/2 hours
<u>40% (56)</u> 1/2 to 1 hour	<u>11% (15)</u> more than 1 1/2 hours

Most of those surveyed use the trail for between 1/2 hour and 1 1/2 hours.

6. On average, how often do you use the trail?

<u>82% (113)</u> more than once a week	<u>3% (4)</u> once a month
<u>9% (13)</u> once a week	<u>1% (1)</u> less than once a month
<u>4% (6)</u> once every two weeks	

Many of the 82% who use the trail more than once a week said they actually use the trail everyday.

7. What do you like best about the trail? \_\_\_\_\_

Respondants appreciated the scenic, natural quality of the river valley. They found the trail peaceful, quiet, and away from traffic. The trail offers occasional panoramic views and rest stops as well as even more natural side trails.

Others said the trail is clean, well maintained, and has many facilities such as bar-b-ques and picnic tables. The trail is cleared

promptly in winter and garbage pick-up is frequent.

Many respondents liked the variety of terrain, the groomed cross-country trails and found the trail excellent for biking and jogging. The trail is accessible, convenient and a great place to meet people.

**8. What do you like least about the trail?** \_\_\_\_\_

Almost 40% of those surveyed either had no comment or couldn't think of anything they didn't like about the trail.

Most "liked least" comments relate to cyclist-pedestrian conflicts. Pedestrians said cyclists should make them aware of their approach by using bells. Others felt that cyclists are rude, inconsiderate and ride too fast. Cyclists complained that pedestrians crowd the trail by walking 2 or 3 abreast and that the trail is too narrow in places. Cyclists and pedestrians agreed that they should have separate trails.

Many of those surveyed complained about dogs. They are not always on leashes and sometimes scare trail users. Some dog owners are negligent in collecting and disposing of their dog's feces. Some dog owners don't appreciate dog restrictions.

There were some complaints about water and ice on the trail and slow snow removal and in places, the trail itself is in bad shape. There were several complaints about there being an absence of a trail between the Traffic Bridge and the Idylwyld Bridge on the west side.

Users would like to see more water fountains and washrooms.

**9. What would you like to see changed?** \_\_\_\_\_

Many of the respondents either had no comment or couldn't think of anything that should be changed.

Respondants would like to see the trail wider, longer, and lighted for night use. Some would like to see more facilities associated with the trail like a canoe launch, play facilities for children and washrooms.

Those surveyed want cyclists educated and even restricted in some areas. Pedestrians and cyclists want separate trails.

Many want the trail patrolled to watch for dogs not being properly controlled or cleaned up after by their owners. Dog owners want their dogs allowed in park areas.

Users want all the snow removed from the trail and want the trail designed to drain water away. They also want more garbage containers and benches.

**10. What would you like to see kept the same?** \_\_\_\_\_

Many of those surveyed had either no comment or want everything kept the same. They appreciate the trail's simplicity. One person did not want the trail separated.

Respondants stressed the need to keep natural areas natural such as Cosmopolitan Park and farmland adjacent to the trail on campus.

Others want the ski trails, bridge connections, Weir falls and formal gardens left as is.

**11. If the trail is extended, where would you like to see the extension occur?** \_\_\_\_\_

Almost 35% of the respondents either felt that an extension wasn't necessary or that the length of the trail was fine. Another 13% had not been the entire length and couldn't suggest where to extend.

65% wanted the trail extended with most preferring an extension north and south on the east bank or south on the west bank. Others wanted the trail extended south on both sides of the river and connected by the C.N.R. Bridge.

A few respondents wanted the trail completed between the Traffic Bridge and the Idylwyld Bridge on the west bank. Others want more nature trails like the chip trail in Cosmopolitan Park. Of those wanting the trail extended the figures are as follows:

<u>Extended South</u> - 52%		<u>Extended North</u> - 27%	
east bank	20%	east bank	20%
west bank	23%	west bank	6%
both sides	3%	both sides	1%
to & across CNR Bridge	6%		
<u>Extend</u> - not sure where - 6%			
<u>Other</u> - 17%			

The following is a list of "other" extensions suggested:

- Cranberry Flats
- South Downtown
- improve side trails
- to new Arena
- to residential areas
- suspension bridge from Meewasin Park to Sutherland Beach
- west into Silverwood
- away from the river
- to the Forestry Farm
- into the City





## **APPENDIX 2**

### **Issues and Concerns Workshops**

## APPENDIX 2: ISSUES AND NEEDS WORKSHOPS

### a. NEEDS IDENTIFICATION PUBLIC WORKSHOP

J.S. WOOD LIBRARY

TUESDAY, MARCH 22, 1988

#### 1. Strengths and Weaknesses of the Existing Trail

- Group 1 Strengths -
- accessibility throughout City
  - linking of trail and parks
  - scenic view, awareness of city
  - interpretive signs
  - central location allows for expansion
  - horse trails
  - provides focus point for city, i.e. culture, heritage, value of river
  - awareness of fragility of nature
  - outlet for exercise, different lifestyles
  - "Walk of Ages", "Riel Relay Race"
  - provides source of pride in city
  - unique system
  - Meewasin Park

- Weaknesses -
- lack of sanitary facilities
  - lack of horse trails
  - needs to be extended
  - needs a double trail
  - conflict between bikers and walkers
  - river not directly accessible
  - lack of wilderness" areas on trails
  - lack of interpretive signs
  - lack of accessibility between sides
  - lack of integrated recreation facilities
  - snow dump area
  - riverbank at Spadina Crescent & Ravine Drive
  - lighting

- Group 2 Strengths -
- existence and popularity
  - unification of area near river
  - easy access
  - focus for running activities
  - all weather surface
  - snow clearing, clean
  - beauty and peace
  - extendible
  - opens up valley to nature

- Weaknesses -
- lack of water taps
  - washroom facilities, especially in winter
  - conflict due to combination of different activities, pedestrians/cyclists/skiers/dogs
  - lack of horse trails
  - too short
  - could be more loops, avoid backtracking
  - snow removal for skiers, horses
  - paved surface, nature lovers in conflict with others
  - lighting limited, some areas need lighting, other areas lights cause problems. Needs more lighting in urban areas and selected areas. Less in open areas, lack of consistency in lighting
  - connection to campus
  - walkway on Preston

- Group 3 Strengths -
- easy access/total access/access for paraplegics, blind
  - develop for everyone
  - getting away from wheeled traffic
  - visibility of river
  - combination of wildlife/development (natural trees)
  - some parking access
  - bridle path in Diefenbaker great (Turner's field and Rifle Range)
  - signs, kms, building landmarks by Broadway Bridge
  - playground areas

- extensiveness
- variety, year round activities, cycling, cross-country skiing, rollerskating
- benches, picnic tables

- Weaknesses
- lack of washrooms
  - mixing speedy cyclists and pedestrians and horses
  - ditch to Rifle Range is not cleared
  - when city golf course moves into Turner's field, where do horses go?
  - lack of lighting in certain places
  - trail is not a loop
  - congested areas
  - unsafe access across bridge
  - lack of boat launches
  - conflict of use
  - lack of connection from Diefenbaker Park, Rifle Range, Cranberry Flats and Beaver Creek for hikers and horses
  - lack of few overnight camp spots south of town
  - trail deadends/begins at Silverwood rubble dump
  - not extensive enough - stops at Avenue H pool

## 2. Opportunities within the Trail System

1. Extend trail: Pike Lake/Beaver Creek to Clark's Crossing. Woodchip trails north of Silverwood. Extend trails all four directions. Ski/hiking trail to Tipperary Creek.
2. Scenic viewpoints - benches, tables
3. Interpretive signs, walking tours, i.e. history, flora/fauna, geology, buildings, etc. Pioneer Cemetery, Diefenbaker Park
4. Wildlife areas/saltwater marshes
5. Develop Yorath Island for wilderness area/park

6. Rentals during tourist season: bicycles, canoes, rollerskates
7. Overnight camping spots south of city
8. Bridle path at Gabriel Dumont park with connecting trail to Rifle Range
9. Develop area behind the sanatorium, could tie into Gordie Howe Park
10. Tie in Foresty Farm. Peturrson's Ravine to Forestry Farm
11. Separate hiking and cycling paths where feasible
12. Trail from Rotary Park to Diefenbaker (Sask. Cresc. area)
13. Canoe launch at Pike Lake, Beaver Creek, different areas connecting trail
14. Expansion of number of types of trails
15. Pedestrian walkway on CN bridge
16. River level trails at campus
17. Combine washrooms with other facilities

### 3. Needs within the Trail System

1. Extra washrooms (Red Cross). Larger and more of them.
2. Water taps
3. Telephones (especially at remote areas)
4. Parallel trails in busy areas
5. Facilities for equestrians. More bridle paths.
6. More picnic areas outside city. Designated picnic areas.
7. Access to river's edge.

8. More boat launch sites and car parking
9. Look-out points
10. Resurfacing in Bessborough Park on lower and upper level.  
Cycle/wheelchair ramps on upper Bessborough trail
11. Extended trails
12. Separate hiking and biking trails and ski trails
13. Kilometer markings on trail
14. Access between river sides for bikes
15. Lighting in certain areas (safe zones); downtown, Meewasin Park. Need lights from Ravine Drive to west side 42nd Street & 25th Street bridges.
16. Sharp turns should be opened up
17. Interpretive signs: historical, flora/fauna, geology
18. Eliminate snow dumps on riverbank
19. Promote politeness, especially on congested areas of trail
20. "Friends of the Trail" - continuous community support group
21. Maintenance/ongoing funding
22. Ruling on bikes on bridges
23. Open Rothman's building on weekends/evenings

#### 4. Summary of Opportunities

- extend trail
- separate hiking and cycling trails where feasible
- expand number of trail types
- scenic viewpoints, benches, tables
- interpretive signs/walking tours
- bridle path at Dumont Park, connecting trail to Rifle Range
- link to Forestry Farm

## 5. Summary of Needs

- extended trail
- washrooms
- separation of trails
- equestrian facilities
- parallel trails in busy areas
- picnic o/s city
- interpretive signs
- water taps
- access to river's edge
- boat launch sites
- km markings
- lighting in certain area
- resurface at Bessborough Park
- promote "politeness"



## **b. STEERING COMMITTEE WORKSHOP**

The following summarizes the results of discussions at the Steering Committee workshop held on 02 May 1988.

### **1. Major strengths of the present trail system:**

#### **a. Overall list:**

- continuity along the valley
- easy access to the valley
- multi-use capabilities / suitability
- year-round use capabilities / suitability
- popular / well - used
- scenic
- encourages physical activity / exercise
- positive public image
- role as a linkage between destinations
- access across the river
- well-maintained
- safe and secure
- visual variety
- outdoor education opportunities (natural and cultural heritage)
- tourist feature

- encourages use of the river valley
- programmable
- high return on investment
- transportation route
- free of charge

**b. Priorized list:**

**Group 1 (most important):**

- multi-use capabilities / suitability encourages use of the river valley
- positive public image
- encourages physical activity / exercise
- role as a linkage between destinations / transportation route
- easy access to the valley

**Group 2 (next most important):**

- continuity along the valley
- popular / well-used
- scenic
- visual variety
- free of charge
- high return on investment

2. Major weaknesses of the present trail system:

**a. Overall list:**

- user conflicts
- safety problems
- too little segregation of uses
- too centred on river / poorly developed access from areas away from the river
- no directional / orientation indications of "how to get onto the trail"
- poor integration with other trail systems and destinations
- trail doesn't lead to some of the nicest places
- no integration (no definition) of various trail levels or types
- gaps in the trail along the valley
- layout of some sections of the trail leads to "shortcutting"
- lack of trail-related services and facilities
- tree overhangs
- utility-related hazards (guy-wires, outfalls)

**b. Priorized list:**

**Group 1 (most important):**

- user conflicts
- too centred on river / poorly developed access from areas away from the river
- no integration (or definition) of various trail levels or types

Group 2 (next most important):

- poor integration with other trail systems and destinations
- gaps in the trail along the valley
- lack of trail-related services and facilities
- safety problems
- no directional / orientation indications of "how to get onto the trail"
- trail doesn't lead to some of the nicest places

3. Needs for the future (NOTE: \* indicates those needs relating in a broad sense to issues of public safety and resource conservation):

a. Overall list:

- segregated ski trails \*
- access to Silverwood Heights, Spadina South and Silver Springs neighbourhoods from the trail
- document trail lighting / night or winter use needs \*
- upgrade access to more distant neighbourhoods
- cost-effective system
- benches, water fountains, washrooms, etc.
- design guidelines for safety \*
- deal with (or avoid) natural hazards and sensitive areas \*
- close gaps in existing system
- expand the system
- trail system information, orientation / directional signage / better developed "gateways" or points of entry to the system

**b. Priorized list:**

**Group 1 (most important):**

- close gaps in existing system
- access to nearby neighbourhoods
- benches, water fountains, washrooms, etc.
- expand the system

**Group 2 (next most important):**

- segregated ski trails
- upgrade access to more distant neighbourhoods
- information, orientation and directional signage and better developed points of entry

4. Opportunities for the future (NOTE: \* indicates those needs relating in a broad sense to issues of public safety and resource conservation):

**a. Overall list:**

- increased night and four-season use through trail lighting
- co-ordinate trail / freeway / roadway planning and design \*
- integration of MV Trail System with City of Saskatoon, University of Saskatchewan and any other trail and open space systems \*
- integration with communication / interpretation programs \*
- networking (in a physical sense)
- increased access and facility development at river's edge
- crossing at Grand Trunk Bridge
- crossing to Yorath Island

- fitness trail and stations
- ferry shuttle service
- small swinging bridges (e.g. Peturrson's Ravine)
- multiple trail types, including hiking / nature trail
- explore needs / attitudes / desires of rural population
- increased interpretation / understanding of rural and agricultural issues and activities \*
- promotion of the Trail System as a part of Saskatoon's "package of attractions"
- public art

**b. Priorized list:**

**Group 1 (most important):**

- integration of MV Trail System with City of Saskatoon, University of Saskatchewan and any other trail and open space systems

**Group 2 (next most important):**

- integration with communication / interpretation programs
- multiple trail types, including hiking / nature trail
- crossing at Grand Trunk Bridge
- small swinging bridges (e.g. Peturrson's Ravine)
- co-ordinate trail / freeway / roadway planning and design.

## **APPENDIX 3**

### **Basis of Cost Estimates**

### APPENDIX 3: BASIS OF COST ESTIMATES

#### 1. PHASE 1 (1989 - 1993)

##### 1.1 1989

- Temporary Type 1 Primary Trail  
between Victoria & Idylwyld  
Bridges on west bank
  - 300 m @ \$45.00
  
- Widen & re-align Type 1 Primary  
Trail near water treatment plant
  - 50 m @ \$50.00
  
- Improve lighting at Victoria  
Park parking lot
  - 5 light standards @ \$3,000.00
  
- Improve lighting at Thompson Belvedere
  - 2 light standards @ \$3,000.00
  
- Improve lighting under east  
end of Broadway Bridge
  - 2 light standards @ \$3,000.00
  
- Reduce glare from University  
Hospital parkade
  - 300 m<sup>2</sup> of planting @ \$15.00



- Backshore linkage on 21st Street
  - 10 directional signs @ \$200.00
  
- Minor entry at Spadina Crescent and 21st Street
  - 2 orientation signs @ \$500.00
  
- Construct a portion of the large east side backshore linkage / loop along Preston Avenue from 14th Street to North of College Drive
  - 1000 m @ \$35.00
  
- Upgrade Type 1 Primary Trail between Idylwyld and Broadway Bridges on east bank
  - 700 m of trail widening @ \$25.00
  - 3 safety signs @ \$200.00
  
- Widen Type 1 Primary Trail from Mendel Gallery to Weir
  - 800 m of trail widening @ \$25.00
  
- Complete upper Type 1 Primary Trail in Cosmopolitan Park
  - 250 m @ \$45.00

### 1.2 1990

- Type 1 Primary Trail extension  
south from water treatment plant  
to CNR Bridge
- 2200 m @ \$45.00

### 1.3 1991

- Minor entry at Spadina Crescent  
and 11th Street
  - 1 orientation sign @ \$500.00
  - rest area @ \$8,000.00
  - 1 bicycle stand @ \$200.00
  - 1 light standard @ \$3,000.00
- Minor entry near Sanatorium
  - 1 orientation sign @ \$500.00
  - rest area @ \$8,000.00
  - 1 bicycle stand @ \$200.00
  - 1 light standard @ \$3,000.00
- Minor Entry at CNR Bridge (west bank)
  - 20 car parking lot (600 m<sup>2</sup> @ \$25.00)
  - 5 picnic table units @ \$2,000.00
  - 2 bicycle racks @ \$200.00
  - 1 orientation sign @ \$500.00
  - 2 light standards @ \$3,000.00
- Backshore linkage to Luther Heights
  - 100 m @ \$45.00

- Upgrade major entry at  
Diefenbaker Centre
  - 1 orientation sign @ \$500.00
  - 2 bicycle racks @ \$200.00
  
- Complete equestrian / driving  
loop in Diefenbaker Park
  - 1400 m @ \$24.00
  
- Upgrade major entry at  
Meewasin Valley Centre
  - 10 car parking lot (300 m<sup>2</sup> @ \$25.00)
  - 1 orientation sign @ \$500.00
  - disabled access (10 m<sup>3</sup> concrete @ \$150.00)
  - 1 directional sign @ 300.00

#### 1.4 1992

- Backshore linkage to Montgomery Place
  - 3,000 m @ \$30.00
  
- Backshore linkage to Holiday Park  
and Gordon Howe Park
  - 2,000 m @ \$30.00
  
- Primary Trail from Idylwyld  
Bridge to Diefenbaker Park
  - Saskatchewan Crescent section - 6 identification signs @ \$200.00
  - 900 m primary trail @ \$45.00

- Minor entries at 8th Street,  
Taylor Street and Hilliard Street
- 3 rest areas @ \$8,000.00
- 3 light standards @ \$3,000.00
- 3 orientation signs @ \$500.00

### **1.5 1993**

- Extension of Type 2 Primary Trail  
from Meewasin Park to Wanuskewin  
Heritage Park
- 5300 m trail @ \$30.00
- 1300 m trail @ \$12.00
- 2 rest stops @ \$4,000.00
- NOTE: No allowance for fill construction that will likely be  
required

## **2. PHASE 2 (1994 - 1998)**

### **2.1 1994**

- Backshore linkages to Innovation Place
- 600 m trail @ \$35.00
- 400 m trail @ \$12.00
- Backshore linkage through U. of S.  
Field Facilities to Preston Avenue
- 1,000 m @ \$65.00
- Minor entry upgrade at east end  
of University Bridge
- 1 directional sign @ 200.00
- 150 m trail @ \$35.00

- Backshore linkage from South  
Downtown riverbank to 21st Street
  - 6 directional signs @ \$200.00
- Backshore linkage to WJL Harvey Park
  - 2 directional signs @ \$200.00

## 2.2 1995

- Minor entry at, and backshore  
linkage along, Adilman Drive
  - 4 directional signs @ \$200.00
- Minor entry at, and backshore  
linkage along, Kinnear Crescent
  - 4 directional signs @ \$200.00
- Major entry at Diefenbaker Park
  - washrooms - 100 m<sup>2</sup> @ \$1,000.00
  - 2 bicycle racks @ \$200.00
  - 2 drinking fountains @ \$1,200.00
  - food services - 40 m<sup>2</sup> @ \$1,000.00

### 2.3 1996

- Backshore linkage on Taylor Street
  - 6 directional signs @ \$200.00
  
- Backshore linkage on Hilliard Street
  - 6 directional signs @ \$200.00
  
- Backshore linkage on Broadway Avenue
  - 12 directional signs @ \$200.00
  
- Backshore linkage to S.I.A.S.T.  
(Kelsey) and Hudson Bay Parks
  - 1000 m trail @ \$45.00
  - 23 directional signs @ \$200.00
  
- Backshore linkage from Devil's  
Dip to Sutherland
  - 1200 m trail @ \$35.00
  - 6 directional / identification signs @ \$200.00
  
- CNR Bridge crossing structure
  - allow \$500,000.00

#### 2.4 1997

- Backshore connection from Circle Drive Bridge to Silverspring and Forestry Farm Park
  - 3800 m trail @ \$35.00
  
- Minor entry at east end of Circle Drive Bridge
  - 1 identification sign @ \$200.00
  
- Pedestrian crossing structure on east side of Victoria Bridge
  - allow \$200,000.00
  
- Portion of large east side backshore linkage / loop along Preston Avenue from College Drive north to Circle Drive
  - 2000 m @ \$35.00

## 2.5 1998

- Backshore connection to  
Dutch Growers subdivision
  - 450 m trail @ \$35.00
  
- Backshore connection from  
Diefenbaker Park to Western  
Development Museum
  - 1000 m trail @ \$35.00
  
- Upgrade minor entry at Spadina  
Crescent and 33rd Street
  - 1 rest area @ \$8,000.00
  - 1 light standard @ \$3,000.00
  - 1 trail identification sign @ \$200.00
  
- Minor entry at south end of  
Victoria Bridge
  - 150 m secondary trail with earthwork @ \$42.00
  - 1 directional sign @ \$200.00



### 3. PHASE 3 (BEYOND 1998)

#### 3.1 High Priority

- Type 2 Primary Trail from Circle Drive to Peturrson's Ravine
  - 2000 m @ \$30.00
  
- Type 2 Primary trail from Diefenbaker Park to Rifle Range
  - 5700 m trail @ \$30.00
  - 3 rest stops @ \$2,000.00
  
- Equestrian / Driving Trail from Diefenbaker Park to Rifle Range
  - 6400 m @ \$24.00
  
- Equestrian / Driving Trail Circuit at Rifle Range
  - 2000 m @ \$24.00
  
- Minor entry at Rifle Range
  - 3 hitching posts @ \$100.00
  - 1 trail identification sign @ \$200.00
  - 3 car parking lot (90 m<sup>2</sup> @ \$25.00)
  
- Upgrade access to CNR Bridge crossing
  - upgrade / regrade 300m of trail @ \$45.00

- Secondary Trail connection from  
Capilano lookout to Primary Trail  
at Ravine Drive
  - 450 m trail with earthwork @ \$36.00
- Minor entry at east end of CPR Bridge
  - 1 trail identification sign @ \$200.00
- Minor entry at Spadina Crescent  
and Ravine Drive
  - 1 rest area @ \$8,000.00
  - 1 light standard @ \$2,000.00
  - 1 orientation sign @ \$500.00
- Type 1 Primary Trail from Peturrson's  
Ravine to Forestry Farm Park
  - 1500 m @ \$45.00

### **3.2 Moderate Priority**

- Backshore linkage to Southridge  
neighbourhood
  - 4000 m @ \$35.00
- Completion of large east side  
backshore linkage / loop
  - 6800 m @ \$35.00

- Tertiary Trail along east bank between  
Broadway & Circle Drive Bridges
  - 3400 m @ \$12.00
  
- Upgrade major entry at Rotary Park
  - 1 orientation sign @ \$500.00
  - upgrade washroom building - allow \$25,000.00
  
- Minor entry at Ski Jump Coulee
  - 10 car parking lot (300 m<sup>2</sup> @ \$25.00)
  - 4 light standards @ \$3,000.00
  - 1 trail identification sign @ \$200.00
  
- Minor entry at Archibald Arena
  - 1 rest area @ \$8,000.00
  - 1 light standard @ \$2,000.00
  - 1 trail identification sign @ \$200.00

### 3.3 Low Priority

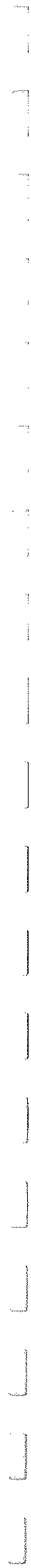
- Increase trail capacity across  
University Bridge
  - allow \$1,000,000.00
  
- Type 2 Primary Trail from CNR  
Bridge to Yorath Island area
  - 2100 m @ \$30.00

- Secondary backshore linkage from Peturrson's Ravine to Northeast Golf Course

- 2000 m @ \$35.00

- Pedestrian bridge from Meewasin Park to east bank

- allow \$1,000,000.00



## **APPENDIX 4**

### **Trail Planning Experience Elsewhere - A Literature Review**

**APPENDIX 4: TRAIL SYSTEM PLANNING EXPERIENCE ELSEWHERE -**  
**A LITERATURE REVIEW**

**1. INTRODUCTION**

In an attempt to learn from the experience of others involved in trail system planning development and operation, information was obtained from the following agencies:

**Appalachian Trail Conference**  
Harper's Ferry, West Virginia  
- regarding the Appalachian Trail

**National Capital Commission**  
Ottawa, Ontario  
- regarding recreational pathways in the National Capital Region

**State of Colorado**  
**Division of Parks & Outdoor Recreation**  
- regarding the State Recreational Trails Master Plan and the Boulder Creek Path

**Thunder Bay Parks & Recreation Department**  
Thunder Bay, Ontario  
- regarding the Thunder Bay Trail System

**Niagara Escarpment Commission**  
Georgetown, Ontario  
- regarding the Bruce Trail

**Dallas Parks Department**  
Dallas, Texas  
- regarding the White Rock Creek Trail

In discussions with representatives of these agencies, and in reviewing information received from them, it became clear that a comprehensive, forward-looking systems approach to trail planning (as is being followed in the Meewasin Valley Trail System Plan) has not been widely utilized. For the most part, trail planning has been on an ad hoc basis, as opportunities arise and/or demand requires. Most of the information related to design guidelines and standards, with specific recommendations regarding such trail characteristics as gradients, curve radii, crowning and other construction details. Other materials related to trail maintenance

and stewardship and still others dealt with determination of eligibility for senior government funding assistance (in the U.S.A). There were, however, a number of points of information provided which were relevant and useful in the preparation of the Meewasin Valley Trail System Plan. These points are reviewed below:

## 2 TRAIL CORRIDOR ACQUISITION

The Appalachian Trail Conference, which was given legislative authority to purchase, expropriate or otherwise acquire rights of access for the Appalachian Trail corridor in 1968, initially emphasized the use of easements for this purpose. To date, approximately 20% of the corridor (31,000 ha +/-) has been acquired through negotiation. However, recent analysis has indicated that easement costs have averaged approximately 75% (and, at times, have equalled) land purchase costs (excluding legal fees for both techniques). Further, the terms of each negotiated easement have had to be tailored to each individual landowner's needs and desires and the Appalachian Trail conference has been left with no control over the use of lands immediately adjacent to the trail. It was also pointed out easements have not always been beneficial to the land owners, as terms of the easements include restrictions on uses within the easement area that permit only uses that are appropriate or complementary to the trail.

Thus, the present policy of the Appalachian Trail Conference is to acquire rights of access and resource protection through fee simple purchase, and to resort to easements only to avoid expropriation. Further, as a major underlying principle, rights of access are acquired for the widest possible corridor, thereby maximizing flexibility in specific trail alignment and control of adjacent uses that might negatively affect trail users' experiences. Width of the trail corridor is quite variable but generally averages approximately 300 m.

Representatives of the Niagara Escarpment Commission have indicated that, although their experience is much less extensive, easement negotiations and implementation have also been very problematic.



The Colorado State Trails Program, however, encourages the acquisition of trail corridors through donations, easements, and exchanges. Agreements for less than fee must be for terms of not less than 25 years. Preference is given to trail planning which saves acquisition costs by allowing multiple use of the corridor itself. Such cooperative joint uses may include canals, drainageways, pipelines and other utilities, transportation corridors, and open space or land preservation corridors.

### 3. MEASURING TRAIL NEEDS

The Colorado State Recreational Trails Master Plan included a number of observations regarding the determination of need to expand trail opportunities. Determining actual trail needs in a quantifiable ratio of miles of trail per amount of population is difficult. Because facilities such as ballfields have a distinct user capacity and can be closely scheduled, numbers of users can be accurately measured and related to the population base. The problem with predicting trail use is that the capacity of a trail is not clearly defined. The more popular an urban trail is, the more users and people watchers it will attract, while a wilderness trail will be perceived as overcrowded if only a few users are encountered. In addition, trail users will flock to a scenic and highly accessible trail and avoid a poorly conceived one, regardless of the total miles of available trail within that population centre.

One attempt at formulating a recommended standard is the U.S. Bureau of Outdoor Recreation's figure of 25 miles of trail per 50,000 population for hikers and bicyclists, and 5 miles per 50,000 for horseback users. Although this standard does not account for regional differences in participation rates, it has been used since 1966 throughout the United States as a general indicator. Using these rule of thumb ratios, the Saskatoon area would be well served with trails if there were approximately 160 km of hiking and bicycling trails and approximately 30 km of equestrian trails.

Another way of determining trail needs is by user surveys. Citizens are typically asked about their participation in various outdoor recreation activities and about their perceptions of facility needs.

General trends in public wishes and needs can, however, be ascertained through the use of surveys. Meewasin has used this tool twice in the past (see Appendix 1) and it is anticipated (and recommended) that further such surveys be undertaken in the future.

#### 4. MULTIPLE TRAIL USES & USER CONFLICTS

The Colorado State Trails Program encourages the construction of trails serving a variety of trail users and trail activities. The goal in trail planning and design of trails is to accommodate multiple uses without unnecessary or unsafe conflicts between users. However, trails do not have to serve all possible users if alternate trails are provided, nor should motorized and non-motorized trails be located close together. Preference is given to corridors which can accommodate a variety of trail uses and other compatible outdoor recreation activities without conflict. Colorado has emerged as a major centre for off-road bicycles ("mountain bikes"). This relatively new trail activity promises to become very popular. Controversy over the use of these bicycles on dirt, hiking and equestrian trails is being explored in order to develop a policy for state parks and trails.

The primary goal of the Colorado State Trails Program is to provide recreational rather than commuter-oriented trails. However, there is not a clear distinction between recreation and transportation, and users on many trails are not easy to categorize. Trail planning and design should, where possible, provide access and facilities that will encourage commuter user without compromising scenic and recreational qualities.

The Trails Committee has defined a recreational trail as follows:

A trail which interconnects park and recreation areas with residential communities along routes of scenic, natural, historic, geologic, or water-oriented interest. A recreational trail is not a route designed for expeditious commuting to and from shopping centres, places of employment, and residential areas.

The Colorado State Recreational Trails Master Plan also addresses special trail uses. Non-motorized trails in the system must not incorporate barriers to use by the blind, elderly or handicapped, unless the terrain is steep, hazardous, or otherwise unsuitable without unjustifiably expensive design features. Preference is given to trails whose planning or design makes them both suitable and attractive for use by the blind, elderly, or handicapped. These trails should also provide, where feasible, such trail-related facilities as wheelchair - accessible stream fishing, handicapped - accessible restrooms, and interpretive facilities for the blind.

Trails which provide interpretive facilities of a historic, cultural, or natural history nature for all users are also encouraged. Opportunities for nature study, viewing wildlife, and other educational use should be considered as part of the multiple-use potential of a trail corridor.

The issue of multiple use of trails, user conflicts and trail safety has also been addressed by the National Capital Commission in Ottawa. In 1984/85 an increasing number of complaints were received by the National Capital Commission from the public concerning accidents or near accidents (between pedestrians and cyclists), occurring on certain pathways.

In response to these complaints and a general feeling that there was a developing lack of safety for the pathway users, the N.C.C. carried out studies in 1985 involving two heavily travelled sections of the recreational pathway system.

The primary problem concerns a conflict in use between cyclists and other pathway users, primarily pedestrians. Due largely to the increasing popularity of the recreational pathways, their use has grown to a level where frequent confrontation between the user groups occur. Nevertheless, while no statistics are available, it seems that the number of accidents and/or confrontations relative to the level of the pathway use is very low.

The most commonly cited hazard situation is that of the cyclist approaching pedestrians from the rear at high speed. Because modern bicycles are so fast and quiet, cyclists are often not heard approaching until they are very close to the pedestrian. The surprise of suddenly finding themselves no longer alone, and in fact, in close proximity to a large, fast-moving projectile is often startling. The reaction of the pedestrian can be to move aside suddenly, sometimes into the path of the cyclist, who, due to his or her speed, cannot avoid collision. The potential for serious injury is great, considering the momentum of a cyclist moving at high speeds, often as high as 55 km/h. Many cyclists observed seem to view pedestrians as static objects incapable of sudden unexpected moves. Sometimes one has the impression that the walker is viewed by this "speedster" cyclist as being similar to the gates in a ski slalom course.

A number of potential solutions to the problems of user conflict, ranging from design to policy matters, were derived. These are described below together with a discussion of associated merits and problems.

#### **4.1 Policing of Pathways**

**Proposal:**

The "rules of the road" for pathway use should be enforced to protect both pedestrians and cyclists from those who use the pathways in an irresponsible manner.

**Discussion:**

Both the R.C.M.P. and the Ottawa City Police have pointed out difficulties that they have in dealing with cyclists. Because cyclists are not included under the provisions of the Ontario Motor Vehicle Act they do not have to identify themselves when requested to do so, and therefore cannot be charged by police for infractions. In addition there are no laws governing the use of bicycles on recreational pathways. The police are also concerned about the extra manpower that would be required if police responsibilities were extended to the pathway system.

#### **4.2 Separate Pathways**

**Proposal:**

Provide separate pathways for cyclists and pedestrians.

**Discussion:**

A problem that arises with path separation is its difficulty in ensuring that users will keep to their own paths. Unless the paths are very close together, in effect being divided lanes, there is usually some condition different between the two pathways, such as the view provided or accessibility, that makes one path more attractive than the other to both users. Policing could be used to enforce a separated path system, but as pointed out in item 1, above, policing is not a dependable solution at this time. Design solutions such as placing barriers to bicycle use on the pedestrian paths are feasible to a degree but there is still the problem of how to dissuade the pedestrian from using bicycle paths.

### **4.3 Separate Lane Delineation**

#### **Proposal:**

Use paint lines or other means of marking on pathways to delineate separate lanes for pedestrians and for cyclists.

#### **Discussion:**

There still remains the problem of how to ensure that the users keep to their own portions of the pathway. This is less of a problem, however, than with paths that are separated by a significant distance, since the same viewing experience is provided (i.e. neither is moved to a position remote from the river edge or other significant views/attractions).

Some joggers are satisfied with using paved pathways but many run on the grass verge of the pathways. Consideration should be given to providing separate cinder or stonedust lanes at the edge of pedestrian lanes to accommodate joggers.

### **4.4 Place Cyclists on Roadways**

#### **Proposal:**

Encourage cyclists to use roads and streets by improving conditions for cycling, for example, by providing comfortably wide cycle lanes, by removing catch basins from pavement areas to a recessed position in the street curb, and by designating centre-of-road left turn lanes for cyclists. It is the opinion of the Ottawa-Carleton Safety Council that there would be a significant improvement in the safety of pathways if cyclists wishing to travel at high speeds, e.g. racers in speed training, and commuters, could be enticed onto roadways.

#### **Discussion:**

Police officers interviewed were not sympathetic to solutions that would encourage greater use of roads and streets because of their difficulty in dealing with cyclists for reasons already cited. This, however, would not likely be a serious difficulty if legal problems were to be resolved.

#### **4.5 Recommended Measures to Reduce Conflicts**

After reviewing the optional solutions to user conflict on recreational trails, the National Capital Commission recommended a number of measures to reduce cyclist / pedestrian conflicts.

##### **a. Rectify Specific Hazard Situations**

The various specific hazard situations identified should be resolved immediately. These relate to matters such as improving visibility at intersections, repairing damaged pavement areas and reducing dangerous grade situations.

##### **b. Widen and Delineate Pathways**

Pathways in all areas where there is a high potential for user conflict should be widened and divided into lanes. Based on research to date, it is the N.C.C.'s recommendation that these pathways be a minimum width of 4 m (13 ft.), with 1.5 m (5 ft.) allocated to pedestrians and 2.5 m (8 ft.) allocated to cyclists, the latter being further divided into 2 lanes of 1.24 m (4 ft.) each to accommodate two directions of travel.

In areas where pathways cannot be widened due to physical limitations, such as the presence of retaining walls, or due to time or fiscal constraints, laneway delineation should be marked and hazard signs be posted. Painted symbols on the pavement or textured pavements could also be used to heighten user awareness of hazard situations.

##### **c. Clarify Rights of Use and Rules of the Road**

Presently there is some degree of confusion about who the rightful users of the recreational pathways are. Many of the pathways were at one time officially called "bicycle trails" or were marked with a sign showing only a bicycle. The result is that there are many cyclists who feel that pedestrians are trespassers on their trails and view them as nuisances rather than as people with an equal right to the use of the paths.

Signs clearly indicating the right-of-use for both pedestrians and cyclists should be posted and if the trail is divided this should also be clearly indicated on the signs. Rules of pathway use should

be prominently displayed also. These should be few in number and uncomplicated so as to be easily understood and remembered.

#### **d. Education and Promotion**

The N.C.C. should join with other involved regional agencies to promote the safe use of all recreational pathways. Promotion and education could be done through the use of displays and signs located along pathways, through the use of pamphlets distributed at pathway access points, at schools and at the work place, through media advertising and through promotional events. This, combined with the other measures outlined, will, in the N.C.C.'s estimation, bring about a significant improvement in the safety of pathway use. Until full policing power can be provided, the educational aspect will be of paramount importance but will always be a significant component in achieving safe pathway use. A large portion of the problem can be overcome if users develop attitudes of respect and consideration for each other and this can only be achieved through the educational approach.

#### **e. Policing of Pathways**

Bylaws governing recreational pathway use could be passed by the N.C.C. to improve policing potential. Representatives of the Ottawa-Carleton Safety Council and Citizens for Safe Cycling stated that they felt that the N.C.C.'s student recreational pathway patrol of a few summers ago had been of considerable value. Students, perhaps given the status of bylaw control officers, could be used to patrol the pathways; this would provide a strong influence encouraging the use of pathway rules. This role should be augmented to provide advice, information and emergency assistance (mechanical and first aid) to pathway users. This positive role will make the enforcement aspect more readily accepted.

#### **f. Legislative Measures**

The Ontario Motor Vehicle Act should be amended to include cyclists so that the police can charge those who threaten the safety of others and who do not adhere to the law both on recreational pathways and on roadways. Bylaws should be enacted specifying acceptable practices for combined pedestrian/cycle use of recreational trails.

#### **g. Encourage Roadway Use**

The Ottawa Safety Council and the Citizens for Safe Cycling expressed the opinion that cyclists who are primarily interested in commuting or in speed training should be encouraged to use roadways, streets and parkways. The pathways are for the recreational pursuits of a variety of types of users, and cyclists travelling at high speeds are not compatible with these recreational goals. To facilitate this measure, proper facilities should be developed for bicycle use on roads and legislation should be altered to allow police to charge cyclists for any traffic violations. The police feel that, without this ability, the placing of increased numbers of cyclists on roadways will result in significant increases in injury and probably even fatalities.

### **5. TRAIL CORRIDOR SELECTION AND PRIORITIES**

The intent of the Colorado State Recreational Trails Master Plan was to create a statewide system of trails that would coordinate trail planning efforts from agencies and local communities throughout Colorado. Updating this trails system involved a review of existing trails, current trail plans, and trail locational criteria expressed in the Trail Act and State Trails Program policies.

A set of selection criteria was developed in order to assess the significance of a trail corridor as a component of the statewide trails system. These criteria were based on the goals and policies of the State Trails Program, the variety of trail opportunities within the state, and the need for useful and integrated regional trail systems. These trail corridor selection criteria are as follows:

1. Does the trail provide access to parks, recreation sites, public lands, or scenic areas?
2. Does the trail form a significant part of a regional trails system?
3. Does the trail help meet statewide outdoor recreation needs?
4. Has the trail been proposed by a legal agency that has the authority to construct trails?
5. Does the trail follow a corridor of outstanding scenic, cultural, or historic value?



6. Does the trail form part of a loop or other well-connected system?

To guide phasing of the trails system and provide direction for the trails program, three priority levels were assigned to the corridors. These levels are identified on the plan as first, second, and third phase corridors. These phases are not strictly quantifiable, but reflect regional issues as well as statewide recreational needs.

1. A first phase trail is one that has been selected as a priority by the local community and satisfies all or most of the corridor selection criteria listed above. It generally fills gaps in existing trails systems or includes an existing right-of-way.
2. A second phase trail is one that is further from development than a first phase trail but also satisfies most of the corridor selection criteria. A second phase trail generally extends the first phase outwards or provides greater access to the first phase trail.
3. A third phase trail is one that makes connections between higher-priority trails and between urban areas, although changing population patterns and recreation needs may increase that priority. A third phase trail generally satisfies fewer of the corridor selection criteria.

## 6. CONCLUSIONS

Review of experiences and practices of other agencies involved in the development and operation of recreational trails has provided an indication of how some of the issues faced by Meewasin in the preparation of a trail system plan have been addressed in other situations. However, as a generalization, it is apparent that this approach to trail planning has not been common and that much of the Meewasin Trail System Plan will be, of necessity, a case of "navigating uncharted waters". For this reason, it is expected that in arriving at a suitable definition of a model trail system for the Meewasin Valley, there will be a need to periodically return to this definition and refine it or revise it on the basis of a growing understanding of conditions, needs and attitudes in the area.

**APPENDIX 5**

**Future Trail System Concerns**

## APPENDIX 5

### Future Trail System Concerns

When various components of the *Trail Systems Plan* are implemented, the following concerns must be addressed.

- a) A formal framework for evaluating each project must be established--cost/benefit analysis: an example where conflicts may arise is in the trail proposed between the sewage treatment plant and the river. The costs such as public perception of an area, the need for emergency access, access for maintenance of utility lines, must be measured against the benefits of a trail in that particular area.
- b) Trail routing between river and the sewage treatment plant. Specific concerns include:
  - 1) public perception of noxious odour;
  - 2) potential conflict between trail users and regular maintenance access as well as emergency access to the river;
  - 3) potential safety hazard if a "spill" should occur.
- c) Consideration needs to be given to access utilities for maintenance, including emergencies that may occur.
  - 1) The main sanitary interceptor line from downtown to the Pollution Control Plant;
  - 2) The raw water line from the Queen Elizabeth Power Station to the water treatment plant;
  - 3) Major areas that require sensitive treatment during the design phase of trail implementation.
- d) Major entry points proposed along the river will require sensitive detailed planning to ensure that traffic flows are not interrupted or access to underground utilities are not compromised.
- e) Snow and earth dumps create special design problems along trails for both pedestrians and cross country skiers. These dumps will likely be in place for a considerable length of time and therefore, may require special site design considerations to reduce the conflict between uses.
- f) Any proposals to close bridges for weekend periods to accommodate only pedestrian and/or cyclists, will require further study to ensure that emergency vehicles have access and local traffic is not interfered with.

- g) Expansion of pedestrian facilities on any of the river crossing structures should only be considered if, and when, the structure is being re-constructed. One exception to this would be the potential pedestrian walkway under the CNR bridge.
- h) There are a number of backshore linkages along current and proposed right-of-ways. Considerable detailed studies are required on a project by project basis to establish the feasibility of each backshore linkage in regard to additional right-of-ways required, roadway capacities and/or if utilities area adversely affected.

