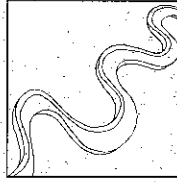


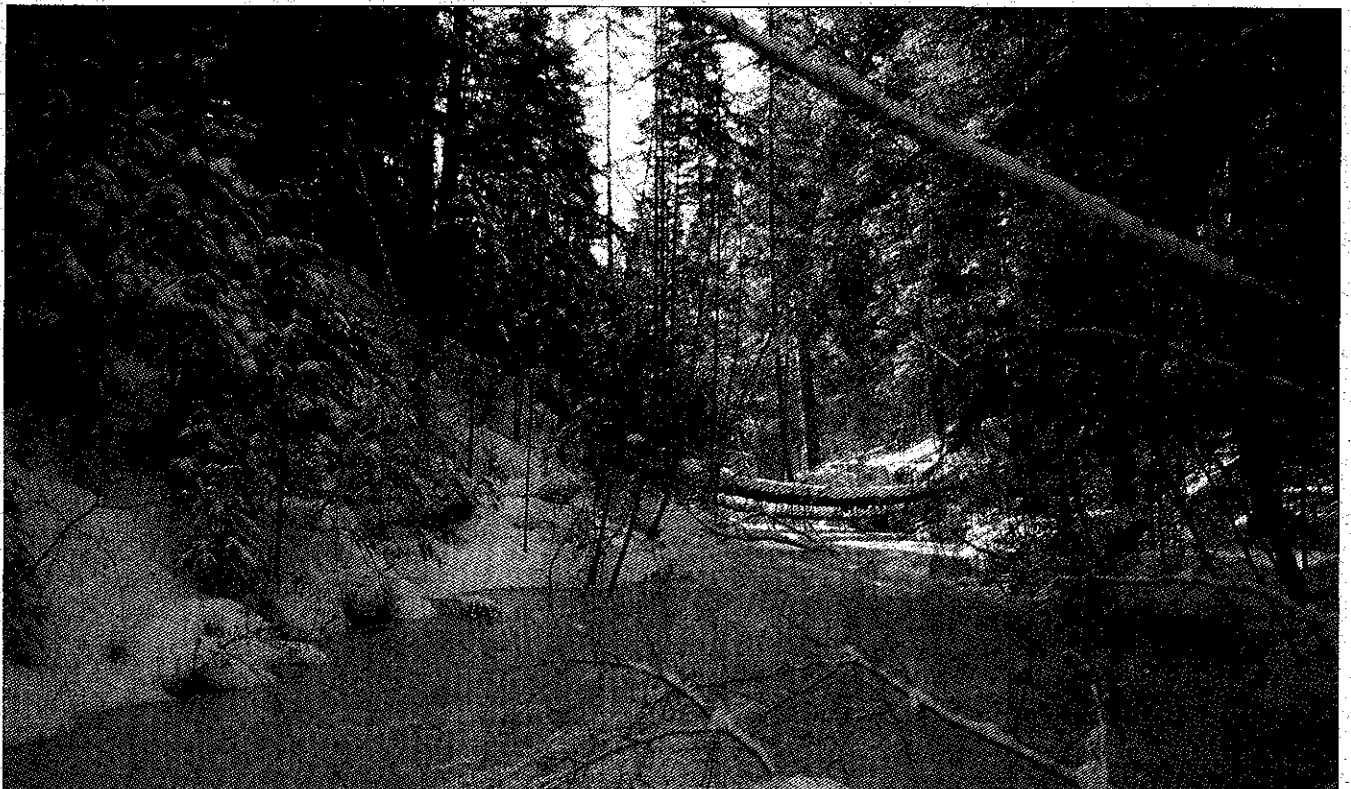
CHAPTER II



Data Analysis

T*THIS chapter summarizes information available which is relevant to the planning of the North Saskatchewan River Valley and Ravine System.*

These data include land based information, social, demographic and economic data, recreation participation and preferences (particularly regarding the river valley), recreation trends and municipal and provincial policy affecting the river valley.



A. EXISTING STUDIES

1. NORTH SASKATCHEWAN RIVER VALLEY BIOPHYSICAL STUDY

In July, 1980 Edmonton Parks and Recreation commissioned the North Saskatchewan River Valley and Ravine System Biophysical Study. This was an initial step in a process for long range planning and management of the river valley and ravines. The purpose of this study was to provide detailed information on the environmental capabilities of the river valley as basis for making planning decisions. The study area comprised 40 kilometres of the river valley and all associated ravines within the 1980 City limits.

Biophysical Study

One of the major products of the study was the development of more than 200 natural resource inventory maps at a scale suitable for planning purposes (1:5000) and a Technical Report of research methods and findings. This included the following:

- Physical Resources: slopes, soils, geology, geomorphology, hydrology.
- Biological Resources: vegetation, wildlife, aquatic fauna.
- Cultural Resources: land use, archaeological/historic.
- Scenic Resources: views, perspectives, observer position.

The data base has provided valued information to a number of City Departments since it was completed in 1981. In the future, to fully utilize and analyze this information, it will be computerized onto the Geographic Base Information System (GBIS). This will permit continued input, manipulation, analysis and speed retrieval. Through the computer use of the inventory maps, information can be overlaid to assess the inherent land use capability of any particular natural resource. For example, site specific maps of vegetation, soils, and wildlife can be combined, analyzed and rated for their tolerance to withstand recreation development/disturbance.

In addition, some elements of the natural resource inventory presently lack site specific detail i.e., vegetation and wildlife inventories. It will be necessary to 'field check' to further update and refine this infor-

mation. Some discussions have taken place with the University of Alberta to use graduate students for this research. As well, a number of other knowledgeable volunteer groups, such as the Edmonton Natural History Club, could help to expand the data over time.

Resource Analysis

In 1981, a technical report was prepared on the capability and suitability of the valley lands for recreation purposes.

This study examined the following:

- existing leisure time values, attitudes and river valley and ravines visitor use data.
- biophysical, historical and other factors affecting capability and suitability of the resource base for parks and recreation related activities.
- land use and environmental factors affecting growth and use of the valley.
- identification and use of resource management units as a means of identifying planning constraints, resource opportunities, developing planning criteria and policies.

The major products of the resource analysis included:

- 128 Recreation Capability and Suitability rating maps at 1:5000 for the following recreation facility and program categories: nature dependent, nature enhanced linear, nature enhanced non-linear, downhill skiing and tobogganing, golf, hang gliding, off road vehicles, and sports fields.
- 16 Resource Planning and Management Units maps.
- 16 Land Use and Environmental Constraints maps.
- 16 Structural Elements maps.
- Technical Report.

A manual resource analysis technique was employed for determining resource capability and suitability, therefore limits were placed on the comprehensiveness of the analysis. With future computerization of information it will be possible to complete a more comprehensive capability/suitability and impact analysis.

In reviewing the criteria employed in capability/suitability analysis certain factors were not examined which are particularly relevant at this time. Current recreation activity preferences and the Vision Survey/Public Open House recently completed by Parks and Recreation indicate little public support for

further development of the river valley and ravines for downhill skiing, golf, off road vehicles and sport fields. The recent river valley survey has helped the Department understand the public's perception of which recreation activities and facilities are suitable or unsuitable within the river valley and ravine system. This will result in updated criteria to assess recreation activity and facility suitability.

2. LAND USE AND THE BUILT ENVIRONMENT

Lands adjacent to the river valley and ravines have always been viewed as prime development areas. Single family developments border large portions of the valley. Closer to the city centre high density housing has been developed. In the northeast, the south edge of the valley contains refineries, industrial uses, gravel extraction and agricultural lands. At the far west and south edges of Edmonton the non-residential uses bordering the valley are agricultural, institutional and recreational i.e., golf courses.

In most areas residential development fronts on to the river valley, separated by a top-of-bank roadway, or walkway. Where private lots directly back on to the valley, some exclusive use of the river bank edge has led to encroachments and public use conflicts. The City now requires developers to provide public access to the top-of-bank with either a roadway or public walkway. These are incorporated into neighbourhood plans at the subdivision stage of development.

There are currently approved plans for urban growth in a number of areas bordering the river valley and ravines. Most of the development is proposed in the southwest and west end of the City and will result in residential infill to the Outer Ring Road.

In the southwest; Riverbend, Terwilligar, Twin Brooks and Blackburne will be developed over the next ten years. These developments will enclose Whitemud and Blackmud ravines and the southwest edge of the river valley to the Outer Ring Road river crossing.

In the west, the West Jasper Place Area Structure Plan is being completed for the neighbourhoods of Wedgewood and Donsdale. This development will fill in the areas between Wolf Willow/Patricia Ravines, Wedgewood Ravine and the Outer Ring Road crossing over Wedgewood Ravine.

Very little development is occurring in the northeast. The north boundary of the Clareview Area

Structure Plan is at 153 Avenue and is presently developed. This boundary coincides with the Outer Ring Road crossing over the river.

3. LAND OWNERSHIP

The City currently owns the majority of lands within the North Saskatchewan River Valley and Ravines system within the developed residential portions of the City. Some exceptions exist where development preceded Environmental Reserve provisions or where specific policies were adopted i.e., the central river valley communities of Rosedale, Cloverdale, Riverdale, Lavigne and Centre Town.

In the remainder of the system, wherever possible, the subdivision land acquisition process will continue. Where major portions of the valley are privately owned some development restrictions are in place as a result of Bylaw 7188. The City cannot, however, control the actions of private landowners unless there is a requirement for development approval.

In the long term, lands in the river valley and ravine system will come into municipal ownership on subdivision as Environmental Reserve or possibly Municipal Reserve. The timing of acquisition through subdivision is dependent on the plans of private owners. Their plans are dependent on market demand for residential development and economics of land servicing. City projections are that greatest residential development will occur in the West Jasper Place and Riverbend areas followed by Northeast Millwoods and Castledowns Extension. The Riverbend area gives the greatest potential for municipal ownership of lands along the river south of 23 Avenue to the Outer Ring Road alignment and along Whitemud Creek in the same area. Lands in the northeast are anticipated as long term acquisitions through subdivision. Lands along Mill Creek between 34 Street and Highway 14 are expected to subdivide over the next ten years.

4. RELATED PROJECTS

A number of related projects are currently being studied which have a potential impact on the North Saskatchewan River Valley and Ravines System. These include the following:

**Alberta Environment:
North Saskatchewan River Basin Study**

- This study is examining land uses along the river and extends from the headwaters (Rocky Mountains) to the Saskatchewan Border. The study will review public perceptions and propose future policy. Anticipated study completion is 1991.

**City of Edmonton Environmental Services:
Rossdale Intake Relocation**

- This study is reviewing alternatives for relocating the existing water intake for the Rossdale Water Treatment Plant. One alternative is to construct the intake pipe under the proposed river valley trail alignment. Anticipated study completion is 1991.

**City of Edmonton Environmental Services:
South Ring Water Main**

- This study is examining alternatives and impacts of a major water main from the E.L. Smith Water Treatment Plant to south Edmonton. The water line crosses the river and Whitemud/Blackmud Ravines. Anticipated study completion is 1990/91.

**City of Edmonton Transportation Department:
Drainage Master Plan**

- This study will examine Edmonton's future drainage needs and will impact on the overall river drainage basin. Anticipated study completion is 1991.

**City of Edmonton Transportation Department:
LRT Extension to West Edmonton**

- This study will examine alternatives to extend LRT service to west Edmonton. The route is proposed to cross the river valley from some point in southwest Edmonton. Anticipated study completion for the Functional Plan is 1991, for Construction is 2000 - 2005.

**Alberta Transportation/City of Edmonton:
Outer Ring Road Expansion**

- Expansion of the Ring Road will mean major impacts to the river valley. Crossings are proposed over Wedgewood Ravine, the North Saskatchewan River, south of Terwillegar Park, Whitemud Ravine, Blackmud Ravine and again over the North Saskatchewan River at Clover Bar.

**City of Edmonton, Environmental Services:
Clover Bar Landfill Reclamation**

- Upon closure of the Clover Bar landfill site, Environmental Services will reclaim the area to provide for recreation uses. Anticipated completion is 1994.

**City of Edmonton, Transportation Department:
Comprehensive Bicycling Plan**

- This study is examining present problems and barriers to bicycle use in the City. It will develop policy to guide future bicycle route planning and standards and could affect trail development standards in the river valley and ravine system. Anticipated study completion is 1991.

**City of Edmonton, Public Works Department:
Bank Stabilization Study**

- This study is identifying river valley and ravine bank stabilization problems and prioritizing areas for remedial work.

**5. SOCIAL, DEMOGRAPHIC AND
ECONOMIC OVERVIEW**

The following was extracted from data prepared by the City Forecast Committee.

Population and Societal Characteristics

- Edmonton's population is expected to grow to 641,000 by 1995.
- High growth areas will continue in the west and southwest of the City. The areas of Riverbend, West Jasper Place, the northeast area of Millwoods and the Castledown Extension are expected to be the fastest growing areas.
- Aging population is an important trend nationally, but will be less noticeable in Edmonton. The proportion of seniors is expected to increase from 12% to 12.4% by 2000.
- Baby-boomers will continue to exert a strong influence over social and economic life. One-third of the population is presently between the ages of 25 and 44. This age group is creating a baby-boomlet.
- Family size continues to decrease and is expected to average between 2.7 and 3.0 persons by 2001.

- Diversity of family form is a continuing feature of society. Two-parent families have declined; one-parent and non-family households are increasing.
- All age groups will increase in numbers over the next five years except the young adult group (15-24).
- Alberta shows the highest labour force participation in Canada and the highest female labour force participation in the country.
- There is evidence of increasing stress in Canadian society as illustrated by rising crime, drug and alcohol abuse and suicide. People indicate they feel less safe and secure than in the past.

Economic Overview

- Edmonton will follow the Provincial trend of moderately strong growth, between 3% and 4% annually for the period 1990-95.
- Unemployment and inflation rates in Edmonton are expected to be slightly higher than the Provincial average for the period 1990-95.
- It appears more Edmontonians are living below the poverty line.

6. PARTICIPATION AND PREFERENCES

Several studies are available to construct a picture of leisure activity preferences, attitudes and participation. This information helped to clarify what types of activities would be most desirable and publicly acceptable related to river valley recreation. These studies are discussed briefly in this section and some themes or trends are drawn from them.

1988 General Recreation Survey - Edmonton

This survey was conducted by Alberta Recreation and Parks throughout the Province. The Edmonton sample is a valid sample for the City. Both participation of respondents and favourite activities are relevant to the North Saskatchewan River Valley and Ravine System planning.

These data show the highest participation in:

- | | |
|---|-------|
| • Walking for pleasure | 89.4% |
| • Driving for pleasure | 72.5% |
| • Visiting a museum, live theatre, art gallery, etc. (not movies) | 68.8% |
| • Craft or hobby | 66.1% |

- | | |
|----------------------------|-------|
| • Gardening | 65.0% |
| • Bicycling | 61.9% |
| • Swimming | 61.4% |
| • Sports spectators | 61.0% |
| • Attend education courses | 48.2% |
| • Ice skating (not hockey) | 46.8% |

Adult respondents listed their three favourite recreation activities. The weighted ranking included seventy-two activities of which the top ten are:

1. Walking for pleasure
2. Bicycling
3. Camping
4. Swimming
5. Golf
6. Fishing
7. Crafts/hobbies
8. Reading books/magazines
9. Gardening
10. Creative activities

Other activities in the top thirty which commonly occur in the river valley and ravine system included skiing, jogging and running, picnics, ice skating, boating and horseback riding.

Pleasure, relaxation, physical health and exercise, enjoyment of nature and doing something different from work were the five most important motivations for participation identified.

1989 Leisure Survey

This study was conducted by Edmonton Parks and Recreation to determine citizen attitudes and preferences concerning Departmental services and in particular to measure perceptions of the relative importance of services and facilities.

The most frequent activities participated in included:

- | | |
|------------------------------|-------|
| • Aquatics | 36.4% |
| • Outdoor winter sports | 35.6% |
| • Biking and walking | 29.1% |
| • Outdoor summer sports | 26.4% |
| • Picnicking and park visits | 21.5% |

- 63% of respondents rated the river valley parks and trails as the most important city-wide facility; 29% listed tourist facilities (Space and Sciences, the Valley Zoo, Fort Edmonton and Muttart) as the most important city-wide facilities.

- 70% rated local parks as the most important community facility; swimming rated 20%, ice facilities 10%.
- On average Edmontonians would choose to spend forty-six cents (.46) of every dollar on river valley and ravine development and fifty-four cents (.54) on community park development.
- Opinion was nearly unanimous that natural trails, multi-purpose paved trails, picnic and rest areas were important components of river valley and ravine development.
- 38% of respondents felt there were insufficient biking, walking and cycling trails; 46% indicated there were sufficient trails. Trail users tended to feel there were insufficient trails, non-users tended to feel there were enough trails.
- 53% indicated a preference for multi-use paved trails; 37% preferred natural trails. Families with children tended to prefer paved trails.

River Valley Trail User Study

The purpose of this study, conducted in 1988, 1989 and 1990, was to determine the number and type of trail users and whether trails were appropriately designed and maintained. Data presented is from the 1989 survey. Both observation techniques and questionnaires were used.

- Total 1989 trail visits were estimated at 400,000. Cyclists represented 40%; walkers represented 27%. The remaining 33% was a combination of family visits, jogging, nature observation, picnicking, dog walking and horseback riding.
- Afternoons and evenings were peak trail use times.
- Walking, jogging and nature observation activities were relatively constant through the week. Cycling increased dramatically on weekends. Overall, Sunday was the highest trail use day.
- In proportion to their numbers in the city population, adults and school age children were slightly over represented as trail users.
- Teens, pre-schoolers and seniors were slightly under-represented as trail users.
- Although males and females are almost equally represented in the city population; two thirds of trail users were male, one third female.
- Cycling use showed the greatest increase, up 43% over 1988 data; walking (19%) and family use (30%) increased in 1989.

A satisfaction survey of trail users in 1989 indicated:

- Users were reasonably well satisfied with trail location, access, maintenance, trail safety, surface, signage and length. Weakest ratings of satisfaction were with shower facilities, washroom, and personal safety aspects of trails.
- Male users rated personal safety satisfaction very high; female users rated it very low.
- 58% of respondents supported mountain bike use on unpaved trails.

7. TRENDS AFFECTING RECREATION AND IMPLICATIONS

Analysis of survey data, social, economic and demographic data and major themes in Canadian society indicates these implications for river valley and ravine system planning.

Environmental concerns:

A growing consensus for action on environmental issues at personal, business and governmental levels.

Important concerns are ozone depletion, air quality, water quality, solid waste reduction and disposal, forest destruction and global warming.

Implications of this trend are:

- increased demand for environmental impact assessment.
- demand for less consumptive recreational activities.
- demand for natural spaces; restoration and preservation of natural areas.
- demand to clean up waste and pollution of water, air and land.
- increased demand for information on and alternatives to chemical pesticides, herbicides and fertilizers.
- demand for nature oriented experiences.

Health and well being concerns:

Concern for environmental effects on health, health care cost, and for personal quality of life.

Implications of this trend are:

- personal responsibility for health will be emphasized.
- focus on illness prevention will affect motivation and choice of recreation activities.

Social and economic concerns:

Social stresses of various types (safety, economic security, family and work related pressures) are concerns of society.

Implications of this concern are:

- continued uneasiness over personal safety in park and trail areas.
- recreation and spare time activities will serve as a source of fulfilment in many people's lives, providing challenge and opportunities for learning and mastery of skills.
- demand for recreation that is home-based or easily accessible and flexible to people's schedules and amount of free time.
- recreational spending could suffer during poor economic conditions, emphasizing low cost or tax-supported recreation.
- continued demand for high quality experiences.
- increasing importance of tourism to the economy.

B. EXISTING POLICY FRAMEWORK

1. PROVINCIAL GOALS

The City of Edmonton is working closely with the Province of Alberta to achieve the aims of the Provincial Urban Parks Program.

Urban Parks Program Goal

The purpose of developing urban parks is the establishment of significant areas of open space to ensure urban populations have easy access to natural environments and the development of these areas to enable their sustained and unimpaired use for outdoor recreation.

Objectives

- to provide a variety of recreation opportunities;
- to allow people of all income groups to participate in these opportunities;
- to have easy accessibility to surrounding urban areas;
- to preserve natural landscape features and provide recreational facilities in harmony with these features.

2. MUNICIPAL POLICY

The purpose of this section is to briefly describe the municipal policy impacting the North Saskatchewan River Valley. These documents should be reviewed for additional details:

Edmonton General Municipal Plan (Bylaw 6000)

The G.M.P. is the most comprehensive and far reaching document approved by Council. It provides direction from which all other plans are derived.

Volume I of the G.M.P. has the most direct impact upon development in the North Saskatchewan River Valley: Components 10 (Parks and Recreation), 11 (River Valley) and 12 (Natural Environment).

Volume II also contains important information pertinent to this study: Policy Reports #10 (Parks and the River Valley) and 11 (Natural Environment).

North Saskatchewan River Valley Area Redevelopment Plan (Bylaw 7188).

The purpose of the NSRV ARP is to protect the North Saskatchewan River Valley and Ravine System as part of Edmonton's valuable open space heritage. It establishes the principles for future implementation plans and programmes for park development and the retention of the designated residential areas of Rosedale and Cloverdale.

The ARP adopted by Council in 1985 is pertinent to this study in that it reflects current city policy.

The major goals of the North Saskatchewan River Valley Area Redevelopment Plan are:

- to ensure preservation of the natural character and environment of the North Saskatchewan River Valley and its Ravine System.
- to establish a public metropolitan recreation area.
- to provide the opportunity for recreational, aesthetic and cultural activities in the Plan area for the benefit of Edmontonians and visitors of Edmonton.
- to ensure the retention of enhancement of the Rosedale and Cloverdale communities in the River Valley.

The remainder of the NSRV ARP establishes a number of objectives and policies including:

Parkland Development

- encourage water oriented modes of transportation (2.3.5).
- conserve archaeological, palaeontological, architectural and historic resources (2.3.6).
- policy 3.2.1 establishes Natural Conservation Areas to manage significant vegetation, wildlife, waterfowl and other unique natural features.
- policy 3.2.5. establishes 'viewpoint parks'.
- policy 3.2.6. promotes compatible commercial development (eg. cafes, restaurants, bicycle rentals).
- policy 3.2.7 allows the city to establish Environmental Reserves.
- policy 3.2.10 promotes a trail system as the major means for movement in the valley (bicycle, cross-country, and equestrian trails mentioned).

Environmental Protection

- the entire River Valley and Ravine System is established as an environmental protection area (objective 2.4.1.).

Transportation

- only direct crossings permitted (policy 3.4.1).
- environmental impact assessment screening required (policy 3.4.2).

Major Facility and Natural Resource Development

- prohibit utility corridors and rights of way except for direct river crossings.
- all proposed developments require an EIA (policy 3.5.3).

Agricultural Land Use.

- allowed to continue.

Residential Land Use.

- existing residential development is permitted. New lots permitted only in the central area.

Central Area Land Use

- communities of Rosedale and Cloverdale are recognized.

Environmental Impact Assessment Process (Bylaw 7188)

The North Saskatchewan River Valley ARP (Bylaw 7188), Policy 3.3.3. requires that an environmental impact screening and assessment report be prepared for all public development and development on public land. The process is outlined as Schedule D to Bylaw 7188.

This process is intended to ensure that the objectives and policies relating to environmental protection and land use planning goals in the North Saskatchewan River Valley Area Redevelopment Plan are achieved.

The following factors are examined when assessing the potential impacts:

- hydrology
- geology/geomorphology
- vegetation/wildlife
- soils

- noise/odour/visual
- historical/archaeological
- surrounding land use
- social impacts

The screening and review of Environmental Impact Assessments is co-ordinated by the Planning and Development Department. Final approval is from City Council.

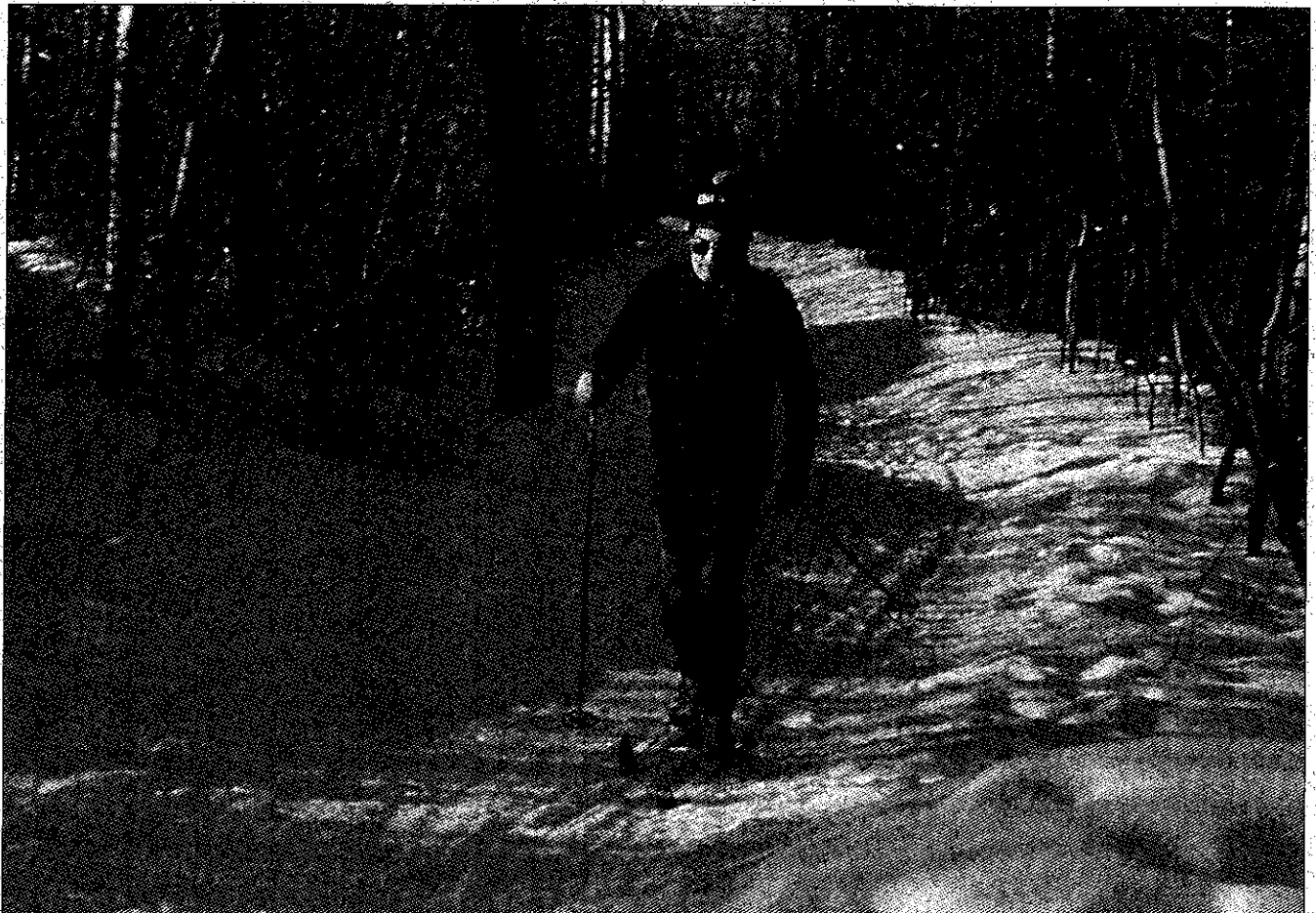
Top of Bank Roadway Policy

This policy was originally adopted by Council in 1970 and was again approved through resolution as part of the NSRV ARP in 1985. The purpose of this policy is:

- To ensure the provision of an open space between the North Saskatchewan River Valley and Ravine System and urban development.
- To provide public access to the North Saskatchewan River Valley and Ravine System.

These guidelines govern the actions of the subdivision approving authority (Municipal Planning Commission) in dealing with the subdivision of land abutting the North Saskatchewan River Valley Area Redevelopment Plan boundary.

The policy requires developers to provide a top-of-bank roadway or public walkway between the geographic top-of-bank and development. A number of criteria exist in the policy which are reviewed to determine whether a top-of-bank roadway is required. A minimum setback of 7.5 meters (25 feet) is always provided as open space adjacent to the top-of-bank; a greater setback may be required where slope instability is identified.



C. ANALYSIS OF PUBLIC INPUT

1. VISION SURVEY COMMENTS AND RECOMMENDATIONS

Of the 1527 vision survey respondents approximately 25% made additional comments. These have been summarized and grouped into the following categories:

- preservation and conservation of river valley vegetation and wildlife.

- development of additional open space areas.
- safety and security of users.
- trails system issues, cleanup of valley.
- education of users.
- the provision of recreation opportunities.

The categories have been evaluated and ranked and the following recommendations are incorporated in the plan.

ISSUE/DISCUSSION	ACTION/RECOMMENDATION
Preservation & conservation of river valley vegetation & wildlife	
<ul style="list-style-type: none"> • maintain natural areas • keep areas undisturbed • repair disturbed areas • maintain as much vegetation as possible 	<ul style="list-style-type: none"> - limit development to disturbed areas. - development to be compatible with conservation. - reclamation plans required. - City tree policy requires compensation for all damaged or destroyed trees.
<ul style="list-style-type: none"> • preserve and limit intrusion into wildlife habitats 	<ul style="list-style-type: none"> - identify habitat areas. - introduce zones if applicable. - limit permitted activities. - monitor and control users.
<ul style="list-style-type: none"> • distinguish different zones in the river valley as high or low activity zones 	<ul style="list-style-type: none"> - zones in Resource Management Plan. - activities should relate to zones.
<ul style="list-style-type: none"> • conservation highest priority vs. recreation highest priority 	<ul style="list-style-type: none"> - detailed planning stage to reach acceptable balance.
Development of additional areas/facilities	
<ul style="list-style-type: none"> • small developments which blend in with natural setting 	<ul style="list-style-type: none"> - planning principle of development only if compatible with conservation. - details will be worked out at Master Plan level.
<ul style="list-style-type: none"> • limit development of large facilities 	<ul style="list-style-type: none"> - Bylaw 7188 limits development. - development must conform to Vision statement or Council approved Master Plan.
<ul style="list-style-type: none"> • no new commercial/residential 	<ul style="list-style-type: none"> - Bylaw 7188 limits development areas. - management zones identify types of future development.
<ul style="list-style-type: none"> • no development at all 	<ul style="list-style-type: none"> - use will continue, must recognize this and effectively plan/manage where development is suitable or not.

ISSUE/DISCUSSION	ACTION/RECOMMENDATION
• minimum development	- development according to appropriate management zones (Master Plan level).
• only in disturbed areas	- Planning Principle # 2.
• accessible to all users	- Program Objective # 1.
• improve access to river valley	- Program Objective #2.
• spread out development to avoid congestion	- extend facilities in river valley as proposed in concept plan. - examine ways to deal with overused areas. - avoid additional development in existing extensive use areas. - avoid overdevelopment of existing parks.
• preserve existing river valley communities	- River Valley Bylaw (7188) identifies residential communities. - Area Redevelopment Plans have been approved by Council.
• valley owned by public	- continue to acquire ER lands, obtain easement, etc.
Safety & security of river valley users.	
• information signs, telephone	- functions of Resource Management Plan. - deal with locations at Master Plan stage.
• personal safety • design issues (grades and narrow corners, on trails)	- deal with at Master Plan level.
• control speed of bikes	- monitoring/enforcement of bylaws. - education programs.
• trail patrols • horse patrols	- functions of Resource Management Plan. Need to legitimize responsible agencies, i.e., Venturers, more Police Dept. funds/Bylaw Enforcement.
• monitor users	- system of evaluation required.
• security of assets • control vandalism	- review enforcement and education programs.

ISSUE/DISCUSSION	ACTION/RECOMMENDATION
Trails system issues	
• separate bike/walking trails	- Master Plan level.
• natural trails	- management zones specify what is appropriate. - details at Master Plan level.
• expand the trail system	- proposed in Concept Plan.
• trails for multi-use	- Program Objectives # 1.
• keep trails localized within ravines	- detail in Master Plan. - river valley should be available to City wide users.
• paved trails	- details in Master Plan.
• develop on river edge to preserve natural areas	- as identified in Concept Plan. - details in Master Plan.
• no trail development	- development has been strongly supported in Vision Survey.
• bicycle freeway throughout City	- will work with Transportation Department.
• barrier free design	- Program Objective # 1.
• develop trails to west end	- proposed in Concept Plan.
Cleanup the river valley	
• garbage	- maintenance function of Resource Management Plan.
• river pollution	- City will work with Alberta Environment to address this issue.
Need to educate users	
• to reduce vandalism, misuse and garbage • increase programs & information services • childrens programs through school system • interpretation of nature and history of river valley	- develop strategy for education programs in river valley. - Resource Management plan ties into safety/security function. - continue to investigate program improvements.

ISSUE/DISCUSSION	ACTION/RECOMMENDATION
Provision of recreation opportunities	
<ul style="list-style-type: none"> • compatible with the natural environment 	<ul style="list-style-type: none"> - management zones have identified appropriate level of activities.
<ul style="list-style-type: none"> • provide additional opportunities 	<ul style="list-style-type: none"> - Concept Plan proposes additional areas for recreation.
<ul style="list-style-type: none"> • balance between protection and recreation opportunities 	<ul style="list-style-type: none"> - specifics to be resolved at Master Plan level. - Program Objective # 2.
<ul style="list-style-type: none"> • variety of opportunities • preference for: walking/hiking; cycling; interpretive and nature programs; horseback riding; x-country skiing; canoeing 	<ul style="list-style-type: none"> - specifics to be identified in Master Plan. - management zones identify appropriate activities.

2. OPEN HOUSE COMMENTS

The majority of the comments received at the Open House on October 15 and 16, 1990 were site specific and will not be addressed at this level. These issues will be dealt with at the Master Plan/Site Plan level. Of the comments received, the following trends emerged:

- strong support for preservation of the river valley for future generations; green spaces; protect natural areas; more preservation zones; protection legislation required.
- keep extensive use zones to a minimum.
- river valley and ravines should have connected bike trails; need to keep safety in mind on multi-use trails; reduce conflicts between users; reduce speed of bike traffic; minimize paved trails.
- motorized recreation vehicles (ATV's/snowmobiles) are not desirable in the river valley.
- Resource Management Plan should review maintenance practices.

As a result of the comments received, the following is proposed:

- a further refinement of the Management Zones map; to provide some greater level of detail at the Master Plan level.
- Vision and Principles to remain as stated.
- continue to analyze municipal/provincial legislative controls to identify improvements (possibly through an Environmental Task Force). Ensure City departments and City Council are informed of citizen views on preservation legislation.
- review connections, surface and width in the river valley trail plan and Comprehensive Bicycle Plan. Educational and awareness programs will be considered.
- recreational motorized vehicles will not be allowed.
- the public will be further surveyed to obtain more input on perception of what activities are appropriate to each management zone.