MEDICINE HAT

leisure trails future development plan april 2010



The Leisure Trail Future Development Plan is a long term planning document developed for the City of Medicine Hat Parks and Outdoor Recreation department to guide trail development within the City for the next ten years. This master plan builds upon the existing Leisure Trails Network that has served the City and its residents well for many years.

The plan identifies planning and design guidelines as well as a set of guiding principles which set a new standard and establish an overarching tone for the future of trails in the City.

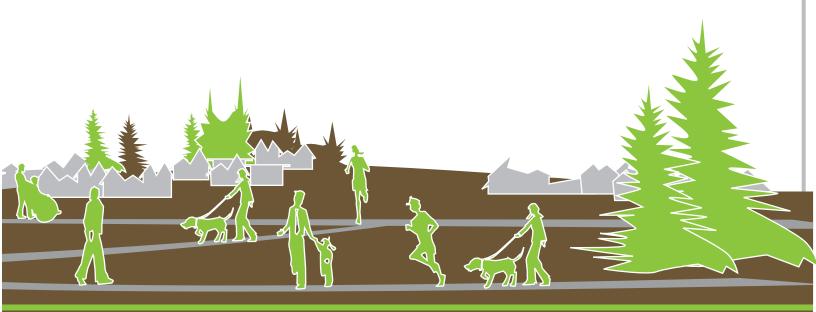
Through an extensive public input process which included open houses on the trails and design charettes with a select group of stakeholders, the future trail needs of the City were identified and prioritized. Along with internal connections within the City of Medicine Hat, trail linkages to surrounding communities were established with the Town of Redcliff and Cypress County.

This plan provides extensive detail on the proposed future trail connections. Trail information includes recommendations, priorities, costs, opportunities, constraints, potential best practices, and innovations for each trail section. These details offer an implementation plan that can be utilized by the City of Medicine Hat in all of their future trail development.

As part of the future of the trails, it is important to consider the role of alternative transportation and on-street cycling which function harmoniously with the leisure trails system. All alternative transportation measures as well as trails developed within road rights of way are designed and built by the City's Municipal Works department.

The following recommendations have been identified in the report:

- Connections should be made between the City of Medicine Hat's leisure trail system and the surrounding communities including Redcliff and Cypress County.
- The implementation of the leisure trail plan should be phased according to the priorities in Table 7.1.
- A review of existing signage should be undertaken to determine where additional signage may be needed and to establish a set of standards and develop guidelines for the placement and installation of signage.
- The following trail connections are considered high and moderate-high priority and should be among the first to be developed. Trails are listed by priority and include trail costs.



High Priority

- McCutcheon Drive (\$104,940)
- South Ridge Drive (\$88,690 Developer Costs)
- Ross Glen Road SE (\$39,200)
- Rossland Road SE (\$41,710)

Moderate - High Priority

- Family Leisure Centre & BMX Park (\$327,100)
- 11th Ave NE (\$77,550)
- Kiwanis Trail Extension (\$264,320)
- Lions Park (\$16,760)
- Balmoral Street to Devonian Trail (\$22,310)
- Crestwood / East Glen North (\$465,900)
- 3rd Street SW (\$34,320)

- Linear Park Red Oak Section (\$71,020)
- Linear Park Redwood Place Section (\$43,960)
- Linear Parks Ross Heights Section (\$46,460)

A comprehensive trail network has many benefits to a community; it enhances park experiences, provides recreational opportunities, and facilitates transportation throughout the city. Under the direction of this plan, the future of the Leisure Trails Network within the City of Medicine Hat will continue to grow vigorously as it has in the past.



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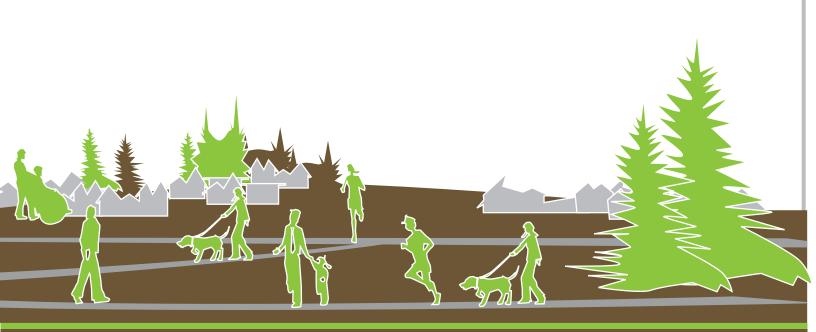
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1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The residents of Medicine Hat enjoy a high quality of life due in a large part to the City's commitment to development of leisure trails and recreational activities, preservation of the natural landscape and multiple opportunities for residents to interact in the unique and natural environment provided by the scenic South Saskatchewan River Valley. Residents are extremely appreciative of the existing Leisure Trail system and cite it as a showcase amenity that attracted them to the community.

In 2008 a Leisure Trails and Alternative Transportation Needs Assessment and Public Consultation report was completed which determined the need for and public support of the development of a Future Leisure Trails System Development Plan and an Alternative Transportation Master Plan.

The Needs Assessment findings determined that a significantly large majority of residents value and utilize the trails system on a regular weekly basis and support the continued development of the Leisure Trail System. It also identified the need to provide awareness opportunities for all leisure trail users to enhance participation in safe and enjoyable activities.

Most survey responses received during the Needs Assessment were extremely complimentary of the trail facilities and maintenance provided by the City. Recommendations in this 2008 report included continued year round maintenance and attention to improved access and connectivity of trails.

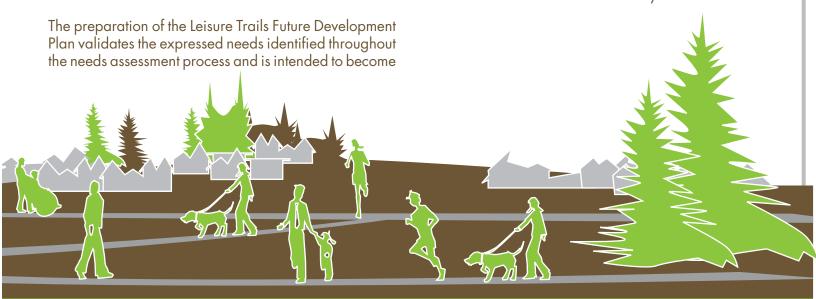
a vehicle to motivate community education in individual and neighbourhood ownership of the trails system.

The Parks System Management Plan which will be adopted early in 2010, will establish a basis for open space guidelines to ensure thriving opportunities that will meet the needs of a growing, vibrant community. These guidelines will set out in detail the purpose, function, size, location, access, and connectivity in the open space system and will enhance the framework for the implementation of the Future Leisure Trails System Development Plan.

These most recent documents; the Leisure Trails and Alternative Transportation Needs Assessment and Public Consultation Report, the Parks System Management Plan and the Future Leisure Trails System Development Plan complement the goals and objectives of each other and provide a cohesive implementation strategy that ensures continued excellence in parks, open space and trail planning for present and future Medicine Hat residents.

1.2 DOCUMENT REVIEW

To better understand the impact and development of the trail system in the City of Medicine, a number of background documents were reviewed in the beginning phase of this project. Policy, planning and trail specific guideline documents were influential in directing trail development in the recent past and will continue to lend foundational direction to implement strategies that will support and strengthen the system relative to the needs, desires and choices of the community as a whole.



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A list of relevant background documents includes: Future Trail Development Report, 1990 – Identifies and plans for future trail development within the City of Medicine Hat. Provides future connections, development priorities, and construction details.

Leisure Trails and Alternative Transportation Needs Assessment and Public Consultation Report, 2009 – determines the need for and public support of the development of a Future Leisure Trails System Development Plan and an Alternative Transportation Master Plan (part of the update of the Roadway Systems Master Plan).

Municipal Servicing Standards – Outlines current development guidelines for trail planning.

Trail Construction Specifications – Outlines approved trail construction standards and specifications, especially with regards to materials and construction practices.

Municipal Development Plan — Provides goals and planning for the future growth of the city as well as policy for current land use.

Area Structure Plans – The Ranchlands, Burnside, South Vista, Hamptons, Southlands, Cimarron, and Box Springs Industrial Park Area Structure Plans identify future trail connections proposed within these future subdivisions.

Land Use By-law – Directs the development of land parcels within the City of Medicine Hat.

Additionally, other documents were reviewed and provided ancillary information to enhance trail development and related park and open space understanding in the City. These included Open Space Guidelines, 1991, Open Space Plan, 2000, Municipal

Development Plan, 2004, the Natural Areas and Species Inventory of the City of Medicine Hat, and the Draft Parks System Management Plan.

1.3 RECREATION TRENDS

Trends in recreational activities have been impacted by cultural, social, economic and demographic influences and are evident in the local analysis of the City of Medicine Hat recreational participation and opportunities trends. An interest in personal health and well-being has also been an important stimulus.

Every four years an Alberta Recreation Survey is conducted by the Government of Alberta. The most recent 2008 survey referenced in this report identifies "participation patterns of Albertans and the factors that influence their recreation activity choices." An analysis of survey respondents from the City of Medicine Hat, although a relatively small sample, further supports the current and shifting trends in recreation participation experienced throughout the country.

The 2009 City Census indicates 41% of the population is over the age of 45 years and undoubtedly has significant influence on recreational trends. As this group continues to age, a corresponding shift to less strenuous recreation activities can be anticipated. Aging also redirects interests to different forms of leisure activities. Increasing participation in visual and performing arts, cultural activities and educational and environmental outdoor opportunities is evident in this age group.

In the survey analysis, Medicine Hat households had greatest participation in golf followed by walking for pleasure and gardening while provincial trends included cycling, rather than golf in the top three participation activities. When asked what leisure activities individuals participated in most, Medicine



Hat residences listed walking, golf and reading. Alberta respondents indicated camping opportunities slightly more prevalent than reading. Overall, local findings were relatively similar to those identified in the provincial recreational trend analysis.

Population age groups under the age of 45 have also experienced a shift in recreational trends. With increasing popularity and participation in sedentary activities such as electronic games, busy schedules, and introduction and awareness of new forms of recreational activities, organized team sports are showing some decline in comparison with individual activities and sports. Local survey respondents supported provincial analysis and indicated the reason for not participating in leisure or recreational activities were that they were too busy with other activities and too busy with family.

The cultural diversity of Medicine Hat's population also has impact on leisure activities within the parks and open space system. Many ethno-cultural groups often place high value on locations for large gatherings and family events.

The utilization of Medicine Hat's Family Leisure Centre, access to the local and regional trail system, and enjoyment of the parks and open space areas has allowed residents to participate in more flexible lifestyle recreation activities rather than scheduled or highly programmed activities.

1.4 GOAL AND OBJECTIVES

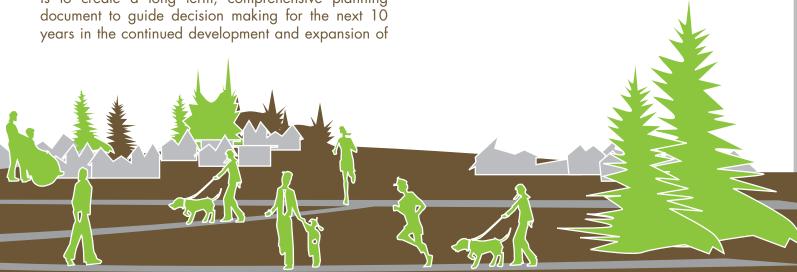
The goal of the Leisure Trails Future Development Plan is to create a long term, comprehensive planning the Leisure Trails System. The implementation of the Plan considers current needs, shifting demands and multiple uses.

The objectives of this project are to:

- Develop planning and design guiding principles for development of a multi-use trail system
- Undertake a broad, community-based public input process for plan development considerations
- Identify opportunities for connectivity improvements
- Identify future leisure trail connections within the
- Identify future leisure trail connections between the City and the Town of Redcliff and Cypress County
- Prepare an implementation plan
- Review existing standards and guidelines with improvement recommendations and guidelines
- Incorporate economic feasibility and environmental impacts into the plan

METHODOLOGY 1.5

The methodology for this project identified key innovations that assisted in the collection of valid and justifiable community input through a unique and interactive approach. An effort to know and understand the needs of the trail user community were demonstrated through a trail traveling open house process and two concentrated cycle tours of nearly every kilometer of the extensive Medicine Hat trail system. This innovative process engaged both the public and City administration and brought greater insight through the eyes of multiuse trail participants.



Phase 1 of the project included data collection and mapping. Relevant background documents were reviewed and synthesized, best practices for trail design and standards were compiled, and key City departments impacted by trail development were interviewed. Base map preparation included identifying all current trails with classifications, ownership and linkages as well as future planning trails within the City and adjacent communities.

Phase 2 incorporated the most innovative elements in Community and Stakeholder engagement. Supported by a cost effective Communication Strategy, coordinated with the City Communications Department, the project launched a community input campaign to bring awareness and encourage community involvement in the project. A Focus Group of City staff, organization representatives and key community members assisted in the development of guiding principles, priority identification and trail network solutions.

As noted, public participation was encouraged through the innovative "Traveling Open House" strategy. Onsite trail tents hosted weekend information sessions and survey opportunities for the public using the trail systems. These extremely successful open houses accessed participants in four different locations over a warm and active two day weekend. In September two additional open houses were hosted indoors at strategic locations and a week long static display was set up at City Hall.

Phase 3 of the project included the field review and analysis. Based on priority criteria, network solutions to challenges within the trail network and opportunities for future trail development were identified. A base map was generated to illustrate existing and proposed trails as well as upgrades and improvement areas and a Draft Future Trail Development Implementation Plan was prepared. Existing trail standards were reviewed

and suitable recommendations were identified in a Draft Trail Development Standards Update.

Phase 4 brought together all information, analyses, strategies and recommendations from previous project phases to develop a Draft Leisure Trails System Future Development Plan for City departmental consideration and review.

The final Phase in this project includes presentation of the document, initially to the Public Services Committee and then to City Council.



2.0 PUBLIC CONSULTATION

2.1 PUBLIC CONSULTATION

The success of this project was largely dependent on the implementation of an effective and innovative public consultation process that ensured meaningful public participation and input. Flexible opportunities to engage trail users, City departments, community members and residents as a whole resulted in energetic, informative dialogue and creative, strategic networking implementation ideas.

2.1.1 CITY INTERVIEWS

City departments impacted by future trail development were interviewed individually to allow facilitators an opportunity to gain a better appreciation of specific factors, elements and understandings that would benefit the project from initial launch to document adoption.

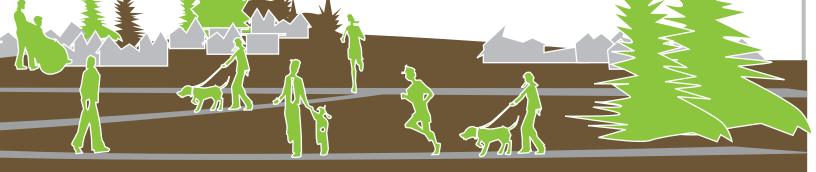
Departments participating in this interview process included: Planning Services, Land and Properties, Community Development, Police Services, Environment, Municipal Works and Parks and Outdoor Recreation.

2.1.2 OPEN

Houses

Traveling Open Houses were scheduled at four on-site locations the weekend of August 29th and 30th. These included Police Point Park, Strathcona Island Park, Devonian Trail, and Kin Coulee Park. Information displays provided project background, time lines, objectives, and interesting trail facts.

Interactive activities encouraged participants to "draw in" on the City map trails they felt would benefit from



linkages, improvements or development. Surveys were available for trail users to complete or a website information sheet was provided if they desired to access the survey online or circulate to friends and family for survey participation.

Children were also invited to get involved with a "Trail Bingo" game where they paired bingo card pictures with those on a map that indicated various trail uses. "Where's Leo" entertained the children as they searched for Leo, the Leisure Trail Lizard hidden throughout the trail map.

Additionally, project staff visited other trail and park areas to discuss opportunities with participants there. These included McCutcheon Drive, Echo Dale, Saamis Rotary Park, and Ross Glen Water Park. A project trail specialist, on two separate occasions, cycled the entire trail system to capture visual and GPS data which would assist in the priority and recommendation phases of the project. During the weekend of the Traveling Open Houses, he followed up concerns or recommendations raised by participants with a cycle trip to check out the trail segment issues first hand. The resulting visual photo tour and GPS information provided valuable input and support to the comments raised by City trail users during the project's public participation phase.

Two additional Open Houses were held: one at the Medicine Hat Mall on September 22 and one at the Family Leisure Centre on September 24th. Interactive



mapping activities were available at these two locations also. A week long static Open House was displayed at City Hall from September 25th through October 2nd. Opportunities to complete the survey were also made available on site.

2.1.3 SURVEYS

To lend support to stakeholder and City department discussions, a survey was developed to collect information that would be pertinent and valuable to public participation analyses. Survey information included questions regarding trail use frequency, trail use activities, participant's age group, comments on improvements or linkages, and the opportunity to provide contact information if desired.



On line surveys were linked to the City of Medicine Hat website and were also available at all Open Houses. The survey component of the project's public engagement was very successful with a total of 477 surveys returned. These included:

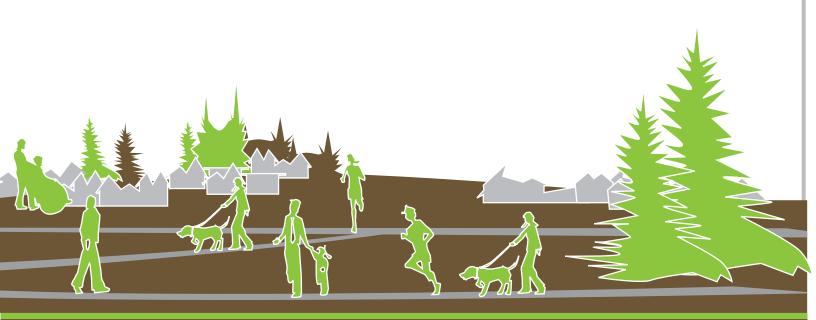
Location	Surveys Completed
Police Point Park	31
Strathcona Island Park	29
Devonian Trail	45
Kin Coulee	56
McCutcheon Drive	10
Echo Dale	7
Saamis Rotary Park	4
Medicine Hat Mall	25
Family Leisure Centre	58
City Hall and Website	212
TOTAL	477

Charette #1, October 28, 2009 - Utilizing a Community Circle format, this Focus Group meeting identified and defined a set of Guiding Principles that would be used to steer the direction of the Plan. These principles are explored further in Section 3.

Charette #2, November 18, 2009 – This Focus Group meeting provided an opportunity for discussion and review of recommended upgrades to the existing trail system, trail classification and priorities and innovative network solutions. The strategies resulting from the group's input can be reviewed in site specific detail in Section 7.

2.1.4 Focus Group Charettes

Approximately 20 representatives of key community organizations and individuals were invited to participate in the project as Focus Group members. Two Charettes brought the group together to provide input and assist in the development of the future trail system.



3.0 PLANNING & DEVELOPMENT GUIDELINES

3.1 GUIDING PRINCIPLES

Guiding principles were developed with stakeholders at the first stakeholder charette held in October of 2009. These principles were formulated through discussions and summarized into eight principles that address the major goals and core values that will guide the planning of this document. The order of the following principles do not reflect a priority rating.

3.1.1 CONNECTIVITY

Connectivity within the trail system is key to its success and must be approached from several aspects. The trail network itself must have linkages within the City as well as regionally with the surrounding communities. It should also be developed in collaboration with other modes of transportation creating an integrated multimodal network incorporating alternative transportation and public transit systems.

3.1.2 SAFETY

Trail safety is also multi-faceted and includes working with City Bylaws to enforce rules by which to follow while using the trails, as well as providing sufficient signage and information on the trails to promote safety and address user conflicts. Design standards can also improve safety by incorporating CPTED principles, reducing hazards in trail development and promoting safe practices and use.

3.1.3 Education & Trail Etiquette

Education on the trails works cohesively with safety and communication practices in promoting signage opportunities and providing marketing materials (such as brochures, trail kiosks, maps, and use of the City website) to encourage appropriate trail use and etiquette. Educating the public on trail locations and

layout is an important factor in encouraging future trail use. Educational material can be located at and emphasize multi-transportation nodes.

3.1.4 COMMUNICATION

There are several forms of communication that are needed to secure success in the development of a trail network. Communication between City departments and the public provides information and feedback on trail use, development and the need for improvements. Interdepartmental communication within the City, as well as communication with the staff of adjoining municipalities will ensure that the development and maintenance of a comprehensive trail system is successful.

3.1.5 COMMUNITY NEEDS

Meeting the needs of the community should be amongst the highest priorities for the City. This includes creating multi-use trails that are available for use in all seasons, promoting fitness and health, and thereby illustrating why Medicine Hat is the "Community of Choice".

3.1.6 ACCESSIBILITY

Accessible principles should be addressed in design standards and trails should act to promote utilization by a variety of users, including those with disabilities. Where possible and reasonable, trails should also be accessible throughout the year.

3.1.7 BUILDABILITY

Trails should be developed while considering the following criteria: maintenance, finances, environment, community priorities, and implementation of the trail plan.





3.1.8 ENVIRONMENTAL INTEGRITY

From a mobility point of view, preserving the environment can be accomplished through encouraging alternative modes of transportation including trail use. Increased trail use will promote a healthy and sustainable community. Additionally, through controlled trail development, appropriate construction methods, and the utilization of Hat Smart principles, especially with regards to land management, natural environments can be preserved for the future.

4.0 TRAIL INVENTORY

4.1 EXISTING TRAIL INVENTORY

The City of Medicine Hat currently has nearly 100km of leisure trails within the City, 90% of which are asphalt. The majority of these trails were developed in the early 1980's when grant funding from the Urban Parks for the Future program provided the City with the opportunity

to develop an extensive trail network within several communities and parks of the City.

The following map, Figure 4.1, illustrates all of the existing trails both paved and shale within the City of Medicine Hat.



MEDICINE HAT leisure trails future development plan

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gure 4.1b - Existing Trails(South)

5.0 TRAIL CLASSIFICATION

An important aspect in developing a comprehensive trail network is setting standards for implementation in all future leisure trails. This can be accomplished through a set of design standards and specifications. For the purposes of this plan, a trail classification system has been developed to be applied to future trail planning, and thus ensure that all future trails are designed to a consistent standard. The trail classification system that follows is intended to be used as a guideline and work in conjunction with the recommendations that are

outlined later in the document. Three types of trails have been identified in this trail classification and are applied to the future trail recommendations in **Section 7**, **Implementation**.

The following Leisure Trail classifications are based upon existing trail standards found in the Municipal Servicing Standards and are part of an update of those standards. These classifications, along with detail design drawings, form the basis of the Trail Development Standards.



5.1 REGIONAL TRAIL

Location

- Linkage between communities
- Creates recreational loop within communities
- Access to local points of interest
- May connect communities through open spaces

Use

- Suitable for high volume use
- Accommodates a wide range of users and abilities including walkers, cyclists, strollers, wheelchairs and mobility scooters, inline skaters, and where possible skateboards
- Designed to minimize user conflicts
- Minimizes conflicts with vehicles by allowing

Materials & Amenities

- Rest areas spaced 1000m apart
- Asphalt surface
- Includes signage and interpretive features
- Maximum slope is 3% where feasible. Where natural terrain makes such slopes impossible, slopes should not exceed 8%.

Size

- 3.0m asphalt trail with 1.0m safety clearance on either side of trail
- 2% maximum cross slope



Figure 5.1 Regional Trail



5.2 LOCAL CONNECTOR TRAIL

Location

- Connects regional trails adjacent to communities, shopping, and employment
- Provides connections within and between communities
- Provides passive commuter routes
- Intended for low speed use
- May be within linear greenways or natural areas where traffic volume is low
- May connect with on-street connections

Use

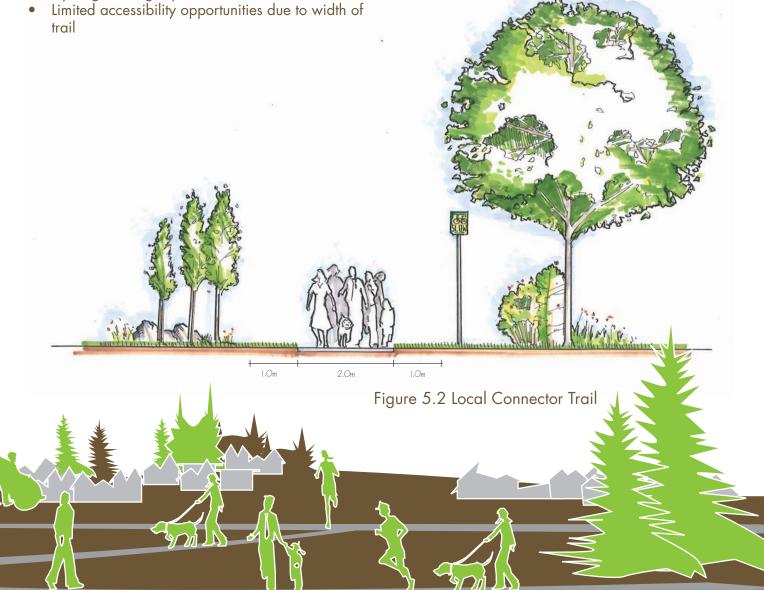
- Accommodates local traffic
- Limited use with low volume traffic
- Cycling and high speed use is minimal

Materials & Amenities

- Asphalt trail may be located in areas where 3m Regional Trails are unable to be built, i.e. utility corridors.
- Signage may be incorporated where appropriate
- Rest stops and interpretation areas should be spaced approximately 1000m apart
- Maximum slopes are 8%

Size

- Trail width 2.4m paved with 1.0m safety clearance on either side of trail
- 2% maximum cross slope



5.3 NATURAL TRAIL

Location

- Specific use areas
- Natural landscapes
- Provides access to natural areas, creeks, rivers
- Provides access through steeper areas

Use

- Accommodates lower volumes and speeds
- Used by walkers and single track bikes
- Accommodates specific geographic users and uses
- Provides minimal disturbance to landscape
- Would not be a fully accessible trail

Materials & Amenities

- Soft materials, primarily stone fines and gravel
- Rest stops and amenities on trail are minimal
- Signage may be incorporated
- Some areas may require erosion control measures
- Stairs and crossings may be included as required
- Maximum slopes are 10-12% with switchbacks for steeper grades
- Stairs and timber retaining walls may be incorporated along trails to provide access through steep and unstable areas

Size

- Trail width 1.0m or less with 0.5m safety clearance on either side of trail
- No minimum cross slope



Figure 5.3 Natural Trail



6.0 TRAIL RECOMMENDATIONS

6.1 TRAIL CONNECTIVITY

The development of a comprehensive future trail network is dependant on several systems working in harmony. The trail network works seamlessly with on-street trails and sidewalks to provide continuous connections throughout the City. The development of such a system requires the collaboration of a variety of groups including City Departments, developers, community groups, and the public, to provide a complete and cohesive network.

The on-street connections are not included within this plan as they are located within road rights-of-way; however, it is important to acknowledge these areas as linkages within the overall trail network system.

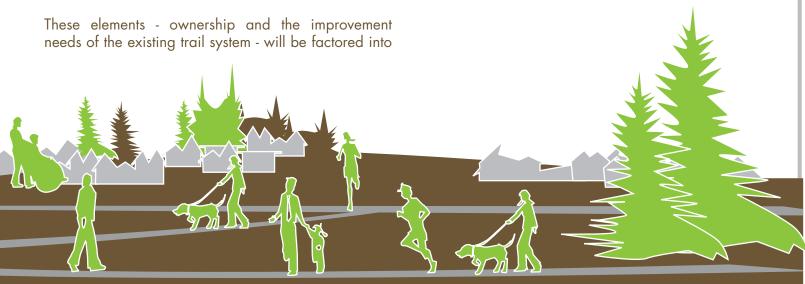
As part of an integrated and continuous trail network that complements an alternative transportation system, connections from the Medicine Hat trail network to Redcliff and Cypress County are important. Through discussions with the Town of Redcliff and Cypress County potential trail connections that will fit into future and existing trails in these communities were identified and are outlined in Section 7, Implementation.

6.2 PHASING

Detailed phasing of work is outlined for each existing and future trail segment in **Section 7**, **Implementation**. The phasing component takes into account the nature of the existing and future trail system. Improvements to the existing trail system will also be factored in.

establishing an appropriate phasing schedule. The recommended phasing approach is therefore set out as follows:

- 1. The phasing approach should be based on the priorities noted in this report. For those areas identified as highest priority (for connecting trails), an appropriate acquisition/control policy should first be determined (see Section 6.3, Acquisitions). Those areas identified as highest priority and owned by the municipality, should be included as part of the first phase of development. At the same time it should be noted that phasing may be affected by the timing of land development projects. Market conditions may delay such projects and consequently create delays in acquiring and developing portions of the trail system. (Budgeting limitations may necessitate a phase to be subdivided into smaller units and for the development period to be extended over a longer time period).
- 2. The phasing of trail upgrades will be based upon a complete inventory of the existing trail network and upon priorities and conditions outlined in such an inventory. Phasing may be determined on an area or neighbourhood basis or on the basis of upgrading need as set out under the priorities. (Budgeting limitations may necessitate the phases to be subdivided into smaller units and for the upgrading period to be extended over a longer period of time).
- 3. Trails opportunities that extend beyond the City boundaries will be implemented, phased, and coordinated with the adjacent municipalities.



6.3 LAND ACQUISITIONS

The acquisition or control of lands to implement the trail system will be carried out on the basis of the priorities and the phasing schedule. Several options are available to the City:

- Acquisition via the subdivision process. The dedication of municipal and/or environmental reserves on key properties will ensure that lands will be available to develop the trail system. If however such key properties are privately held and there is no interest by the owner(s) to develop and subdivide the property, this option will not achieve the desired results. Lands owned and intended for development by the City offer the best opportunity for trail development.
- 2. Environmental Easements. The Municipal Government Act (Section 664 (2) and following) provides for developers and municipalities to jointly agree to create environmental reserve easements in place of dedicating land for environmental reserve. This offers an alternate option to private land developers and the City in meeting trail acquisition needs. As in reserve dedications however, easements of this kind are only triggered by a subdivision proposal. Failure to initiate a proposal would therefore not create the opportunity to use this option.
- 3. Purchases/Leases. Other opportunities for acquisition and control include outright purchase of lands from private owners or entering into long term lease agreements.
- 4. Less Traditional Control Options. In the last few years the concept of Land Trusts has emerged in Alberta. Several private Land Trusts have been formed principally for the purpose of land conservation and protection of scenic historical and recreational lands. Among the tools that have been

used by these charitable, non-profit organizations are conservation easements in which landowners agree to maintain the conservation or other value of the land while still retaining ownership. The easements are registered on the owner's title and remain in place forever. The possibility of creating a trust to secure both parkland and trails should be explored as a long term means for acquisition and control of priority properties.

6.4 AMENITIES

A variety of amenities can be incorporated into the trail network to improve trail experiences for users. Amenities may be used for comfort, practicality, safety, and information. Benches, and washrooms help to make the trails more comfortable and usable by a greater variety of users. Incorporating trash receptacles and dog waste dispensers help to keep the trails clean. Fish eye mirrors and signage help to keep the trails safe and encourage more use. Creating viewing areas that look out over significant landscapes is a good location criterion for many of these amenities along trails, and can become an amenity in and of itself.

Signage is an important amenity to include in the trail network as it has many functions. It informs the public on trail uses and can be used to reduce user conflicts. Signage can be used to inform the public of trail rules and etiquette, as well as provide information on native flora and fauna, interpretive information, and natural barriers and issues within the landscape such as snake nesting areas. Trail signage may also include maps of the trail network with location markers which can be used to gain bearings and plan routes. Distance markers that are used along with maps help users to gage and plan their trips. Signage maps can also indicate potential concerns or barriers that may be encountered along the trail system such as road



Sample Interpretive Signage





Sample Off-Leash Signage

Sample Distance Marker Signage





Sample Trail Map Signage

crossings, changes in surfacing, and other physical barriers. Incorporating signage into rest areas utilizes these spaces and provides information to trail users while they are on the trails.

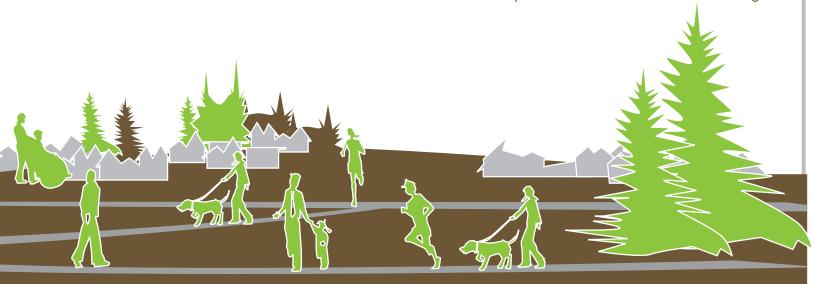
A review of the existing signage within the City should be completed to determine where signage is needed, determine appropriate signage content, and establish theming or branding of the trail network. Examples of signage content and branding are shown above.

6.5 OPPORTUNITIES AND CONSTRAINTS

There are a significant number of opportunities to develop and enhance the trail system. Some constraints are also evident, many of which will be centred on financing. Taking advantage of suitable funding opportunities as well as identifying trail development priorities can reduce the impact of this constraint. Design concepts for different segments of the trail such as connections across the river, and exploring new links through unique lands all offer opportunities for the development of an attractive trail system. Options also exist to more fully integrate other forms of the mobility network to create a more holistic and enhanced approach to travel and trail use. Finally, from a social perspective, an opportunity is afforded to link different neighbourhood parks within the community, which if realized, may not only stimulate greater use of some parks but also create stronger civic appreciation for the overall parks system and the neighbourhoods in which these parks are located.

6.6 INNOVATIONS

The opportunities outlined above also offer a chance to apply innovative ideas. The innovative concepts that are developed for the Leisure Trails Future Development Plan will flow from the guiding principles, as identified earlier in this section. Thus, innovation that is based on enhancing connectivity, safety, accessibility, environmental integrity, education and trail etiquette etc. will be a paramount consideration. Trail design



where unique topography or unique situations occur will often present opportunities to seek unusual and innovative solutions. Signage, furniture, and materials are also trail design components that offer creative alternatives, and at the same time can promote safety, accessibility, education and environmental integrity.

6.7 EXISTING TRAIL IMPROVEMENTS

The existing leisure trail system within Medicine Hat is extensive with an outstanding current program of ongoing maintenance. Regular reviews of the existing Leisure Trails Network and of the current maintenance plan would provide further direction and focus to aid in the continued maintenance of the trail system.

As part of the existing trail inventory, a frequency of use analysis should be prepared to identify trails that are not currently meeting the community's needs. The Classification System, Section 5 would aid in the upgrading of existing trails.

Additional improvements to existing trails include reviewing the number and distribution of amenities along the trails such as trash receptacles, benches, and signage to ensure they meet the current standards established for amenities.

6.8 INTERMUNICIPAL TRAIL CONNECTIONS

An important component to the development of the leisure trail system is providing linkages and connections from the City of Medicine Hat to the surrounding communities. Achieving such connections will require cooperation between the City and the surrounding municipal governments. As such, the final alignment of the trails, funding options, and responsibilities

will have to be determined as the need for such connections becomes apparent, or as development continues between these communities and the City of Medicine Hat facilitating trail construction. As a result of meetings and discussions with Cypress County and the Town of Redcliff, the following recommendations for intermunicipal connections were identified. Further collaboration with these municipalities will be required when implementing trail connections.

Connections to Redcliff, identified later in the document, include linkages from along the South Saskatchewan River and from the Echo Dale Regional Park. Additional connections are identified in the Burnside Estates Area Structure Plan which will include trail development through the neighbourhood and connections to Redcliff. Additional potential connections exist within road rights-of-way, especially along Saamis Drive. These connections would be addressed through the development of a Transportation Master Plan.

Providing a linkage to the community of Dunmore through Cypress County is another important connection. This poses many challenges as the distance is greater and there are several physical barriers along the way including the Bulls Head Creek and the CP Rail lines. The most logical connection runs parallel to the Trans-Canada highway, along the west side of the highway.

Additional future connections to other outlying communities such as Seven Persons and Veinerville may be similarly addressed when the need for trails to these areas becomes greater, which is beyond the 10 year horizon of this plan.



7.0 IMPLEMENTATION

7.1 TRAIL ANALYSIS

The following section provides a model for the implementation of future trails within the City of Medicine Hat. An analysis of the existing trail network has provided insights into the need and location of future trail connections and routes. These routes have been identified and prepared based upon the entire City network including alternative transportation, as well as at a community and neighbourhood level, where small connections and linkages have been identified.

A detailed analysis of potential trails in relation to the existing trail network lead to recommendations for potential routes to new and future communities, new and missing connections within existing communities, and future linkages to neighbouring municipalities. The following section contains the Future Trail Analysis criteria completed for each proposed trail as identified and indexed in Figure 7.1.

The proposed trail alignments are conceptual as the final alignment is subject to resolution of the applicable design factors. Leisure trails planned within parks and environmental reserve land fall under the responsibility of the Parks and Outdoor Recreation Department to construct while trails planned within road rights-of-way or public utility lots would be the responsibility of the Municipal Works Department. Trails proposed as part of a subdivision development will be the responsibility of the developer to construct and cover any related costs.

7.1.1 TRAIL FUNCTION AND

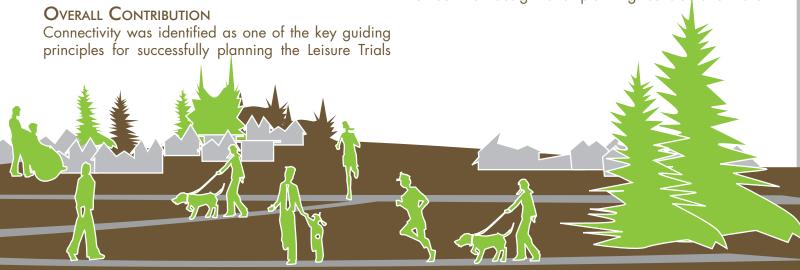
Future Development Plan. Public input noted that the present trail system is in need of further development since trails are missing in some neighbourhoods and sectors of the City, thus depriving users the ability to link up with existing trails. It was also noted that the potential for greater utilization of the parks system could be increased by creating trail connections between activity park destinations such as Police Point and Strathcona Ísland Park. Trail connectivity was also seen as a key to integrating inter-municipal parks and activity areas i.e. Redcliff and the County of Cypress. Connecting trails with other trails, connecting neighbourhoods, parks and general sectors of the city with one another, and working with Medicine Hat's neighbouring communities to create a regional trail system, all underscore the relevance of the connectivity principle.

7.1.2 SAFETY

Safety is a significant consideration for trail users as it may determine if they will use the trails, which trails they will use and possibly when they will use them. Medicine Hat has an extensive leisure trail network, but access may be limited to certain segments (i.e. Police Point Park to Echo Dale Regional Park Trail). Separated trails within open space will inherently attract more varied users than an on-street alignment. The perceived safety and its positive impact on the users is considered for each trail segment.

7.1.3 DESIGN

The design development is classified as high, moderate, or low level with regard to the amount of design consideration required for the development of each trail section. Connections which require a significant amount of design and planning consideration are



viewed as a high level of development, whereas trail connections with few challenges are considered to be a low level of development.

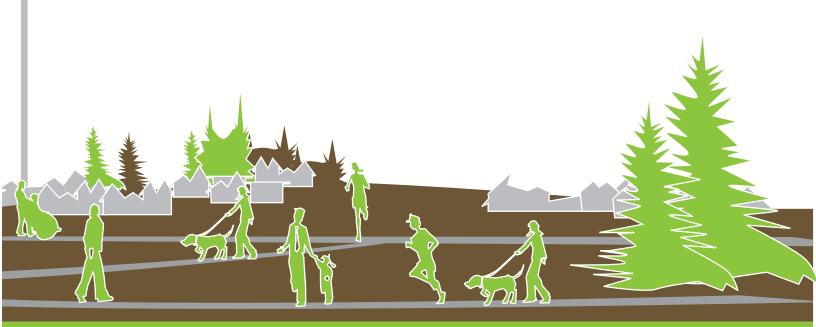
There are many design factors to take into account when proposing a future trail. Issues such as geotechnical (gradient and ground composition), biophysical (impacts on plant and animal life), archeological (historic preservation), structural (intensity of structures required), and environmental (impact on the local environment), etc.

7.1.4 TRAIL ENVIRONMENT

The Trail Environment is the perceived experience the trail user will enjoy when using the completed trail. This consideration may determine the ultimate priority for the trail's approval, construction, or the final trail alignment. The perceived environment for a trail adjacent to the river is different than a separated, off-street trail and the design considerations may reflect this as they balance demand, cost, and overall functionality.

7.1.5 TRAIL CLASSIFICATION

The future trails are classified based upon their location, use, and function as outlined in **Section 5**, **Trail Classification**, and are mapped in Figure 7.2. The overall trail network should strategically incorporate the various forms of trails to provide the most effective and desirable network for all users.



igure 7.1b - Future Trail Index(South)

MEDICINE HAT leisure trails future development plan

ure 7.2b - Future Trail Classification^(south)

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7.1.6 PRIORITY

The priorities for trail development are outlined in detail in Table 7.1 and depicts in tabular form the identified and justified priorities for each trail. The priorities were determined from a) the input of the stakeholders and the survey results from the trail users and b) an on-site assessment of the trails. Figure 7.3 shows all future trail connections by priority.

These criteria established that:

- The highest priority should be assigned to trail sections where gaps occurred and connections are deemed to be essential.
- The second highest priority should be assigned to those areas where trails are not in existence but are deemed to be needed. In some cases, achieving item #1 above, may satisfy this priority as well.
- 3. The third priority is given to trails that are within areas of future development, where development will not take place for several years.

Internal priorities among the trails will also be established.

The rationale for the priorities for each of the proposed trails is set out in Table 7.1. The matrix reflects the criteria from the existing priority matrix established in the Future Trail Development Plan written in 1990, as well as criteria for phasing as noted in Section 6.2 of this report. The matrix identifies the various factors used to determine the sequence in which trails should be considered for development. By prioritizing the recommendations, the construction and implementation of the trail network will be manageable and cost-effective.

Each of the identified 10 criteria factors were weighted based upon their contribution and importance to trail development. The trails were then ranked by their respective score, which determined their overall priority to the trail network.

Additional priorities have been placed on bridge construction and as the cost to construct and install these bridges is quite substantial, they will likely not be completed within the 10 year horizon of this plan. As such the bridges are ranked based upon their need and the potential for connectivity that they provide.

There are three trail segments that have been identified within this plan that have been proposed as future trails. These trails are well beyond the scope of this plan as they are a low priority for providing connectivity to the City of Medicine Hat. These trail connections include a bridge linking the Echo Dale Regional Park to the north shore of the South Saskatchewan River, a west trail alignment to Cypress County, and a pedestrian bridge crossing the Trans-Canada Highway, linking the Ross Glen community to commercial development and connecting to future Cypress County Connections.

Future 7.4 illustrates these future connections and provides the priority in which these future trails should be considered. These priorities are based upon the same factors outlined above.



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Trail Name	McCutcheon Dr	South Ridge Dr	Ross Glen Road SE	Rossland Road SE	Family Leisure Centre and BMX Park	11th Ave NE	Kiwanis Trail Extension	Crestwood / East Glen North	3rd St SW	Linear Park - Red Oak	Linear Park - Ross Heights	Lions Park	Linear Park - Redwood Place	Balmoral Street to the Devonian Trail	Medicine Hat Golf & Country Club	Ranchlands / NE River Bank Loop	Police Pt Park & Strathcona Island Bridge	College / Kin Coulee	Tower Estates	Ross Heights - East Glen	Saamis Arch#1 - SW Coulee Teepee	North Cimarron	South Saskatchewan River Crossing at TCH	Ranchlands Park Connections	Crestwood Dr	South Ridge Trail West Extension	Southlands Trail East Extension	South Boundary Road East Extension	Burnside North Shore	Burnside Heights	Burnside West	Seven Persons Creek South East	Echo Dale River Crossing	Westside TCH Alignment to Cypress County	TCH Pedestrian Crossing to Cypress County	Matrix
Map Key (Fig 7.1)	D7, E7	88	J12, J13	J13	C8, D8	D10	E7, F7, F8	G12, H12, H13	38	112, J12	113	E10	J12	E10	E10	B11, C11	E10, E11	H9	. 65, G6	113	H8, I8	16, 17, J7	E6	B10	G10, G11, H10	K6, K7	K10, K11, K12	K10, K11, K12, K13	C2, D2	D2, D3, D4, D5	D2, E2, E3, E4, E5	J6, K5, K6	E2,D2	-		Table 7.1- Priority Matrix
Trail ID	2	24	27	28	9	∞	11	15	18	52	59	12	56	13	7	10	14	17	19	30	20	21	4	6	16	23	31	32	-	8	2	22	F1	F2	F3	Table ;

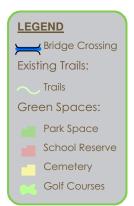
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vre 7.3a - Future Trail Priorities(^{Norm)}

MEDICINE HAT leisure trails future development plan











7.1.7 Cost

This section details the costs associated with trail construction. Costs are based on current construction rates in Southern Alberta and include base preparation, materials, and site rehabilitation. A 15% mark up has been applied to each subsequent year to reflect inflation, including labour, materials, and fuel. The charts below identify new trail development costs, trail repairs, and additional trail amenities. Design, engineering, environmental testing and assessment costs will be additional to the prices listed below. Future cost projections for the next two years have been included for reference.

7.1.7.1 New Trail Development

New trail costs include all materials, labour, installation, and site restoration costs associated with the work, including base preparations.

mercaning base proparations.				
Material	2009	2010	2011	
Asphalt				
2.4m Width	\$120/lm	\$140/lm	\$160/lm	
3.0m Width	\$150/lm	\$175/lm	\$200/lm	
Boardwalk (3.0m width)	\$4,500/lm	\$5,200/lm	\$6,000/lm	

7.1.7.2 Trail Repair

Repair costs include material overlays of existing trails. Costs include all materials, labour, and installation costs associated with the work.

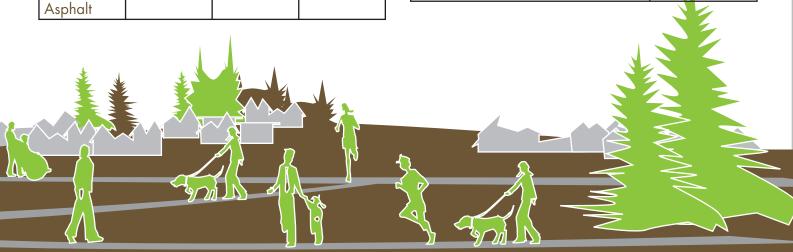
Material	2009	2010	2011
Asphalt			

Material	2009	2010	2011
2.4m Width	\$65/lm	\$75/lm	\$86/lm
3.0m Width	\$80/lm	\$92/lm	\$105/lm

7.1.7.3 Additional Amenities

All costing is based ton Southern Alberta construction rates in 2009 and includes installation and incidental costs, including foundations, associated with the installation of each of the amenities below. Costs are listed as individual unit prices below.

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Item	Cost
Benches	\$2,500
Trash (Haul-All Containers)	\$2,000
Dog Waste Dispensers (Steel dispenser on timber post)	\$750
T-Bollard (each)	\$1,300
Pedestrian Bridge for Creek and Small River Crossings (2.0m wide & 6.0m long bridge)	\$55,000
Pedestrian Bridge for South Saskatchewan River Crossing (at Strathcona Island Park)	\$10-13.5 million
Pedestrian Bridge for South Saskatchewan River Crossing (Along Trans- Canada Bridge Crossing)	\$12-16 million
Pedestrian Bridge for South Saskatchewan River Crossing (at Echo Dale Regional Park and Redcliff)	\$10-13.5 million



7.2 FUTURE TRAIL ANALYSIS

The following pages identify future trail segments and provide a detailed analysis which will lead to the design and construction of each segment. As described earlier, each trail is provided with information regarding location, design considerations, classification, priority, and cost. All trails are located within the City of Medicine Hat, with opportunities to continue some trails towards surrounding municipalities, creating a cohesive network with the communities of Redcliff and Cypress County.

The costs indicated within the following pages are broken down by construction costs, permit and reporting costs, and design and engineering fees. Construction costs are based on costs outlined in Section 7.1.7 of this report. These prices include all costs associated with trail construction including materials, labour, installation, and site restoration costs. Additional costs that may be required for trail development such as boardwalks and footbridges are indicated as required. The construction costs do not allow for additional amenities that may be incorporated along a trail. Permit and reporting fees are calculated based on 15% of the construction fees. These fees may include environmental, archeological, geotechnical, environmental, or structural testing and Additionally, design and engineering evaluation. fees are based on 10% of the construction costs, and include all consulting, design, engineering, and project management fees.





TRAIL 1 - BURNSIDE NORTH SHORE

ID/Location (Map Key C2, D2)

Located east of Redcliff, north of the South Saskatchewan River, south and west of the Trans-Canada Highway.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide Trail network in developing area.
- Provide connections between Redcliff and Medicine Hat.

Safety:

- Pending future development, this trail will be located in Environmental Reserve separated from future road rights-of-way and inherent traffic volumes.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- The undeveloped land, subject to planning policies and approved subdivision plans. Ensure appropriate connections and alignments are feasible for future land development.

 Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.

Trail Environment:

• Undeveloped land, some in natural state. Trail Length: 3922m

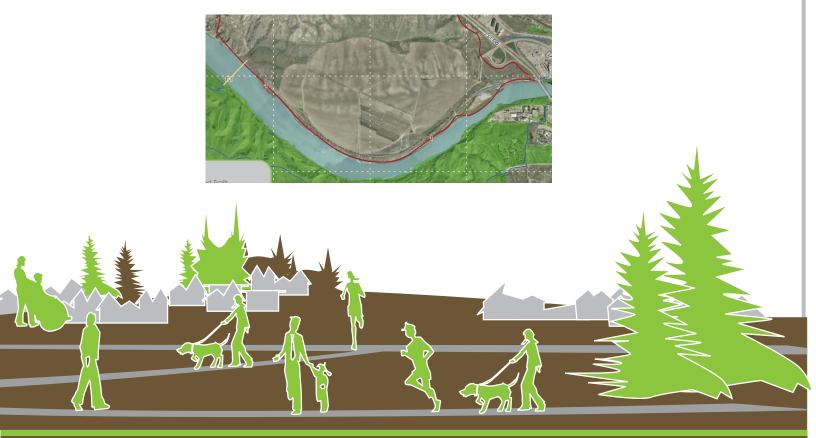
Trail Classification

Regional Trail

Priority

Low, pending development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$588,300
- Permits, Impact Assessments & Reports: \$88,250
- Design, Engineering, & Project Management Costs: \$58,830
- Total Costs: \$735,380



TRAIL 2 - BURNSIDE WEST

ID/Location (Map Key D2, E2, E3, E4, E5)

Located east of Redcliff, north of the South Saskatchewan River, south and west of the Trans-Canada Highway running through the proposed Burnside Development.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide trail network in developing area.
- Provide connections between Redcliff and Medicine Hat.

Safety:

- Pending future development, this trail will be located in Environmental Reserve separated from future road rights-of-way and inherent traffic volumes.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- The undeveloped land, subject to planning policies and approved subdivision plans. Ensure appropriate

- connections and alignments are feasible for future land development.
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.

Trail Environment:

• Undeveloped land, some in natural state. Trail Length: 1028m

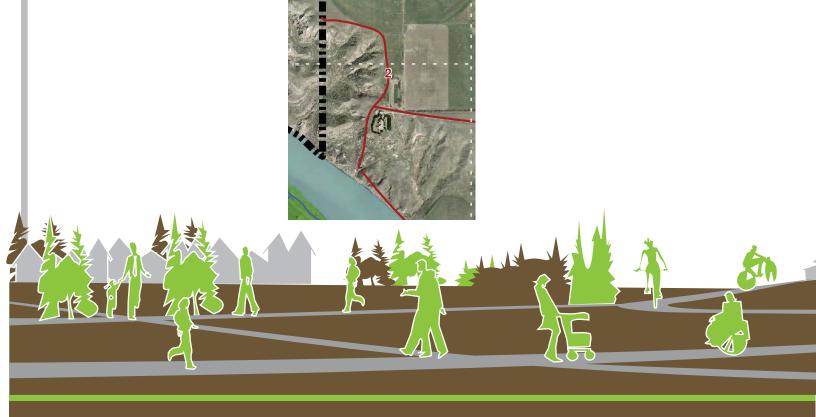
Trail Classification

Regional Trail

Priority

Low, pending development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$154,200
- Permits, Impact Assessments & Reports: \$23,130
- Design, Engineering, & Project Management Costs: \$15,420
- Total Costs: \$192,750



TRAIL 3 - BURNSIDE HEIGHTS

ID/Location (Map Key)

Located east of Redcliff, north of the South Saskatchewan River, south and west of the Trans-Canada Highway running along the southern ridge of the Burnside Heights Development.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide trail network within developing area.
- Provide connections between Redcliff and Medicine Hat.

Safety:

- Pending future development, this trail will be located in Environmental Reserve separated from future road rights-of-way and inherent traffic volumes.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- The undeveloped land, subject to planning policies and approved subdivision plans. Ensure appropriate

connections and alignments are feasible for future land development.

 Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.

Trail Environment:

• Undeveloped land, some in natural state. Trail Length: 3692m

<u>Trail Classification</u> Regional Trail

Priority

Low, pending development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$553,800
- Permits, Impact Assessments & Reports: \$83,070
- Design, Engineering, & Project Management Costs: \$55,380
- Total Costs: \$692,250



TRAIL 4 – SOUTH SASKATCHEWAN RIVER CROSSING AT TRANS-CANADA HIGHWAY

ID/Location (Map Key E6)

Intersection of the Trans-Canada Highway and the South Saskatchewan River (west side of Medicine Hat).

Trail Analysis

Trail Function and Overall Network Contribution:

- Key connection between north and south trail users.
 Permit out-and-back users to use as a looped route.
 Safety:
- Existing Trans-Canada bridge sidewalk's width is sub-standard: narrow with inadequate separation from traffic lanes. As such the perceived safety and comfort of current facility is low, literally scaring off potential users.
- An improved facility would increase the number of users.

Design:

 Higher level of design, due to, but not limited to, environmental, geotechnical, ecological, archeological, and structural engineering issues.

 Trail alignment outside of road right-of-way and the Fire Department's future proposed boat launch facility.

Trail Environment:

• Scenic river crossing connecting with established trails on either bank.

Trail Length: 233m

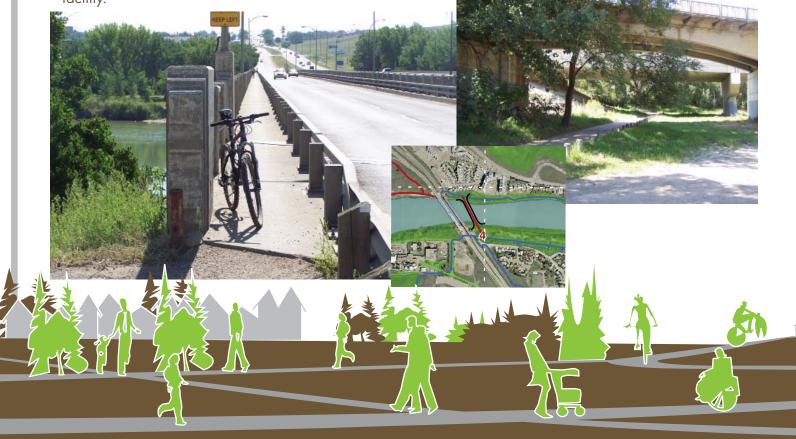
Trail Classification

Regional Trail

Priority

Low - Moderate, 2nd priority for river crossing.

- Bridge Construction: \$12-16 million pending engineering recommendations
- Trail Construction: \$35,000
- Permits, Impact Assessments & Reports: \$1.8-2.4 million
- Design, Engineering, & Project Management Costs: \$1.2-1.6 million
- Total Costs: \$15,035,000 \$20,035,000



TRAIL 5 - McCUTCHEON DRIVE

ID/Location (Map Key D7, E7)

Commencing at 12th Street NW and McCutcheon Drive, running south through undeveloped parcels, linking with the existing Crescent Heights west trail.

Trail Analysis

Trail Function and Overall Network Contribution:

- Connect the McCutcheon Drive Connector (part two) with the Crescent Heights west trail.
- Ultimately connecting with proposed Trail 3 and points westward completing a gap in the overall system.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on McCutcheon Drive.

Design:

• Low level of design.

Trail Environment:

 Running through prairie open space between two roadway rights-of-way.

Trail Length: 636m

Trail Classification

Regional Trail

Priority

High

- Trail Construction: \$95,400
- Design and Engineering Costs: \$9,540
- Total Costs: \$104,940



TRAIL 6 - FAMILY LEISURE CENTRE AND BMX PARK

ID/Location (Map Key C8, D8)

Quarter section bound by 23rd Street NW, Division Ave NW.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide access to Family Leisure Centre, BMX track from the west. Inclusive of recreational loops and bike race track(s).
- Adds to the Trail network in this portion of the City as well as aid in guiding any future plans/policies when development occurs.

Safety

• The trail will be separated from the roadway and inherent traffic volumes.

Design:

- Low level of design.
- Utilize alignment of existing undeveloped paths cross-hatching the MR parcel. Develop for maintenance and erosion control purposes.
- Future trail development is subject to the completion of the Area Structure Plan by the Land & Properties Department.
- Trails development will be triggered by development

- of lands west of the Family Leisure Center or by expansion of the Family Leisure Center site.
- Trail alignment will follow the approved future Area Structure Plan for the site which will account for additional sporting facilities, parking, and building expansion.

Trail Environment:

- Open space to enjoy, existing dirt paths traversing the parcel.
- Leisure centre provides end of trip facilities.

Trail Length: 2478m

Trail Classification

Local Connector

Priority

Moderate - High

- Trail Construction: \$ 297,360
- Design and Engineering Costs: \$29,740
- Total Costs: \$327,100





TRAIL 7 - MEDICINE HAT GOLF AND COUNTRY CLUB

ID/Location (Map Key E10)

Commencing at the trail head located at the northeast end of Parkview Close NE, running north-east to the western tip of the Medicine Hat Golf and Country Club's parking lot.

Trail Analysis

Trail Function and Overall Network Contribution:

• Provide access to the top of bank.

Safety

- Provides direct off-street access to top of bank, potentially reducing number of trail users on Parkview Drive NE.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

 Moderate level of design, due to, but not limited to, environmental, geotechnical, and slope grade issues. The segment is relatively short and an undeveloped trail alignment is present.

Trail Environment:

• Views of the City and River.

Trail Length: 253m

<u>Trail Classification</u>

Regional Trail

<u>Priority</u> Moderate

Cost

• Trail Construction: \$37,950

• Design and Engineering Costs: \$3,800

• Total Costs: \$41,750



TRAIL 8 - 11TH AVENUE NE

ID/Location (Map Key D10)

Commencing at the northwest corner of the intersection of 12th Street NE and Parkview Drive running northeast through the undeveloped parcel to the intersection of Parkview Drive and Police Point Drive NE and the terminus of Police Point Park Trail.

Trail Analysis

Trail Function and Overall Network Contribution:

- Connect the Crescent Heights East Trail to the Police Point Park Trail. Completes a gap in the trail system. Safety:
- The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on Parkview Drive NE.

Design:

• Low level of design.

Trail Environment:

• Running through an isolated undeveloped parcel. Between residential development.

Trail Length: 470m

Trail Classification

Regional Trail

Priority

Moderate - High

- Trail Construction: \$70,500
- Design and Engineering Costs: \$7,050
- Total Costs: \$77,550





TRAIL 9 - RANCHLANDS PARK CONNECTIONS

ID/Location (Map Key B10)

Commencing within the park space and connecting to future Environmental Reserve land to the northeast of the future roadway.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide trail access between Municipal Reserve and Environmental Reserve land.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Low level of design.
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.
- Comprehensive planning during subdivision design

will impact final trail design and alignment.

Trail Environment:

 Relatively short trail segments within a community between park spaces.

Trail Length: 362m

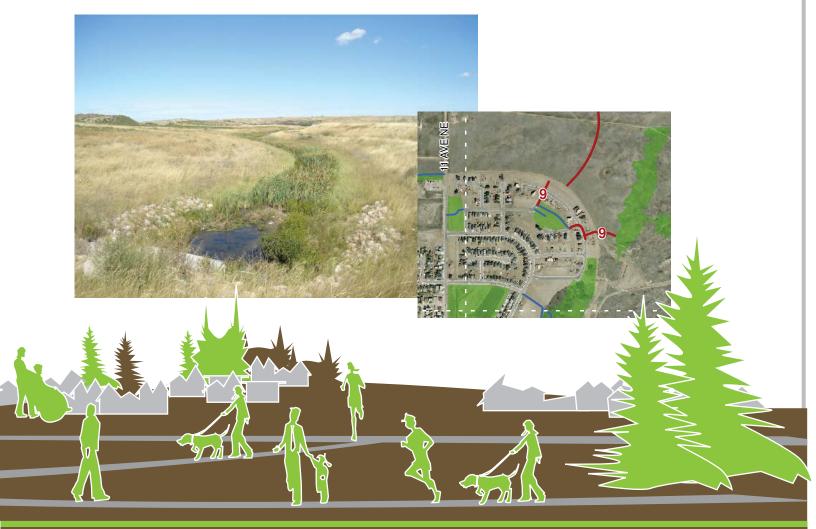
Trail Classification

Local Connector

Priority

Low - Moderate

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$43,440
- Design, Engineering, & Project Management Costs: \$4,340
- Total Costs: \$47,780



TRAIL 10 - RANCHLANDS/ NE RIVER BANK LOOP

ID/Location (Map Key B11, C11)

Commencing at the north-east terminus of the Police Point Park Trail and continuing along the approximate alignment of the South Saskatchewan River, then running south to connect with future trails within the Ranchlands community.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide further trail access along the banks of the South Saskatchewan River as well as connection for future development in the northeast portion of the City.

Safety:

- Prevent exploratory trails as well as keeping "eyes on the trail" influence focused.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental (flood plain), geotechnical (slope stability), ecological, and archeological issues.
- Land development will trigger development, and the alignment will follow the approved Area Structure Plan.



- Specifically, an Environmental Impact Report will need to be conducted on the lands north of the current Ranchlands development due to significant flora habitat in the area. This area might provide an opportunity to develop an interpretive program discussing the significance of Tiny Cryptanth and other significant flora.
- Comprehensive planning during subdivision design will impact final trail design and alignment.
- Trails are shown through Environmental Reserve land, and additional trails will be built through subdivision development.

Trail Environment:

• Scenic views of the South Saskatchewan River. Trail Length: 5680m

Trail Classification

Regional Trail

<u>Priority</u> Moderate

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$852,000
- Permits, Impact Assessments & Reports: 127,800
- Design, Engineering, & Project Management Costs: \$85,200
- Total Costs: \$1,065,000



TRAIL 11 - KIWANIS EXTENSION

ID/Location (Map Key E7, F7, F8)

Commencing at the Kiwanis Trail terminus (at Harris Street) running east to the intersection of 2nd Avenue SW and 1st Street SW.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide further trail access along the banks of the South Saskatchewan River.
- Reduces the gap in the overall east-west trail for the south side of the South Saskatchewan River from Echo Dale Regional Park to Strathcona Island Park and beyond.

Safety:

- Completion of this segment would significantly reduce pedestrian and bicycle traffic on a portion of 1st Street SW. This would allow for improved safety for and increased use by pedestrians and bicyclists.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

 Moderate to Higher level of design, due to, but not limited to, environmental (flood plain), geotechnical (slope stability), ecological, and archeological issues.

Trail Environment:

 Relatively long trail segment, scenic views of the South Saskatchewan River, mature tree coverage and wildlife habitat. Trail Length: 1063m

Trail Classification Regional Trail

<u>Priority</u> Moderate - High

- Trail Construction: \$159,450
- Additional Site Restoration: \$ 20,000
- Boardwalks: \$45,000
- Permits, Impact Assessments & Reports: \$23,920
- Design and Engineering Costs: \$15,950
- Total Cost: \$264,320



TRAIL 12 - LIONS PARK

ID/Location (Map Key E10)

From the intersection of 2nd Street SE and Minto Avenue running south-west through Lions Park to the apparent intersection of the existing parallel trail.

Trail Analysis

Trail Function and Overall Network Contribution:

• Connecting the residential area and Lions Park with trails to the Devonian Trail.

Safety:

 Provides a designed cross-park trail reducing distance and on-road use, particularly through parking lots.

Design:

• Low level of design.

Trail Environment:

• Through an established and mature park setting to the Devonian Trail running alongside the river.

Trail Length: 127m

<u>Trail Classification</u> Local Connector

Priority

Moderate - High as per priority matrix. Priority may be reassessed due to ease of design and construction.

Cost

• Trail Construction: \$15,240

• Design and Engineering Costs: \$1,520

• Total Costs: 16,760





TRAIL 13 – BALMORAL STREET TO THE DEVONIAN TRAIL

ID/Location (Map Key E10)

Commencing at the easterly terminus of Balmoral Street running north-east to the Devonian Trail within Strathcona Island Park.

Trail Analysis:

Trail function and overall Network contribution:

- Provides connection from the residential area to the Devonian Trail through Strathcona Island Park, thus tying in the residential area to the trail network reaching out from the park.
- Trail accomplishes connectivity outlined in the Flats Redevelopment Plan.

Safety:

 Provides additional direct access to Strathcona Island Park, potentially reducing the number of users on the local roadways circumventing the park to the next developed trail access.

Design:

• Low level of design, construction and maintenance challenges.

• Due to park development, the grading is substantially completed for the open space.

Trail Environment:

• Trail traverses a mature park connecting to an established river bank trail.

Trail Length: 169m

Trail Classification

Local Connector

Priority

Moderate - High as per priority matrix. Priority may be reassessed due to ease of design and construction.

Costing

• Trail Construction: \$20,280

• Design and Engineering Costs: \$2,030

Total Costs: \$22,310



TRAIL 14 - POLICE POINT PARK AND STRATHCONA ISLAND PARK BRIDGE

ID/Location (Map Key E10, E11)

Connecting Police Point Park and Strathcona Island Park.

Trail Analysis

Trail Function and Overall Network Contribution:

- Connecting two of the largest parks and trail networks in the most popular and scenic location. Police Point Park Trail network (and tributaries) to the Strathcona Island Park trail network (and tributaries).
- Tying in the easterly neighbourhoods (new and old) of the City which are currently isolated from each other due to the South Saskatchewan River. Greatest overall contribution.

Safety:

 Provides opportunity for travel from the City's northwest to Police Point Park to Strathcona Island Park to Echo Dale Regional Park, almost entirely on trails separated from the roadway and inherent traffic volume, potentially reducing the number of trail users on the existing bridges.

Design:

- Higher level of design, due to, but not limited environmental, geotechnical, ecological, archeological, and structural engineering issues.
- Consideration to the natural environment will be required as the area is extremely sensitive.

Trail Environment:

- River crossing between two of the City's river parks.
- Scenic views of either park as well as the river.
- Most common public request.

Bridge Length: 208m

Trail Classification

Regional Trail

Priority

Moderate, 1st priority for river crossing.

- Bridge Construction: \$10-13.5 million pending engineering recommendations
- Permits, Impact Assessments & Reports: \$1.5-2
- Design, Engineering, & Project Management Costs: \$1-1.35 million



TRAIL 15 - CRESTWOOD/EAST GLEN NORTH

ID/Location (Map Key G12, H12, H13)

Commences from Carry Drive SE, east of intersection with Crestwood Drive SE, running west-south-west accessing the Ross Creek Natural Park, continuing south of the rail line and connecting with the East Glen North Trail north-east of Carter Crescent.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide access to Ross Creek Natural Park from existing trail alignments.
- Connecting the Seven Persons Creek Trail and Exhibition Connector with the East Glen North Trail (and tributaries).

Safety:

- The trail will be separated from the roadway and inherent traffic volumes, potentially reducing the number of trail users on the Industrial Avenue SE roadway.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

 Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.

Trail Environment:

 Through established natural areas along creek beds and up the rolling coulee walls.

Trail Length: 3106m

Trail Classification

Local Connector

Priority

Moderate - High

- Trail Construction: \$372,720
- Permits, Impact Assessments & Reports: \$55,910
- Design and Engineering Costs: \$37,270
- Total Costs: \$465,900



TRAIL 16 - CRESTWOOD DRIVE

ID/Location (Map Key G10, G11, H10)

Commencing from the north-east corner of Crestwood Drive and 21st Avenue SE running west along the approximate alignment of Seven Persons Creek and connecting to the east end of Craven Place.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide a connection from the Exhibition Grounds to west end of Ravine Place.
- Providing views of Seven Persons Creek.

Safety:

- The trail will be separated from the roadway and inherent traffic volumes.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Trail should be setback from edge of the top of bank as much as possible.

Trail Environment:

• Connection to and from Exhibition Grounds along a scenic vista.

Trail Length: 564m

<u>Trail Classification</u>

Local Connector

Priority

Low - Moderate

- Trail Construction: \$67,680
- Permits, Impact Assessments & Reports: \$10,150
- Design and Engineering Costs: \$6,770
- Total Costs: \$84,600





TRAIL 17 - COLLEGE / KIN COULEE

ID/Location (Map Key H9)

Commencing from the existing trails at the top of the south bank of Kin Coulee Park and running south along undeveloped trails to the College property.

Trail Analysis

Trail Function and Overall Network Contribution:

 Connect Kin Coulee Park to the College and trail destinations beyond, such as the Saamis Archaeological site.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, and ecological issues.
- The Trail would terminate at the College boundary, with an on-campus connection and end trip facilities determined by the College.
- Significant bicycle and pedestrian traffic is currently "blazing" a trail in this location, excellent tie between the Park and College campus.

Trail Environment:

• Leading down to the Kin Coulee Park with mature landscaping, Seven Persons Creek and Trail, scenic views from the top of the bank to the creek.

Trail Length: 90m

<u>Trail Classification</u>

Local Connector

Priority Moderate

- Trail Construction: \$10,800
- Permits, Impact Assessments & Reports: \$1,620
- Design and Engineering Costs: \$1,080
- Total Costs: 13,500



TRAIL 18 - 3RD STREET SW

ID/Location (Map Key G8)

From the terminus of 2nd Avenue SW running south to the Ajax Coulee Trail and accessing Kin Coulee Park.

Trail Analysis

Trail Function and Overall Network Contribution:

- Connects the Kensington neighbourhood (via Kensington footbridge) to Kin Coulee Park and Kin Coulee Park to the S.W. Hill area of the City.
- Key connection from existing neighbourhood, providing developed access to Kin Coulee Park from SW Hill area. Inclusive of local schools.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

 Moderate level of design, due to, but not limited to, environmental, geotechnical (slope stability), ecological, and archeological issues.

Trail Environment:

 Leading down to the Kin Coulee Park with mature landscaping, Seven Persons Creek and Trail, scenic views from the top of the bank to the creek. • Connects to the Kensington footbridge. Trail Length: 220m (with switchbacks)

Trail Classification
Local Connector

<u>Priority</u>

Moderate - High

- Trail Construction: \$26,400
- Permits, Impact Assessments & Reports: \$3,960
- Design and Engineering Costs at 15% to account for extra design costs to accommodate grade: \$3,960
- Total Costs: \$34,320





TRAIL 19 - TOWER ESTATES

ID/Location (Map Key G5, G6)

Commencing from the west side of Hillside Cemetery running west, connecting to Tower Estates and the Echo Dale Regional Park Trail.

Trail Analysis

Trail Function and Overall Network Contribution:

 Completes the leisure trail gap between the Hillside Cemetery to the Echo Dale Regional Park Trail.

Safety:

- The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on Gershaw Drive SW.
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Area Structure Plans for future development of the area to be reviewed.

 Future land development will trigger the development of the trail, and the alignment will follow the approved Area Structure Plan.

Trail Environment:

 Mature landscaping of the Cemetery as well as the open prairie, and river. Ultimately linking to the Echo Dale Regional Park Trail.

Trail Length: 586m

Trail Classification

Regional Trail

Priority

Moderate

- Trail Construction: \$87,900
- Permits, Impact Assessments & Reports: \$13,190
- Design and Engineering Costs: \$8,790
- Total Costs: \$109,880



TRAIL 20 – SAAMIS ARCHEOLOGICAL SITE #1 – SW COULEE TEEPEE CONNECTION

ID/Location (Map Key H8, 18)

Commencing from the east side of the southerly foot bridge over the Seven Persons Creek in the Saamis Archeological Site running south approximately parallel to the creek alignment to the Golf Course property line.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide loop where undeveloped trail currently dead ends.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Existing undeveloped trail currently utilized.
- Connection to the east side top of bank would be recommended (as per undeveloped trails).

Trail Environment:

 Scenic views of the Saamis Archeological Site, inclusive of creek beds, brush, and natural areas.
 Trail Length: 1022m (including switchbacks)

Trail Classification Regional Trail

<u>Priority</u> Moderate

Costing

- Trail Construction: \$153,300
- Permits, Impact Assessments & Reports: \$23,000
- Design and Engineering Costs at 15% to account for extra design costs to accommodate grade: \$23,000
- Total Costs: \$199,300



TRAIL 21 - NORTH CIMARRON

ID/Location (Map Key 16, 17, J7)

Commencing from the terminus of the Saamis Heights Trail network (north-easterly point) running west approximately parallel to the Cottonwood Coulee Golf Course's southern boundary then running north along the 10th Avenue SW road alignment connecting to the existing trail at the south extension of 10th Avenue SW.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide link from the Saamis Heights Trail network to future trail development along Seven Persons Creek, running south-west. Completes a gap in the trail network between Saamis Heights and the Saamis Park Trail network.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate to Higher level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Significant grade design considerations, Seven Persons Creek Crossing(s).
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan

- Comprehensive planning during subdivision design will impact final trail design and alignment.
- Trails are shown through Environmental Reserve land, and additional trails will be built through subdivision development.

Trail Environment:

 Scenic views of the Saamis Park, Golf Course(s) and open prairie.

Trail Length: 1400m

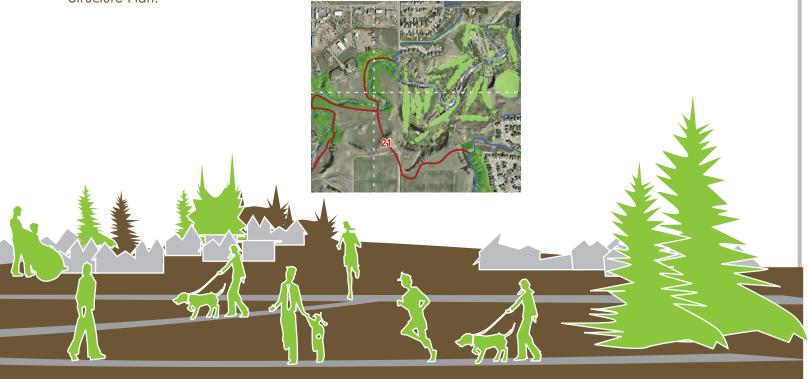
Trail Classification

Regional Trail

Priority

Moderate, dependant on subdivision development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$210,000
- Permits, Impact Assessments & Reports: \$31,500
- Design, Engineering, & Project Management Costs: \$21,000
- Pedestrian Bridge: \$60,000
- Total Costs: \$322,500



TRAIL 22 - SEVEN PERSONS CREEK SOUTH-EAST

ID/Location (Map Key J6, K5, K6)

From the terminus of the trail located at the south extension of 10th Avenue SW and approximately following the Seven Persons Creek alignment running south-west on the east side of the creek.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide trail expansion along Seven Persons Creek to the Canyon Creek subdivision.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate to Higher level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Long term plan, significant environmental and grade design considerations.



- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.
- Comprehensive planning during subdivision design will impact final trail design and alignment.
- Trails are shown through Environmental Reserve land, and additional trails will be built through subdivision development.

Trail Environment:

• Scenic views of the Seven Persons Creek in undisturbed natural habitat.

Trail Length: 4288m

<u>Trail Classification</u>

Regional Trail

Priority

Low, dependant on subdivision development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$643,200
- Permits, Impact Assessments & Reports: \$96,480
- Design, Engineering, & Project Management Costs: \$64,320
- Total Costs: \$804,000



TRAIL 23 - SOUTH RIDGE TRAIL WEST EXTENSION

ID/Location (Map Key K6, K7)

Commencing from the due east-west alignment at the west point of South Ridge Trail and running due west along the public utility lot to Seven Persons Creek.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide west extension of South Ridge Trail with potential for future connections to trails south-west of the City.
- Area of new development and opportunities, potential for ultimate west connection to Seven Persons Creek.

Safety:

 The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.

- Comprehensive planning during subdivision design will impact final trail design and alignment.
- Trails are shown through Environmental Reserve land, and additional trails will be built through subdivision development.

Trail Environment:

Agricultural use
 Trail Length: 1472m

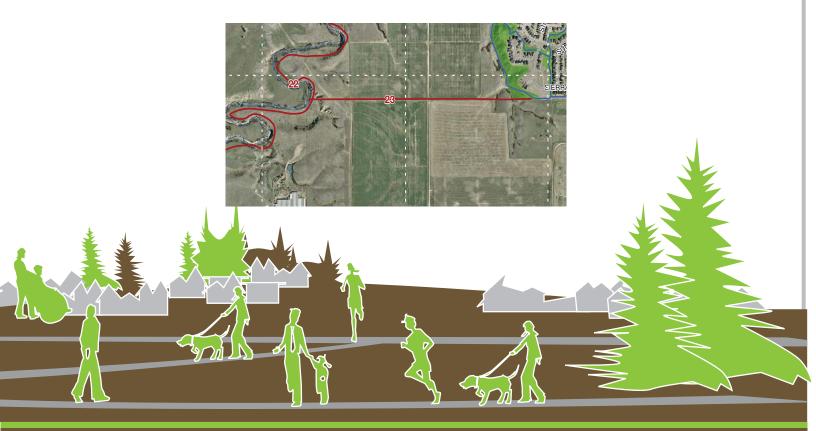
Trail Classification

Regional Trail

Priority

Low-Moderate, dependant on subdivision development.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$220,800
- Permits, Impact Assessments & Reports: \$33,120
- Design, Engineering, & Project Management Costs: \$22,080
- Total Costs: \$276,000



TRAIL 24 - SOUTH RIDGE DRIVE

ID/Location (Map Key K8)

Commencing at the intersection of the South Ridge Trail and South Ridge Drive, running due west reconnecting with the South Ridge Trail and linking (north) to the linear park trail.

Trail Analysis

Trail Function and Overall Network Contribution:

 Completes gap in the South Ridge Trail, provides connection from Saamis Heights Trail network to the South Ridge Trail and tributaries.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes.

Design:

- Low level of design.
- Land development of Saamis Heights Phase 7 will trigger trail development, and the alignment will follow the approved Area Structure Plan.

Trail Environment:

 Connection between existing trails with adjacent residential development including connection to a linear park.

Trail Length: 473m

Trail Classification

Regional Trail

Priority

High, due to ease of design and benefit of completing a gap.

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$70,950
- Permits, Impact Assessments & Reports: \$10,640
- Design, Engineering, & Project Management Costs: \$7,100
- Total Costs: \$88,690







TRAIL 25 - LINEAR PARK - RED OAK SECTION

ID/Location (Map Key 112, J12)

From Carry Drive through Red Oak finger parks system to Ross Haven Avenue

Trail Analysis

Trail Function and Overall Network Contribution:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on the local roadways.

Safety:

- Existing undeveloped trails are being used.
- Provides separated, protected and scenic access. Design:
- Low level of design.
- Existing undeveloped trails are being used.

Trail Environment:

• Mature Linear Park.

Trail Length: 538m

Trail Classification

Local Connector

Priority

Moderate - High

Costing

- Trail Construction: \$64,560
- Design and Engineering Costs: \$6,460
- Total Costs: \$71,020



TRAIL 26 - LINEAR PARK - REDWOOD PLACE SECTION

ID/Location (Map Key J12)

Commencing at the Municipal Reserve parcel south of Redwood Bay SE and south of Redwood Way, running north-east crossing Redwood Way and Ross Glen Drive, continuing north-east in the Ross Glen Linear Parks System to the existing east-west trail.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provides additional access to the Linear Parks System.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on the local roadways.

Design:

• Low level of design.

Trail Environment:

• Existing mature park.

Trail Length: 333m

Trail Classification

Local Connector

Priority

Moderate - High

- Trail Construction \$39,960
- Design and Engineering Costs: \$4,000
- Total Costs: \$43,960





TRAIL 27 - ROSS GLEN ROAD SE

ID/Location (Map Key J12, J13)

Commencing at Ross Glen Road, south of Rossland Road SE, and running south-east connecting with the Linear Parks System.

Trail Analysis

Trail Function and Overall Network Contribution:

- Provide connection within the Linear Parks Trail network.
- The Linear Parks System has no direct connection to the school site(s) on Ross Glen Road; this segment would provide such a link.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on the local roadways.

Design:

• Low level of design.

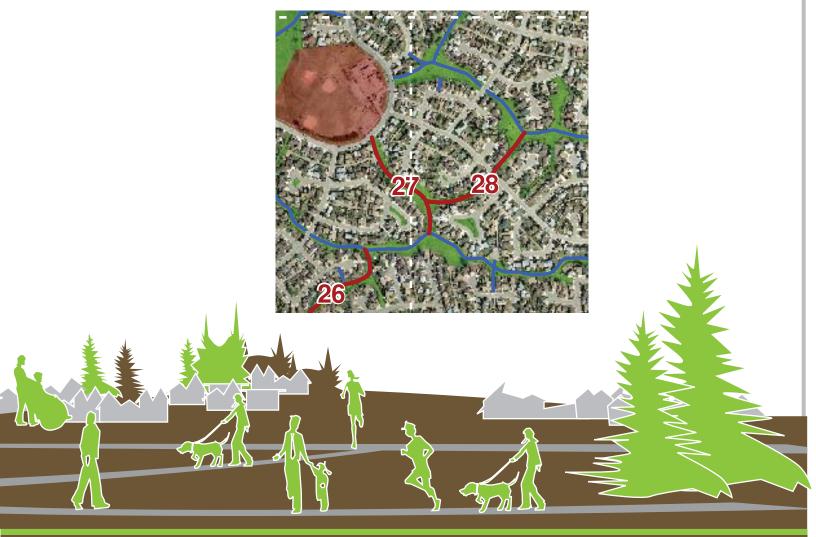
Trail Environment:

• Existing mature linear park. Trail Length: 297m

Trail Classification
Local Connector

Priority High

- Trail Construction: \$35,640
- Design and Engineering Costs: \$3,560
- Total Costs: \$39,200



TRAIL 28 - ROSSLAND ROAD SE

ID/Location (Map Key J13)

Within the Linear Parks System, running north-east from proposed Ross Glen Road SE Trail, connecting to the existing trail north-east of Rossland Road SE.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide a connection to Linear Parks Trail network and school site.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on the local roadways.

Design:

• Low level of design

Trail Environment:

• Existing mature linear park.

Trail Length: 316m

<u>Trail Classification</u>

Local Connector

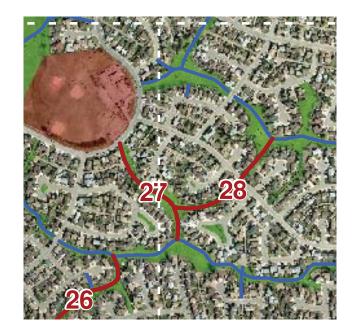
Priority High

Cost

• Trail Construction: \$37,920

• Design and Engineering Costs: \$3,790

• Total Costs: \$41,710





TRAIL 29 - LINEAR PARK - ROSS HEIGHTS SECTION

ID/Location (Map Key G11)

Commencing from Ross Glen Drive (Across from Ross Heights Place) running westerly through the Linear Parks System, connecting to the existing trail.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide a connection from the Linear Parks System to Ross Glen and East Glen Trail network.

Safety:

• The trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on the local roadways.

Design:

• Low level of design.

To be designed in conjunction with the Ross Heights
 East Glen Section trail.

Trail Environment:

• Scenic vista

Trail Length: 352m

<u>Trail Classification</u> Local Connector

Priority

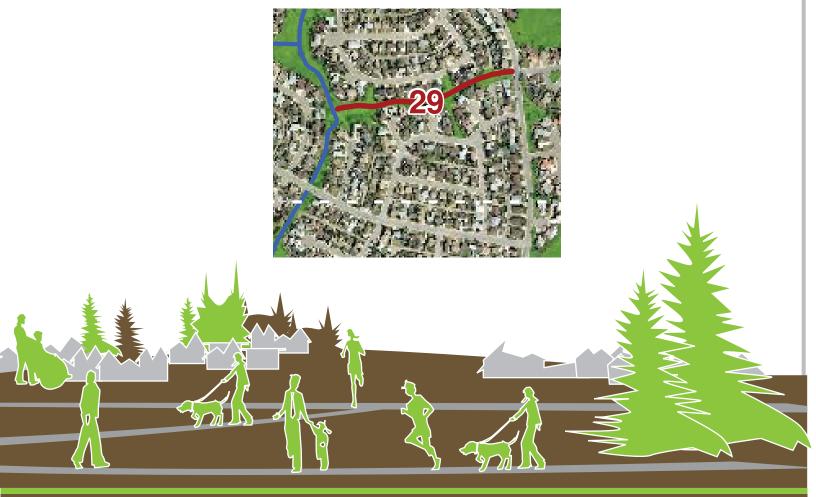
Moderate - High

Cost

• Trail Construction: \$42,240

• Design and Engineering Costs: \$4,220

Total Costs: \$46,460



TRAIL 30 - ROSS HEIGHTS - EAST GLEN SECTION

ID/Location (Map Key I13)

Commencing from Ross Glen Drive, north of Ross Heights Place and east of East Glen Street, running eastward connecting with the East Glen Trail.

Trail Analysis

Trail Function and Overall Network Contribution:

- Connect the Linear Parks System to the Ross Glen and East Glen Trails, tributaries and destinations.
 Safety:
- The trail will be designed with safety in mind, thus reducing risks typical of unmanaged and uncontrolled trails (erosion, grades, etc).

Design:

 Moderate level of design, due to, but not limited to, environmental, geotechnical (slope stability), ecological, and archeological issues.

Trail Environment:

 Through a natural area and manicured park to an established Trail network.

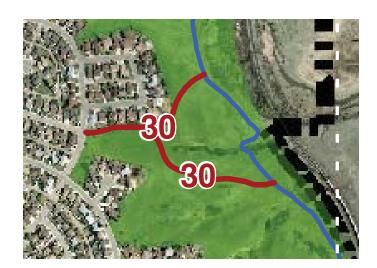
Trail Length: 575m

Trail Classification

Local Connector

<u>Priority</u> Moderate

- Trail Construction: \$69,000
- Permits, Impact Assessments & Reports: \$10,350
- Design and Engineering Costs: \$6,900
- Total Costs: \$86,250





TRAIL 31 - SOUTHLANDS TRAIL EAST EXTENSION

ID/Location (Map Key K10, K11, K12)

Commencing at 13th Avenue SE between South Boundary Road and the South Ridge Estates Trail, running eastward in accordance to development layout and design to run parallel to the Trans-Canada Highway. Ultimately connecting with future trails to Cypress County.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide Trail network in developing area as well as connection to future trails to Cypress County.

Safety:

 Provides designed and maintained separated and protected trail for users.

Design:

- Moderate design, construction and maintenance challenges.
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.
- Current trails to be considered for final trail

alignments.

 Careful design considerations to integrate the development with the outlying trail network and points beyond.

Trail Environment:

Residential Trail network

Trail Length: 2656m

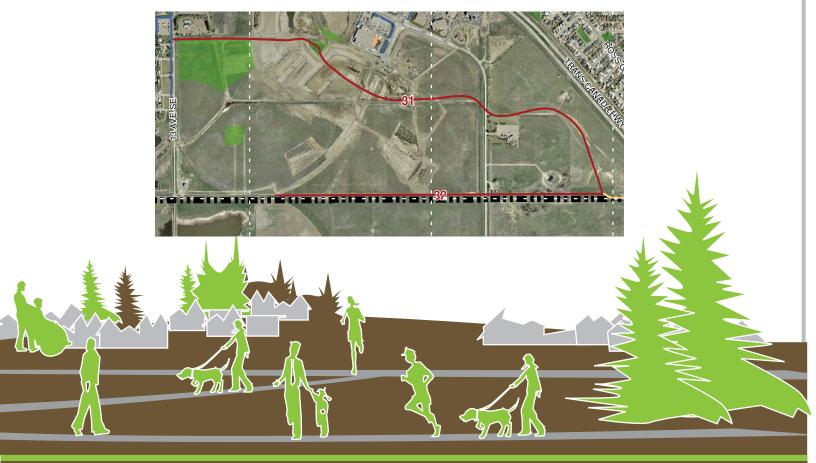
Trail Classification

Regional Trail

Priority

Low - Moderate, pending local development

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$398,400
- Permits, Impact Assessments & Reports: \$59,760
- Design, Engineering, & Project Management Costs: \$39,840
- Total Costs: \$498,000



TRAIL 32 - SOUTH BOUNDARY ROAD EAST EXTENSION

ID/Location (Map Key K10, K11, K12, K13)

Commencing at the intersection of Dunmore Road and South Boundary Road and running due east (as per future development opportunities).

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide Trail network in developing area as well as connection to future proposed trails to Cypress County.

Safety:

 Under the Leisure Trails Future Development Plan, the trail will be separated from the roadway and inherent traffic volumes, potentially reducing number of trail users on South Boundary Road SW.

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Land development will trigger trail development, and the alignment will follow the approved Area Structure Plan.
- Current trails to be considered for final trail alignments.

 Careful design considerations to integrate the development with the outlying trail network and points beyond

Trail Environment:

Within residential area.

Trail Length: 1721m

Trail Classification

Regional Trail

Priority

Low - Moderate, pending local development

- Trail to be built by developer who will be responsible for all associated costs.
- Trail Construction: \$258,150
- Permits, Impact Assessments & Reports: \$38,720
- Design, Engineering, & Project Management Costs: \$25,820
- Total Costs: \$322,690





FUTURE TRAIL CONSIDERATIONS

The following section identifies trail connections that will add benefit to the Leisure Trail System as a whole, but are beyond the 10 year time frame of this document. These future trails provide connections to future development or provide intermunicipal connections.

TRAIL F1 - REDCLIFF - BURNSIDE - ECHO DALE REGIONAL PARK BRIDGE

Location

Three proposed bridge location options connecting the Echo Dale Regional Park to the community of Redcliff and to the future Burnside Estates. Several alternatives were provided for this crossing; however, only one bridge will be constructed.

Trail Analysis

Trail Function and Overall Network Contribution:

 Connect Redcliff to the Echo Dale Regional Park and trail network, thus tying into the entire Medicine Hat Trail Network.

Safety:

 The closest river crossing is a significant distance away, located in the Trans-Canada right-of-way.
 The proposed trail would facilitate a more ideal and safer crossing for local users.

Design:

 Higher level of design, due to, but not limited to, environmental, geotechnical, ecological, archeological, and structural engineering issues. Environmental Permits would also be required for construction.

- Significant environmental and geotechnical design considerations.
- Preliminary engineering will be required for all bridge options prior to a final location selection.

Trail Classification Regional Trail

Location Analysis

Site A Pros:

- Utilizes existing bridge abutments
- Directly connects to Redcliff Regional Park
- Narrower river crossing

Site A Cons:

Very steep embankment on south side of river.
 Access to south end of bridge would be difficult.

Site B Prost

- Directly connects to the Echo Dale Regional Park Trail System
- Connects to existing built trails on north shore.

Site B Cons:

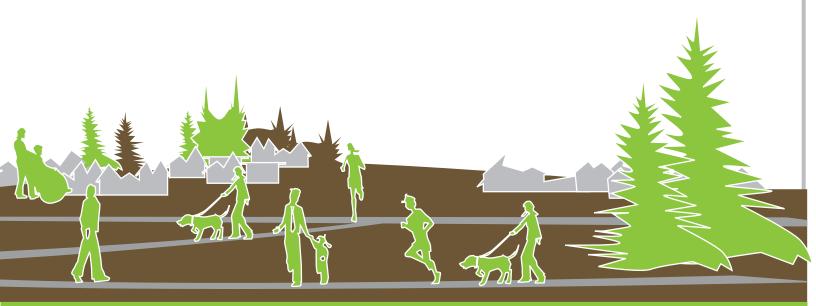
- Bridge would be longer as flood plain in area is larger
- North shore becomes unstable directly north and east of river crossing.

Site C Pros:

- Directly connects to existing Echo Dale Trail System
- Slope on both sides of bank is low and stable
- Access to bridge on both sides of bank is easily achievable

Site C Cons:

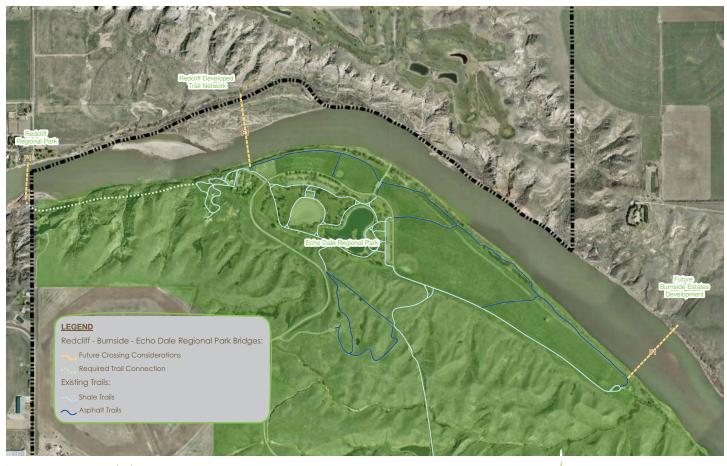
- No direct access to Redcliff on north shore
- Development of northern trails is not immediate



- Development of Burnside Estates has not begun.
- Site is relatively close to proposed bridge crossing at the Trans-Canada Highway.

Probably Costs

- Bridge Construction (Approximately 200m in length): \$10-13.5 million pending engineering recommendations
- Permits, Impact Assessments & Reports: \$1.5-2 million
- Design, Engineering, & Project Management Costs: \$1-1.35 million
- Total: \$12.5-16.85 million





TRAIL F2 - WESTSIDE TRANS-CANADA HIGHWAY ALIGNMENT TO CYPRESS COUNTY

Location

Continuing from the easterly terminus of the South Boundary Road East Extension trail and running north of Bulls Head Creek, crossing the creek and continuing south to Cypress County.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide Trail network in developing area and connection to Cypress County.

Safety:

 Under the Leisure Trails Future Development Plan, the trail will be separated from the roadway and inherent traffic volumes.

Design:

- Moderate level of design, due to, but not limited to, environmental, geotechnical, ecological, and archeological issues.
- Creek crossing will be required to complete connection.



Trail Environment:

 Provides trail between the Trans-Canada Highway and agricultural and developing residential land.
 Trail Length: 326m

Trail Classification Regional Trail

Location Analysis

Proposed Trail Pros:

- Proposed trails in area are regional and provide appropriate capacity to proposed Cypress County connection
- No conflicts with highway rights-of-way
- Future connections within the County follow unpaved service roads and agricultural land with few obstructions.
- Future connections will link directly into residential areas of Dunmore

Proposed Trail Cons:

 Trail will require bridge crossing over Bulls Head Creek as well as CP Rail crossing.

Cost

- Trail Construction: \$48,900
- Creek Crossing: \$80,000
- Permits, Impact Assessments & Reports: \$19,430
- Design and Engineering Costs: \$12,950
- Total Costs: \$161,875



TRAIL F3 - TRANS-CANADA HIGHWAY PEDESTRIAN BRIDGE CROSSING TO CYPRESS COUNTY

Location

Trail begins at southwest end of Taylor Road and runs southeast through the narrow environmental reserve space between the golf course and the highway right-of-way. A pedestrian bridge will cross from the Environmental Reserve area across the Trans-Canada Highway and beyond the west road right-of-way. The trail will then cross the Bulls Head Creek and continue south to Cypress County.

Trail Analysis

Trail Function and Overall Network Contribution:

 Provide Trail network in developing area and connection to Cypress County.

Safety:

 Under the Leisure Trails Future Development Plan, the trail will be separated from the roadway and inherent traffic volumes.



MEDICINE HAT leisure trails future development plan

Design:

- High level of design, due to, but not limited to, engineering, environmental, geotechnical, and ecological issues.
- Major overpass roadway crossing will be required.
- Creek and rail crossings will be required to complete connection to Cypress County.

Trail Environment:

• Provides commuter trail between the Trans-Canada Highway, agricultural, and industrial land.

Trail Length: 250m Bridge Length: 100m

Trail Classification Regional Trail

Location Analysis

Proposed Trail Pros:

- Proposed trail connects to existing roadway with existing trail network already in place.
- Provides connections from the Ross Glen community to the commercial and residential areas west of the Trans-Canada Highway.

Proposed Trail Cons:

- Ultimate trail will require bridge crossing over Bulls Head Creek as well as CP Rail crossing.
- Proposed trail requires a pedestrian bridge to cross the Trans-Canada Highway which will require significant engineering and an extensive approval process with Alberta Transportation.

Cost

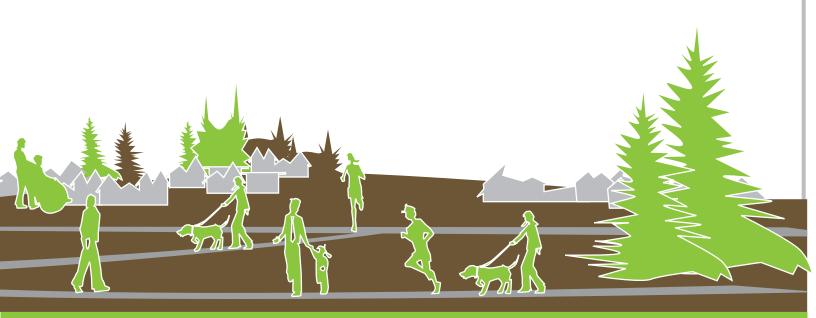
- Trail Construction: \$37,500
- Pedestrian Bridge: \$1.1-1.8 million
- Creek Crossing: \$80,000
- Permits, Impact Assessments & Reports: \$182,625- \$287,625
- Design and Engineering Costs: \$121,750 -\$191,750
- Total Costs: \$1,521,875 \$2,396,875



8.0 CONCLUSION

In recent years, leisure trails have taken on a greater role in meeting the needs of a society that continues to be recreationally active and which places value on the worth of the outdoors. The most recent Provincial Recreation Survey notes for example that "walking" is the recreation activity in which individuals in Medicine Hat show the highest amount of participation. With the significant and enthusiastic input provided by the residents of the community, this Plan was prepared to meet the needs and wishes of both the present and future generation of users of the Leisure Trails Network.

The guiding principles of connectivity, safety, education and trail etiquette, communication, community needs, accessibility, buildability and environmental integrity have set the direction for this Plan. The recommendations for each trail section of the total network flow from these principles. The successful implementation of this Leisure Trail Future Development Plan, based on this sound set of guidelines will ensure that the future users of the trail network, the residents of Medicine Hat and visitors will have an experience that not only meets their needs, but exceeds their expectations.



APPENDIX A - PUBLIC CONSULTATION

A series of public participation events were conducted where a variety of public consultation methods were employed to gain information from the community. Following is an overview of the consultation conducted as well as the complete findings of each.

City Department Interviews

Interviews were conducted with the following City departments to gain their insight into the Leisure Trails Network,: Planning Services, Land and Properties, Community Development, Police Services, Environment, Parks and Outdoor Recreation, and Municipal Works.

On-Site Open Houses: August 29-30, 2009

At Police Point Park, Strathcona Island Park, Devonian Trail, and Kin Coulee Park, information displays provided project background, time lines, objectives, and interesting trail facts. Additionally, the Stantec team visited the areas of McCutcheon Drive, Echo Dale, Saamis Rotary Park, and Ross Glen Water Park to address the more specific concerns at those locations.

During the open houses, children participated in interactive games, and adults commented on the present trail system by filling out surveys or in discussion with the Stantec team. A total of 182 surveys were completed in this two-day consultation event.

Open Houses: Medicine Hat Mall, September 24, 2009

Family Leisure Centre, September 25, 2009

Similar to the on-site open houses, interactive mapping activities were presented, and 83 surveys were filled out during these indoor open houses.

Static Open House: City Hall, September 25 - October 2, 2009

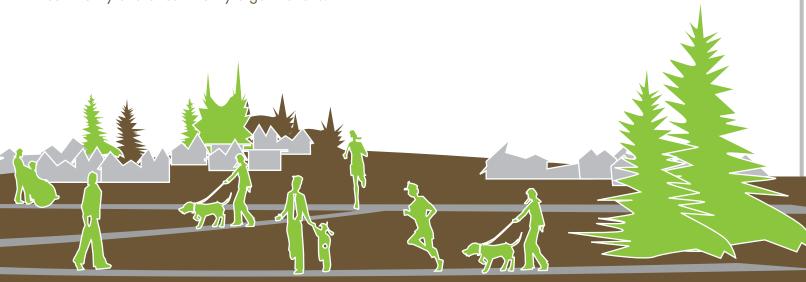
Displays were set up during the week, and open to the public. Additionally, surveys were available to be filled out. During this week and including the online surveys, 212 surveys were completed.

Focus Group Charette #1: October 28, 2009

Members of various community organizations, along with employees of Stantec Consulting and The City of Medicine Hat, discussed guiding principles and strategies to direct the future development of the Leisure Trails Network.

Focus Group Charette #2: November 18, 2009

Future trail connections and opportunities were discussed with the focus group comprised of members of the community and of community organizations.



MEDICINE HAT leisure trails future development plan



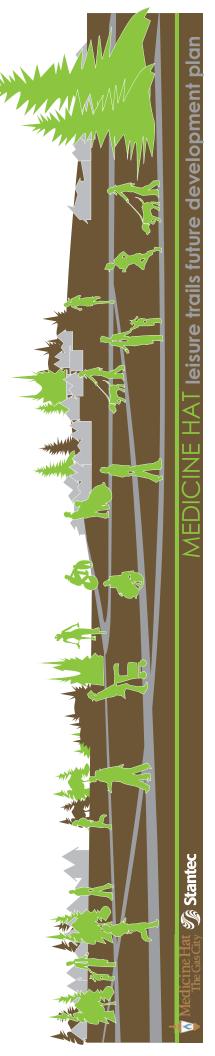
Leisure Trails Development Plan



	ease answe estion.	r the questions for yourself and c	heck the m	ost appropriate answer for each
1.	How ofter	n do you use the Leisure Trail Sys	tem?	
		Daily		1 to 3 times a month
		1 to 3 times a week		Less than once a month
		Once a week		Never
2.	For what i	ourpose do vou use the Leisure T	rails Svster	m? (Check all that are appropriate).
		Walking		Inline Skating
	_	Running or Jogging	П	Skateboarding
		Cycling		Other
3.	What imp	rovements could be made or wha	at gaps are	there in the Leisure Trails System?
4.	Please ch	eck the appropriate age group. 0 – 10 years		40 – 59 years
		11 – 19 years		60+ years
		20 – 39 years		
5.	Do you ha	ave any additional comments reg	arding the	City of Medicine Hat Leisure Trails System?
_				
		consulting may need to follow up e it if you could provide the follow		f your ideas or suggestions. We would
,	Address:			
ı	Email:			

Welcome

Plan will be a long term, comprehensive planning document used to guide decision making for the The Leisure Trails System Future Development continued development of an expansion of the Leisure Trails System.



Project Objectives

- Develop planning and design guiding principles for development of a multi-use trail system
- Undertake a broad, community-based public input process for plan development considerations
- Identify opportunities for connectivity improvements
- Identify future trail connections within the City
- Prepare an implementation plan
- Review existing standards and guidelines with improvement recommendations and signage guidelines
- Incorporate economic feasibility and environmental impacts into the plan



Trail Facts

- Medicine Hat has 99km of trails
- Medicine Hat's urban forest consists of 28,000 trees
- Walking has consistently been the most popular physical activity of Canadians over the last decade. 85% of Canadians walk for leisure and recreational reasons. (Leisure Information Network)
- Cycling is one of the 10 most popular physical activities of Canadians with a participation rate of 44%. Among teenagers – 66%. (Leisure Information Network)
- Medicine Hatters participate in leisure activities for pleasure, to relax, for physical exercise, and to be with friends. (Alberta Recreation Survey, 2008)
- A web of trails ties the community together. If you build trails the people will come, and through their trail use, safety in neighborhoods is increased because of "eyes on the street". Walking or cycling is a healthy, inexpensive activity, available to everyone and environmentally, trail ways create green ways. (Leisure



Project Timeline

Traveling Open Houses

Kin Coulee Park 4pm-8pm Devonian Trail 10am-2pm Sunday, August 30, 2009 Strathcona Island Park 4pm-8pm Police Point Park 10am-2pm Saturday, August 29, 2009

Community Open Houses

Tuesday, September 22, 2009 Medicine Hat Mall, 4pm-7pm Thursday, September 24, 2009 Family Leisure Center, 4pm-7pm

Project Completion End of December, 2009

For more information please contact:

Maureen Mudry Devin Huber
City of Medicine Hat Stantec Consulting
403.529.8334 403.329.3344

Surveys can be completed online by following the link to the Leisure Trails on the City of devin.huber@stantec.com maumud@medicinehat.ca

Medicine Hat's website: http://www.medicinehat.ca/. Surveys will be collected until November 1, 2009





Leisure Trails System Development Plan



DEPARTMENT INTERVIEWS Wednesday August 19. 2009

Department	Attending
Planning Services	Jeannie Gartley, Tory Coombs, Stan Nowakowski
Land and Properties	John Bulmer
Community Development	Leslie Jerry
Police Services	Andy McGrogan, Police Chief
Environment Department	Russell Smith
Parks & Outdoor Recreation	Maureen Mudry, Dave Young
Municipal Works	Bruce Thurber

1. What factors are important to consider in developing the Leisure Trails Plan?

Planning Services

- Ease of maintenance
- Accessibility, ease of use
- Usage of the trail bicycle, pedestrian how will this be dealt with?
- ASP's How are these dealt with in new communities land uses
- Safety
- Environmentally sensitive areas
- Year round maintenance

Land and Properties

- Adding value to neighbourhoods and the City overall
- Connectivity
- Buildable system that is cost effective
- There should be a good reason to build
- Partnering, so value is added
- Purpose
- Identifying maintenance strategy (i.e. High standards not needed in natural areas)

Community Development

- People with disabilities
- · Connectedness (many trails are terminal)
- Garbage cans
- Benches
- Smooth paved paths, also grade a problem
- Maps needed (handouts and trail)
- Paths are switched from side to side
- Enforcing bells on bicycles
- Curb paths link to sidewalks
- Signage and lighting
- Types of signage need good contrast, tactile, raised letters, wayfinding, ramps, CNIB DVD can order "Clearing our Path and barrier free design guide from Municipal Affairs
- Perhaps a rope

Police Services

- Crime Prevention Perspective
- CPTED consultation with principles
- Officers trained in CPTD
- Bike unit is used
- Restricting access to larger vehicles will continue
- Build trails to encourage use but away from roads but complementing the access to work system
- Few problems on the trails Strathcona has the most issues but is the most used trail
- Concern of transient use in Riverstone Park
- Encourage bikes to use the trails more often trails to complement the road system with more direct routes

Environment Department

- Diversity of use: Cyclists, walkers, pet walkers, runners (Same use for alternative transportation)
- High standards and per capita miles of trails very high
- Trails underappreciated
- Should we keep or increase standards?

Parks and Outdoor Recreation

- Connectivity
- Capturing amenities
- Destination points (i.e. shopping, recreation)
- Consider different users
- Cost effectiveness of maintaining
- Building it right
- Interaction with tree roots
- Making sure plan is comprehensive
- Safety
- Is 3m trail width appropriate?
- Environmentally sensitive areas
- Consider everything

Municipal Works

- Can't disconnect on/off street tails not just through parks and municipal works
- Definitions too restrictive
- Departments focused issues vs. land vs. user focused
- Clear understanding of ownership of maintenance
- Clear understanding of infrastructure management
- Operations and budgets who looks after management of infrastructure and dealing with assets
- Connectivity connect Municipal Works paths with Parks paths (3 metre path along arterial roadways)

2. What are the positive features / elements of the City's existing Leisure Trails System?

Planning Services

- Saamis Heights Lots of internal trails, Proximity to trails; Coulees; Close to homes, Width of trails, good amount of space on either side; Trail to Echodale is a destination trail with a good layout
- Scenic and River Trails Width is good for pedestrians; Shale areas
- Ross Glen finger parks with trails
- No congestion
- Separated trail path
- Shale portions, naturalized and comfortable

Land and Properties

- Trails are all good and well distributed
- · Generally trails are connected to most places
- A map for the trails should be made available
- Lead to natural areas
- Good amenity for the City well used
- Provides freedom away from sidewalks

Community Development

- Many miles of trail
- Well designed
- Great escape in Valley away from urban area
- Nice one near Connaught

Police Services

- Good accessibility to neighbourhoods
- Enjoy them in parks
- Well distributed throughout the parks, great network
- Really great trails

Environment Department

- Size of network is very positive
- · High quality standard
- Breadth and diversity
- Trail maintenance is good

Parks and Outdoor Recreation

- · Captures uniqueness of MH
- Everyone can enjoy
- Trail use is #1 recreation activity
- Asphalt (important for wheelchairs, strollers)
- Best money spent as part of urban parks system
- Quality of life indicators
- People utilize the current system and want to keep it consistent
- Asphalt trails provide opportunities for everyone

Municipal Works

- · Good surface trails
- Some gaps but generally good connectivity

3. What are the shortcomings of the City's existing Leisure Trails System?

Planning Services

- Lack of River, Trans Canada crossings major barriers
- Lack of signage (i.e. destination, info, distance)
- Not enough waste containers, especially for dog waste
- Need better connections to neighbourhoods, transit system (i.e. Calgary walkway connections to transit systems and future planning)
- Need better connections from one set of trails to next through signage
- Dunmore & 13th show on signage where the next trail connection is
- Connaught and College area could use some trails

- College looking into connection with stairs at Kin Coulee
- Connect Connaught golf course and linear parks with the College and cultural center and across the highway as a possible connection
- Need street enhancements and lighting concern raised about Saamis arch site
- Is tunnel lighting feasible, if so where?
- Connectivity is needed for major crossings connect Police Point and Strathcona need pedestrian scale bridge – separate for cyclists, walkers, pedestrians
- On street connections are not good in pedestrian areas. Good trails lead to poor areas, i.e. 1 St towards the west – no sidewalks or trails – very scenic and then a gap that is not pedestrian friendly.
- Connecting community to trails through subdivisions
- Finding where pedestrian connections are currently and create pedestrian atmosphere with desired lines either on streets or through trails.

Land and Properties

- Trails not well connected (i.e. big gaps like from the library to the water plant)
- Trails not good for commuting as they don't go through the core
- Trails all asphalt (not sustainable)
- Could be more amenities in some areas benches/garbages
- Conflicts are severe educate and increase awareness (ipod dangers)

Community Development

- Connectedness
- Need curb cuts to get to trail especially with wheelchair
- Lack of garbage cans and benches
- New subdivision don't have sidewalks

Police Services

- Trails have no connections they just end
- Would like to see quality connections in new areas

Environment Department

- Too much pavement, would prefer shale
- Potential to use Ranchlands as interpretive area (at risk plants possibly walking interpretive area)
- Need for interpretive signage
- Natural/wildlife trails are unmaintained. May not need maintenance as few people use them and it may affect habitat

Parks and Outdoor Recreation

- Not every area connected
- Aging trail infrastructure built in 1984-1986
- Trails developed more as spring / summer project; now more interest for winter use
- Safety issues crossing under bridges; many blind corners
- Gaps in system

Municipal Works

- Tailor trails to demographics 20-25 bump and 50+ bump, i.e. more benches
- Inner connectivity missing tying trails into a community
- How the trail system layers into subdivisions
- Comprehensive set of design standards (min/max, grades, widths, varying standards)
- Lines on trails high use 2/4/3m, 4/4/6m
- Some conflicts in high use trails
- Wider in Strathcona
- Operations (maintenance/snow removal)

4. What are the improvements or changes you would make to the existing Leisure Trails System?

Planning Services

OK

Land and Properties

- Signage 'where you are' if you are ill / fall sick, name amenities, directional, interpretive signs
- How to contact police / emergency 911
- Improve information signs
- Create circuits within communities and neighboring communities
- Improve amenities (i.e. benches, garbage cans)
- Where not connected, signage would help
- Cautionary signs (i.e. for corners)
- Lighting around trails (i.e. in certain areas, especially where really dark)
- Emergency call boxes

Community Development

- People with disabilities
- · Connectedness (many trails are terminal)
- Garbage cans
- Benches
- Smooth paved paths, also grade a problem
- Maps needed (handouts and trail)
- Paths are switched from side to side
- · Enforcing bells on bicycles
- Curb paths link to sidewalks
- Signage and lighting
- Types of signage need good contrast, tactile, raised letters, CNIB DVD can order "clearing our path" and barrier free design guide from Municipal Affairs
- Perhaps a rope
- Link trails to services
- 10% of the population has disabilities that will increase with age
- Seniors/disabled can't travel 100m without stopping

Police Services

- Widen to allow more accessibility (i.e. passing) allow 2 way traffic flow
- Strathcona most congested
- Police Point dispatch concerns Police have no small terrain vehicles to get to some areas
- Echo Dale trail is isolated.

Environment Department

- No significant improvements
- Diversity of surfaces
- More interpretive signage around be careful, see if there is a desire or need by the community
- Family group trips where connections are needed

Parks and Outdoor Recreation

- Distance markers for walkers
- Signs for emergencies how to describe where you are
- Root damage repair
- Review benches, garbage cans
- Sit down with parks department and show gaps and links

Municipal Works

- Signage
- Standards
- Lines on trails
- 5. In your personal experience as a user / observer of the City's leisure trails, what issues appear to require the most attention: a) from a short term (1 5 year) perspective and b) from a longer term (5 10 year) perspective?

Planning Services

- Short Term Accommodate bicycles (i.e. corners 'layout' for fast bikers); Pay attention to gaps (i.e. South area needs connectivity)
- Long Term Trails to connect to developing neighbourhoods

Land and Properties

- Short Term Signage; Directional
- Long Term Connectivity
- Short/Long Term Etiquette on trails (i.e. Bells, 'Not a whole bunch of users of trails'), awareness of multi-use trails

Community Development

- Short Term Connections, Benches, Access points, maps and signage
- Mid Term lighting
- Long Term Seeing trails a transportation system, must link with other parts of the City
- Grid design more practical/accessible
- About 10% of population considered disabled
- New areas are more difficult less sidewalks, no direct routes, limited access

Police Services

- Short Term Need resurfacing
- Long Term Need for connections or common flow especially in new areas
- Could be a problem if 911 Emergency especially in Police Point
- No ATV's to get to some sites, will budget
- Low number of problems on trails

Environment Department

- Short Term Minor ongoing maintenance issues
- Long Term Integration with alternate transportation; some overlap, need to weave these together

Parks and Outdoor Recreation

- Short Term Overlay program and more winter maintenance; Reduce shale trails; Tree root / trail interaction; Fix gaps in system (connectivity)
- Long Term Overlay also a long term program; Connectivity with other municipalities; Get agreement with other municipalities; Keep trails documentation up to date

Municipal Works

- Ownership
- Maintenance
- Asset Management
- Grant funding for trails through Municipal Works

6. From your personal observations, how extensively is the existing trail system being used? Who have you observed to be the principal types of users?

Planning Services

- · River valley users
- Walkers; Dog walkers; SPCA Volunteer dog walkers; Children using pathways to get to playgrounds
- SPCA in industrial area needs to have connections to get to King Coulee

Land and Properties

- Trails are not overwhelmed
- Heavy usage in early summer and early/late fall (start/end of the warm season)
- Irregular users
- Leisure primary users; walkers; leisure bikers; more recreation vs exercise; not many commuters because not very direct routes and roundabout way of getting there – create short cuts

Community Development

- Used extensively; wheelchair person main source of movement or transportation
- Blind person using trails
- Often low income people
- Affordable housing also an issue
- Public unaware of disabilities
- Developmental disabilities are walkers and use the bus or walk have no vehicles

Police Services

- Used extensively (i.e. Ross Glen, Police Point, Strathcona)
- Highly valued by community
- People on bikes, walking dogs, pushing prams, walkers, cyclists, joggers

Environment Department

- People with pets
- Bikers
- Runners
- Trails underutilized

Parks and Outdoor Recreation

- Very extensively and by many types of users
- Only area of conflict use/capacity issue is Kim Coulee
- Potential for greater use especially for destination use/points of interest

Municipal Works

- Very extensively used by a large variety of users cyclists, walkers, families, individuals, runners
- High speed cyclists exclusively use roads
- Cycling Master Plan increase road speed
- Junior/Intermediate users have a lane

7. Do you have any suggestions for members of the focus group? (There will be no stakeholder group with this plan, instead a group of invited individuals will comprise a focus group to help plan and develop the Trail System Master Plan)

Planning Services

- SPCA (Important for dog walkers)
- YMCA (Downtown group has Day Camps)
- College (Sports teams, Day Care)
- UDI (Dwight Brown)
- Bicycle Group
- Mad Hatters Running Club
- Schools (Middle and Senior High Schools)
- Police Paint Park Interpretive Centre
- MedAlta (Barry Finkleman, Executive Director and Malcolm Sissons) National historic district floodway material

Land and Properties

- YMCA users
- UDI group
- Home Builder Association
- City Departments
- Emergency Service people (i.e. Ambulance)
- Fish and Wildlife (rumours of animals)
- Medicine Hat Walking Club
- Check Volunteer Directory
- Economic Development (Keith Crusbert)
- Historical sites
- Grasslands Nationalists
- CPRail
- Highway projects

Community Development

- Megan Fisher, member of Advisory Committee on Disability Issues
- Frank Gillam, uses trails
- Sue and son Trail users in wheelchairs
- Norma Smith, blind playground
- Pam Wagner, involved with disabled, Redi Enterprises Association Director (526-5742)

Police Services

- CPTED officers
- Police Point Interpretive Centre
- Focus groups attract zealots

Environment Department

- President of Mad Hatters running group
- Leisure cyclists
- Active Transportation cyclists (John McLaren)
- Family users

Parks and Outdoor Recreation

- Volksport Club (walking group)
- Mad Hatters
- YMCA Running Club
- John McLaren
- Skateboard Club (John Crisp)
- Many special events (5 & 10 km walks and fundraisers)
- May want to talk to some of members via some questions and then select which ones would be eligible to be on focus group
- How to get groups together (i.e. admin group and Council members)
- Neighboring communities
- 8. What considerations should be made for specialized users or special interest groups that use or will use the leisure trail system?

Community Development

- Accessibility for all if good for disabled, then good for all (i.e. people with strollers)
- Little 'loop trails' would be good (i.e. for people in wheelchairs)
- Saamis is good
- SPCA is good
- Maintenance issues lower accessibility
- Natural access points to create circuits within communities
- Ropes on steeper sections for visual impairments and during times of ice hazards
- Maintenance issues are the biggest concern: gravel, tree roots, broken pavement, snow clearing
- Improved signage conducive to disabilities
- 9. Are there specific geographic areas of the City to which the Leisure Trail Study should pay special attention?

Planning Services

- Industrial; River crossing;
- Concession Stands
- Washrooms where lengthy paths occur

Land and Properties

- At their subdivision activity look at connectivity (i.e. Ranchlands being reviewed from 1992; Burnside still being reviewed)
- 'How to make connection to Redcliff', ER opportunities
- Saamis Heights
- Lot of plans to be reviewed
- Connections important Cimarron (a private developer just approved ASP 4 or 5 new subdivisions)
- Around airport
- Building trails around rather than through subdivisions
- Use of off-site levy
- Southland to Dunmore connection
- Highway crossings

Environment Department

• Tiny C in Ranchlands

Parks and Outdoor Recreation

- Refer to Biophysical reports for submissions alerts use those as guidelines for slope, erosion, flood problems
- Archeological areas (Saratoga burial grounds near 7 Persons Creek)
- ER areas some are difficult to build through
- Habitats interpretive programs

10. Are there CPTED related issues that need to be considered in the development of the Plan?

Police Services

- CPTED Issues
- Can just have conversation with CTPED
- Debate on off-leash areas

11. What types of opportunities might be considered for incorporating sustainable concepts and practices in the development of the Leisure Trails System?

Planning Services

Shale vs pavement

Environment Department

- Surface being used ensure that multiple users are still accommodated
- Want trails to be used by as many users as possible
- Shale trails vs cement
- Knowing where the trails are going be careful of sensitive areas
- Lighting might get involved with pilot projects and access funding

Parks and Outdoor Recreation

Recycled plastic for benches, recycled asphalt, solar lighting for crossings and intersections

12. Are there areas of future development where key linkages and connections may be important?

Parks and Outdoor Recreation

- Mostly maintenance (i.e. irrigation)
- Trail upgrades are the focus right now
- · Connections to new subdivisions
- Ross Creek Golf Course to south side of highway (South Vista and Southlands)
- 3 4 km to Dunmore crossing private land
- Also connect Burnside, Ranchlands to parks trail system

13. Are there any departmental projects, plans, or subdivisions that may impact the future leisure trails system?

Planning Services

- Events Centre (Box Springs)
- Cimarran ASP
- Ranchlands ASP
- MDP (possibly)
- IMDP connections (Cypress)
- Flats ARP
- Trans Canada pedestrian enhancement across river

Environment Department

- Tiny C
- Ranchlands
- Funding Sources (i.e. FCM, Canadian Wildlife Services)

Parks and Outdoor Recreation

- Three years approved for overlay program. Waiting for some additional funding to expedite construction
- Trying to do trail assessment every three years to develop a long term plan of overlays
- One area using 'slurry seal' for winter maintenance, not sure if adequate

Municipal Works

- There are 5 draft functional plan drawings for NW planning sector
- 23 Street on FTP this week
- Broadway Ave. under review
- West Boundary Road update RSMP
- Box Springs Road on/off street bike lanes/alternative transportation
- Brier Park Road August 2010
- Parkview Drive extension 2011 or 2012
- Parkview Drive storm upgrade 10 years
- Southridge Drive upgrade detail design underway from overpass to Vista Drive
- Bike corridors Kipling to Sierra approvals for this year early in 2010
- South Boundary Road depends on Cimmaron west slightly beyond subdivision development 4K underway

15. What are some of the trail maintenance concerns?

Parks and Outdoor Recreation

- Roots / tree interface
- Age of trail system
- Oxidizing of trails
- Wooden bridges need upgrading; these weren't originally intended for other than pedestrians

16. Are there specific areas of concern within the current trail network?

Parks and Outdoor Recreation

• Need to reprint map because limited copies available and out of date

17. What information do you have in terms of inventory of City owned land? How familiar you with private owned property?

Environment Department

- Price signal on water raise awareness
- The river valley has to be considered. The community takes it for granted and abuses it.
- Encroachment is under valued lack of dedication of resources
- River valley education or ecosystem and value of ecosystem responsibilities of home owners
- Adjacent to river, re: riparian areas

APPENDIX B - DETAIL DESIGN DRAWINGS

The following details are samples of construction and installation guidelines that may be implemented into the Leisure Trail System. The figures are as follows:

Figure 1 - Asphalt Trail Detail

Figure 2 - Natural Trail Detail

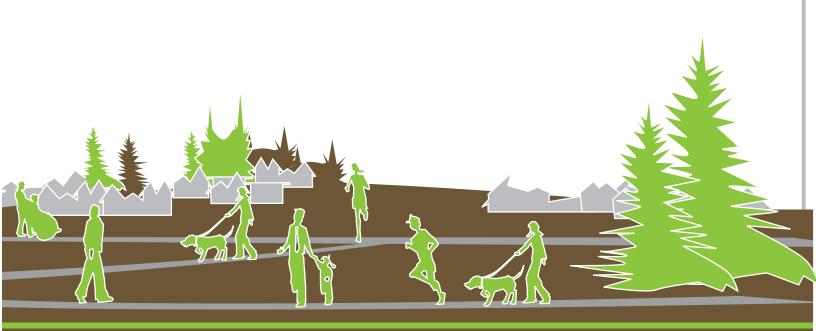
Figure 3 - Boardwalk Detail

Figure 4 - Timber & Stone Fines Stair Detail

Figure 5 - Steel Bridge Detail

Figure 6 - Sign Installation Detail

Figure 7 - Retaining Wall Detail



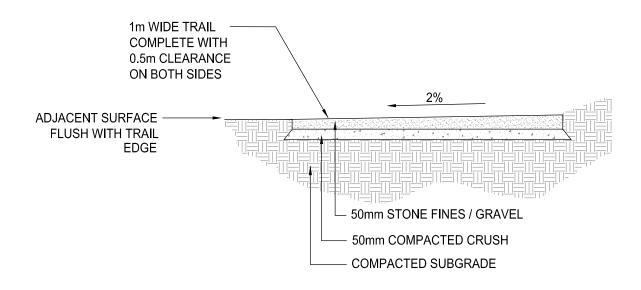
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Client/Project
CITY OF MEDICINE HAT
LEISURE TRAIL SYSTEM

Figure No.
1
Title
ASHPALT TRAIL
DETAIL



FEBRUARY 2010





Client/Project
CITY OF MEDICINE HAT
LEISURE TRAIL SYSTEM

Figure No.
2
Title
STONE FINES
TRAIL DETAIL

FEBRUARY 2010





Client/Project
CITY OF MEDICINE HAT
LEISURE TRAIL SYSTEM

Figure	No.
	3
Title	

BOARDWALK DETAIL

FEBRUARY 2010





Client/Project
CITY OF MEDICINE HAT
LEISURE TRAIL SYSTEM

Figure	No.	
	4	
Title		

TIMBER & STONE FINES STAIR DETAIL



Medicine Hat
The Gas City
Starter



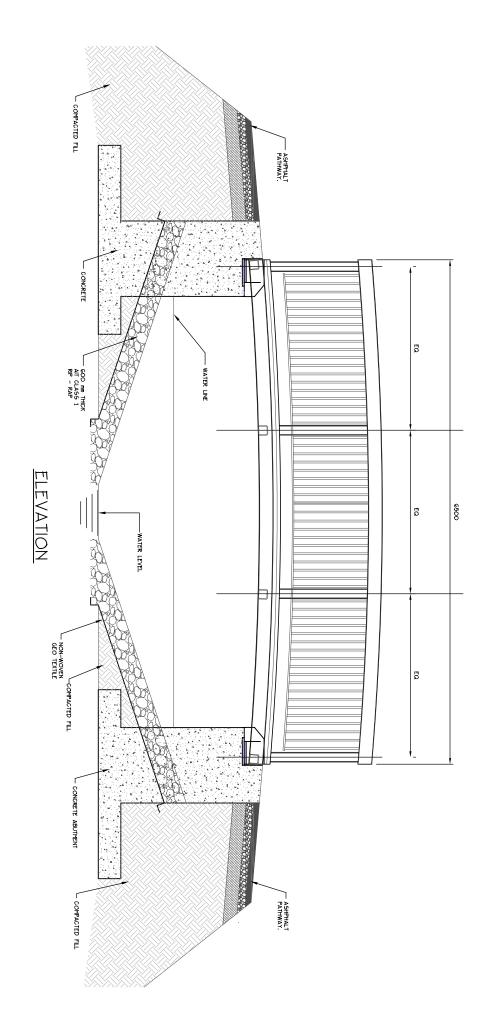


Figure No. 5a LEISURE TRAIL SYSTEM

Client/Project

FEBRUARY 2010

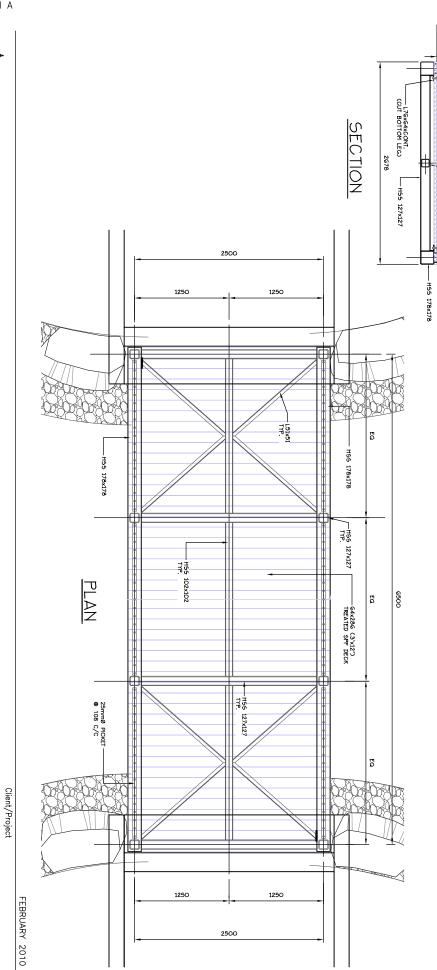
CITY OF MEDICINE HAT

STEEL BRIDGE DETAIL









1400

— 64x286 (3'x12')
TREATED SPF DECK

- H55 102x102

- PL.20x50

1250

1250

BRIDGE

H55 178x178

2500

Figure No. 5b STEEL BRIDGE DETAIL

LEISURE TRAIL SYSTEM CITY OF MEDICINE HAT





Client/Project

CITY OF MEDICINE HAT LEISURE TRAIL SYSTEM

Figure No.

Title

SIGN INSTALLATION DETAIL





CITY OF MEDICINE HAT LEISURE TRAIL SYSTEM

Figure No.
7
Title
RETAINING WALL DETAIL

Client/Project

APPENDIX C - COSTING DETAILS

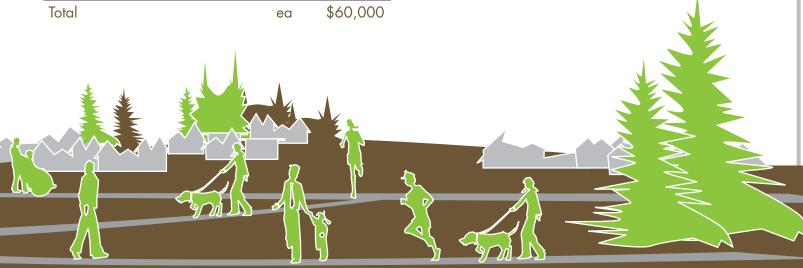
In addition to the costing outlined in Section 7.1.7, the following provides detailed costing for trail development. All costs are based upon 2009 construction rates.

New Asphalt Trail Development		
Item	Unit	Cost
Turf & Topsoil Stripping	sm	\$8
Subgrade Preparation	sm	\$5
100mm Granular Base	sm	\$12
75mm Asphalt Installation	sm	\$25
Total	sm	\$50
Existing Asphalt Trail Repair		
Item	Unit	Cost
Asphalt Removal	sm	\$52
75mm Asphalt Installation		407
	sm	\$27
Total	sm sm	\$79

Boardwalk (3m width)		
Item	Unit	Cost
Boardwalk Materials	lm	\$1,300
Boardwalk Abutments & Piles	lm	\$1,000
Boardwalk Installation	lm	\$2,200
Total	lm	\$4.500

Amenity Installation		
Item	Unit	Cost
Steel Bridge (6m long, 2m wide)	ea	\$30,000
Bridge Abutments	ea	\$18,000
Bridge Installation	ea	\$12,000
Total	00	\$40,000

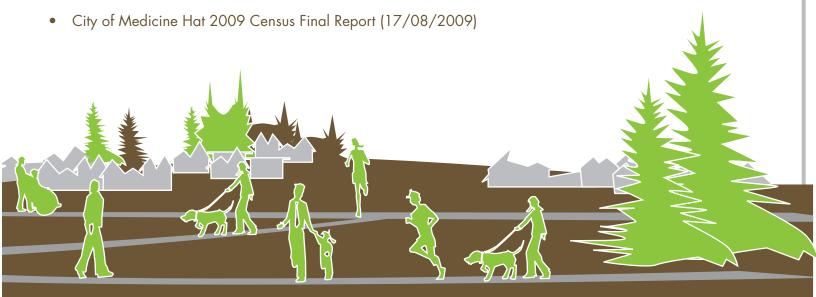
Item	Unit	Cost
Bench	ea	\$1,500
Bench Installation	ea	\$1,000
Total	ea	\$2,500
Trash	ea	\$1,200
Trash Installation	ea	\$800
Total	ea	\$2,000
Steel T-Bollard	ea	\$900
Steel T-Bollard Installation	ea	\$400
Total	ea	\$1,300
Retaining Wall Materials (1 m ht)	lm	\$200
Retaining Wall Installation	lm	\$600
Total	lm	\$800



APPENDIX D - RESOURCES

In order to create the Leisure Trails Future Development Plan, a significant amount of background research, including previous documents, plan, studies and reports - has been reviewed and is referred to in this document. A complete listing of those documents follows:

- Area Structure Plans The Ranchlands, Burnside, South Vista, Hamptons, Southlands, Cimarron, and Box Springs Industrial Park
- City of Medicine Hat Municipal Servicing Standards, Landscape Requirements
- Trail Construction Specifications
- Municipal Development Plan
- Natural Areas and Species Inventory, the City of Medicine Hat
- Draft Parks System Management Plan
- Maintenance Standards, Parks
- City of Medicine Hat Land Use By-law (1998)
- Future Trail Development Report (1990)
- City of Medicine Hat Community Services Division, Open Space Guidelines (05/1991)
- Open Space Guidelines (1991)
- Open Space Plan (2000)
- Municipal Development Plan (2004)
- Natural Areas and Species Inventory of Medicine Hat Properties with Analysis and ESA Report (2006)
- Leisure Trails and Alternative Transportation Needs Assessment and Public Consultation Report (2009)



APPENDIX E - FUNDING STRATEGIES AND PROGRAMS

The Leisure Trails Future Development Plan is an overarching plan of recommendations for the achievement of sustainable growth for the city of Medicine Hat. As a result of the breadth of this proposed continuing endeavour, it is realistic to assume that financial support will be required from various sources.

As the governing body with the responsibility of the distribution of public money, municipalities are challenged with the necessity of investing in infrastructure and services related to growth, while ascertaining which projects are of sound business management and will contribute to the prosperity of the City. Prior to financial distribution, it is the responsibility of the City Administration and Council to determine that all projects and their funding requirements are properly assessed. Being a public governing body, absolute transparency on the spending of grants and similar funding received by a City department is essential.

It is understood by the municipalities that the taxpayer is under financial stress to solely fund these large growth-related infrastructure projects, such as the Leisure Trails Future Development Plan. Therefore, municipalities are currently exploring various alternate means of financial support. A significant source of this funding could materialize from the revenues gained as a result of the natural gas and petroleum operations in Medicine Hat, such as from the City's Community Capital Projects Reserve. As well, there remains the possibility of gaining financial support through development of partnerships with community organizations, the leveraging of public monies with the private sector, and the implementation of user fees and levies - to name a few potential arrangements.

In order to obtain alternative financial support, it is recommended that a marketing consultant with experience in strategic funding plan development is hired to create an action plan for obtaining a varied source of appropriate funding. This marketing strategy action plan would also aid in the branding of the Leisure Trails Future Development Plan, which opens the door for public awareness and alternate funding for the Plan. Finally, the application submissions for various financial opportunities can be complicated, and their expertise would be an efficient means of achieving the goals of the Plan.

The following is a preliminary list of funding alternatives utilized by some municipalities that can be considered and further explored for the funding of the Leisure Trails Future Development Plan:

Corporate Sponsorships – invites corporations to invest in the development or enhancement of new or existing facilities within the trail system. Sponsorships are also often used for programs and events, such as

Grants – are available through both Provincial and Federal government and various Foundations. Eligibility



leisure trails future development plan

<u>Partnerships</u> – are joint funding sources between two or more separate entities and could include two levels of government, the City and a not-for-profit agency (i.e., service clubs), or the City and private business, or a combination of all. Partners jointly develop facilities and may share risks, operational costs, responsibilities, and asset management based on the strengths and weaknesses of each partner.

<u>Foundation / Gifts</u> – establishing a charitable foundation that can benefit from private donations, endowments and bequests directed to specific causes and activities. Fundraisers on various scales are also an option that can be directed to smaller price-tag amenities. These programs can be marketed as "packaged donations" in pre-set denominations (i.e., a \$100 donation will buy "X"; a \$500 donation will buy "Y"), together with a recognition program.

Naming Rights – establishing, if not currently in place, a policy to "sell" the naming rights for new and existing trails, and associated amenities (such as benches).

<u>Advertising Sales</u> - carefully managed and sensitive trail signage and/or advertising space in program guides, venues, as well as other visible forms of promotion that expose the advertiser to a large audience.

Volunteerism – individuals and communities donate time to assist in the maintenance of a section of trail.

<u>Special Fundraisers</u> – annual large-scale fundraisers that target specific programs and capital projects.

<u>Resource Funding Programs</u> – partnerships with corporations or citizens directed to planting a tree for new births, deaths, etc. (BP Birthplace Forest; McInnis & Holloway's Memorial Forests). This can be extended to purchasing trail benches and other amenities.

<u>Friends Associations</u> – are groups formed to raise money for a single focus purpose that could include a trail facility for overall community benefit.

Provincial Government Grants

<u>Alberta Infrastructure & Transportation</u> – [www.infratrans.gov.ab.ca/]

<u>Alberta Municipal Infrastructure Program</u> – may fund capital projects including trails, amenities, and other municipal physical infrastructure.

<u>New Deal for Cities & Communities</u> – financial assistance for Sustainable Capital Municipal Infrastructure in support of the desired outcomes of cleaner air, cleaner water, and the reduction of green house gases.

Alberta Municipal Affairs



<u>Regional Partnership Initiative</u> – assists municipalities in exploring and developing sustainable partnerships that benefit their operations and residents, business and industry with coordination that promotes innovation, sustainability and cost savings. [www.gov.ab.ca/ma/ms/RegParShip]

Alberta Gaming

Alberta Lottery Fund

<u>Community Facility Enhancement Program (CFEP)</u> – provides support to the expansion and upgrading of community-use facilities. [www.albertalotteryfund.ca]

<u>Community Initiatives Program (CIP)</u> – supports project-based initiatives including community services, seniors' services, libraries, arts and culture, sports, education, health and recreation. [www.albertalotteryfund.ca]

<u>Alberta Sport, Recreation Parks & Wildlife Foundation (ASRPWF)</u> – supports sport, recreation, parks and wildlife activities. [www.cd.gov.ab.ca/asrpwf/]

<u>Wild Rose Foundation (WRF)</u> – supports the volunteer sector by providing skill development and training, etc., to build capacity and achieve self-reliance. [www.cd.gov.ab.ca/wrf]

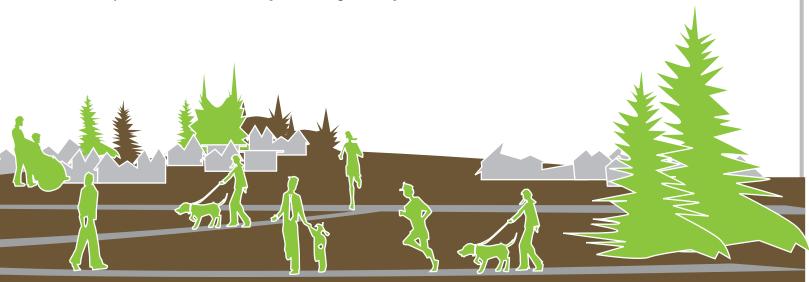
Federal Government Grants

Environment Canada

<u>EcoAction Community Funding Program</u> – supports community groups for projects that have measurable, positive impacts on the environment and encourages projects that protect, rehabilitate or enhance the natural environment and builds the capacity of communities to sustain these activities into the future. [www.ec.g.ca/fund_e.html]

Foundations

<u>Evergreen Common Grounds Program</u> – provides a variety of grants to community groups doing environmental stewardship work across Canada. [www.evergreen.ca]



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The Home Depot Foundation [www.homedepotfoundation.org/communityaffairs/content/en_ CA/CAApply.html]

Alberta Ecotrust Foundation

<u>Major Projects & Community Projects</u> – supports community based and/or comprehensive projects resulting in sustainable environmental benefit. [www.albertaecotrust.com]

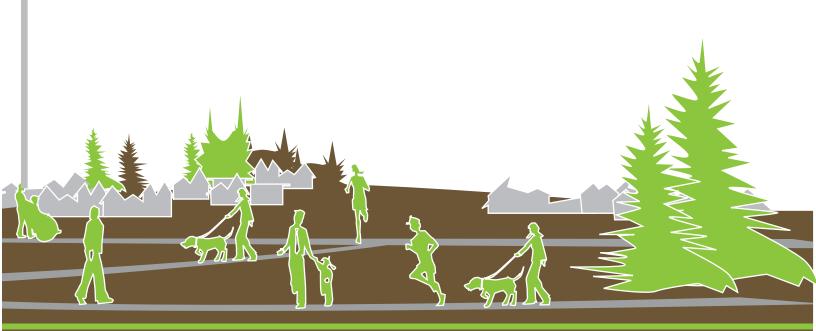
Other Grants

Federation of Canadian Municipalities

<u>Green Municipal Fund</u> – supports the implementation of innovative environmental projects with low interest loans and grants. [www.fcm.ca]

Resources

A Guide to Alberta Programs, Grants and Organizations Relevant to Natural Diversity, Wetlands, Watershed, Wildlife & Habitat [www.landstewardship.org/aguidetoalbertaprogramsgrantsandorg.doc]



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