

Part III

4.0 The Existing Trail System

What we are starting with

4.1 Trail Users

The Challenges and Recommendations

4.1.1 Existing Users

The trails in Richmond to-date have been developed to be multi-use. The flatness of Richmond's trail system has made it accessible to a broad spectrum of users. The ease of use and the many interesting areas along the waterfront appeal to a variety of users including:

- pedestrians (recreational and commuters)
- cyclists (recreational and commuters)
- joggers
- rollers (e.g. wheelchairs and scooters)
- dog walkers
- equestrians
- birdwatchers
- naturalists
- heritage buffs
- fishers
- photographers
- picnickers
- informal boat launchers

Presently, the City does not allow for the use of motorized bikes, mopeds, or All Terrain Vehicles in any of the City's parks or trails. The concern for conflict of use, the damage that motorized vehicles can cause especially in environmentally sensitive areas and the issue of liability has lead most municipalities to ban motorized vehicles from public parks. This service should be looked at regionally or provided by the private sector.

To date, Richmond has not created separate trails for distinct users. For instance, there are no equestrian only trails or separate bike and pedestrian trails along the waterfront. This is in part due to the level of demand, cost and limited space especially on the dyke routes. Generally, until the volume of use requires separate trails, all trails will remain multi-use.



Cycling on Shell Road right-of-way trail



Relaxing on the waterfront



Naturalists on the West Dyke Trail



In-line skater



Blueways - McDonald Beach boat launch / dock



Blueways - Kayaking at Britannia Heritage Shipyard

4.1.2 User Trends

In the recent years, another popular sport has appeared: in-line skating. These skaters are typically seen on the roadway, in parks and on basically any asphalt surface. The City's longest continuous off-road trail is on the Middle Arm and West Dyke, however, the surface of these dyke trails is a crushed asphalt blend that is not usable by in-line skaters.

The decision about the dyke surfaces especially on the West Dyke trail was made after a User Survey in 1991 in which the overwhelming majority of people wanted to maintain the soft trail surface. The reasons were:

- to keep the speed of cyclists down to avoid conflicts
- to maintain the natural character of the West Dyke with its kilometres of natural foreshore habitat, relaxing and spectacular scenery

Another trend to consider is the concept of 'blueways'. Given Richmond's asset of being an island there may be opportunities to use the waterways for leisure and transportation. The GVRD is already promoting a pilot project using aqua buses to connect people on the trail system in Richmond to Delta as part of their Regional Greenways Plan.

In 1979, when the original Trails Plan was developed kayaking and canoeing were considered, however, it was believed that the currents and river traffic made it unsafe and it was not pursued. The calmer waters in Middle Arm of the Fraser River are presently being used by the Richmond Yacht Club and Navy League. A proposal from the UBC Rowing Club is in the works to create a race course in the Middle Arm and to provide a variety of water based programs for the community.

4.1.3 The Challenges

As in any popular trail system, there are numerous challenges to meeting the needs of different users. Some of the challenges are:

Accessibility: There are two factors here. One is access onto a trail or walkway and the other is the wheelchair/stroller accessibility of the trail surface itself. The recent change of surface from a limestone blend to a crushed asphalt blend has improved the trails for wheelchair access although they still remain a 'bumpy' ride depending upon the type of wheelchair being used.

Separate or Multi-use Trails: The need to separate out users will depend upon the specific needs of the users, volume and location. All recreational city-wide corridors are multi-use, however, within a given corridor there may be different trail surfaces. A soft surface for equestrians can be built adjacent to an asphalt trail for pedestrians and cyclists. Some separation is already occurring with cyclists staying on roads and pedestrians using the shoulder along a road e.g. South Dyke Trail.

In the more urban environments and where there is a greater volume of pedestrian use separate trails are recommended. Where the trail expands into a waterfront park then an alternative trail can be built that allows for choices and the ability to separate out users if needed in the future e.g. parallel trails in Imperial Landing.

User Etiquette and Education: Like rules of the road there are rules to trail use. Unlike the road these user rules are not enforceable and depend more on social peer pressure. However, the City can assist by providing information to the public on how to use the trails in a socially responsible and safe manner. Trail conduct or etiquette guidelines can be found in the Trails brochure, the Dogs Off Leash brochure, on the City Website and on some of the entrance signs to the trails. In addition, the RCMP conduct a bike patrol along the more popular trails in the summer time. More can be done. A number of years ago a program called *Share the Dykes* was run for one summer weekend at Garry Point Park. This was an information forum with representatives from the Cycling Advisory Committee, SPCA, RCMP, Dog Fanciers Club, the Richmond Pony Club, the Richmond Fitness Association, and city staff. It was a chance to meet with the public and provide information about specific uses and general etiquette.

4.1.4 Recommendations:

Short Term

1. Inventory all access points along the dyke and review for ease of accessibility.
2. Consult with Richmond Committee on Disability on issues of accessibility.
3. Include in any new Trails brochures and on the City website information identifying the best locations for parking for wheelchair access and information about water safety in the Fraser River.
4. Conduct a Trails Etiquette information session through the Adopt-a-Trail Program for the public once or twice a year at popular areas along the trails e.g. Garry Point Park.
5. Work with interested parties such as the UBC Rowing Club to develop the potential of the Middle Arm as a water based recreation and festival corridor with the appropriate upland support amenities.



All trails are presently multi-use



Trail surface standards respond to users needs and the character of an area

Timeline Definitions:

Short Term - immediate to 3 years

Medium Term - 3 to 5 years

Long Term - 5 to 10 years

Ongoing - immediate to long term

Medium Term

6. Improvements to access points on the dyke should be made to ensure safe and convenient access.
7. Design trail surfaces to respond to the specific user needs and character of the area in which it is built. Options to add onto an existing trail should be reviewed e.g. along West Dyke Trail.
8. Consult with the equestrian community and the proposed Agricultural Advisory Committee to locate appropriate routes for equestrian as well as pedestrian use along the edge of, or through, farming areas.

Ongoing / Long Term

8. Consult with the public to determine any changes to existing trail surfaces and uses especially along popular trails such as the West Dyke.
9. Conduct surveys to determine public priorities and specific concerns with the existing trail system and use.

4.2 The Existing Trail Infrastructure

The Challenges and Recommendations

In 1979 the trail system was envisioned as a more traditional off-road recreational system with the focus on city-wide trails such as the Middle Arm and West Dyke trails. Over the years, with the emphasis on the City's Vision to create a more appealing and livable community, the concept of a trail system has expanded to include cycling lanes, sidewalks, greenways and walkways.

Although these different public ways may not currently be recognized as part of the trails infrastructure, they are integral to creating a pedestrian and cycling friendly community. The existing trail system and related public ways includes:

4.2.1 City Wide Off-Road Trails

There are approximately 40 kilometers of developed off-road trails in Richmond. The majority of these trails or linear corridors are on the perimeter of the island built upon Richmond's dyke system, thus providing access to the waterfront, natural features and heritage sites. These are the most popular and easily recognized on a local and regional level. Other internal trails provide recreational corridors through the centre of the city. These trails include the:

- West Dyke
- Middle Arm
- Steveston Greenways
- South Dyke
- Shell Road

Although catering primarily to the recreational user, these trails are also used as commuter routes for cyclists and for pedestrians especially where they integrate with an established cycling route such as Shell Road or provide direct access to shopping and community facilities such as in Steveston.

Challenges:

In order to continue with the goals set out in the 1979 Trails Plan and more recent documents a number of issues need to be addressed. These include:

- lack of continuity in the system;
- potentially conflicting land uses and/or concerns of adjacent land owners;
- the increase in environmental regulations;
- increased use on the major trails and potential for more conflicts between users;
- cost of developing a complete trail system for the whole island.



Steveston Greenways



Middle Arm Trail

Recommendations:

Short Term

1. Adopt the City-wide Trail/Greenways Plan and recommendations outlined in this Strategy (Section 7.0).
2. Develop an Implementation Plan with priorities and budgeting for the next 10 years.
3. Work with other initiatives such as the Waterfront Development and Community Mobility Strategy to identify the different character areas within the City and establish design guidelines for these areas.

Ongoing

4. Continue to work with regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies.

4.2.2 Cycling Routes

A cycling route is an important component that either forms part of the Trails System or augments it by providing the links between off-road trails destinations. It is a road or path that is officially signed as a designated route for cyclists. It may be in the form of a separate bicycle lane, an enhanced curb lane or a separate off-road path.

Major cycling routes include Railway Avenue, Shell Road, Granville Avenue and Williams Road.

Challenges:

The primary challenges are:

- designing the road system to maintain traffic efficiency at the same time as provide the space for safe cycling
- the cost of providing designated bike routes especially on roads
- the time that it will take to fully develop the system
- ensuring that there is integration with the trails system

Recommendations:

Ongoing

1. Continue to pursue partnerships with other agencies such as ICBC for cost sharing to implement the Richmond Cycling Network as adopted by Council.
2. Design the city-wide trails and neighbourhood routes to connect to the cycling routes. Where appropriate construct shared pedestrian and cycling off-road trails as part of this Cycling Network for cost-savings.



Garden City Way cycling lane



Partnership with ICBC - Shell Road cycling path

4.2.3 Walkways

At a neighbourhood level, walkways have become an important way to create safe linkages between cul-de-sacs, and direct access to public sidewalks, green spaces and community destinations. There are over 200 walkways in Richmond that range from the older 3.0 meter wide asphalt paths located primarily in single family residential areas to the larger 20.0 meter wide corridors through new multi-residential areas such as Dover Crossing and Southcove. These walkways not only provide a more enjoyable pedestrian environment but also serve to provide view corridors through larger developments.

Challenges:

There are many small walkways throughout Richmond. The challenges are:

- linking these walkways to form a comprehensive network
- establishing standards that make them recognizable as public pathways
- establishing standards for accessibility e.g. there are many baffles that strollers or bikes with child trailers cannot maneuver through
- ensuring the appropriate design to respect the adjacent land owners when on private property
- cost of maintaining the many different types and locations of walkways
- new walkways primarily dependant upon new private development

Recommendations:

Short Term

1. Establish standards that make walkways recognizable as public pathways.
2. Encourage local neighbourhood adoption of walkways through the Partnerships for Beautification Program.

Medium Term

3. Establish new standards to improve the accessibility of all walkways.
4. Develop an implementation phasing plan to make the changes.

Ongoing

5. Ensure the appropriate design and buffers to respect the adjacent land owners.
6. Continue working with developers to provide public rights-of-ways through new developments.



Southcove walkways



Terra Nova walkway - public vs. private?

Walkway Definition:

A walkway is an off-road path that connects a user on a street sidewalk to either another street, park or trail. It is limited in length and typically has a paved walking surface.



Many different standards are applied to walkways



Terra Nova new sidewalks



Garden City Way, creating the walkable city

4.2.4 Expanded Sidewalks and Boulevards

Since the Strategic Management Plan was endorsed and the Corporate Beautification Strategy was developed, much effort has gone into looking at the standards for creating more pedestrian and environmentally friendly sidewalks. The standard for sidewalks in new developments now includes a minimum of a 1.2 meter grass boulevard with trees and a 1.5 meter sidewalk. Where opportunities arise a wider grass boulevard is provided to allow for greater separation from vehicles and better growing conditions for the trees. The type of road and the available space to accommodate the various needs in the road right-of-way ultimately dictates the width of the boulevard.

Although not officially recognized as ‘trails’ these sidewalks form part of the network of a *walkable city* and at a neighbourhood level are the important links to designated trails in the system.

Examples of this can be found in the City Centre Lang District, in Terra Nova along Westminster Highway south of the shopping area connecting to the school, along Railway Avenue connecting to Moncton Street and onto the Steveston Greenways.

Challenges:

Not every sidewalk would be part of an official trail network, however, specific sidewalks may be identified as part of a designated walking route. Challenges are:

- determining which roads and sidewalks would form part of a walking route especially in established neighbourhoods;
- new standards for sidewalks are primarily dependant upon new development occurring;
- identifying the need for and implementing appropriate engineering standards such as curb cuts and crosswalks along a designated route;
- coordinating with other engineering initiatives and priorities.

Recommendations:

Medium Term

1. Prepare a Neighbourhood Trail (Green Links - see page 32 for definition) Master Plan that identifies the community and neighbourhood routes.
2. Once a route has been designated inventory the sidewalk as well as the walkway infrastructure and establish areas of high priority for improvements.
3. Develop design standards for sidewalk construction along trail routes that respond and reflect the character of the area.

Ongoing

4. Continue to coordinate private development, Transportation Planning and Engineering to ensure that the trails standards are applied when new construction occurs along a route.

4.2.5 Greenways

Where opportunities arise to connect to major destinations, such as shopping areas, community facilities, parks and the waterfront, special efforts have gone into creating a higher standard of sidewalk that includes wider grass boulevards, wider sidewalks, unique paving materials and street furniture and more soft landscaping. These special features in a greenway help define community character and make it easier to identify routes. In addition, some greenways include rustic trails, cycling and park pathways.

Examples include Steveston Waterfront Greenways and the City Centre Greenways along Granville Avenue. Numerous other greenways have been identified in the City Centre and are being incrementally developed.

Challenges:

- Determining which routes are to be developed as greenways
- The special treatment on greenways make them more costly to develop and maintain
- Finding the space to create a special greenway in a road right-of-way or an established neighbourhood may be difficult
- Establishing continuity of the system is difficult as they tend to be built in increments.

Recommendations:

Short Term

1. Adopt the City-wide Trail / Greenways Plan and recommendations outlined in this Strategy (see Section 7.0).
2. Develop design standards for Greenways that reflect the use and character of the different areas of the city.

Ongoing

3. Continue to work with the development community to ensure that any new developments that occur along a designated greenways incorporate special design features and standards.
4. Consider incorporating the cost of constructing priority sections of the greenways that are not the immediate responsibility of a developer into the City Capital Budget.



Steveston Greenways

OCP Definition of Greenways:

Linear corridors designated for special landscape and beautification treatment, which link open spaces, neighbourhoods, and major destinations in more built-up areas such as City Centre. Greenways use the resources available in urban areas, including the street and park network, to introduce nature for the benefit of humans and wildlife.



Hollybridge Pumpstation - Middle Arm Trail staging area



No. 3 Road Sports Fishing Pier

4.2.6 Staging Areas, Nodes, and Special Features

Staging areas are focal points along the trail that are typically located at entrances onto the trail system. Benches, picnic tables, and signage are located here. Some staging areas have become destination points by offering unique features such as fishing piers, interpretation signage and viewing platforms. These areas add diversity and interest to the trail system. Nodes are larger than staging areas and can be destination areas in their own right as well. For example, the south foot of No.3 Road has been considered just part of the South Dyke Trail, where as, it is a large enough area to be developed and maintained at a higher standard as a waterfront park node along the trail system. As a popular dogs-off-leash area, it acts as a major destination for many residents.

Examples of these areas are the No.3 Road Pier, Hollybridge Pump Station Landing, London's Landing and the road ends onto the West Dyke.

Challenges:

- The cost of developing special amenities such as boardwalks and piers
- The increase in environmental regulations
- Determining the appropriate amenities and balance of recreational use in environmentally sensitive areas
- The popularity and the increased use of certain staging areas and development of special character areas along the waterfront may require a higher standard of construction and maintenance

Recommendations:

Ongoing

1. Develop a funding strategy including partnerships to construct special amenities along the trail system.
2. Continue to work with the appropriate regulatory agencies to protect the environment and seek creative solutions that ensure the City's needs are met as well as those of the various agencies in environmentally sensitive areas.
3. Review the standards applied to development and maintenance of higher profile areas such as the waterfront.
4. Coordinate with Public Works and Engineering construction projects such as pumpstations, that occur at staging areas to meet operational, recreational and aesthetic needs.

4.2.7 Rural Roadways

Throughout Richmond in the rural areas people cycle, in-line skate and stroll on the roads particularly on Dyke Road by London Farm and in the Gilmore and East Richmond/ Hamilton areas. In certain spots in the Gilmore and Hamilton areas the only public access along the waterfront is the dyke top which is also the road with no room to create separate trails. The narrowness of these roads and the multiple uses occurring along the edge can act to slow traffic down and, recently, speed bumps were added in the Hamilton area. Where possible, the City has built up shoulders and created a separate trail. A recent ditch infill at No.5 Road and Dyke Road created an opportunity to piggyback onto a Public Works project and design the surface to accommodate landscaping, a trail and picnic tables.

Challenges:

Rural roads along the waterfront form part of a special waterfront character zone that ideally would be preserved. The challenges are:

- reducing the volume and the speed of vehicles;
- ensuring the safety of pedestrians;
- increased development in these areas resulting in increased traffic;
- finding other opportunities to provide public access;
- ensuring coordination with either private or Public Works projects.

Recommendations:

Medium Term

1. Seek opportunities to provide separated public access by building up the road shoulder, separating shoulders from traffic with bollards or a raised edge, or cantilevering a boardwalk over the riprap edge.

Ongoing

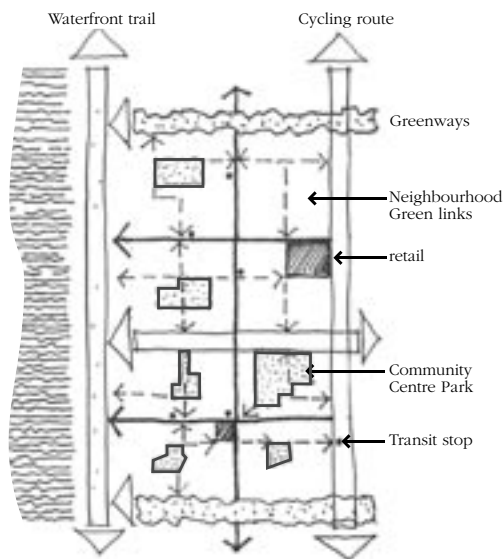
2. Continue to monitor the traffic safety of rural roads and work with local communities, as appropriate, to resolve traffic issues.
3. Ensure coordination with Public Works along rural roads to maximize the opportunities to provide trails when projects such as ditch infills or new flood protection measures occur along the waterfront.



No. 4 Road - South Dyke



Dyke Road - Finn Slough area



Green Links, Greenways, Trails and Cycling Routes



Rustic trails - Shell Road Trail



Urban trail

4.3 New Trail Classifications and Definitions

4.3.1 Definitions

Trails will continue to be used as a generic umbrella term that refers to designated pedestrian and cycling routes. Hence, this document is called a Trails Strategy and refers to a Trails System (Network). These routes can include a wide variety of pedestrian and cycling infrastructure such as sidewalks, cycling lanes, limestone trails, and rural road shoulder. They also can include other non-motorized uses such as equestrian use.

Links is a term that refers to the more conceptual idea of providing opportunities that link people to, for example, their neighbours, schools, parks, natural areas and community amenities. The term can be used interchangeably with 'trails' when describing the physical form of a link. However, links also describes activities, events or educational programs that link people to each other or to nature.

4.3.2 Existing Types of Trails

The existing types of pedestrian and cycling trails fall into basically three categories. (See Appendix 1) These include:

1. *Rustic Trails*

- typically located in more natural settings
- maximizes the experience and the user's appreciation of the local environment
- typically off-road and multi-use
- have a soft surface and basic amenities
- examples include:
 - the West Dyke Trail and Shell Road Trail
 - rural roadway shoulders along the South Dyke and in the Hamilton Dyke Road area
 - trails in parks such as the Nature Park or Terra Nova Natural Area

2. *Urban Trails*

- typically includes sidewalks, walkways, formal park trails
- the surfaces tend to be concrete, paving stones, or asphalt
- typically located in residential, commercial and industrial areas
- designed for safe pedestrian movement and access to a number of destinations on a day- to-day basis
- can be multi-use and include cycling if the pathway is wide enough
- examples include:
 - City Centre: Granville Avenue and Garden City sidewalks
 - Imperial Landing waterfront dyke trail
 - Dover Crossing and Southcove privately owned/publicly accessible walkways
 - Garden City Road off-road shared cycling and pedestrian pathway (between Francis Road and Williams Road)

3. *Commuter Cycling Routes*

- typically on-road routes
- designed for use by cyclists with additional use by in-line skaters and motorized wheelchairs
- routes include delineated bike lanes or wider curb traffic lanes
- a route may include some off-road trails to create a continuous route (e.g. Shell Road Trail)
- routes outlined in the Richmond Cycling Network Plan 1995
- examples include:
 - Williams Road, Granville Avenue, Garden City Road bike lanes

4.3.3 The New Trail Classifications

Classifications of trails help determine the planning requirements of trails, the design standards to be applied and the budgets necessary for construction and maintenance.

This Strategy introduces a new classification and terminology to be used when labelling or naming trail routes. The individual trail routes will be labelled as follows:

a. Trail

This term (when used in naming a route) will continue to refer to predominately rustic trails and trails that provide a singular experience of the environment. Examples include:

- West Dyke Trail
- Horseshoe Slough Trail
- Bridgeport Trail (former CNR rail corridor)

Typically, these trails would cost less to construct and maintain. They can, however, include costly amenities such as boardwalks and piers.

b. Greenway

This term will refer to the significant city-wide pedestrian and cycling linear corridors that link multiple destinations including parks, historic sites, natural areas, community facilities and amenities, residential and retail/commercial areas. (See Appendix 1)

The term 'greenway' will be applied to:

- the urban sidewalks and boulevards, walkways, and park pathways that have been identified as part of a designated city-wide route
- rustic trails that form a part of a larger greenway (e.g. Britannia Shipyard park trails are part of the larger Steveston Greenways)
- significant city-wide natural or enhanced 'green' corridors

It is expected that a designated greenway would:

- be built of a higher design standard; either urban design or environmental standard
- include site furnishings sensitive to the character of the area



South Dyke Trail



Steveston Greenway



Neighbourhood Green Link



Neighbourhood Green Link: Park pathways

The concept of a greenway is flexible and adaptable. The key is that a greenway enhances the users experience of nature, city life and the community by linking important destinations for pedestrians and cyclists in a clearly identifiable manner and through a variety of special design features.

- include interesting special features e.g. public art or a major public amenity such as a pier
- promote and enhance the ‘greening’ of the pedestrian and cycling environment

Examples include:

- Steveston Greenways
- the proposed City Centre Greenways (See Section 7.0)

c. Green Link

This term will refer to residential, commercial and industrial neighbourhood routes that provide safe and convenient links to local destinations such as schools, parks, community facilities or retail areas.

It is expected that green links would:

- include local sidewalks, walkways and school/park pathways and even rustic trails within a designated route
- eventually link to other neighbourhood green links and on to the city-wide trails and greenways, cycling routes and transit stops.

Each neighbourhood is different and the design response to creating these links will depend upon the character and infrastructure of the neighbourhood. A conceptual framework for creating a neighbourhood Green Link is presented in Section 6.1.

d. Cycling Routes

This term will remain consistent and refer to the designated routes as outlined in the Richmond Cycling Network Plan 1995. Design of these routes depend upon the width available in the road right-of-way.

4.3.4 Recommendations:

Short Term

1. Adopt the names ‘Trail’ for rustic trails, ‘Greenway’ for significant city-wide trails, and ‘Green Link’ for neighbourhood trails.
2. Upon review, and coordination with the Community Mobility Strategy, consider incorporating the new classification system, as appropriate, into the Official Community Plan.