

A Use and Impact Study of Mountain Biking and Dog Walking in Riverview Forest Coquitlam, BC.



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Summary

The purpose of this project was to find out what recreational activities are being done in Riverview Forest, how often these activities occur and determine if conflicts exist among different user groups.

We did this by doing the following:

- Conducting an inventory of new informal trails and mountain bike use areas using Global Positioning System(GPS) technology and assessing their impact on the natural environment,
- Developing and conducting surveys to profile park and mountain bike trail users and their use patterns
- Determining the level of conflict between mountain bikers and other park users
- Making recommendations concerning the management of bike use, including the possibility of designating bike use areas, restricting bike use, decommissioning and/or expanding trails.

In our trail survey we found two distinct areas being used for mountain biking in the eastern portion of Riverview Forest. From the surveys given out to mountain bikers we found that less than half (40%) of the mountain bikers surveyed use Riverview Forest and of those, only 29% of them use the forest more than once a week. From the door to door surveys we were able to find that the majority of people (48%) use the park for walking with the second largest groups using it for dog walking (43%). The majority of conflicts reported (67%) were with dogs being off-leash or not being cleaned up after. As a result of our door to door survey, additional objectives concerning dogs off-leash were added.

- Determining the level of conflict between dog walkers and other park users
- Making recommendations concerning the management of dog off-leash use, including the possibility of designating a dogs off-leash area, or enforcing the dogs on-leash by law

We have several recommendations to make concerning the future management of Riverview Forest.

1. We recommend that all mountain bike structures that are found in Riverview Forest be assessed for potential safety problems or obstruction of heavily used trails. If the structures are unsafe for mountain bikers, other park users or are in locations that cause problems, they should be removed.
2. Mountain bikers should be allowed to continue to use the trails and eastern portion of Riverview Forest for biking unless they begin to abuse the facilities or there is public concern.
3. A sign should be erected in the area where mountain biking is most predominate to inform and educate other users of the park. This could help minimize conflicts between mountain bikers and other park users, as other users may not enter into an area that they know is used by mountain bikers.
4. The dogs off-leash bylaw should be more clearly explained on signs and it should be enforced more stringently.
5. Rebuild or maintain the fence beside Lost Creek.

Acknowledgements

We would like to thank many people for their contributions to this project. Dave Palidwor with the City of Coquitlam for all his help, Mike Esovoloff for creating the map of Riverview Forest, Danny Catt for editing our reports and giving us direction, Tom Saare for helping us with our research and Maria Antidormi for her assistance with creating our surveys

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1.0 Introduction

1.1 Background of Mountain Biking

Mountain biking has been described by many as one of the fastest growing recreational sports in North America. The sport can be divided into three different categories: cross country, downhill and free ride. Cross country mountain biking is endurance based, with varied terrain and longer rides. Cross country is the most popular type of mountain biking and it was made into an Olympic sport in 1993 (Olympic Commission, nd). Free ride and downhill mountain biking are the more extreme forms of mountain biking. Downhill mountain bike races are completely different from cross country races. They involve fast speeds and strict concentration, that are won and lost in milliseconds. Free ride mountain biking is the most technical type of mountain biking and it involves manoeuvring around and across structures such as ramps and jumps. Free ride races involve jumps, steep slopes and rocky terrain.

1.1.1 Conflicts Between Mountain Bikers and Other Park Users

Many conflicts arise due to different user groups having to share trail systems. The main types of conflicts that are associated with mountain biking are: conflict with other user groups, damage to the environment through trail erosion, the safety risk to the mountain biker and liability concerns of the agency responsible for the land being used by mountain bikers..

Municipalities are concerned about mountain bikers using their property because of liability. Municipalities and land owners could be liable for mountain bikers being injured because of the Occupiers Liability Act. This act ensures that the landowner makes sure the conditions of the area, activities that occur in the area and the behaviour of third parties are reasonably safe. Even though the mountain bikers may be trespassing or using the land for a purpose other than the one intended ,the municipality could still be responsible. Another concern is about structures being built. Some mountain bikers enjoy setting up jumps and structures to use while they are riding. Structures can potentially be very dangerous since they are usually built by the mountain bikers themselves, and the structures could be built poorly. Agencies are divided on how to deal with those structures that are potentially hazardous. For example the District of West Vancouver has a policy of tearing down any structures that they encounter in the upper lands area in the British Properties north of the District of West Vancouver (Ambor, 2003). The district believes that they may be held liable if mountain bikers enter the upper lands area from district property.

The main concern about mountain biking is the risk of injury to the mountain biker. While cross country mountain biking is relatively safe, the same cannot be said for downhill and free ride. Downhill mountain biking is very dangerous as high speeds and steep slopes can be a hazardous combination. Free ride mountain biking is no safer than downhill. Mountain biking could also be dangerous to other park users if the mountain biker lost control. Since most mountain biking is done at very fast speeds, it is also possible for a mountain biker to collide with another park user.

A survey done by Chavez (1996) determined the major issues faced by the USDA (United States Department of Agriculture) Forest Service managers in all regions of the US (except Alaska). The Forest Service managers reported concern about impact to the natural environment, safety concerns and user conflicts. Mountain biking was found to be responsible for resource damage in more than half (58%) of the forests surveyed. Some of the damage that was reported was trail widening, shortcuts being created, soil erosion from skidding and narrow tire tracks and also damage to drainage structures.

The popularity of mountain biking as a recreational sport has been increasing steadily in the lower mainland for the last five years (Fotheringham, 1999). Since municipal and regional governments control most of the mountainous forested land in the lower mainland, mountain bikers are left with few places to bike, unless an agreement can be made with government agencies. Without an agreement, mountain bikers are trespassing on government land. An agreement would give mountain bikers the same right to use the land as dog walkers or hikers. The Ministry of Forests has already developed management guidelines for different types of mountain bike trails (MOF, 2000). Some parks, such as the Lower Seymour Conservation Reserve, have begun to work with the mountain bike community to coordinate trail maintenance, user education and the implementation of special events (GVRD, 2002)

1.1.2 Mountain Biking in Riverview Forest

The City of Coquitlam is located in the lower mainland of British Columbia (See Fig 1). An increasing population in the City of Coquitlam has led to an increase in demand for recreational space. The population increased by 21% between 1991-1996 and another 10.9% between 1991-2001 (City of Coquitlam, 2004). In the mid 1970's, the then District of Coquitlam was interested in retaining portions of forested land in an urban setting. Riverview Forest was designated a park reserve on April 15, 1983 (Appleby, 1983). The trails in Riverview Forest were designed to be suitable for people going for a walk, a run or a bike ride. Currently walkers, dog walkers and mountain bikers are using Riverview Forest. Mountain bikers are using Riverview Forest by riding through the forested area and riding on the trails.

The Parks Department of the City of Coquitlam currently has a sliding scale approach to mountain biking structures. If the structures are not causing any problems, they are left up longer. However if the structures are on a pathway or could be dangerous they are removed sooner (Nickel, 2004) The City of Coquitlam is interested in looking at the conflicts and environmental damage caused by different park users and working on a management strategy to protect the natural features and to promote user enjoyment.

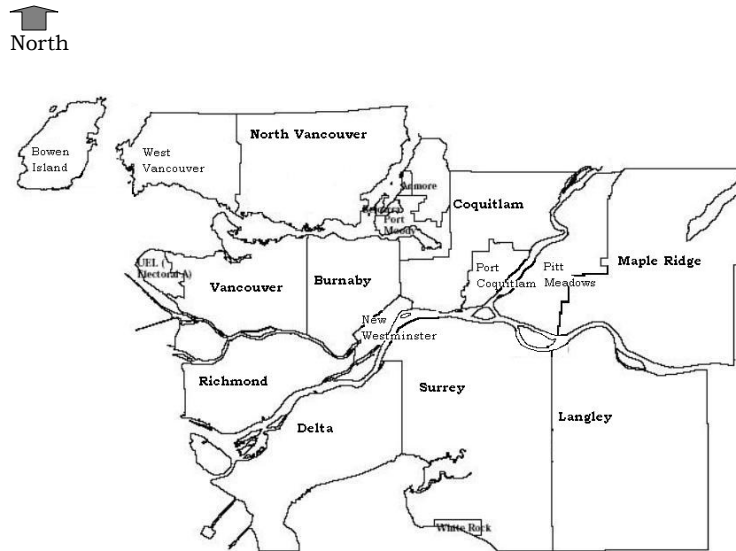


Fig 1: The City of Coquitlam in relation to the lower mainland.
(Modified from a map by the GVRD)

1.2 Background of Dog Walking In Parks

Dog walking in city and regional parks has become more of a management issue as urbanization increases and park spaces become more limited. With this limited amount of space, managers have to balance the needs of many different user groups within each park. The City of Coquitlam has assessed the needs of dog walkers and have designated four areas as dog off-leash parks. In all of these parks the dog off-leash area is well defined, as are the allowable times for having the dogs off-leash.(City of Coquitlam, 2004)

1.2.1 Conflicts Between Dog Walkers and Other Park Users

Dogs off-leash conflicts can be broken into two categories: social conflicts and environmental conflicts. In a report by the City of Boise in the United States (2002) they defined social and environmental conflicts. Social conflicts are those that occur between dog walkers and other park users, including dogs scaring or harassing other users by barking or biting and dog excrement not being picked up and

properly disposed of. The environmental conflicts listed included chasing, scaring and killing wildlife and destruction or disturbance of soils that leads to erosion. The report by the City of Boise (2002) found that only 18% of dogs were leashed, while 59% were not leashed but were under the control of their owners. The report states that 23% of the dogs were off-leash and uncontrollable.

1.2.2 Dog Walking in Riverview Forest

Although we had originally gauged this project toward a study of mountain bike activities within Riverview Forest, our preliminary results indicated that another concern voiced by nearby residents was about dogs not being leashed while in the park. Riverview Forest is not a dogs off-leash park, there are signs posted through out the park informing people about having to keep their dogs leashed.

1.3 Purpose and Objectives

The purpose of this project was to conduct an assessment of the different users and their impacts within Riverview Forest for the City of Coquitlam Parks Department. The main focus was on use by mountain bikers and dog walkers. The City of Coquitlam has very few parks that would be suitable for developing mountain bike trails. The majority of parks in the city are open green spaces with football fields, water parks or playgrounds. Dogs are welcome in all parks within the City of Coquitlam, but there are only four dogs off-leash areas in the City.

The objectives of this project were set in consultation with Dave Palidwor, Parks Planner in the Parks and Open Spaces Services, City of Coquitlam. The objectives of this project were to:

- Conducting an inventory of new informal trails and mountain bike use areas using Global Positioning System(GPS) technology and assessing their impact on the natural environment,
- Developing and conducting surveys to profile park and mountain bike trail users and their use patterns
- Determining the level of conflict between mountain bikers and other park users
- Making recommendations concerning the management of bike use, including the possibility of designating bike use areas, restricting bike use, decommissioning trails and/or expanding trails.
- Determining the level of conflict between dog walkers and other park users
- Making recommendations concerning the management of dog off-leash use, including the possibility of designating a dogs off-leash area, or enforcing the dogs on-leash by law

2.0 Study Area

2.1 Location

At 25 hectares, Riverview Forest is one of the largest parks in the City of Coquitlam (See Fig 2) and is located in the south-eastern corner of the city. It is bordered by Mariner Avenue to the West, Chilko to the north and Riverview to the south and east. Riverview Forest has an extensive trail network (See Fig 3). The largest park in Coquitlam is Mundy Park with 176 hectares. Riverview Forest is surrounded by housing on three sides, to the north, south and east.

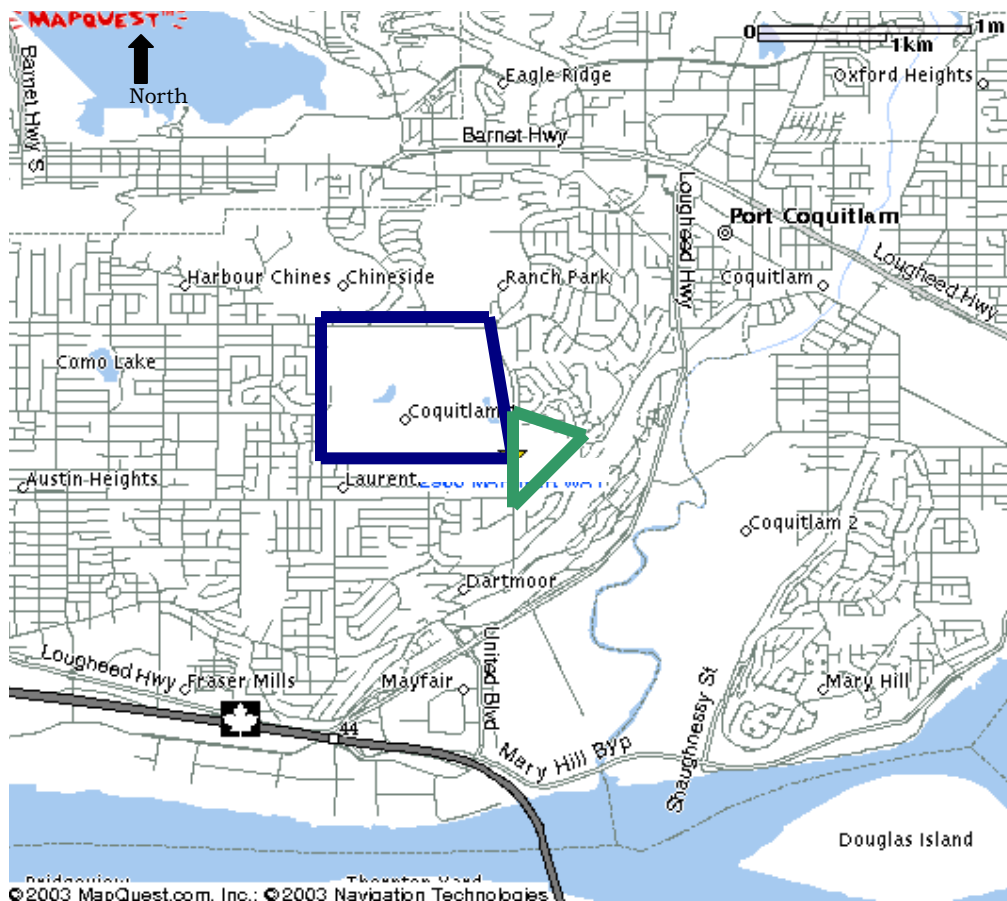


Fig 2: Location of Riverview Forest and Mundy Park within the City of Coquitlam, BC (Source – MyTelus)



-  Mundy Park
-  Riverview Forest



Fig 3: Aerial photo of Riverview Forest, Coquitlam and the trail network.
 (Source: modified from a map provided by Mike Esvoloff from the City of Coquitlam)

2.2 Site Description

2.2.1 Vegetation

Riverview Forest is in the Coastal Western Hemlock (CWH) biogeoclimactic zone. Approximately 80% of the forest is mature coniferous, the remaining twenty percent is deciduous (Appleby, 1983). The coniferous trees that are found in the forest are western red cedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii ssp. menziesii*) and western hemlock (*Tsuga heterophylla*). The most common deciduous tree in the forest is big leaf maple (*Acer macrophyllum*). Big leaf maple is most common in the eastern portion of Riverview Forest. The undergrowth is mainly sword fern (*Polystichum munitum*), with a mixture of red huckleberry (*Vaccinium parvifolium*), salal (*Gaultheria shallon*), red elderberry (*Sambucus racemosa*) and foam flower (*Tiarella trifoliata*). Skunk cabbage (*Lysichiton americanum*) is found in small quantities in several small wet areas of the park.

2.2.2 Fauna

There is a moderate variety of wildlife within Riverview Forest. The only large mammal found in the park is the Coyote (*Canis latrans*) due to the fact that the park is relatively small and in the middle of suburbia. The park is good habitat for species that have become acclimatized to humans. Mammal species known to occur in the park include: the Eastern Grey Squirrel (*Sciurus carolinensis*), Douglas Squirrel (*Tamiasciurus douglasi*), and Racoons (*Procyon lotor*). Some birds that are common to the area are the American Robin (*Turdus migratorius*), the Golden-crowned Kinglet (*Regulus satrapa*), the Black-capped Chickadee (*Parus atricapillus*) and the Red-breasted Nuthatch (*Sitta pygmaea*). No wildlife inventories have been undertaken for Riverview Forest.

Riverview Forest has a stream called Lost Creek that runs through it (See Fig 4). Lost Creek originates from Lost Lake in Mundy Park. It is culverted under Mariner and is day lighted in Riverview Forest. At the southern edge of Riverview Forest, Lost Creek is culverted. Lost Creek remains culverted until it enters the Fraser River. There are no fish in this creek as a result of it being so heavily culverted. The creek does serve as a nutrient stream.

2.2.3 Soils

As stated by Appleby, 1983, the soils in Riverview Forest are predominantly gleysolic and humo-ferric podzols. Gleysolic soils are saturated with water for long periods of time. Gleysolic soils can be found within Riverview Forest in areas of poor drainage and in receiving areas. The rest of the soil in Riverview forest is predominantly humo-ferric podzols. These well drained soils are formed in areas under coniferous trees with an abundance of water moving through the soil (Valentine, et al , 1978). Humo-ferric podzols are characterized by a black humus form of about 5-10 centimetres. The soils below the organic material are reddish and vary from loamy sand to a sandy loam.

2.2.4 Trail Network

Riverview Forest has a trail network that was built and is maintained by the City of Coquitlam. There is approximately 4.5 km of trails that run throughout Riverview Forest. There are two different types of trail in Riverview Forest (See Fig 4). The perimeter trail winds around almost the entire perimeter of the park. The perimeter trail is roughly 2.0 meters wide and is composed of gravel. This trail is designated an urban nature trail (Palidwor, 2004). It is a high use trail designed for walking, cycling and jogging. The rest of the trails wind around within the perimeter trail as seen on figure 4. These trails are narrower, roughly less than 1 meter wide and are composed of compacted soils. These trails are designated nature trails. These smaller trails are designed for uses such as walking and mountain biking.



Fig 4: A map of Riverview Forest Showing the Urban Trail and Nature Trail network
(Source: Modified from a map by Mike Esovoloff from the City of Coquitlam)

3.0 Materials and Methods

3.1 Trail Survey

3.1.1 Trail Survey Background

The objectives of the trail survey were to find out which areas were being used for mountain biking and locate them to document and map them using a Global Positioning Unit(GPS) unit borrowed from the BCIT Survey Store. GPS technology was chosen because it would be faster and more accurate than mapping using a hip-chain and a compass. An area was called a mountain bike area if we found significant indications, such as structures or wheel marks, that mountain biking takes place there. A foot survey was conducted prior to mapping the areas being used for mountain biking with the GPS. Riverview Forest was divided into two sections based on the central trail that divides the park into two, and the foot survey was conducted on consecutive Wednesdays, October 29, 2003 and November 5, 2003. We also collected the GPS data over two Wednesdays.

3.2 User Surveys

3.2.1 Mountain Biker Surveys

A mountain bike survey form (See Appendix 1) was developed with the help of Maria Antidormi, Research Assistant for the British Columbia Institute of Technology. The survey was a questionnaire that we distributed to the four local middle schools, the two local high schools and the three bike shops within the Tri-Cities area. Each school or business received 50 forms, a total of 450 forms were distributed.

3.2.2 Other Users Survey

We developed a local resident survey (See Appendix 2) to find out the number of local residents that use Riverview Forest, what they use the park for, how often they use the park and if they have had any conflicts with mountain bikers or dog walkers. We distributed surveys by going door-to-door in the streets adjacent to Riverview Forest. We surveyed all the houses on Alice Lake, Decker, Sylvain, Alouette, Cariboo (See Fig 5) and Atlin Place(not pictured on map). The time and days the surveys were conducted varied street by street. We surveyed Cariboo and Sylvain on Wednesdays, November 5 and 19, 2003 at 10am. Residents on Alice Lake and Decker were surveyed on Wednesday November 26, 2003 at 6pm. Alouette and Atlin Place were surveyed Saturday February 28, 2004 and March 2, 2004 at 10am. We visited 237 houses around Riverview Forest.

We considered doing an intercept survey in Riverview Forest. This survey was not carried out due to the high number of social trails originating in residents backyards. We did not believe that we would be able to adequately survey park users by standing at the main entrances.

4.0 Results and Discussion

4.1 Delineation of Mountain Bike Areas Observed

It appears that mountain bike activity is either confined to the trail network within the park or to the eastern part of the park. We found two distinct areas with mountain bike use and one area that is uncertain (See Fig 5). The two distinct areas are in the eastern part of the park. The area that is uncertain is right along Lost Creek. We observed that there is an informal trail that runs along the west bank of Lost Creek but we were unable to determine if the area was being used by mountain bikers, walkers or both.



Fig 5: The two areas in Riverview Forest, Coquitlam where evidence of mountain biking was found, and an informal trail found along Lost Creek

(Source: Modified from a map made by Mike Esovoloff from the City of Coquitlam)

4.2 Characteristics of Structures Observed

We found several mountain bike structures within the two areas that were being used for mountain biking. There were two ramps made out of logs in area A (See Fig 6). There were also several ramps in area B that mountain bikers had brought materials in for (See Fig 7) and some jumps that had been built in both area A and B (See Fig 8) .



Fig 6: A ramp made out of logs found in mountain biking area A in Riverview Forest, Coquitlam (Source: Sarah Turnbull)



Fig 7: A wooden ramp found in mountain biking area B in Riverview Forest, Coquitlam (Source: Sarah Turnbull)



Fig 8: A jump found in mountain biking area B in Riverview Forest, Coquitlam (Source: Sarah Turnbull)

4.3 Environmental Impacts

We surveyed the areas where mountain biking takes place in the eastern portion of Riverview Forest for environmental impacts. We looked for erosion, trail widening and garbage. While there was some trail widening that had taken place we could not differentiate between damage done by mountain bikers and other park users. The areas being used for mountain biking are directly adjacent or on the trails so any damage that is evident cannot be attributed to just one user group. The informal trail right along Lost Creek (See Fig 9) could have environmental impacts. People walking or biking along the creek have caused the slope to erode. Large pieces of garbage have also been put into the creek. No detrimental impacts from dog walking were observed.



Fig 9: The Informal trail beside Lost Creek in Riverview Forest that contributes to erosion (Source: Sarah Turnbull)

4.4 Riverview Forest Users

4.4.1 Mountain Bike Survey Results

After handing out 450 mountain bike survey forms at schools and bike shops we received eighty four responses, which means we had a 19% response rate. This is partially because students were not hearing about the surveys, i.e. the school bulletin was not read in their class. The mountain biker survey was too passive; it required the mountain bikers to go out of their way to fill out the survey forms. We might have had better results if there had been highly visual displays at the schools, or if we had offered prizes.

From the surveys we were able to determine that only 40% of mountain bikers who were surveyed use Riverview Forest and of those, only 29% use the park more than once per week (See Fig 10).

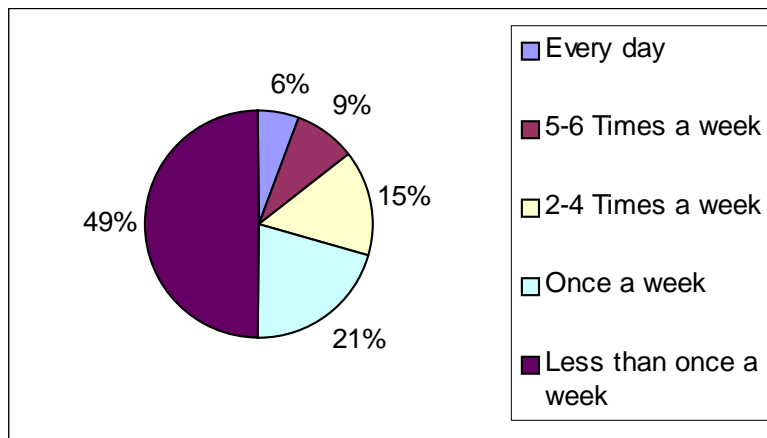


Fig 10: The frequency of use of Riverview Forest, Coquitlam by Mountain Bikers that use the Forest

We then found out the number of mountain bikers who use the park in relation to the school where they filled out the survey (See Fig 11). We also asked if mountain bikers had had any conflicts with other park users. The majority of mountain bikers said no (63%) with only 12 % reported conflicts with other park users. Details on the type of conflict were not usually given by surveyed mountain bikers, those that did said that they had been yelled at because of their behaviour.

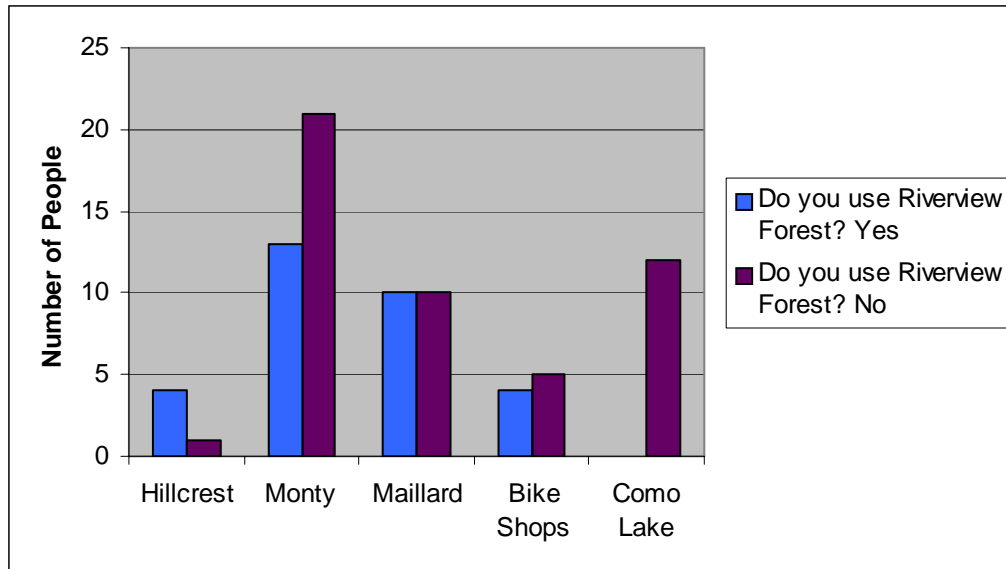


Fig 11: Responses to the survey question “Do you use Riverview Forest” organised by school and bike shops (All schools are in the City of Coquitlam and within 4 km of Riverview Forest).

4.4.2 Other User Survey Results

We went to 237 houses to do personal resident interviews and sixty-five surveys were completed, twenty-four residents were not interested in answering the survey questions, no one was home at the remaining 146 houses. Twenty-seven percent of residents complete the survey. We found that in order to maximize the number of survey responses we had to modify the time we went door to door to conduct the survey, from morning to evening in several areas. A further limitation of the door-to-door survey was that dog walkers were not asked if they walked their dogs on or off a leash. Knowing the percentage of dog walkers who do not leash their dogs would be important information. A possible way to increase the number of survey responses would be to drop off self-address stamped envelopes at the houses where no-one was home. However dropping off self-address envelopes is quite costly and there is no guarantee that residents will send it in.

Twenty-two residents responded that they use the park for walking (48%) with twenty using the park for dog walking (43%), three people said they use the park for cycling (7%) and only one person (2%) answering that they use the park for nature viewing (See Fig 12). Since the interviews were verbal, residents could only indicate the main activity they do in the forest.

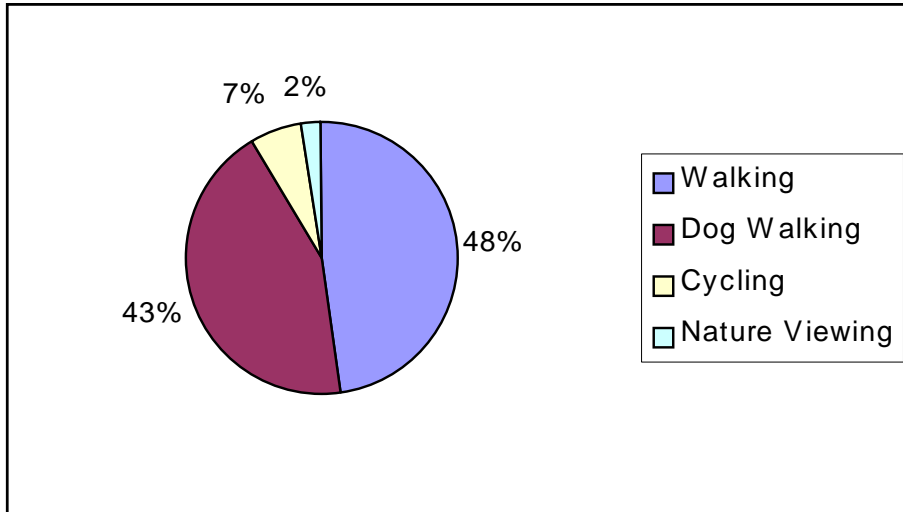


Fig 12: The four major uses of Riverview Forest, Coquitlam as indicated by surveyed residents, walking 48 % (22), dog walking 43 % (20), cycling 7 % (3) and nature viewing 2 % (1)

If residents responded that they do not use Riverview Forest they were asked why they didn't use the park. The majority (30%) responded that Riverview Forest is too small and that they use Mundy park instead because it has better facilities. Several people(19%) responded that they do not use the park because of health reasons. Fear is also a factor that keeps people away from Riverview Forest. Nineteen percent of residents said they didn't use the park because they are afraid that animals or people could be in the dense foliage and 13% reported that previous bad encounters with dogs keep them from using the park. The remaining 19% cited other reasons for not using the park (See Fig 13).

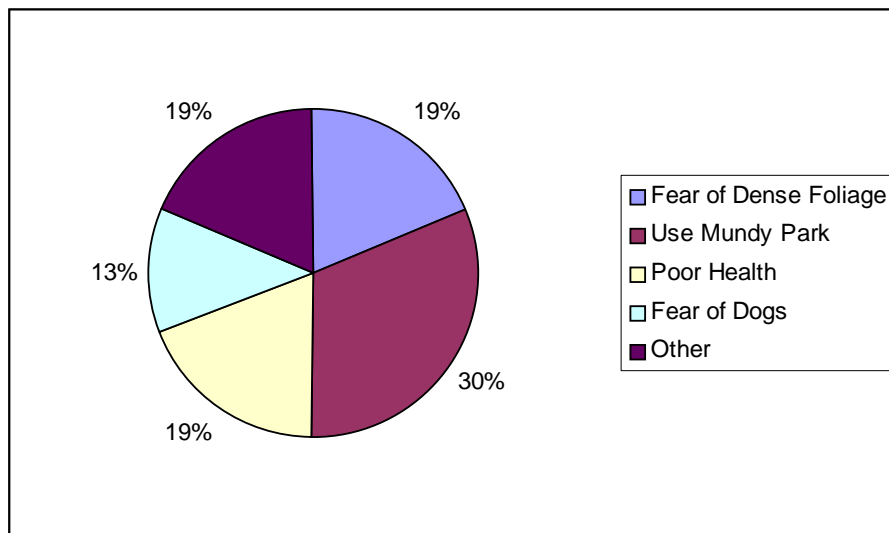


Fig 13: The five reasons residents near Riverview Forest, Coquitlam do not use the park, fear of dense foliage 19%(3), fear of dogs 13%(2), poor health 19%(3), use Mundy Park 30%(5) and other uses accounted for the final 19%(3)

4.5 Riverview Forest User Conflicts

Fifty-three people (82%) answered that they had never had any conflict in Riverview Forest. Of those who reported conflicts, 8 conflicts (67%) involved dogs being off-leash or dogs not being picked up after (See Fig 14). There were three conflicts involving mountain biking reported (25%) and one conflict with a Coyote (8%).

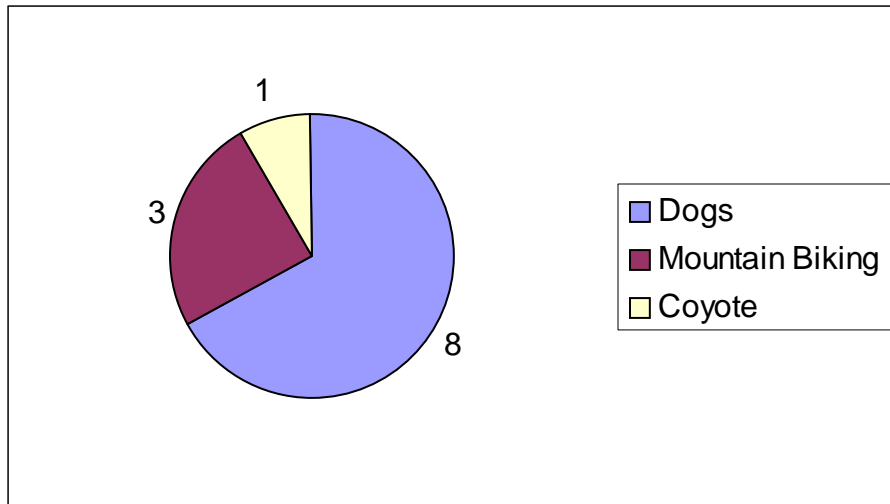


Fig 14: The number of residents surveys that reported conflicts with dogs (8), mountain bikers (3) and Coyotes (1) in Riverview Forest, Coquitlam

4.6 Mountain Bike Trails in Riverview Forest

The trails and structures found in areas A and B do not seem to conflict with any other user groups. The structures are not high off the ground and do not seem to pose a serious threat to rider safety. The trail by Lost Creek is of greater concern, but since the trail users could be both walkers and bikers, the damage can not be attributed to mountain bikers alone. The survey results show that mountain bikers rarely use Riverview Forest, only 40% of those surveyed responded that they use the park. The mountain bikers that do use the area tend to come with a school group. Since they are with a teacher or a supervisor, these mountain bikers are less likely to cause trouble or damage the park.

4.7 Dog walking in Riverview Forest

Dogs are required to be kept on a leash or under the control of a responsibly person while in a public park pursuant to the City of Coquitlam Bylaw 2851. Since the majority of conflicts reported in Riverview Forest involve dogs being off-leash this bylaw is followed. There are several dogs off-leash areas that local residents could use. One of these areas is in Mundy Park, very close to Riverview Forest. Public safety could be a concern in the future if dogs are left off their leashes more. No conflicts with wildlife were reported by residents or Bill Nickel, the Maintenance Supervisor for the area.

5.0 Recommendations

We have several recommendations to make concerning the future management of Riverview Forest.

1. We recommend that all mountain biker structures that are found in Riverview Forest be left in the park. If the structures could be unsafe for mountain bikers, other park users or are in a location that causes problems they should be removed.
2. Mountain bikers should be allowed to continue to use the trails and eastern portion of Riverview Forest for biking unless they begin to abuse the facilities or there is high public concern.
3. A sign should be erected in the area where mountain biking is most predominant to inform and educate other users of the park. The sign should say that the area is being used by mountain bikers, that the area can be used by other park users as well. It should also mention that caution should be used entering the area since mountain bikers may be travelling at high speeds and might have trouble stopping quickly. This could help minimize conflicts between mountain bikers and other park users, as other users may not enter into an area that they know is used by mountain bikers. A simple sign design can be found in appendix 3.
4. The dogs off-leash bylaw should be more clearly explained on larger signs and it should be enforced by park workers and bylaw enforcement officers more stringently. Part of the park should be considered as a dogs off-leash area as public interest increases. Determining if the level of public interest is high enough to make part of the park a dog's off-leash area should be decided by park planners.
5. Rebuild or maintain the fence enclosing Lost Creek..

6.0 References

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6.2 Personal Communication

Ambor, Corinne. Parks planner for the City of West Vancouver. Personal Communication. October 28, 2003. parks@westvancouver.ca

Nickel, Bill. Maintenance Supervisor for Coquitlam Parks West. Personal Communication. March 17, 2004. 604-933-6224

Appendix 1:

Mountain Bike Survey Form

Mountain Bike Use in Riverview Forest Survey

General Information

Name (optional) _____

Gender:

Male

Female

Age Categories

10-15

16-20

21-29

30-40

41+

What is your level of education?

Middle school

High school

Post Secondary

Completed Post Secondary

Other _____

What is your postal code? _____

Recreation

What is your main purpose for biking?:

Fitness

Recreation

Transportation

What type of biking do you do?

Cross Country

Downhill

Free Ride

How many hours a week do you spend biking recreationally? (choose one)

0-3

4-7

8-10

11-14

15+

What time of the year do you feel is best for biking?

Summer

Winter

Spring

Fall

All Year

What other type of outdoor recreational activities do you do? (tick off all that apply)

Dog Walking

Walking

Running

Nature Viewing

Skateboarding

Basketball

Tennis

Other _____

How many hours a week do you spend doing all outdoor recreational activities?

0-5

6-10

11-15

16-20

21+

Bike Information

What type of bike do you ride?

BMX Bike

Mountain Bike

Road Bike

Are you planning on upgrading your gear in the next 12 months?

Yes

No

If Yes, approximately how much do you plan to spend?

Continued on
other side

Riverview Forest

Where do you do most of your biking?

Parks Roads Trails Other _____

Do you use Riverview Forest (park at corner of Austin and Mariner) for biking?

_____ Yes _____ No

If you selected Yes, how often do you use the park?

Every day 5-6 times a week 2-4 times a week

Once a week Less than once a week

What do you like and dislike about Riverview Forest?

Like

Dislike

Do you think there should be an area designated for mountain bike use only?

Yes No Unsure

Would you like Riverview Forest park to be designated for mountain bike use?

Yes No Unsure

Comments: _____

Other Questions

What do you like about biking?

Where do you do most of your biking?

Do you prefer making trails or riding established park trails?

Have you ever experienced any conflict with other park users?

If you would like to participate in the issue of bike trails at Riverview Forest park, please write your name and e-mail below.

Name: _____ E-mail: _____

Appendix 2

Resident Questionnaire Form

Other User Survey

General Questions

Age Categories(circle one)

10-20 21-30 31-40 41-50 50+

Gender

____ Male ____ Female

Number of people in household?

How many children in the household?

____0____1____2____3____4+

Riverview Forest

Do you use Riverview Forest

____yes ____no

If no, Why?

How often do you use Riverview Forest park?

Every day 5-6 times a week 2-4 times a week once a week less than once a week

What do you use Riverview Forest for?(circle all that apply)

Walking Dog Walking Hiking Nature Viewing Cycling
Running Other_____

Describe any interactions you have had with other Riverview Forest park users

Comments?

Appendix 3

Sample Sign for Mountain Bike Area

Caution

Entering Multiple Use Area



Please use caution when entering this area as mountain bikers may not see you and may have trouble stopping.