

Disc Golf in Calgary

Action, Reaction, and Direction

Background, Controversy, Stakeholders, Recommendations:
A Study of Disc Golf in Calgary, Alberta, Canada



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1.0 Introduction

Recreation in the form of disc golf is a sensitive subject in Calgary, Alberta. Disc golf is a non-traditional sport that is growing in popularity worldwide. In Calgary, however, disc golf has met many obstacles, mostly from community dissatisfaction or lack of appropriate green space. This research project attempts to uncover the controversies behind the sport in the city of Calgary, by taking into consideration key stakeholders' issues, background, origin, benefits, environmental impacts, and consequently draw conclusions and offer recommendations for this issue in Calgary.

Literature and information for the background, origin, benefits, and environmental impacts were gathered from journal articles, newspaper articles, and websites. Literature from journal articles was difficult to research, as this a fairly new recreational sport and there were not any previous studies on disc golf controversy that we were able to retrieve. However, our group was able to attain primary information from field research of an existing disc golf course in Forest Lawn in southeast Calgary. For field research, we identified and photographed various environmental impacts, which are included in this study. These observations gave us insights into the recommendations for the disc golf situation in Calgary.

Three important stakeholders were interviewed to gather more primary data. The stakeholders interviewed were the City of Calgary Parks and Recreation Department, Calgary River Valleys Committee, and Craig Burrows-Johnson (a member of the Professional Disc Golf Association). All interviews were completed with two or more group members, and the same basic questions were asked of each stakeholder. However, extra information and special interests of each party were welcomed and provided another great source of data.

As a way to organize our data, and provide recommendations, a website was created exclusively for this project which contains all of our written work through easily accessible links, as well as providing even more information for interested parties through links and from the images of our field work. The address of our website entitled “Disc Golf in Calgary” can be found at <http://24.64.244.122/Geog591/index.html>. The recommendation process was ongoing and ever changing. New ideas and reframing of old ideas were constantly re-worked. As an important part of those recommendations, a disc golf course on Centenary Park was designed. This is one of our suggestions in order to soften the controversy between disc golfers, community associations, and the city of Calgary Parks department.

1.1 Background and Origin

“Disc golf will be the next Olympic sport” claims Scott Martin, disc golf’s World Amateur Champion (Walters, 1993). This could be true as disc golf is one of the fastest growing sports in America (Conkell and Tuten, 1999). Disc golf had been played casually for many years, but it wasn’t formalized until 1974 thanks to Edward Headrick. Headrick started designing a disc golf disc in 1964 and it took him ten years to perfect the design (Walters, 1993). However, it wasn’t until he invented the disc pole hole that disc golf began to catch on (Walters, 1993). The Los Angeles County Park and Recreation department put in the first course, as they were fascinated by this new sport (Headrick, 1977). Department director Sy Greban made this marginal sport into a reality as the park department chose Oak Grove, Pasadena as the site for the first disc golf course (Headrick, 1977). Today, there are over 500 courses in the United States, and 500 spread throughout Europe, Japan, Canada, and Australia (Alberta Disc Sports Association, 2000). The most common environments for golf courses are city or state parks,

college campuses, military bases (Schmid, 1995), public school grounds, and private residences (Conkell and Tuten, 1999). These environments provide disc golfers with a variety of obstacles and different terrains, while making disc golf accessible to most of the community. Disc golf sites usually require natural hazards for shorter holes, and open fairways for longer holes (Headrick, 1977). Unlike golf, trees in the fairway may be quite common (Walters, 1993) and offer varying degrees of challenges and makes this game popular. “Once you put a course in, it becomes so popular that adjoining areas start popping them up” states Don Hoffman, Midwest regional coordinator of the PDGA (Schmid, 1995). This illustrates how the game has spread so rapidly in the last twenty-five years. Disc golf may not be the next Olympic Sport, but it is definitely gaining ground.

1.2 Benefits of Disc Golf

The benefits of disc golf extend to the players, the park departments, and the community. For players, disc golf may be a life long activity (Conkell and Tuten, 1999) as all ages and ability can play. Senior citizens enjoy the game, and as a result, the Alberta Seniors Recreation Association made disc golf part of their biannual Alberta Senior Games in 1996 (Alberta Disc Sports Association, 2000). As for physical ability, the low physical impact of throwing a disc can usually be handled by anyone with mental or physical challenges (Alberta Disc Sports Association, 2000). There is minimal equipment costs as there are no special shoes or clubs needed for this type of golf (Conkell and Tuten, 1999). The average time it takes to play is much less than regular golf, as eighteen holes can be played between an hour and an hour and a half (Conkell and Tuten, 1999). There are many tournaments throughout North America and great disc golfers are able to make money as a professional (Walters, 1993). Not to mention that disc golf takes place in the outdoors and gives players a break from everyday life.

Park departments also reap the benefits of disc golf. Disc golf often turns low-use parks into high-use recreational areas (Headrick, 1977). Conkell and Tuten (1999) discuss the ways that disc golf reduces vandalism and undesirable activities in a park by simply increasing the amount of people to play disc golf. As the number of people increases, the undesirable activities decrease (Schmid, 1995), which benefits city parks, as well as the surrounding community. Disc golf courses are also cost effective for park departments (Schmid, 1995). Natural landscapes do not have to be altered to lay down a disc golf course. Parks departments spend between \$10,000 and \$15,000 to put in the course with the pole-hole baskets, which is considerably less than a lighted tennis court (Conkell and Tuten, 1999). As for course maintenance, it is very minimal, as local clubs and associations agree to maintain the course (Schmid, 1995).

Overall, disc golf benefits the community by offering a low cost, minimal maintenance recreational activity. Disc golf courses can be located in places where more traditional sports like baseball and soccer cannot (Conkell and Tuten, 1999). Disc golf appeals to different age ranges and interests, and there are many benefits to the players, communities, and parks departments. It is easy to understand why the Alberta Disc Sports Association state "...the future direction of sports is well represented by disc golf" (Alberta Disc Sports Association, 2000).

1.3 Newspaper Articles Review

The Calgary Herald has followed the recent history of disc golf in Calgary very closely. There has been a tremendous growth from 50 players in 1991 to 1500 players in 1999, which Craig Burrows-Johnson attributes to the game's lack of rigid structure and rules (Squires, 1999). Five hundred players per week used The Pearce Estate Park disc golf course (Squires, 1999) at the time this article was published in the Calgary Herald. The Alberta Disc Sports Association

(ADSA), a non-profit organization, devoted the second highest number of volunteer hours in the city of Calgary to ensure environmental responsibility of this sport in Calgary (Squires, 1999). However, Pearce Estate Park was chosen to be the new site for a million dollar wetlands project. In an article written by Alan Herring (1999), he objected to the removal of the disc golf course in order to make a wetlands area. He was writing in response to an article by Bruce Masterman who suggested that Frisbee flingers needed to see the bigger picture. Calgary disc golfers needed to relocate the course away from Pearce Estate Park, and the ADSA followed the appropriate procedures to have Confederation Park in the northwest approved for a six-month trial period (Simik, 2000). The city of Calgary approved the location after consulting the Banff Trail Community Association and the Triwoods Community Association. However, after the course was put into the park, the two community groups were flooded with complaints and vandals sawed off six of the nine basket poles in protest (Simik, 2000). The city realized that there are 3,000 tax paying disc golfers in Calgary, and the players were left to ask why disc golf courses could work in 2,000 other parks in North America and not in Calgary? (Simik, 2000). Only after a one-month trial in Confederation Park, the disc golf course was closed as the Banff Trail Community Association felt that the park was there for passive use, and not for projectile sports (Koziey, 2000). Bill Fraser, parks superintendent of leisure services approved a temporary course at a small park at 52nd St. and 12 Ave SE, and according to this article there were no current plans in the works (Semmens, 2000). However, ideas are being brainstormed to increase the disc golfers experience while keeping the local communities happy and many of these ideas will be mentioned further on in this report.

1.4 Websites On the Fundamentals of Disc Golf

This section makes reference to six relevant disc golf websites that provided information on the fundamentals, techniques, events, news, and contacts in the disc golf realm.

The Alberta Disc Sports Association (ADSA) website <http://adsa.ab.ca> offers a great description on how to play disc golf. Disc golf is comparable to traditional golf, but played with a plastic disc instead of a ball and clubs. The website describes that the object of the game is to reach a specific target within the fewest number of tosses. These targets may be a metal basket (See picture of metal basket), tone poles, natural objects, or man-made objects.

Metal Basket



Source: www.pdga.com

Players make continuous shots from where their last disc toss landed. ADSA recommends for new players that only one or two discs are necessary to get started.

The Alberta Disc Golf Page <http://members.home.com/disc-golf> gives Alberta disc golf news and upcoming events. It provides a comment page and links to other disc golf sites. It covers the Alberta disc golf courses in detail, and provides information, location, and updates about Calgary disc golf courses. The Forest Lawn disc golf course is discussed in detail, and the

Baker Park and Centenary park locations are awaiting more information. This site also lists and describes courses throughout Alberta.

The Professional Disc Golf Association (PDGA) <http://www.pdga.com> provides the most comprehensive and extensive website on disc golf for North America. With over 16,000 members, the PDGA sanctions competitive disc golf events and sets tournament and course standards. This site offers disc golf rules, national tour information, a pro shop, and various documents including information about disc golf impacts to the environment and fundamentals about the sport. The PDGA site describes disc golf as a series of tosses beginning at a specified tee box thrown at a certain target. Trees, marshes, and other terrain provide challenges and cause similar emotions like frustration and triumph as does traditional golf.

A disc golf promotional site, <http://discgolf.com>, provides mostly links to supplies and equipment vendors for the disc golf players. It also has links to people, courses and resources available for disc golfers, and this site appears to be growing.

The World Flying Disc Federation (WFDF) <http://www.wfdf.org/> provides updates for events and results of both disc golf and Ultimate tournaments and championships. This site combines the two sports on one website, as they both involve flying discs. This site offers rules, contacts, and lists the world records made in disc golf.

Disc Life Worldwide <http://www.disclife.com> is a comprehensive disc golf site offering resources, links, tournament information, and game basics. This site describes how players use specially made plastic flying discs, which can vary in their purpose just as traditional golf clubs vary. The object of disc golf, according to this site, is to throw the golf disc into the target in the fewest number of throws. Most disc golf courses consist of 18 holes, but some have only nine.

This summary of the top six most relevant disc golf sites provided a great insight into the basics of the game and the resources available to players. There were numerous websites available for information, but the sites discussed seemed most relevant to recreational disc golf in Calgary, Alberta, Canada. The professionalism offered from these websites demonstrates the great interest in the sport and the enormous potential market for disc golf vendors.

2.0 Methods

Recognizing that disc golf is a relatively new sport with little existing academic literature studying its benefits and impacts, the study undertaken by our group is based on a combination of reviews of relevant literature (including academic journals, websites of players' associations and other stakeholders) and a series of interviews with Calgary stakeholders. From this information, we have created a map of one proposed disc golf site in a central location in Calgary (see Appendix 10), intended as the sole permanent course for the next five to ten years. In addition, we have included a map of the other temporary, or transitory disc golf courses mentioned in the recommendations, which will serve as satellite courses for the four quadrants of the city (see Appendix 7 and 9).

Outline:

1. Literature Review
 - a. Background and Origin
 - b. Benefits
 - c. Newspaper Articles
 - d. Website Reviews
2. Physical/Environmental Impacts

3. Interviews

- a. Don Patrician of City of Calgary Parks and Recreation
- b. Craig Burrows-Johnson of the Alberta Disc Golf Association
- c. Bill Morrison of the Calgary River Valleys Committee

3. Map Production

- a. Data collection and Cartography

4. Analysis

- a. Benefits and Drawbacks
- b. List of Key Points
- c. Recommendations

2.1 Literature Review

From the beginning of this study, the group realized that there is a shortage of concrete academic research concerning the issue of disc golf as a use of urban green spaces, especially when narrowed down to a city like Calgary where the issue of contention is the valley bottom parks. These lower areas are home to a variety of flora and fauna that do not flourish on the dry prairie beyond the valley floor. Mature deciduous trees fall into this category. Disc golfers prefer parks with mixed terrain and a variety of natural obstacles like mature deciduous trees. There is little literature, however, which deals specifically with the issue of disc sports in such a mesoclimate.

Our group hoped that literature concerning other sports such as baseball and soccer would be transferable, however we soon discovered that the preferred terrain for disc golf is very different than for other sports. Disc golf does not require manicured fields or flat terrain. For

this reason, we have chosen to look at a small body of literature, and supplement this information with a physical impact assessment conducted by one of the group members and information gained from a series of interviews.

2.2 Environmental Impacts

From our research and experience with disc golf, we recognize that there are physical impacts from disc golf. In order to make informed recommendations in this study, the group realized that we needed some background information on the types and extent of impacts related to disc golf. As such, we have included an analysis of the impacts from soil compaction and other effects that occur regularly from this type of use of city parks.

2.3 Interviews

There seems to be a controversy surrounding disc golf in Calgary. There is more demand for disc golf than there is facility at present. Concurrently, there are a large number of city parks (potential disc golf course sites) that are currently not heavily used in Calgary. The interviews conducted in this project were aimed at uncovering the story behind the controversy of disc golf in Calgary. We hoped to uncover some of the interests of the various stakeholders and identify common ground between them, allowing us to offer recommendations. The group interviewed representatives from the Calgary River Valleys Committee (an advisory panel to the City of Calgary), City Parks and Recreation and the Alberta Disc Sports Association. Each stakeholder was asked the same set of questions (see Appendix 8), but other information was welcome. The other key stakeholder in this issue is obviously the community around proposed disc golf

courses. However, due to red tape at the University of Calgary and time restrictions, we did not conduct surveys of any of the communities potentially affected by disc golf courses.

2.4 Cartography

Centenary Park, located on St. George's Island (which is also home to the Calgary Zoo), is the prime location for a new disc golf course in Calgary, and a location for which the group was able to find baseline information to construct maps. The base map used in the Centenary Park example was provided by Don Patrician of City Parks, Sports and Recreation, and the proposed course was created by the group based on the description offered by the Alberta Disc Sports Association, as passed on to us by Don Patrician. It provides a scenic and spacious course that would disperse foot traffic widely between the tee boxes and baskets. Our recommendations section includes provision for baskets and tee boxes to be moved occasionally to reduce the impacts from foot traffic in localized areas and to provide variability in the course, however the scale of this map does not allow for this to be shown.

2.5 Recommendations And Conclusions

In this section, we weigh the costs and impacts of disc golf against the community and recreational benefits it brings. We filter out the key points and restate the contentious issues. Finally, this section includes the recommendations of the study, including maps of the proposed permanent course and a smaller-scale map showing the locations of all other suitable satellite courses for the four quadrants of the city.

3.0 City of Calgary Parks Department

The City of Calgary has the final power to allow or halt the development of new disc golf courses on city parkland. Key to their planning is to nurture and support the growth of new sports for public enjoyment. Sport development works in tandem with each amateur sport group and all are treated equally. Planners look to optimize the use of park spaces, while minimizing conflict and degradation. Every groups demands are reviewed and then may be given access to land for their activity. This is a hard task because there are so many groups that are asking for recreational areas.

3.1 Pearce Estates

As of 1998, the City of Calgary put forward the Pearce Estates Wetland Project for a more natural area surrounding the Livingston Fish Hatchery. A refuge for native ground nesting and migratory birds would be placed along the Bow River. Recreation was to be limited to promote birds to inhabit land along the river. In 1998, the disc golf course and four beach volleyball courts were removed, having formally occupied the area since 1988. Eviction caused a problem with the disc golfers because Pearce Estates was their only course in the city. The sport no longer had any facilities to meet the demand of citizens.

City of Calgary planners and the ADSA want four courses to lessen traffic and reduce impacts that are now concentrated to Forest Lawn. This nine-hole course was to serve as a temporary site until more development was evaluated. Members of the ADSA also wanted a professional level course in a natural setting to host tournaments and events.

3.2 The Municipal Process

The city follows a series of steps to ensure that each potential site is appropriate for disc golf use. The main aspect is compatibility of use with green spaces and current established

activities. Impacts on the park environment, community, and established park users are reviewed on a case-by-case basis. A list of potential sites (Appendix 1) was drafted by Don Patrician who is the “Non-Traditional Sports Development Planner” at Calgary Parks and Recreation.

Calgary City Parks maintain over 6400 acres of land, 40 to 125 acres may be used by all four proposed courses. Underutilized parks were the first to be looked at for proposed courses because they could handle disc golf with less community impact. Other relevant features grounds were evaluated on included parking, zoning (intended use), amount of vegetation, and whether the park could handle the increased foot traffic. The ADSA did reject some areas that the city was willing to develop because of lack of mature trees that serve as obstacles and pleasing scenery. All groups acknowledge that disc golf is a multi purpose sport and can be played in conjunction with other existing sports (see Appendix 6).

Preliminary sites are examined by a naturalist within the department for impacts and degradation that may occur with use. District planners and park superintendents are consulted for the overall viability of the sport in their area. Planners also have to take into consideration other established sports and see if conflicts occur with the mixing of uses. Most people that were consulted for this project felt that disc golf was able to be one of many activities that could be enjoyed in a multi-use park. This means that a disc golf course does not need exclusive rights to an area, but is compatible with biking, dog walking, and other recreational activities.

Homes in the communities surrounding the park have to be consulted. Usually a radius of 1 to 2 km is needed to accurately sample and receive information from current all park users. Public consultation is a necessary element in the legislative process because the community has to give approval in order to be endorsed by the alderman. Residents may want safety concerns, increased traffic, parking, and noise to be addressed by the city and the ADSA. Communities are

surveyed with an information sheet and questionnaire such as the one attached in Appendix 1. This was for a course to be installed in Viceroy Park (Varsity), but was turned down because of the negative response of residents. The associations of communities surrounding the course need to give support, but most important the survey will show direction and action for future plans. The process of going back and forth between different groups is very slow. If all are in favour of establishing a new course, the plan goes to City Council for approval by the ward alderman. The course is then built and examined on a trial basis that lasts anytime between six months to one year. After the trial period concerns and impacts are reviewed to determine if the location is suitable to host a course.

Ideally the City wants to have four courses in Calgary, one for each quadrant. One of these will be a natural area that is suitable for hosting tournaments. The ADSA members in Calgary compare their demands to what is in place in Edmonton, but the physical geography and layout is totally different and would not work in Calgary.

3.3 Public Perception

The general public has little knowledge of the sport. This statement is supported by all three interest groups and is the main reason for much opposition in the city. The lack of awareness by non-players is detrimental to the further development of the sport in established recreational areas and parks. The media also doesn't help the matter by voicing uninformed opinions from area residents. Such stereotypes associated with disc golfers are that they are 'unemployed, beer-drinking vandals'. Appendix 4 illustrates that players in the U.S.A. are employed and highly educated members of society.

The negative publicity is unfair compared to activities that occur at slow pitch diamonds and private golf courses, both forms of recreation that may be enjoyed with alcohol. Also the

level of understanding about the sport itself has been raised because many people surrounding proposed areas thought that disc golf employed the use of flying projectiles that traveled at the same velocity as a driven golf ball. The speed and distances associated with a round of disc golf are much slower and shorter than traditional golf. Concerns that other park users might be hit with a stray disc are warranted, but have the same probability and risk of other throwing/catching leisure pastimes (i.e. football and baseball).

Rules of conduct are followed by participants of disc golf and are based on a common sense approach. Litter, vandalism, and foul language are not tolerated, but some users may choose not to observe the rules. Again, the public is basing their opinion on the few ‘bad apples’ that do get noticed, and fail to see the greater percentage that are obeying the rules.

Confederation Park was the site of a heated battle over disc golf in the summer of 2000. Surrounding communities gave approval and a course was opened just as Pearce Estates was

closed. The new park was flooded with users on its first weekend, which shocked residents. The ADSA voluntarily suspended play until public meetings were held to remedy the situation. Accusations of vandalism from residents were questioned when every disc golf basket was cut down. This park could not be used because of the hostile interaction of users and was ultimately abandoned soon after it was opened. The city also stressed that residents’ perception that they ‘own’ the park space is not correct. The spaces the City of Calgary sets aside as parkland are for public use of any form.



Disc Golf Rules Sign

4.0 Alberta Disc Sports Association

The Alberta Disc Sports Association (ADSA) is a registered non-profit organization with a mandate that includes all disc sports. In fact, it is:

“the governing body for disc sports in the province of Alberta, Canada. This encompasses ultimate, disc golf, freestyle, guts, cups, double-disc court, and any other sport played competitively with a flying disc. [The ADSA] organize, direct, and officiate many of the leagues and tournaments held within our province. ADSA is committed to the development of disc sports within our community and as such we regularly offer free clinics, training, and lessons for all skill levels and ages” (ADSA online).

Along with the newly formed Calgary Disc Golf Association (CDGA), the ADSA is the premier socio-political voice of, and for, disc golf in the region. They promote the sport as not only beneficial to the communities surrounding the disc golf courses, but, also, to the greater community or city as a whole. They maintain the stance that disc golf is safe, clean, affordable, and environmentally friendly when compared to other land uses. Furthermore, the ADSA promotes disc golf as a flexible activity that befits both natural (and naturalized) areas as well as urban parks. And, the sport itself does not require a uni-purpose designated area—the sports greatest ally is the fact it doesn’t need to compete for the ever-diminishing stock of urban land with other land/park uses.

Course Design, Planning and Implementation

The Professional Disc Golf Association (PDGA) Course Design Standards highlight many of the concerns surrounding the activity. Besides outlining the physical elements of the

course, the standards include a list of principles and goals that should be considered in the development of a course. For instance, it specifies that courses should:

1. “Be safe for both players and non-players who may pass near or through the course.”
2. “Satisfy the design requirements of the people and organizations who approve use of the land.”
3. “Take care to minimize potential damage to foliage and reduce the chances for erosion.”

(Derived from *PDGA: Disc Golf Course Design Standards*, 1998).

Therefore, disc golf from a design standpoint realizes the potential hazards and concerns that envelop the sport and attempts to mitigate the consequences at an early stage. Recall, disc golf is a relatively young sport compared to many of its counterparts vying for the same recognition and use of urban space, and thus, it’s only recently that the sport has begun to organize to the extent that it can standardize design elements to be aware of these types of concerns. In addition, the fact organized disc golf associations take into account these types of public and environmental concerns, alone, suggests they desire to exist in urban parks and natural areas on long-term basis, in a sustainable fashion, and, cooperatively with other park users.

In Calgary, the ADSA and its advocates rally for the creation of new disc golf courses by writing letters and submitting proposals to the city officials and town council members. Moreover, as acquiring the consent of neighbouring communities is a necessary precursor to implementing a course, the ADSA also makes presentations to, and attends meetings of the various community associations and interested stakeholders involved. But, before this political process is reached an appropriate physical landscape must first be selected and, in the past, this has proved itself a daunting task as disc golf courses in Calgary have a rather long history of instability. Take, say, Pearce Estate disc golf course as a prime example, or, perhaps, the

previous courses at Baker Park and West Confederation Park. Referring to Baker Park and the city parks planning department respectively, Craig Burrows-Johnson (PDGA member) states, “they found that disc golf was not a compatible park use” at this site (personal interview). However, he goes on to suggest that disc golf, “proved compatibility at Pearce Estate Park over eleven years and at courses around the world” (personal interview). In fact Pearce Estate Park is an admirable example of a successful multi-use park because it not only hosted a disc golf course, but it incorporated a playground, cycling paths and beach volleyball courts as well. Accordingly this contrast, or conflicting opinions between stakeholders, formulates the basis of the conflict surrounding disc golf in Calgary.

From the ADSA perspective, the ideal location for a disc golf course consists of a wooded area or parkland that provides obstacles for the participants to avoid (the fact that this is often easier said than done represents one of the environmental oppositions to the activity). Craig Burrows-Johnson also concurs that this, along with a flat area with short grass is preferred to give easier access to the disabled and elderly athletes (personal interview). Bathroom facilities and parking are other desired amenities to be considered in locating a new disc golf course.

Considering this criteria, and, the fact the Urban Parks Master Plan (UPMP) and the Calgary River Valleys Committee affirm that: “the primary use of the River Valley Park System will be passive, low intensity, informal, [and] unstructured,” suggests the best locations for future disc golf courses in Calgary is in the manicured urban parks (*UPMP: Vision Statement*). It is however, the opinion of Burrows-Johnson that, “a carefully designed course [...] significantly reduces the impact to parks or natural areas” (personal interview). As the designer for a new disc golf course in Lethbridge for the upcoming Senior’s Games, Burrows-Johnson

recommends that courses abide by the basic rule: “shoot from high density toward low density” (personal interview). Ostensibly, this means tee boxes should be located at, or near the pathways and play areas within a park, and conversely, baskets should be placed away from these major pedestrian routes or play areas. Of course, this is not always feasible given the layout of the park, but it is the ideal principle that should be reflected in the design of new disc golf courses.

4.1 Public Perception

One of the major problems perpetuating the disc golf conflict in Calgary as identified by Craig Burrows-Johnson is public perception, or, perhaps, better said misperception of the sport. Many neighbouring residents of disc golf courses feel that it is an unsafe sport for a multi-purpose park. That said, over the eleven year period that disc golf was played in the multi-use Pearce Estate Park, and, in over 150 000 “strokes” or tosses, not one injury caused by a flying disc has ever been reported (Burrows-Johnson letter to R. Hawkesworth). Also, the lack of public knowledge and understanding about the game presents an obstacle to the ADSA. For instance, there are those who mistakenly confuse disc golf “with the Olympic sport of discus throwing, which uses an extremely heavy metal/composite disc derived from an ancient Greek weapon of war” (letter to Hawkesworth). With images like this circulating in the collective Calgarian imagination it’s no wonder disc golf faces the adversity it does.

What is often, and sadly, overlooked is the positive impact disc golf has on the city, and, specifically, the communities around which a course is located. Urban parks that were once under-utilized have become busier, which itself acts as a mechanism to deter crime. In addition, the transient nature of downtown parks such as Pearce Estate and Centenary can be noticeably improved by locating disc golf courses there. People generally feel safer in a park when there are people around and disc golfers quite possibly supply that steady flow of people that prevents

transients from rooting themselves in the park. In a sense, disc golf essentially functions as an activity or park use that keeps undesirables out, and, rather than presenting a safety hazard with flying discs, the sport actually makes the park safer and ultimately more attractive to other users. Thus, the ADSA and the PDGA seek to inform public opinion and change these misperceptions through public relations events such as “The World’s Biggest Disc Golf Weekend” that will reintroduce the sport to Calgary in Baker Park on May 5th and 6th 2001.

4.2 Centenary Park

“It is ADSA’s belief that many significant benefits will flow from the approval of this proposal. The benefits of adding a disc golf facility in our community are clearly outlined and include increased safety through the presence of disc golfers, litter control, use in underutilized areas of the park, and an organized activity for a wide range of user groups. ADSA is committed to transforming Centenary Park from an area to avoid due to its current undesirable use to one where all citizens of Calgary can enjoy the park in a clean and safe manner” (Babcock letter to Don Patrician).

4.3 ADSA Recommendations

One of the major questions facing the ADSA is why this sport represents such a conflict in Calgary. Indeed the environmental impacts are minor and the social effects are generally positive. Disc golf is considerably less detrimental than other forms of recreational park/land use and, although it can cause significant soil compaction and erosion around tee and basket areas, it doesn’t necessitate large alterations to the physical landscape like other uses—namely golf, baseball, and soccer to name just a few. To combat soil compaction and erosion, the ADSA and PDGA recommend using alternative benign surfaces such as paving stones and woodchips in

high traffic areas (Burrows-Johnson, personal interview). In fact, disc golfers actually prefer the latter because it decreases wear-and-tear on the disc and prevents scuffmarks on the disc, which of course, would affect the flight of the disc. As discs cost as much as twenty dollars (or more in some instances), the player deems them valuable possessions and any method of preserving the life of the disc is desirable.

Environmental considerations then, do lie at the heart of this conflict—there is a significant disparity between two groups—the RVC and the ADSA. To explain, the disc golfers want access to urban parks or natural areas and the river valley in Calgary is the prime location. Conversely, the RVC doesn't want any active or structured activity in and around, ironically enough, the very space the ADSA finds most desirable. So, therein lies the rub.

The ADSA recommends several measures to ameliorate the impacts of disc golf:

1. Cap the number of players to prevent degraded soils and park spaces.
 - a. This could take the form of limiting the total number of rounds per day.
 - b. Employing a course Marshall to open/close the course to correspond with the dry periods.
2. Promote passive play and the concept of “tread lightly.”
3. Implement four courses simultaneously in the city to effectively disperse play and reduce the impacts caused by high volumes of play.

5.0 Calgary River Valleys Committee

Our interview was with Bill Morrison, a representative of the Calgary River Valley Committee (CRVC), and it aimed to uncover whether the impacts of disc golf as a recreational activity warranted the use of the river valley land. Within the committee there were two general

opinions. On one side, some members are opposed to potential degradation to existing habitat and potential conflict with other park patrons and wildlife. Others would be more accepting as long as pre-construction conditions for the park were established and the course removed if unacceptable use or degradation were to occur. One common theme was established however, the principles of the Urban Park Master Plan (see Appendix 2 and 3). It was written by citizens of Calgary and contained a common vision for the future use of Calgary's river valley.

A Vision for Calgary's River Valley Park System

“The people of Calgary envision a continuous integrated river valley park system that reflects the city's unique prairie and foothills setting. The River Valley Park System will express citizens' commitment to its preservation, use and enjoyment, and will promote understanding of our natural and historic heritage. We envision a river valley park system in which we will all take pride, and in which every citizen will assume responsibility for its protection.”

(Urban Park Master Plan, 1994)

5.1 Course Recommendations

The CRVC believes that for the long term, one must follow this vision and set of principles. Disc golf has become such a successful sport that last year alone, 30,000 rounds of disc golf were played at Pearce Estates. The trouble is believed to be that players are not sensitized and go tracking off through the bush and sterilize ground nesting areas. There can only be so many interruptions and fragmentation before you destroy the natural environment.

Even with these disruptions of the environment, many within the committee still feel that if managed properly, and set in the right place, a course in the river valley can be a viable option. Places selected by the CRVC carried a similar set of characteristics. The courses would not be selected in very pristine areas of the river valley or where vegetation or wildlife was unique or sensitive. The proposal for the Old Esso Refinery was given to the ADSA because of the nature of the natural environment. It would be common use along with dog walkers, and could very well be used for higher numbers of golfers and possibly even tournaments. It was also chosen on the combination of concession and recognition because it is in the river valley but removed from the higher quality habitat. The land already has a paved parking lot and transportation routes into the area sets out the initial infrastructure, the fragmentation has already occurred.

The CRVC believes that the ADSA will not get courses in pristine areas alone. One course would generate far too much traffic and would be damaged very quickly with the numbers emerging from this relatively new sport. It would not be a closed and private course, therefore, not be marshalled. The general public would have access to the course and CRVC worries that the course would attract people that do not necessarily subscribe to the rules of disc golf. There should be more sites in order for the sport to operate and if there are not then they should be placed on less sensitive sites.

5.2 Other Park Users

There is an ongoing conflict between the disc golf association and the stakeholders protecting the interests of the natural environment. The conflict stems from the problem of intensive disc golf use versus the natural and semi-natural areas. The more successful the sport becomes, the greater the conflict. Disc golf competes with a variety of other river valley users and potential users. Some of these include; dog walkers, bird watchers, recreation cyclists,

buskers, equestrians, beach volleyball, fishing, orienteering, playgrounds, field trips, picnickers, concert in the park, and a variety of pick-up games. If you allow disc golf to enter, then all the other activities believe that they should be allowed in as well. There is an incremental, cumulative impact that says if you put one in, the next will follow. In order to preserve the river valley for long term, one must look past the next few years and not slowly destroy the river valley using what many think is a very benign way. A standard must be set and lines drawn in order to prevent the area from being fragmented and destroyed.

Disc golfers have been recognized as trying to improve their sport and rules. New improvements to the rulebook have been recognized by CRVC members and future improvements might warrant the sport of disc golf to enter a more pristine or sensitive area. Some of these improvements include suggestions to use artificial obstacles instead of trees and setting up standards away from shrubbery and vegetation. Comparable sports by impact standards, in the eyes of the CRVC would be dog walkers and bird watchers. These sports also cause the sterilization of ground nesting areas.

5.3 Urban Park Master Plan

Many members of the CRVC believe the qualities desired in a course would be as follows; it should be as friendly as possible, have a set of posted rules that everyone can and will follow, the continual improvement of the sport and its rules, the improvement of each player that goes out to be on a more professional playing level, and lastly it should accommodate the principles outlined in the Urban Park Master Plan. The CRVC also mentioned the possibility of conducting environmental impact assessments of each potential site, outlining the present conditions, users, vision for that area, and possible fragmentation of wildlife corridors. This would, if anything, educate the public on the impacts of the sport in these areas. The Master

Plan outlines a few principles that exemplify what the CRVC believes should be used as a set of guidelines.

Principle #3

“The primary use of the River Valley Park System will be passive, low intensity, informal, unstructured activities.”

(Urban Park Master Plan, 1994)

Principle #16

“When human use versus wildlife use comes into serious conflict in those areas designated as major natural areas in the 1984 Calgary River Valleys Plan and the Urban Park Master Plan, wildlife and habitat will take priority.”

(Urban Park Master Plan, 1994)

These two principles, along with the vision statement, clearly outline the need for preservation of these natural environments.

The conflict between the different groups created a need to develop a greater willingness to compromise. The CRVC believes that the sport needs to accept less pristine areas for their courses until the time when they can control the possibility of over-use. They also believe that the sport should consider privatizing the courses so that they could be controlled or marshalled. There are, however, common grounds on the desire to protect the river valley and that we should not destroy the same qualities that we go out to enjoy. There is a need for balance, but first of all

serve the higher order defined by the vision and principles the people of Calgary have already set down.

6.0 Environmental Impacts

Disc golf has been growing in popularity for the past 25 years. What was once an unknown sport, which was only played by few people, has slowly grown in interest throughout the world. So why do Calgarians have a problem with disc golf being played in their parks? Is it because of the environmental impacts that they believe there are affecting their parks? There has not been a lot of research done on this area of interest, but from the articles that were available we determined that there are, indeed, disadvantages, but there are also advantages that disc golfers have on the parks.

The major issues that were raised throughout several articles were: Merlin nesting, vegetation protection, soil compaction, and overall park appearance. These issues reflect the views that various people have, some are for disc golf and some are against disc golf, in Calgary parks.

6.1 Merlin Nesting

Merlins are birds of prey that are closely related to the falcon. The Merlin originated in Europe and has moved, within Canada, into the centre of several cities. One of these cities happens to be Calgary (www.rspb.org.uk/webcams/know_merlin.html). Merlins tend to nest in old nests of crows and magpies in developing conifers (www.rspb.org.uk/webcams/know_merlin.html). Two community groups within the Pearce Estates area were busy with complaints about disc golfers disturbing wildlife... (Simik, 2000).

In order to maintain the level of merlins in Calgary the, potential and current, disc golf courses available should try to keep the tees and baskets ten to fifteen meters away from the nests of the merlin (<http://members.home.net/disc-golf/press/triwood05-29-00.html>).

6.2 Vegetation Protection

Disc golf courses tend to be in parks, and within these parks there are trees. Disc golf baskets are usually placed near trees to make for a more difficult shot and par for the hole. Because of this, the trees that are near the baskets may be hit by flying discs. If the discs hit the trees, there is a chance that needles or leaves could fall off of the branches.

Disc golf players can replant trees to replace the trees that have been impacted by the discs. Once these trees are planted, the players must use stakes to try to protect the new trees from the impact of the discs (http://pdga.com/environment_doc.phtml).



Forest Lawn Disc Course, Damage of tree

Also, the disc golf players could plant new trees each year routinely, to replace those trees that were impacted by their play (http://pdga.com/environment_doc.phtml). As for the problem of the discs hitting the trees near the baskets, moving the baskets way from the trees would help, or at least moving the baskets on a regular basis to different areas of the course.

Other people have a different view though. The Professional Disc Golf Association (PDGA) claims that the “a disc golf course leaves the structural integrity of existing vegetation largely intact” (http://pdga.com/environment_doc.phtml).

6.3 Soil Compaction

When the disc golf player throws the disc, their footing is very important within the last few seconds of the throw (<http://disclife.com/enviro.shtml>). At the tees the disc golfer must

plant his/her feet on solid, stable ground. In order to have solid, stable ground disc golfers often spread-out beyond the original tee spot. This is sometimes called the ‘ever-widening tee syndrome’, and can also be caused when the tee becomes wet and muddy and the players moved



Forest Lawn Disc Course, ‘Ever-widening Tee Syndrome’

either left or right to avoid the mud (<http://disclife.com/enviro.shtml>). This, in turn, causes the soil compaction at the tee area to become larger and more permanent.

This soil compaction also takes place near the baskets, where the disc needs to putt to get par on the hole. The impact around the baskets is not as high though, because the discs do not always land right around the basket, and the disc golf players end up throwing the discs from different areas along the course. Craig Burrows-Johnson refutes the idea of soil compaction due to disc golf, in a letter to Alderman R. Hawkesworth. In the letter Craig Burrows-Johnson states that there are no facts to support any statements pertaining to soil compaction and the impacts of disc golf (<http://asda.ab.ca>). Also, when Pearce Estates was still open, from 1995-2000, it saw five hundred to six hundred weekly rounds of disc golf being played (<http://asda.ab.ca>). The high impact that occurred during this time was insignificant in comparison to the destruction that occurred last year during the ‘unstructured, passive use’ in the park (<http://members.home.net/alan-is/guestbook.html>).

To try to combat soil compaction, cement pads or wood chips are now replacing the bare soil, at the tees (<http://disclife.com/enviro.shtml>) (http://pdga.com/environment_doc.phtml).

This eliminates the ‘ever-widening tee syndrome’ that was mentioned earlier. These new cement pads also do not require any maintenance for upkeep. Also, for the soil compaction that occurs around the baskets, those baskets can be moved to ease the compaction (<http://members.home.net/disc-golf/press/triwood05-29-00.html>).



Wood Chips and Soil Compaction

6.4 Overall Park Appearance

Disc golf players are proud of the sport that they play, and of the effort that they put into maintaining the disc golf courses throughout Calgary. The disc golf players do not want to have a poor reputation for destroying the parks they that want to use for disc golf. To maintain a good reputation disc golfers have cleaned the parks of litter and brought people to otherwise unused locations in parks. Their efforts to pick-up the litter has resulted in cleaner parks for not only their use, but also everyone’s (http://pdga.com/environment_doc.phtml). Disc golf players have, in many cases made a point of doing a major overhaul for litter in the parks, before they even enter the park to play. They call it Adopt-A-Park (<http://asda.ab.ca>). This would be the case for Centenary Park. Centenary Park has been neglected and has become unsafe to the public (<http://asda.ab.ca>). Through this neglect, used needles and condoms can be found throughout the park. Disc golf players would initiate a clean-up effort in order to have a disc golf course in Centenary Park (<http://asda.ab.ca>). For Pearce Estates, Disc Golf Volunteers carried out Litter Pick-up and Vandalism Watch regularly (<http://asda.ab.ca>). With this work, the City of Calgary recognized these volunteers with over 4200 hours of volunteer time (<http://asda.ab.ca>). Mike Belchik, of McKinleyville, California, states that there are “testimonials available from all over the country showing that disc golf improves the overall atmosphere of parks, discourages

littering...” (www.sfdiscgolf.com/community/forum.html). The Professional Disc Golf Association has made rules also, for players, to try to educate them about litter. Cigarette butts are even considered to be litter according to these new rules (http://pdga.com/environment_doc.phtml).

Impacts of disc golf courses and of disc golf players are different according to whom you talk. There are different views as there is in all situations. Merlin nesting, vegetation protection, soil compaction, and overall park appearance seem to be the issues that were raised with reference to disc golf courses. For each of these environmental impacts there are both positive and negative impacts. Also, there are many recommendations for each impact that the disc golf courses and players have on the parks. Many of these recommendations come from, and are being acted upon, by disc golf players themselves.

7.0 Recommendations and Conclusions

Through the research and interviews that we have conducted, we have collected various viewpoints of the different stakeholders involved with disc golf in Calgary. Although each stakeholder has differing opinions, many of their recommendations are shared. Our group has compiled a list of recommendation that we feel will improve the disc golf controversy in Calgary. It is our opinion that these recommendations not only provide ideas for increased viability and sustainability of courses, but also supplies information for future studies.

1. Install a disc golf course when designing new community developments and parks
 - City of Calgary recommendation that will prevent community conflict
2. Other potential development sites could include reclaimed land such as landfills, dry rubble sites, or old industrial areas

- PDGA and City of Calgary recommendation, so to use areas that would otherwise not be used for park space
3. Player education on environmental issues
 - Common recommendation by all interested parties
 4. Yearly fee for players
 - Recommendation of our group, that will contribute to the maintenance and increase awareness of players
 5. Adopt-A-Park Program
 - Craig Burrows-Johnson and ADSA recommendation, to try to keep the park clean and free of vandalism
 6. Moveable baskets
 - Craig Burrows-Johnson and our group recommendation, this would reduce the impact of the numbers of golfers
 7. Cemented or wood enclosed compacted gravel tees
 - Bart Snell and our group recommendation, to reduce the impact of soil compaction and the 'ever-widening tee syndrome'
 8. Increase number of courses within the city
 - Common recommendation by all interested parties, this spreads out the number of players on each course to lessen the impact on the natural environment
 9. Rotate the use of disc golf courses into different parks throughout the season

- City of Calgary and our group recommendation, this will minimize the impact on one course
10. Move baskets away from trees and nesting areas
 - Bill Morrison and our group recommendation, this will prevent unnecessary loss of wildlife and habitat
 11. More trash receptacles throughout the course
 - Common recommendation to reduce litter
 12. Steer away from environmentally sensitive areas by implementing physical structure, such as, bridges, stairs, and trails
 - PDGA and our group recommendation, to lower the impacts of soil compaction and erosion
 13. Maintenance of existing courses and trails
 - Common recommendation to prevent fragmentation and sterilization
 14. Woodchips at tees and base of baskets
 - Common recommendation to reduce soil compaction
 15. Artificial obstacles
 - Our group recommendation, to limit damage to natural environments
 16. Top of the target to be solar powered for night time safety
 - Craig Burrows-Johnson recommendation, to increase hours of use and park safety throughout the night
 17. Limited number of tournaments
 - General recommendation to avoid high volumes of use
 18. Course Marshalls to monitor activity

- Common recommendation, to limit number of people entering the parks
19. Privatization of courses with a nominal fee
- Our group recommendation, to try to help with maintenance of the courses and limit the number of players
20. Disc Golf practice range
- Our group recommendation, to increase the skills and accuracy of the players, to a more professional standard
21. Environmental Impact Assessment of area before site of course is chosen
- Common recommendation, that is growing in interest
22. Course designed to have tees at high density shooting to low density
- Craig Burrows-Johnson design recommendation, for safety within the parks
23. Broaden demographics of the sport to appeal to a greater proportion of population
- Craig Burrows-Johnson and our group recommendation, to increase the popularity and acceptability of the sport
24. Conflict of interest guidelines for planners and decision-makers
- General recommendation, to set a standard and policy for making decision regarding disc golf
25. Promote the sport to change the perception
- General recommendation, to try to educate and inform the public of the sport

It is our recommendation that is far easier to anticipate and prevent, rather than repair and fix the damage that disc golf has caused in Calgary. This conflict reflects local and contemporary social, political, and environmental issues, and, as such, demands further investigation. Future studies should consider the role of community associations in the decision-making process, and, specifically, the reasons why they either oppose or support proposed disc golf courses. We recommend a comparative study with other regions of North America to fully understand the environmental impacts. This study should consider whether Calgary has the right climate and ecosystem to support this sport indefinitely. Although this study uncovered many aspects of the disc golf controversy in Calgary, further investigations into the relationship between impacts and policy decisions would also be beneficial.

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