

**Management of a River Recreation Resource: Understanding the Inputs to
Management of Outdoor Recreational Resources**

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any final revisions, as accepted by my examiners.

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Abstract

Research into the use of natural resources and protected areas for the pursuit of outdoor recreational opportunities has been examined by a number of researchers. One activity with growth in recent years is river recreation, the use of rivers for rafting, kayaking, canoeing and instructional purposes. These many uses involve different groups of individuals, creating management complexity. Understanding the various inputs is critical for effective management

The Lower Kananaskis River, located in Kananaskis Country in Southwestern Alberta, was area chosen to develop an understanding the inputs necessary for effective management. Specifically, this study explored the recreational use of the river in an effort to create recommendations on how to more effectively manage use of the Lower Kananaskis River and associated day-use facilities in the future.

Kananaskis Country is a 4,250 km² multi-use recreation area located in the Canadian Rocky Mountains on the western border of Alberta. Since its designation, the purpose of the area, has been to protect the natural features of the area while providing quality facilities that would complement recreational opportunities available in the area. Over the years, the multi-use goal of the area has led to issues surrounding the management of the recreational opportunities available, including the multiple use of the Lower Kananaskis River.

The Lower Kananaskis River is a section of the Larger Kananaskis River, one of six rivers flowing through Kananaskis Country. The Kananaskis River flows for 84 km. northward in the Kananaskis Country from the Upper Kananaskis Lake through the development of the Lower Kananaskis Lake and Barrier Lake to the Bow River. This thesis was only concerned about a small section of this river, the lower portion. The Lower Kananaskis River is a 2 km stretch of the river located within Bow Valley Provincial Park, with an additional 4 km of river outside of the park that many users utilize. This river has become a widely used and well-known recreational paddling destination in Kananaskis Country and Bow Valley Provincial Park and with this has come concerns over its use and management.

A mixed methods approach was implemented to examine current use levels. Both surveys and participant observations were used to develop a better understanding of current use levels (i.e. time, type) and to gather information from users. At the same time, structured interviews were held with key policy leaders to further explore current management issues and concerns surrounding the Lower Kananaskis River.

Analysis of the data collected from river users revealed that the area is widely used by both commercial and recreational users. These two groups of users have learned to adapt to one another's activities. Both groups expressed high level of satisfaction, but continued growth in use will probably pose problems with user's experience and satisfaction. In many cases, users also recognized the need for improvements to river infrastructure both on and off the river. Users indicated that changes were needed in the parking areas to accommodate all of the vehicles and users, work was needed at the put-ins and take-outs to accommodate the increases in users along with work on the river features and at the day use sites. Users also recognized that the area is becoming more widely used and feel that changes are needed in how the area is maintained and managed in order to deal with its continued growth.

The interviews with policy leaders emphasized the well-known nature of the issues of the area and emphasized issues within the current management structure. Policy leaders were more critical of the current management structure of the river than the users. The critical comments from the policy leaders were expected, as they are more aware of the management issues than recreational users. The policy leaders made many insightful comments for change in the interviews and recognize that park management has shown low levels of understanding and responses to the expressed needs of the users, and recommendations of previous research.

This research found several examples of management ineffectiveness. It was concluded that the low levels of response from management is due to the lack of management capability. With the continued growth of the area new management demands can be expected. This in turn will require improved management framework and guideline. With this, it was recommended that increased management capability is required. In order to assist in the development of this capability the research developed an adapted outdoor recreation management framework. Application of this framework would help to ensure that the area is managed more effectively in the future.

Acknowledgements

There are many people that need to be acknowledged and thanked for the completion of this thesis and research. I hope to list all those who played a role in helping me to complete this thesis but I may have forgotten some along the way, so I would like to extend my gratitude to everyone who has been involved in the completion of this thesis.

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I would also like to dedicate this thesis to all those who are passionate about preserving our natural environment and those people who have had their own challenges in research.

*“Climb the mountains and get their good tidings.
Nature's peace will flow into you as sunshine flows into trees.
The winds will blow their own freshness into you...
while cares will drop off like autumn leaves.”*
~ John Muir

“Go confidently in the direction of your dreams. Live the life you have imagined”
~ Henry David Thoreau

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Chapter 1 - Introduction

The Lower Kananaskis River, located in Kananaskis Country in Southwestern Alberta, is recognized as a premiere whitewater paddling location provincially and nationally and over the years has encountered an increasing number of management issues. The Lower Kananaskis River provides a number of recreational services to different users, including: commercial guiding and instructional groups, clubs, public recreational users and other organized groups. In addition, the river is also a major source of hydroelectric power for TransAlta Utilities who manages its flow. All of these uses are governed under the corporate umbrella of various governmental, not-for-profit and commercial groups.

In the summer of 2000, Megan Squires (2001a) undertook a recreational use research project along the Lower Kananaskis River to determine the social carrying capacity of the area. The research resulted in numerous recommendations, including (Squires, 2001b, pp.18-23):

- 1) “Maintain the general framework for the Lower Kananaskis River Recreation Area Policy Guidelines for Management of Guiding and Instructing Activities; however, review the goals and objectives of the restrictions, as well as select permit restrictions within the existing document”.
- 2) “The Lower Kananaskis River Users’ Association should continue to function as part of the river planning and management process. However, more effort is needed to ensure that it operates in a manner that is consistent with the needs of the recreational and nonrecreational river user population. In addition better definition of the association’s role is necessary in terms of its responsibility within the planning and management process”.
- 3) “Develop a management plan for the LKR that details the management intents and objectives, information (data) requirements, and the criteria for decision making”.
- 4) “Implement management strategies in combination. In other words, endeavour to develop strategy packages that incorporate different indirect and direct strategies, as well as diverse methods for implementation and enforcement”.

The recommendations from this research cover themes such as: from management frameworks; the management plan for the area, and management processes. Since the summer of 2000, Alberta Parks staff have noticed a continued increase in the recreational use of the river, and believe that this growth has resulted in increased pressure on the river resources and surrounding day-use facilities (D. Cockerton, personal

communication, December 2, 2005). This identified need for management improvement and the continued growth in use and popularity led to this research. Therefore, the purposes of this research are: 1) to use a mixed methods approach to examine current use levels, 2) to develop management recommendations for managing future commercial and recreational use of the Lower Kananaskis River and associated day-use facilities, and 3) build on existing management frameworks found in the literature to develop an all encompassing outdoor recreation management framework.

1.1 Kananaskis Country Background

Kananaskis Country is a 4,250 km² multi-use recreation area located in the Canadian Rocky Mountains on the western border of Alberta (Figure 1) (Alberta Parks, 2004). The area is geographically significant as it is home to mountains, foothills, grazing lands and rivers. Kananaskis Country is known for its wide variety of vegetation and wildlife, various geological formations, diverse terrain and breathtaking mountain scenery (Alberta Parks, 2004). Not only is the area biogeographically important, but it is also recognized for its renewable and non-renewable resources including: timber, fisheries, oil and gas development, cattle grazing, and hydro-electric development (Alberta Parks, 2004).

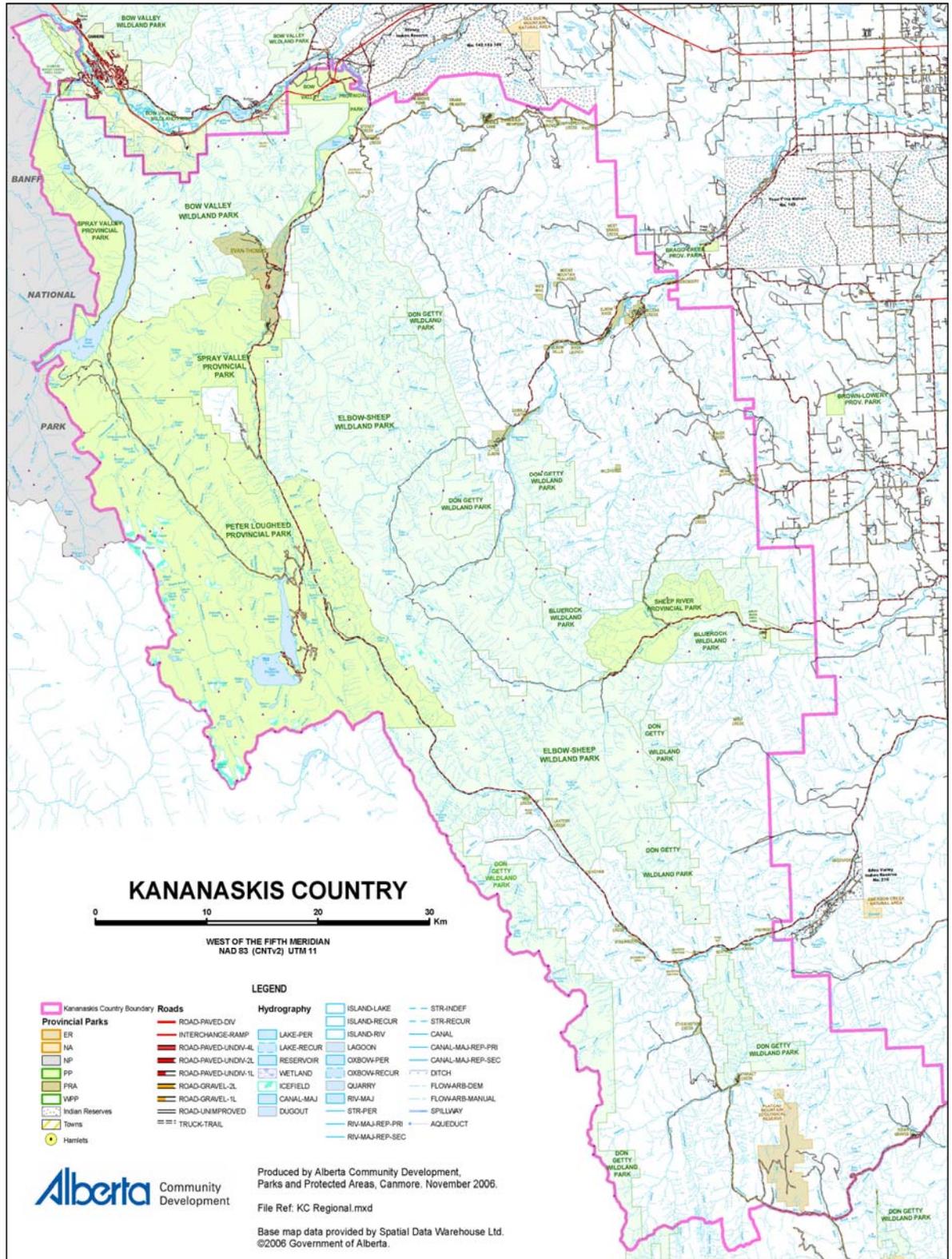
Kananaskis Country was officially designated in October 1977 to protect the natural features of the area in addition to providing quality facilities that would complement the recreational opportunities available (Alberta Community Development, 2006a). The Premier at the time, Peter Lougheed, played a key role in the designation of the area, as his goal was to set aside a portion of the Rocky Mountain foothills and front ranges for the enjoyment of Albertans (Alberta Community Development, 2006a). Premier Peter Lougheed also believed that the development of such a place would help to increase the value that Albertans attach to its land and living things (Alberta Community Development, 2006a).

Currently, approximately 62% of Kananaskis Country is managed under protected areas' legislation (Alberta Parks, 2004), with the remaining 38% falling under the management of other governmental departments for range and timber harvesting, petroleum and natural gas exploration, hydroelectric power generation and other small commercial and residential initiatives (Alberta Forestry, 1986). There are numerous protected areas within Kananaskis Country, including five Provincial Parks, four Wildland Provincial Parks, Provincial Recreational Areas and Provincial Forest Lands. The five Provincial Parks are: Bow Valley Provincial Park, Sheep River Provincial Park,

Peter Lougheed Provincial Park, Spray Valley Provincial Park and the Canmore Nordic Centre Provincial Park (Alberta Parks, 2004). Wildland Provincial Parks also make up a significant portion of the protected land in Kananaskis Country, including: Bow Valley Wildland Provincial Park, Bluerock Wildland Provincial Park, Elbow-Sheep Wildland Provincial Park and Don Getty Wildland Provincial Park (Alberta Parks, 2004). Other key areas within Kananaskis Country include Plateau Mountain Ecological Reserve and 40 Provincial Recreational Areas, including Evan-Thomas Provincial Recreation Area covering 4,400 ha (Alberta Parks, 2004). Kananaskis Country is an example of a multi-use area, where those in cattle grazing, forestry, and petroleum industries work with those in recreation in an attempt to meet all their individual needs while still maintaining the natural beauty of the area (Alberta Community Development, 2006d).

Today, Kananaskis Country attracts a large number of visitors and is an international destination where people from all over Canada and the world travel for a variety of outdoor recreational activities (Alberta Community Development, 2006d). The initial development of recreational facilities within Kananaskis Country was governed by the Policy for Recreation Development of Kananaskis Country, 1977. This policy was refined and changed through a number of policies. Today, recreational use within the area is guided by the 1986 Integrated Resource Plan and the 1999 Kananaskis Country Recreation Policy (Alberta Parks, 2004). Due to its close proximity to the major metropolitan area of Calgary and the variety of recreational activities available to visitors, including whitewater river paddling, it is the feeling of Alberta Parks staff that the number of visitors coming to the area has nearly doubled with approximately 80% of use consisting of day users (D. Cockerton, personal communication, December 2, 2005; Alberta Parks, 2004). With all of these uses, the pressure being applied to the area's resources has led to a management debate, including issues concerning the appropriate amount of use, the protection of the natural environment, and the approach to management.

Figure 1 - Map of Kananaskis Country



(Alberta Community Development, 2006e)

1.2 Bow Valley Provincial Park Background

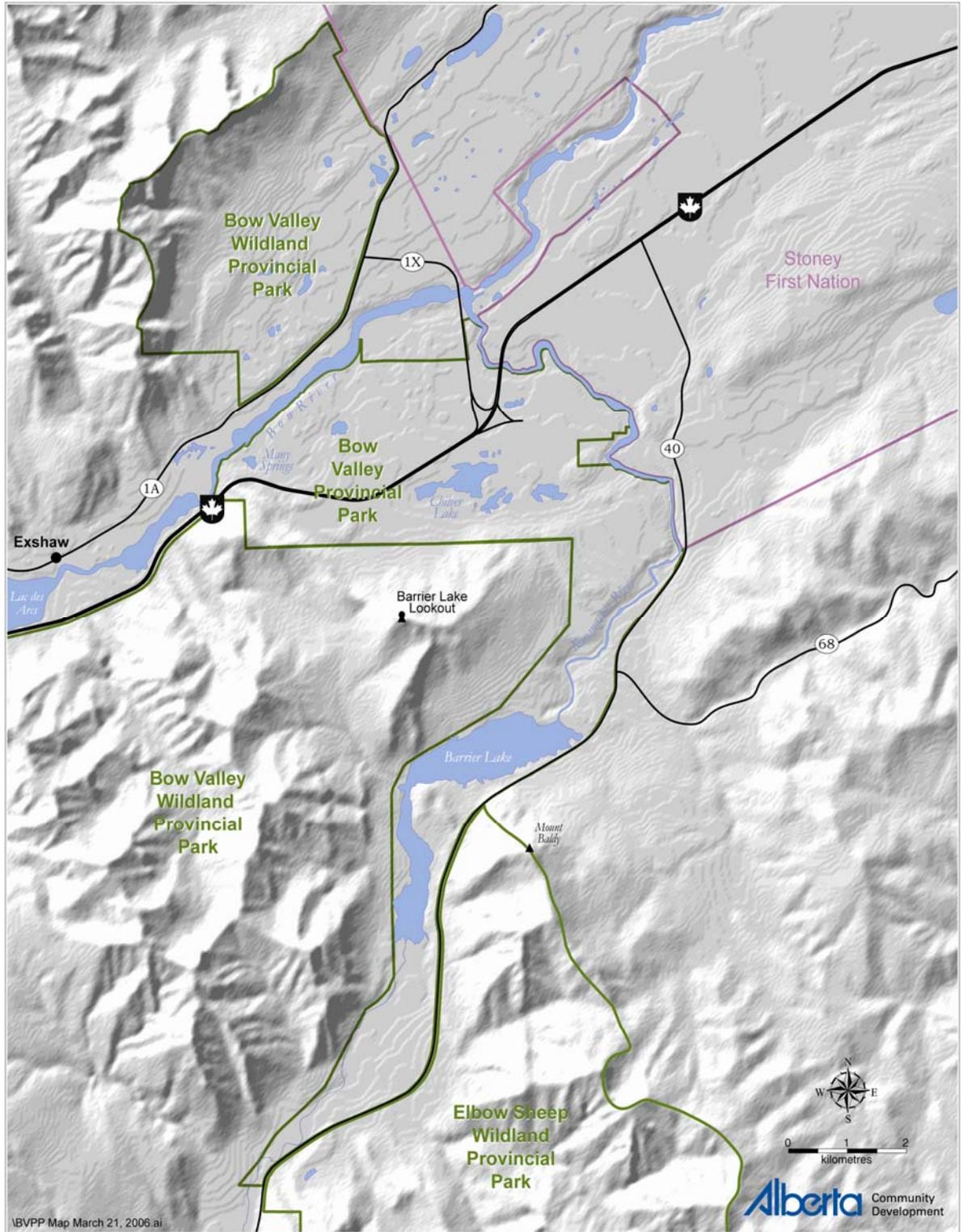
Bow Valley Provincial Park is a 3,200 ha Provincial Park that serves as the main gateway to the Canadian Rocky Mountains in Kananaskis Country (Figure 2) (Alberta Community Development, 2002). Bow Valley Provincial Park is part of the Bow Valley Protected Areas system and is managed under an ecosystem-based approach. This management approach looks to establish and maintain common goals and a long-term working relationship among land managers, neighbouring jurisdictions, stakeholders and visitors and is based on integrating biological, physical and social information (Alberta Community Development, 2002). Specifically, Bow Valley Provincial Park is managed under the *Provincial Parks Act*, with the main objective,

To provide opportunities for heritage appreciation, outdoor recreation, and tourism or for any combination of those purposes, which are dependent on and compatible with the protection of the environment (Alberta Community Development, 2002, pp.44).

Bow Valley Provincial Park is bounded in the east by the Kananaskis River, the Canadian Rockies on the west and south boundaries and the Bow River and Crown Lands in the north (Alberta Community Development, 2002). The park itself contains many provincially significant natural landscapes and features along with a variety of recreational opportunities and interpretive and educational programs (Alberta Community Development, 2002).

Due to Bow Valley's close proximity to the Trans Canada Highway and Highway 40, which provides easy access to the cities of Calgary and Canmore, it serves many day use and overnight visitors (Alberta Community Development, 2002). The main focus of this research is the recreational use of the Lower Kananaskis River located within the Park and the associated day use sites Canoe Meadows and Widow Maker (Alberta Community Development, 2002). This site is a place to teach, train, compete and participate in recreational river boating. Due to the river's popularity, the Canoe Meadows and Widow Maker areas have important management issues. As the influx of visitors and river recreational users continue to increase, the associated management concerns lead to a feeling that a new management policy may be necessary.

Figure 2 - Map of Bow Valley Provincial Park



(Alberta Community Development, 2006f)

1.3 Lower Kananaskis River Background

The Kananaskis River is located in Southwestern Alberta and is one of 6 rivers flowing through Kananaskis Country (Alberta Parks, 2004; Bunt et al., 1999). The Kananaskis River flows for 84 km northward from the Upper Kananaskis Lake through

Figure 3 – Barrier Dam



(Rae, K; Kananaskis Country, Alberta; September 4, 2006)

the Lower Kananaskis Lake and Barrier Lake to the Bow River (Bunt et al., 1999). The section of the Kananaskis River studied for this research is the Lower Kananaskis River, a 2 km stretch of the river located within Bow Valley Provincial Park. It is important to note that there is an additional 4 km of river outside of the park that many users also utilize (Figure 7) (S. Donelon personal communication April 18, 2006). As previously mentioned, this stretch of river is significant for a number of reasons, including as a source of hydroelectric power and for recreational purposes. TransAlta Utilities owns and operates three hydroelectric dams along the Kananaskis River: Pocaterra, Barrier and Interlakes (TansAlta, 2005). The Barrier Dam (Figure 3) provides the majority of the outflow on the Lower Kananaskis River. The hydroelectric power generated from the Lower Kananaskis River dams is primarily used during peak times to provide households in Southern Alberta with electricity (TransAlta, 2005). The controlled flow along the river not only provides an important source of hydroelectricity, but also provides year round river recreation opportunities for many. These include commercial operators, private users, paddling, clubs, other organizations and other

the Lower Kananaskis Lake and Barrier Lake to the Bow River (Bunt et al., 1999). The section of the Kananaskis River studied for this research is the Lower Kananaskis River, a 2 km stretch of the river located within Bow Valley Provincial Park. It is important to note that there is an additional 4 km of river outside of the park that many users also

Figure 4 – The Slalom Course without Water



(Rae, K; Kananaskis Country, Alberta; July 23, 2006)

instructional groups. The Barrier Dam (Figure 3) is controlled by TransAlta and controls the flow of water through the Lower Kananaskis River. It is important to understand the flow of this river due to the drastic changes in water level when the dam is open and

Figure 5 – The Widow Maker Put-in Area without Water

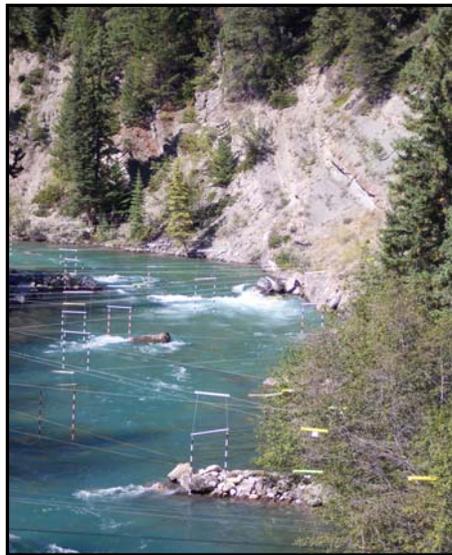


(Rae, K; Kananaskis Country, Alberta; June 3, 2006)

closed. TransAlta Utilities controls the flow of the Lower Kananaskis River and currently determines when the Barrier Dam is open and closed. As seen in Figures 4 and 5, the water level changes considerably when the dam is closed, to the point that the Lower Kananaskis River is unusable. In some areas the water

level decreases to such a point that one can walk across the width of the river. Whereas, when the dam is open, the water flows at a continuous rate and one is able to use it for water recreational purposes and is not able to walk across it on foot (Figure 6).

Figure 6 – The Slalom Course with Water



(Rae, K; Kananaskis Country, Alberta; September 3, 2006)

With the varying uses of the Lower Kananaskis River, a number of groups have come to play a key role in the development of the area and the decision making. Two of the key groups are the Alberta Whitewater Association (AWA) and the Lower Kananaskis River Users Association (LKRUA). The AWA is a “...provincially recognized sport governing body for whitewater slalom, wildwater/downriver, and freestyle, the Association sets and maintains standards for instruction and development of these activities at all levels ” (AWA, no date). It is a non-profit group that is dedicated to the promotion of safe and responsible recreational canoeing,

kayaking and competitions around the province of Alberta (AWA, no date). LKRUA is a group of representatives from government, commercial industry, recreational community, non-profit groups and academic institutions (Appendix L) who are dedicated to establishing, maintaining and enhancing use of the water resources and facilities of the Lower Kananaskis River (LKRUA, no date). These two groups have played and continue to play a major role in the management and maintenance of the Lower Kananaskis River and its associated facilities. The current management situation along the Lower Kananaskis River is of importance to this research, as mentioned above two of the main groups involved in the maintenance and management of the river are the AWA and LKRUA. However, there is little direct information found on the specific duties of each group. From discussions with members of these groups, it was found that it was difficult for these two groups to gain resources, both monetary and human, to make changes to and to maintain the river area. Informal discussions also found that it was difficult for the organizations to come to agreement on specific items that need to be done to maintain the river. It is also important to note in regards to management of the Lower Kananaskis River that there little information found on its management in terms of goal and objectives in the management plan for Bow Valley Provincial Park. The only mention of the Lower Kananaskis River in the park management plan was in discussions surrounding the use of permits for commercial uses and special events. It is also mentioned briefly when the recreational uses of Bow Valley Provincial Park are discussed, within which the significance of Widow Maker and Canoe Meadows Day Use sites are discussed. The management plan states that,

The Widomaker and Canoe Meadows facilities are very significant provincially and locally for teaching, training, competition, recreational paddling and commercial rafting. Management concerns include congestion in parking areas, allocation of commercial and non-commercial use on the various sections of the river, maintaining safety and aesthetics.
(Alberta Community Development, 2002, pp. 43)

Beginning in 1984, the Alberta Whitewater Association (AWA) and Kananaskis Country began to upgrade and change the natural flow of the river to create a more challenging whitewater course (LKRUA, no date) for competition and recreational purposes. A 200 m section of river was modified and a slalom course, training site and river recreational area was developed within a site that became known as Canoe Meadows (LKRUA, no date). The increasing popularity of this section of river brought

an increase in both commercial and recreational use (LKRUA, no date). Since 1984 several features were repaired and in 2003 due to the overcrowding of the area, an additional 2 km of whitewater features were added, including: Point Break, Santa Claus and Santa's little Helper (LKRUA, no date). Since the first developments in the area in 1984, river recreation volume increased significantly and continues to increase both on the river and at key day use facilities; Canoe Meadows and Widow Maker.

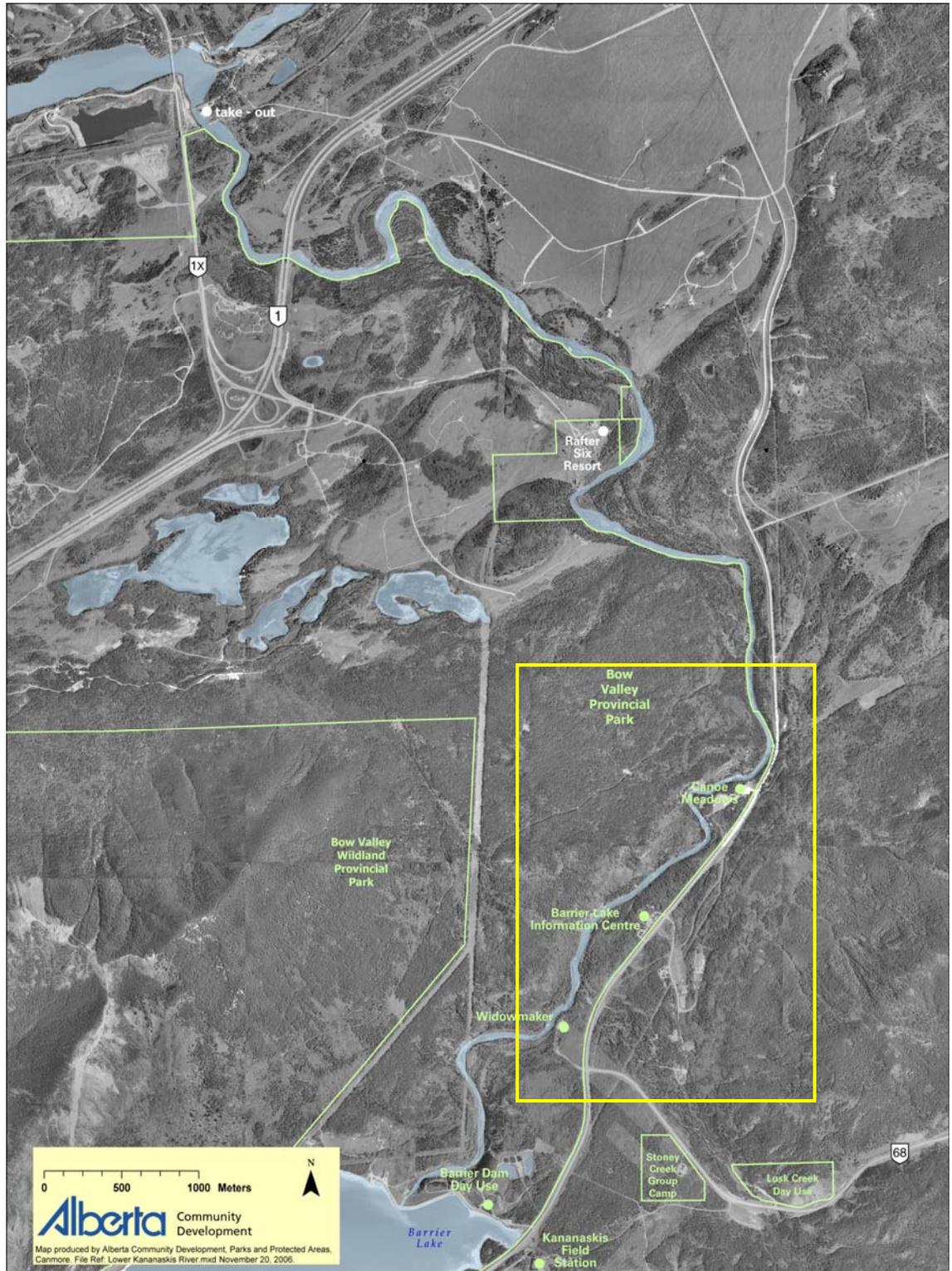
In 1997 a number of operational policy guidelines were introduced for guiding and instructional activities along the Lower Kananaskis River and with this came a decision to place a moratorium on the number of guiding and instructing permits issued (Squires, 2001b). The reason for the introduction of a moratorium on guiding and instructing permits was rising concern about the number of commercial and recreational users on the small section of the Lower Kananaskis River and their associated impact (Squires, 2001b). The moratorium and implementation of policy guidelines along the Lower Kananaskis River was followed in 1998 with a change in the designation of the Lower Kananaskis River. This change in designation was due to the extension of the boundaries of Bow Valley Provincial Park and the introduction of the Bow Valley Protected Areas. With the extension of the provincial park boundaries, the Lower Kananaskis River's designation was changed from a recreation area to that of a provincial park (Squires, 2001b). These changes had a number of implications on the river and its surrounding day use areas along with the recreational users that visit and use the area on an annual basis.

Following these changes, as mentioned at the beginning of the thesis, in the summer of 2000 Squires (2001a) undertook a recreational use project along the Lower Kananaskis River to determine the social carrying capacity of the area. The purpose of this study was to examine issues affecting recreational and non-recreational users of the Lower Kananaskis River and to explore their opinions about future management and the role of these issues in the policy, planning and management processes at the river (Squires, 2001b). The underlying goals of the research were to:

- Develop an awareness of the river population, including both recreational and non-recreational users
- Engage in a three-part data collection procedure to uncover the issues affecting users' experiences and their opinions about future planning and management at the river
- Formulate a series of recommendations to demonstrate how planning and management at the river can be maintained or improved (Squires, 2001b, pp. 10).

The results of this investigation revealed that users of the river were concerned with the social, biophysical and managerial associated with the Lower Kananaskis River. One of the main issues raised was the recreational use of the river and the negative impact that it was having on the experience of recreational users (Squires, 2001b). Squires (2001b) identified a genuine concern from users of the river in regards to increases that they have seen in general use of the river and surrounding area. Additional information from participant interviews found that they had ideas on different management strategies that could be implemented in the area to help to address concerns (Squires, 2001b). The researcher concluded that the recreational and non-recreational users had valuable information to share on the issues surrounding experiences on the river (Squires, 2001b). Additionally, it was also concluded from this research that a number of recommendations surrounding policy, planning and management at the Lower Kananaskis River needed to be implemented for effectiveness in the future.

Figure 7 – Map of the Lower Kananaskis River



(Alberta Community Development, 2006g)

1.4 Purpose of the Research

As mentioned at the beginning of this thesis, Kananaskis Country is a multi-use recreation area that provides a variety of opportunities for outdoor recreation enthusiasts, including river recreationists (Alberta Community Development, 2006d). Since 1996, the number of people using the river for commercial and recreational purposes has increased on the river and at day use sites. This increase in use and concerns over social carrying capacity led to research during the summer of 2000 that looked at current river usage and carrying capacity and resulted in recommendations on how to manage the area and use (Squires, 2001a,b). Pressure on the Alberta Government has continued to intensify, with continued growth in use the permitting process and requirements have been questioned, along with concerns over conflict among Lower Kananaskis River users. This forms the impetus of this research. Therefore, the purpose of this research was to create a management framework for water-based river recreation of the Lower Kananaskis River in Kananaskis Country, Alberta. In this research, both surveys and participant observations techniques were used to develop a better understanding of current use levels (i.e. time, type), the experiences users seek, and the current management concerns, including the inputs necessary to make management effective. At the same time, structured interviews were held with key policy leaders to further explore current management issues and concerns surrounding the Lower Kananaskis River.

1.5 Research Objectives and Questions

Four research objectives guided the investigation of river use on the Lower Kananaskis River and its associated day use facilities (Table 1). These included:

- Review current river use to understand the timing and type of use occurring along the Lower Kananaskis River.
- Reveal the experiences that visitors seek in their activities on the Lower Kananaskis River and whether and how varying use impacts these experiences.
- Examine whether the current permitting policy remains appropriate.
- Develop management recommendations on how to manage recreational use on the Lower Kananaskis River in the future.

To meet these objectives, six associated research questions were developed and are listed in Table One.

Table 1 – Research Objectives and Questions

Objective One

- Review current river use to understand the timing and type of use occurring along the Lower Kananaskis River.

Research Questions:

- What is the type and amount of recreational use on the Lower Kananaskis River and associated day-use facilities?
- What is the timing of recreational use on the Lower Kananaskis River?
- What specific attributes impact the level of recreational use on the river?

Objective Two

- Reveal the experiences that visitors seek in their activities on the Lower Kananaskis River and whether and how varying use impacts these experiences.

Research Questions:

- In what ways and to what extent is the level of recreational use of the river and its associated day-use facilities impacting recreational users' experiences?

Objective Three

- Examine whether the current permitting policy remains appropriate.

Research Questions:

- What specific type of management structure needs to be implemented to manage recreational use on the Lower Kananaskis River and associated day-use facilities?

Objective Four

- Develop management recommendations on how to manage recreational use on the Lower Kananaskis River in the future.

Research Questions:

- What specific type of management structure needs to be implemented to manage recreational use on the Lower Kananaskis River and associated day-use facilities?
-

1.6 Significance of the Research

A research project of this nature can potentially have both applied and theoretical contributions. The need to understand the current issues surrounding the management of use along the Lower Kananaskis River was identified by many stakeholders including: Alberta Parks, the Lower Kananaskis River Users Association (LKURA), commercial outfitters, other non-profit groups and the general public. The push by all these groups to address current management issues along the river and the surrounding day-use areas was one of the driving forces within the Alberta Parks organization for the approval of this research. The practical significance also lends itself to the future management of the Lower Kananaskis River as the intent of this research is to use the information collected to develop a thorough management structure that takes the needs and desires of various users along with those of Alberta Parks to create management recommendations. As Foster and Jackson state (1979), it is important for managers of parks and protected areas

to know their visitors, what they are looking for in their experience, what is needed to achieve it and what could potentially detract from it in order to properly and effectively plan and manage these special places. The theoretical significance of this research goes beyond the Lower Kananaskis River as any new management process or frameworks could be applicable in other outdoor recreational areas.

1.7 Research Philosophy

As discussed earlier, the purpose of this research was to create a management framework for water-based river recreation of the Lower Kananaskis River in Kananaskis Country, Alberta. The research involved examining current use levels, services and facilities offered, conflict among user groups and among user groups and management, the current management structure in place, monetary and staff resources available and other associated issues that developed in the research. Due to the developing nature of this research, an exploratory approach and design was implemented to address the “what” question – what is the current use along the Lower Kananaskis River, what are the current management issues and concerns, what experiences do users seek and are these experiences being impacted upon, if so by what? Exploration of this topic first requires a review of a wide range of literature on river recreation, visitor experiences, recreational carrying capacity, social carrying capacity, protected area management and planning to provide the overall context for assessing the purpose of this research outlined above. This exploration led to the examination of the further question of “how” – how can this area be managed in the future to meet the needs of all users while still preserving and protecting the resource. Thus, the decision was made to incorporate both an exploratory and descriptive design (Table 2).

Table 2 – Goals of Exploratory and Descriptive Research

Exploratory Research	Descriptive Research
<ul style="list-style-type: none"> • Become familiar with the basic facts, setting, and concerns • Create a general mental picture of conditions • Formulate and focus questions for future research • Generate new ideas, conjectures, or hypotheses • Determine the feasibility of conducting research • Develop techniques for measuring and locating future data 	<ul style="list-style-type: none"> • Provide a detailed, highly accurate picture • Locate new data that contradict past data • Create a set of categories or classify types • Clarify a sequence of steps or stages • Document a causal process or mechanism • Report on the background or context of a situation

(Adapted from Neuman, 2000a)

To complement the exploratory and descriptive designs, the study implemented a mixed methods approach (Table 3). With a mixed methods approach, quantitative and qualitative research styles are combined and used to complement each other (Creswell, 2003a). As Creswell (2003a) states, a mixed methods tends to hold pragmatic knowledge claims, for example it may be problem – oriented consequence-oriented or pluralistic. This is conducive to the purpose of this research, since it is looks to examine use along the Lower Kananaskis River in an attempt to develop recommendations for future management. The specific procedures and tools that will be used are outlined in Chapter 3 of the thesis.

Table 3 – Quantitative, Qualitative and Mixed Methods Research Styles

Quantitative Style	Qualitative Style	Mixed Methods Style
<ul style="list-style-type: none"> • Predetermined • Instrument based questions • Performance data, attitude data, observational data, and census data • Statistical analysis 	<ul style="list-style-type: none"> • Emerging methods • Open-ended questions • Interview data, observation data, document data, and audiovisual data • Text and image analysis 	<ul style="list-style-type: none"> • Both predetermined and emerging methods • Both open- and closed-ended questions • Multiple forms of data drawing on all possibilities • Statistical and text analysis

(Adapted from Creswell, 2003a)

1.8 Conceptual Framework

This research can be conceptually divided into a number of distinct stages, that when combined together led back to addressing the purpose of this study. Since this research employs an exploratory and descriptive approach, each stage informs other stages within the research process. The literature review provided the background and context for the remainder of the study and also provided valuable information for use in the collection and analysis of data. The findings from the collection of data in the field and proceeding analysis formed the foundation for the development of recommendations for future management initiatives along the Lower Kananaskis River. One key aspect of this research was the use of a method triangulation, which involves making observations from multiple perspectives to get a better understanding of the whole (Neuman, 2000b). This research employs triangulation of measures and triangulation of methods. Triangulation of measures involves taking multiple measures of the same phenomena in

an attempt to see all aspects of it (Neuman, 2000b). This approach was deemed relevant and necessary in this research because it combines information gathered from different tools and methods to acquire more detailed information related to the overall purpose of the research and underlying research objectives and questions. Triangulation of methods involves utilizing both quantitative and qualitative methods to complement each other and to gain a fuller or more comprehensive understanding of the issue at hand (Neuman, 2000b). As mentioned above, triangulation played a key role throughout this research process, as it helped gain a deeper understanding of the current use of the Lower Kananaskis River, current management issues and how these can be avoided in the future through the adoption of planning and management initiatives.

Chapter 2 – Literature Review

This chapter examines the literature from the field of outdoor recreation and other areas relevant to the overall purpose of this research. Since this research seeks to develop a structure to manage future recreational use on the river and associated day-use facilities, it is appropriate that different areas of the outdoor recreation literature are examined. With the intention of acquiring a thorough understanding of the issues surrounding the collection of river recreation data, the management of river recreation resources, management of protected areas within Alberta, visitor experiences and appropriate levels of use; a number of topics will be explored. Therefore, the purpose of the following sections are to provide some background on previous research in the area along with information on planning and managing river recreation resources and protected areas in general. Due to the nature of this research, a variety of areas will be discussed in only enough detail that is appropriate for the purposes of understanding the rationale behind the need for this research and the key concepts that are guiding it.

2.1 Protected Areas within Alberta

2.1.1 History of Protected Areas within Alberta – from Pure Recreation to Recreation and Preservation

The history of protected areas within the Province of Alberta dates back to 1930 with the passing of the Parks and Protected Areas Act and the development of a Provincial Board of Management for Parks within the Province (Alberta Community Development, 2006b). The system of Provincial Parks within Alberta officially began with the establishment of Aspen Beach Provincial Park in 1932, followed by Gooseberry Lake, Sylvan Lake, Saskatoon Island and Park Lake Provincial Parks (Alberta Community Development, 2006b). Great changes within the Provincial Park system began in 1951 with the passing of a new comprehensive *Parks Act*, which included the transfer of the administration of parks to the Department of Lands and Forests and the establishment of a new three-member Parks Board (Alberta Community Development, 2006b). Following the passing of this new *Parks Act* and the push to set aside more land for protection within the province, a large amount of land was set aside for protection along with an increase in resources allocated to parks (Alberta Community Development, 2006b). Between 1951 and 1971, 46 new Provincial Parks were established, mainly for outdoor recreation purposes, along with Willmore Wilderness Park under its own legislation in 1959 (Alberta Community Development, 2006b).

In 1964 there was another amendment to the Parks Act, and the scope of the system of Provincial Parks within Alberta changed and expanded to include wilderness and natural areas (Alberta Community Development, 2006b). This amendment was the beginning of further changes within Provincial Parks and Protected Areas. Ten years later, the Minister responsible for parks at the time tabled a position paper in the Alberta Legislature, which stated that the current system of protected areas within the Province was inadequate and that change needed to occur (Alberta Community Development, 2006b). Specifically, new parks needed to be added to the system, current parks required upgrading, resource development conflicts needed to be addressed and the lack of access to parks and protected areas for those Albertans residing in larger metropolitan areas could no longer be ignored (Alberta Community Development, 2006b). In the three years following, the system of parks and protected areas within the province expanded and a new perspective was taken when establishing them. As new park sites were selected, they were planned and developed with both preservation and recreation in mind (Alberta Community Development, 2006b).

In the 1990s another change within the management of parks and protected areas in Alberta occurred, it was at this time that all responsibility for Provincial Parks, Provincial Recreational Areas and Protected Areas was consolidated under a new Parks and Protected Areas Program (Alberta Community Development, 2006b). This is the structure that exists today in Alberta. The system of protected areas within Alberta underwent tremendous changes over the years, most important to this research is the change in management of these areas from the sole purpose of recreation to today's multi-use perspective of recreation and preservation.

2.1.2 Protected Areas within Alberta Today

Today, the responsibility of Provincial Parks, Recreation Areas and Protected Areas falls under the division of Parks and Protected Areas within the Ministry of Community Development. This division is responsible for the preservation of Alberta's natural cultural features and this goal is reflected in their vision and overall mission.

"Alberta's parks and protected areas preserve in perpetuity landscapes, natural features and processes representative of the environmental diversity of the province" (Alberta Community Development, 2006c).

"As stewards of our environment, the Government of Alberta preserves, protects and enhances the province's natural heritage within a network of parks and protected areas. Many of these areas are also tourist attractions, providing a range of outdoor recreation opportunities where Albertans and visitors to the

province experience, enjoy and learn about our natural and cultural heritage."
(Alberta Community Development, 2006c).

These aims are examples of the changes that occurred within the preservation of natural and cultural resources in the province of Alberta since the first Provincial Parks Act in 1930. Not only is Alberta Parks committed to the preservation of landscapes, natural features and other diverse characteristics of the province, but the agency also has four goals upon which the system of parks and protected areas is based (Alberta Community Development, 2006c). The primary goal is preservation but the remaining three goals of the organization are directly related to this goal and include heritage appreciation, outdoor recreation and heritage tourism (Table 4).

Table 4 - Goals of Alberta Parks and Protected Areas

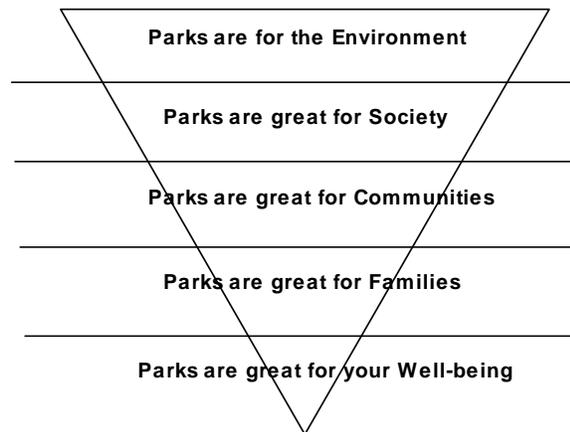
<u>Preservation</u>
<ul style="list-style-type: none">• To preserve a network of parks and protected areas that represent the diverse features of natural and cultural heritage of the province
<u>Heritage Appreciation</u>
<ul style="list-style-type: none">• To provide opportunities for the public to appreciate, understand and learn about Alberta's natural heritage in an effort to increase their awareness of their relationship with the natural environment.
<u>Outdoor Recreation</u>
<ul style="list-style-type: none">• To provide a large number of outdoor recreation opportunities and facilities with varying natural landscapes across the province.
<u>Heritage Tourism</u>
<ul style="list-style-type: none">• To promote the province's natural heritage through different outdoor recreation and nature-based tourism opportunities and other services.

(Adapted from Alberta Community Development, 2006c)

The four goals given in Table 4 are crucial to the success of the system of protected areas within the province of Alberta and will produce several essential outcomes, including the maintenance of ecosystem health, the preservation of representative landscapes, promotion of an understanding of the environment around us, opportunities for nature-based recreation, an enhancement of the quality of life through the provision of areas to recreate in and finally the diversification of local and regional economies (Alberta Community Development, 2006c). The benefits that emanate from the goals of Alberta's Parks and Protected Areas coincide with the current thinking surrounding Alberta's Provincial Parks. Within Alberta Parks, the current trend is to focus on the overall quality of life moving from the level of the individual to the protection of the environment (Figure 8) (Presentation by D. Carr Sept 27, 2005).

This diversified perspective is important today when looking at parks and protected areas as it takes a more inclusive and transparent approach when planning and managing these areas, in addition to being more multidisciplinary. This is vital criteria when looking at the issues surrounding river use on the Kananaskis River due to the fact that underlying issues affect both the individual and the environment and also covers multiple disciplines.

Figure 8 - Overview of the Provincial Parks Program



(Adapted from D.Carr, September 27, 2005)

2.2 Protected Area Management within Kananaskis Country

The designation of Kananaskis Country in 1977 by the Alberta Government as a multi-use area where Albertans could experience high quality recreation opportunities brought forth a unique management opportunity (Alberta Department of Recreation and Parks, no date). The original idea was to create, within acceptable limitations of the resource, a variety of recreational opportunities in the natural beauty of Kananaskis Country (Alberta Department of Recreation and Parks, no date). With the diverse goals of the Kananaskis Country came the need to use different integrative management approaches, with the “country” concept playing a large role in this initiative (Alberta Department of Recreation and Parks, no date). By using the concept of a “country”, numerous activities or pursuits were permitted within Kananaskis Country, including:

- *The provision of high-quality facilities and programs which span the recreation opportunity spectrum;*

- *The provision for normally incompatible recreation uses such as horse trails and all terrain vehicles through a separation of uses and provision of special facilities;*
- *The provision for controlled high service nodes, such as service centres, overnight accommodation, and golf courses without destroying opportunities for wilderness recreation;*
- *The protection of valuable ecological features and wildlife habitat*
- *The potential for participation by private enterprise and the integration of recreation facilities not normally provided by the public sector, such as alpine skiing;*
- *The integration of recreation opportunities between traditional park areas and surrounding lands where controlled resource use may occur. Where conflicts do arise, priority may be assigned to different uses in different areas depending on the regional context and the ability of the land base to support various activities (Alberta Forestry, 1986).*

As one can see through the use of the concept of a country, the management of Kananaskis Country is unique from the typical management structure seen in parks and protected areas since it adopts a much more integrated approach and allows multiple uses within one large area.

2.2.1 Integrated Resource Management

Integrated resource management is a concept that the Government of Alberta utilizes within their management of the environment and natural resources and recognizes that the management and use of a resource for one particular purpose can affect the use of other resources and that a balance needs to be found so that all uses can occur without conflict. The Government of Alberta defines integrated resource management (IRM),

“...as a way of using and managing the environment and natural resources to achieve sustainable development. Using an IRM approach means that environmental, social and economic issues are considered, while finding ways for all uses to exist together with less conflict” (Alberta Environment, 2006a).

IRM is a management approach that is based on a number of key elements including cooperation, communication, coordination, the involvement of all those potentially affected and consideration of all values along with consultation before action (Alberta Environment, 2006a, b). This is a fundamental concept to take into consideration when looking at the Kananaskis Country Planning Area, as there are many uses and activities occurring in the area; from front and backcountry camping, to water recreational activities, to hiking, to horseback riding trails, to downhill and cross country skiing and many other activities. Kananaskis Country opens its natural beauty and resources to all types of visitor experiences and therefore needs to be managed in a holistic and integrative nature taking all of the needs of visitors, organized groups and managers into

consideration when making decisions and IRM is key in this initiative. This is particularly relevant to this research because of the multiple use of the Lower Kananaskis River and the continued need to protect the area for future use and generations.

2.3 River Recreation

River recreation, whether it is recreational, competitive or part of a tour group, have been examined within the recreation literature. There have been numerous studies over the years that have looked at various concerns surrounding river recreation, including the allocation of services (McCool & Utter, 1981), conflict among user groups (Adelman et al., 1982), carrying capacity (Manning, 1999; Stankey & McCool, 1984) and attitudes towards crowding (Dekker, 1976 in Shelby et al., 1988). As seen here, there are a wide range of studies that have examined river recreation and the various issues surrounding it.

The allocation of resources on a river setting is a concern that is recognized by both users and those who manage these areas. Even though it is widely recognized that allocation procedures need to be put in place, there is often debate among concerned parties as to how to allocate use and what the resource can handle (McCool & Utter, 1981). Managers, organizations and governing bodies put into place different measures to manage user group, one common place technique is the use of permits (McCool & Utter, 1981). Permits are a good tool in that they keep track of the number of boats who could potentially use the river in a given season and can help to ensure that the river resource is not overused. But the question becomes how does one determine how many permits should be given out, how many different types of permits should be available (commercial vs. private users), and what the rules and regulations should be behind the permits and finally how they can be monitored.

In order to properly determine where resources should be allocated, it has been argued that it is essential for managers to understand how users feel about different management tools and directives since it is these groups that are directly affected by these decisions and tools (Brown, 1977 in McCool & Utter, 1981). Therefore, as one can see from this brief review of river recreation, there are a number of concerns surrounding the management of these resources that need to be addressed on a continuous basis if these areas are to be managed effectively to meet the desired experiences of their users. This is why it is imperative for managers and planners to address current management concerns along the Lower Kananaskis River and plan for the future.

2.4 Visitor Experiences

The ultimate goal of those participating in leisure activities is to have an enjoyable experience. Similarly, the ultimate goal of leisure providers is to provide enjoyable leisure experiences (Lee & Schaefer, 2002). A leisure experience is seen to be dynamic and to emerge through some type of interaction process (Lee & Schaefer, 2002), consequently though, experiences have tended to be examined as single dimensional items in the literature (Lee & Schaefer, 2002). Leisure experiences are a hot topic in the literature and have been conceptualized in many different ways by various researchers; as information use (Vogt & Stewart, 1998), satisfaction (Hultsman, 1998), absorption-in-the-moment (Walker, Hull & Roggenbuck, 1998), and the meanings associated with the challenges of the leisure environment (Patterson et al., 1998).

With the increasing number of individuals participating in outdoor recreational activities, including river recreation activities, comes an increase in the number of experiences sought. Not only have experiences been conceptualized in different ways but different ones are sought as well; from simply getting away from the rush of the city to obtaining a spiritual connection with nature. The basic goal of research on recreationist's experiences has been to improve the understanding of how they perceive, behave in, and respond to recreational settings (Stewart & Cole, 2001). This research tended to focus on a number of specific setting attributes including use density and frequency and nature of encounters with other participants (Stewart & Cole, 2001).

The overall quality of a recreational experience tends to be perceived as a measure of total satisfaction even though this concept can be limiting and unnecessary in this circumstance (Williams, 1988 in Stewart & Cole, 2001). This is an important consideration when looking at measuring the experiences of individuals participating in recreational activities since there are many satisfaction scales in use that simply ask respondents for an evaluation of the quality of their trip and not how satisfied they are (Shelby & Heberlein, 1986 in Stewart & Cole, 2001). This is why it is important to understand what one wants to measure and ensure the tool is actually measuring it. For the sake of this research, it is important to identify what influences individuals' experiences when participating in river recreational activities and what could be done to ensure that visitor experiences' are being met and continue to be met along the Lower Kananaskis River.

2.5 Crowding and Social Carrying Capacity

The influx of participation in outdoor recreational and nature-based tourism activities has had major impacts on parks and protected areas in Canada, one impact of particular interest here is crowding and associated with it social carrying capacity (Rollins & Robinson, 2002). The growth in outdoor recreation participation has led to many concerns about crowding in natural settings and crowding has become a prominent term in outdoor recreation literature. With continued growth in this field, it is becoming more important to understand how crowding within outdoor recreational settings can be managed effectively, in particular through the use of a measurement of social carrying capacity. In regards to this research, it is important to consider the effects that crowding along the Lower Kananaskis River may be having on the experiences that users are seeking in addition to understanding the need to develop a grasp of the possible social carrying capacity of the Lower Kananaskis River and the surrounding day-use facilities at Canoe Meadows and Widow Maker.

Crowding has been defined in many different ways in the literature from “...an evaluative term describing reactions to a particular level of density” (Stokols, 1972; Rapaport, 1975 in Shelby, 1981) to the “...negative evaluation of a certain density or number of encounters” (Shelby et al., 1989). The term crowding implies a basic definition of the appropriate number of people for any given situation (Shelby, 1981). Individuals seek many different recreational experiences and the number of other people encountered has been found to have an influence on these experiences, especially in backcountry areas (Shelby, 1981). But how does one determine what the “right” number of people is for a given experience? Carrying capacity and limits on use have attempted to address this issue, but the question always exists “how many is too many” (Shelby, 1981).

The concept of carrying capacity has an extensive history in the field of natural resources and has been widely used in wildlife and range management (Manning, 1999). In its most generic form, carrying capacity is seen as the ultimate limit of growth constrained by environmental factors (Manning, 1999). This generic definition of carrying capacity led to its application in many areas and those specific to recreation; including, examining the number of groups that should be encountered in a backcountry setting (Luca, 1964 in Shelby 1981), based on wilderness values (Hendee et al., 1968), how individuals define situations (Shelby, 1976, 1980 in Shelby, 1981) and even expectations of participation (Heberlein et al., 1979 in Shelby 1981). Even with these very different efforts in the examination of carrying capacity, there is still general

agreement that there is a need to understand the carrying capacity of different recreational settings (Shelby, 1981).

2.5.1 Recreational Carrying Capacity

Recreational carrying capacity, similar to carrying capacity, was defined by numerous researchers over the years. Lime and Stankey (1971) defined recreational carrying capacity "...as the level of use an area can support (with the possible inclusion of development) over a specified time without causing excessive damage to either the physical environment or the experience of the user (as cited in Becker, 1981). Whereas, Brown et al. (1974) give a more elaborate interpretation of recreational carrying capacity and define it as,

That configuration of use (amount, distribution, type, etc.) which is consistent with the long-term production of a specified recreational experience or set of such experiences....not to be neglected in the definition is that, long-term production of experience implies protection and maintenance of the resource base (Becker, 1981, pp. 261).

No matter what definition of recreational carrying capacity is utilized, each has three common elements; the physical environment, desired experiences and an optimal management framework (Becker, 1981). These three components are important when looking at any recreational setting and how it is used.

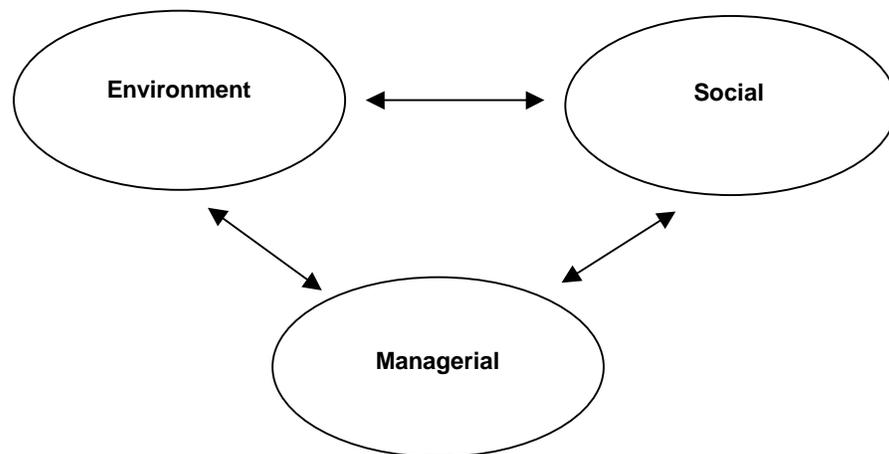
Wagar (1964) in his seminal work on recreation carrying capacity discussed two axioms; first that the management goal should provide opportunities for high quality recreation experiences and second that this quality depends greatly on how well the needs that motivate individuals to engage in the recreational activity are met (Stewart & Cole, 2001). Basically, Wagar's research expanded the conceptual ideas behind carrying capacity to a dual focus on the environment and social or experiential considerations (Manning, 1999). As Manning (1999) states, "Wagar's point was that as more people visit an outdoor recreation area, not only the environmental resources of the area are affected, but also the quality of the recreation experience" (pp.68). This analysis implies a hypothetical relationship between crowding and satisfaction, in that as the number of users within a recreation area increases the experiences or satisfaction of users is impacted upon. However, it is also important to note that the effects of crowding also depend on the individual and their needs and motives (Manning, 1999).

A study of carrying capacity within the Boundary Waters Canoe Area attempted to estimate recreation carrying capacity and found that perceptions of crowding differed among user groups (Manning, 1999; Stankey & McCool, 1984). It was found that the

type of use, and not the number of encounters to be a critical factor in decisions regarding carrying capacity within the Boundary Waters Canoe Area (Manning, 1999; Stankey & McCool, 1984). This enforced the idea that it is important not only to consider the number of recreational users within a given area but also the experiences these users seek and the activity they are participating in.

Crucial to this research are the developments that came over time and the identification of misconceptions surrounding carrying capacity. Research in carrying capacity found over the years that carrying capacity may vary according to the amount and type of management activity in place (Manning, 1999). For example, the durability of biophysical features may be enhanced through the rotation of sites (ie. campsites or trails) and the quality of a recreation experience may be maintained or possibly enhanced with the distribution of visitors and appropriate rules and regulations (Manning, 1999). Therefore, when looking at recreational carrying capacity three-dimensional working in a cyclical nature need to be considered; managerial, social and environmental (Figure 9) (Manning, 1999).

Figure 9 - Three Dimensions of Carrying Capacity



(Adapted from Manning, 1999)

It is these three dimensions of recreational carrying capacity that will be utilized throughout the examination of use along the Lower Kananaskis River and associated day use facilities and also considered when developing recommendations on where changes can be made in the future. Consideration of these three areas; environment, social and managerial aspects of carrying capacity is a more holistic approach and one that should be used more and present in the management of the Lower Kananaskis River.

2.6 Displacement

Related to carrying capacity and recreational carrying capacity, and important in this research, is the way in which individuals deal with crowding at the specific recreation areas. The outdoor recreation literature identified a number of ways in which recreationists deal with crowding at different recreational sites, including shifting their use to another location or time of day or year (Manning & Valliere, 2001). The literature identifies three main ways in which recreationists typically deal with conflict, including crowding, which include: 1) displacement, 2) rationalization and 3) product shift (Manning & Valliere, 2001). Here the focus is going to be on displacement, as this is a behavioural coping mechanism that may be used in a river setting when conflict and crowding occur impacting the users' experience.

As mentioned above, displacement is a behavioural coping mechanism that involves the recreationists changing their use patterns in response to crowding at the recreational site (Manning & Valliere, 2001). Displacement occurs in recreational settings because recreational activities are self-selected and when conflict occurs causing experiences not to be met displacement occurs (Shelby et al., 1988). The main idea of displacement as expressed in the recreation literature is that, as the level of use increases recreationists begin to become dissatisfied with their experience and then change their patterns of use (Manning & Valliere, 2001). Displacement has also been defined in the recreation literature as a move away from unacceptable situations or in other words a reactive movement (Becker, 1981). In a study by Dekker (1976) (in Shelby et al., 1988) of river runners' attitudes toward crowding on the Colorado River, it was found that one quarter of the users said it was too crowded and that they would move to another site if one was available (Anderson & Brown, 1984). The shift demonstrated by these river runners is just one example of displacement found in a river recreational settings due to crowding. Crowding is one of the major issues being faced along the Lower Kananaskis River (S. Donelon, personal communication, February 22, 2006). This shift in participation due an increased number of participants is becoming a common theme in outdoor recreational settings in response to the increase in participation seen in the past decade and needs to be addressed by planners and managers more effectively through the implementation of guidelines and regulations and is a major concern of current Lower Kananaskis River management.

It is important, however, to note that displacement does not always involve moving to a new location but may also involve shifting to another section of the given

recreation area, which is termed intra-site displacement or simply shifting the time of participation or temporal displacement (Manning & Valliere, 2001). Various studies have showed that as use levels increase within given areas, participants have a tendency to shift their use patterns in order to meet their desired experience. These same studies also found that multiple use management is an effective approach for limiting the displacement participants if done in an effective manner. For example, an area may be set aside for different uses at particular times of the day.

Shelby et al. (1988) also describe displacement as a form of behavioural change or adjustment but indicate that it requires two factors, an unacceptable change in the recreation environment and the possibility of a setting that can be substituted for the setting from which the individual has been displaced. These factors are important considerations when looking at the displacement of recreational users, in particular river users, as there may be few places where they can move to get the same experience. Dekker (1976) in a study of river users in the Grand Canyon found that there tends to be few substitutions for trips through this area (Shelby et al., 1988). This issue of potential substitutions sites must be considered.

A number of studies on displacement and river use occur throughout the displacement literature. These examined different aspects of displacement and change in usage. For example, Nielson and Endo (1977) looked at a group of experienced river runners in the Grand Canyon area and their movements from more crowded to less crowded rivers and found that there was no clear pattern of movement among the users (Shelby et al., 1988). It was speculated in this case that movement patterns may have resulted in the availability of routes, convenience, level of difficulty and quality of wilderness (Shelby et al., 1988).

In another study of river users on the Lower St. Croix River and the Upper Mississippi River that looked at the sensitivity of users to high use levels, it appeared that there was displacement of rivers users seeking different experiences (Becker, 1981). That is, those who were looking for more of a social experience tended to utilize the Lower St. Croix, while those looking for a low density experience used the Mississippi River (Becker, 1981). This study showed that there is a relationship between density and satisfaction and that if satisfaction is inhibited river users are displaced to other locations where their desired experience can be met.

Thus, when looking at management issues surrounding river use levels, it is imperative to explore the goals of the users in their river usage and the underlying idea of

the idea of displacement to determine whether users have been displaced and if so, how and if they have not to identify potential future causes of displacement. This is an important concept for both planners and managers to understand and identify as even displacement is a behavioural change, when an area is managed properly, displacement itself can be managed for.

2.7 Case Study Research

Different methods of inquiry exist and are appropriate in different situations. Case studies are one tool that a researcher can use when they are asking “how” or “why” questions, particularly when a researcher is conducting some type of exploratory and at times descriptive research (Yin, 2003). The purpose of this brief overview of case study research is to provide an explanation of what case study research is and why it is found here.

According to Yin (2003),

“...the case study method allows investigators to retain the holistic and meaningful characteristics of real-life events – such as individual life cycles, organizational and managerial processes, neighbourhood change....” (pp.2).

Case study research can be seen to overlap with other strategies when looking at their characteristics (Yin, 2003). For this research, it was deemed appropriate to use the term case study as it is looking to answer “how” and “why” questions about the Lower Kananaskis River and its use, a situation where the researcher has little control over the setting itself, other than location choice.

A last point of interest regarding the use of case studies as a research strategy is their use in generalizing results and expanding on theories and not simply making statistical generalizations (Yin, 2003). This is one reason why the case study strategy is found within this research. Not only is this research exploratory in nature looking at what the current use of the Lower Kananaskis River is, what the current management issues and concerns are, what experiences users are seeking and what is potentially impacting these experiences. But it is also descriptive as it is looking also at the “how” question – how can this area be managed in the future to meet the needs of all users while still preserving and protecting the resource. In answering these questions, the intent of this research is to build on existing literature and frameworks dealing with outdoor recreation management using the Lower Kananaskis River as an example from which suggestions can be made to develop a fully encompassing framework for managing an outdoor recreational area that can be adapted to and implemented in other areas.

2.8 Recreation Management Frameworks

There is an extensive body of literature on the management of parks and protected areas and a number of tools available to managers for their use in parks and protected areas, including; Recreation Opportunity Spectrum (ROS), Visitor Activity Management Process (VAMP), Limits of Acceptable Change (LAC), Visitor Impact Management (VIM) and Visitor Experience and Resource Protection (VERP) and Manning's Outdoor Recreation Management Framework (1999).

2.8.1 Recreation Opportunity Spectrum (ROS)

ROS is a management framework that is directly based on carrying capacity with no consideration of ecological carrying capacity (Payne & Nilsen, 2002). This framework is based solely on the idea that individuals participate in recreational activities in specific settings to attain desired experiences and benefits (Payne & Nilsen, 2002). At the heart of this framework are the themes of human modification, access, user interaction and management regime (Payne & Nilsen, 2002). This exemplifies the systematic planning nature of this framework and how it contrasts to other frameworks that take a more problem oriented approach (Payne & Nilsen, 2002).

2.8.2 Visitor Activity Management Process (VAMP)

VAMP was developed by Parks Canada in the late 1980s to complement the existing Natural Resource Management Process (Payne & Nilsen, 2002). Unlike other visitor management frameworks, VAMP has no underlying tie to carrying capacity but is still useful in managing use of protected areas (Payne & Nilsen, 2002). VAMP revolves around the activity profiles of visitors, that is, it works on the idea that a visitor activity profile connects a given activity with the social and demographic characteristics of the participants (Payne & Nilsen, 2002). The specialty and power of this framework is seen in its focus on the visitor and their activities as a way to understand and manage use of protected areas (Payne & Nilsen, 2002).

2.8.3 Limits of Acceptable Change (LAC)

According to Eagles and McCool (2000), the Limits of Acceptable Change (LAC) framework was developed to respond to the problems and frustrations associated with establishing numerical figures of recreational carrying capacity for wilderness and whitewater rivers. LAC was also developed to complement the Recreation Opportunity Spectrum (ROS) (Payne & Nilsen, 2002). This framework moves from focusing solely on determining 'how many visitors are too many?' to looking at 'what are the appropriate/acceptable biophysical and social conditions in a park/wilderness?' (Eagles

and McCool, 2000). This framework is important because it looks beyond simply the negative impacts of human use to what is required of management to enhance and maintain the desired biophysical and social conditions (Eagles and McCool, 2000).

2.8.4 Visitor Impact Management (VIM)

This framework was developed in the United States of America by researchers in concert with the National Parks and Conservation Association (Payne & Nilsen, 2002). This framework emphasizes the need to manage the impact of humans on the natural environment building on the concepts of carrying capacity and ecological carrying capacity specifically (Payne & Nilsen, 2002). VIM requires managers "...to specify ecological standards for park areas, to determine effective ways to monitor conditions in those areas, to identify problems when standards are not achieved, and to act to restore or maintain desired conditions" (Payne & Nilsen, 2002, pp. 163). VIM is a framework that has not been widely implemented in Canadian Parks but is recognized as one of several frameworks that can be applied to specific protected areas to help managers manage them.

2.8.5 Visitor Experience and Resource Protection (VERP)

This is a younger management framework, it is one that has responded to the need with the US National Park Service to implement more integrative management processes (Payne & Nilsen, 2002). VERP builds on and expands on previously used visitor management frameworks in an attempt to "...integrate social and ecological carrying capacity issues with appropriate indicators and standards" (Payne & Nilsen, 2002, pp.168). This is an attractive framework for protected area managers because it is applicable at both landscape and site levels (Payne & Nilsen, 2002). VERP is seen to be an integrative management tool but at the same time it has been challenging for managers to implement due to the need to identify social and ecological conditions with park areas (Payne & Nilsen, 2002).

2.8.6 Outdoor Recreation Management Framework

Investigation into the literature found there to be very few overarching frameworks for managing an outdoor recreation resource. One framework that was identified as a good starting point was Manning's Outdoor Recreation Management Framework (1999) (Figure 10). This framework is based on the need to logically think through the development and implementation of management approaches (Manning, 1999). This framework builds on and borrows from discussions on carrying capacity; particularly it relies on the ideas of Limits of Acceptable Change (LAC), Visitor Impact

Management (VIM) and Visitor Experience and Resource Protection (VERP) (Manning, 1999). The aim of Manning's framework was to build on the ideas of these frameworks but to also incorporate additional principles of management.

Manning's framework is made up of 4 stages: 1) inventory existing recreation conditions, 2) determine management objectives, 3) develop management prescriptions, and 4) monitor and evaluate success (Manning, 1999). This framework begins with an inventory of the existing recreation conditions,; the natural, social and management environment, to guide the development of management frameworks (Manning, 1999). Following the inventory, the next step involves developing management objectives by considering the baseline data collected in the first step and taking into consideration the opinions of the public and management. After developing management objectives, the following step in this framework is to determine the process that needs to be followed to move from the existing situation to the desired situation (Manning, 1999). After the desired situation is obtained it is necessary to continue to monitor and evaluate success and when need comes begin the process again to ensure effective and continuous management (Manning, 1999).

This framework emphasizes the complex and multidisciplinary nature of managing outdoor recreation resources. This framework and others found in the literature have been used in different recreational settings to manage and monitor use in various conditions and recreational endeavours.

2.8.7 Components of Management Capability

No matter the management framework or approach utilized in a given outdoor recreational setting, in order for it to be effectively implemented there needs to be a certain level of management capability. That is, the organization must be able to carry out the requirements of management. As a starting point, Hockings et al. (2006) suggest that all management of protected areas requires adequate resources. They suggest five important areas: human capacity, facilities, information, operational money and equipment (Hockings et al, 2006). Adequate resources could also be termed capability in these five areas to undertake management goals and objectives.

Specifically, characteristics of effective management are that there are clear and appropriate objectives, which are supported by some type of management plan and adequate resources. The need for these resources relates again to the need for capability in certain areas to ensure that the overall management objectives of the area are carried out. Hockings et al. (2006) identifies these items as specific inputs to management that

are needed to have effectiveness, in other words, to carry out the goals of a given management plan. For effective management, an assessment of these items needs to consider:

- *The level of resources needed,*
- *The extent to which these resources are available and*
- *Whether resources are being used and applied in the best way* (Hockings et al, 2006, pp. 20)

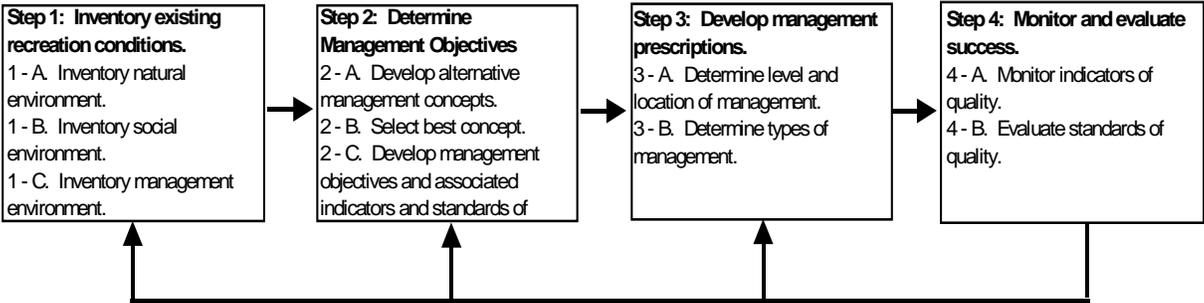
That is capability is needed to ensure that effective management can take place with the resources available. When it comes to human resources, adequate resources and capability means that there are sufficient personnel with appropriate training and background whose job involves the monitoring management objectives. For information, capability in this area means that there are appropriate laws and regulations; including legislation and management plans and policies. All organizations require monetary and equipment resources to carry out effective management. These facility and equipment needs cannot be fulfilled without a sufficient monetary base.

For any given organization to have sufficient management capability, the agency will require sufficient numbers of staff members with experience and training, appropriate budgets to gain facilities and equipment, a competent legal basis and backing and a plan for the future coming in the form of a management plan. All of these are important inputs to the management of any organization and require a certain level of capability in order to be carried out and to be effective.

2.9 Summary

When looking at the literature surrounding river recreation and its management, studies were identified which dealt with the different aspects of its management, specifically carrying capacity and visitor experiences. This reading demonstrated that there is only one fully-entailing management structure for managing such a recreation resource Manning's Outdoor Recreation Management Structure (Figure 10). However, this frame workd is incomplete. It assumes sufficient management capability occurs within the management organization. It has little to say if there are insufficient monetary and human resources, policy or legislation,. This structure will be used a the theoretical framework underpinning management within the case study sites. The research will investigate what information needs to be included in a river recreation management structure and the steps that need to be taken to implement such a structure.

Figure 10 - Outdoor Recreation Management Structure



(Adapted from Manning, 1999)

Chapter 3 – Methodology

This study used a mixed methods approach, combining qualitative and quantitative analysis in a single study (Creswell, 2003). A mixed methods approach was deemed appropriate for this research as it “...bases inquiry on the assumption that collecting diverse types of data best provides an understanding of a research problem [question]” (Creswell, 2003, pp.21). The first stage of the research was a review of literature to develop a basis from which to approach the study of recreational use of the Lower Kananaskis River. The next step of the research involved surveying both commercial and private (recreational) river users and river use observation over a period of three and a half months. Additionally, interviews were held with key stakeholders involved in decisions making along the Lower Kananaskis River. The data that was collected was entered into either a database (surveys) or transcribed (interviews) and then analyzed. The following chapter provides a detailed outline of the research methodology used to answer the research questions and the underlying objectives outlined in Figure 4.

3.1 Literature Review

The study began with a review of the literature to develop a better understanding of the topics, the geographical area and the previous work done in this field and in this region. A literature review serves several purposes, including informing the researcher on the results of other studies closely linked to their topic of interest. It relates a given study to the larger body of literature and the ongoing work in the area, and it emphasizes the importance and relevance of the study and what it will bring to the existing body of literature (Creswell, 2003). The literature review for this study focused on published research on recreational and non-recreational use of the Lower Kananaskis River, in order to develop a better understanding of the area and additional literature on general river recreation, carrying capacity, case study research, displacement and protected area management. The review of the literature provided insight into other work that had been done in the area of concern and also provided insight into where gaps existed and where this research could help to attempt to fill them.

Literature for this study was drawn from a number of sources including books, journals, on-line publications, governmental documents and abstracts from the University of Waterloo, University of Guelph and Wilfred Laurier University libraries. Additional material was obtained from the Alberta Parks and Protected Areas, Kananaskis Country Office and from parks staff. This included policy documents pertaining to Kananaskis

Country, Bow Valley Provincial Park and management guidelines for recreational use of the area obtained from Alberta Parks staff and the Kananaskis Country offices' own library.

3.2 Population and Sample

For this research, two populations were considered. The first population consisted of commercial and recreational users of the Lower Kananaskis River. For this research, commercial users were defined as those individuals using the services of permitted commercial operators of the Lower Kananaskis River. Recreational users were defined as those individuals who are using the Lower Kananaskis River for their own individual recreational purposes. The second population included key policy leaders, those people involved in decision making along the Lower Kananaskis River. As Palys states (1997), it is impossible, impractical and unrealistic to sample the entire population of any area or region, therefore this research involved two different sampling techniques to gain representation from the two different populations. The following sub-sections describe the two sampling techniques for this research.

3.2.1 Commercial and Recreational Users Sample

Before the field research was conducted, the exact number of commercial and recreational users utilizing the river was unknown, so a sample size could not be calculated. The only information that was known was the number of boats the commercial operators could launch on given days, but not the number of people going down the river, since this could vary from as few as three people to up to 10 people on a raft. To gain a better sense of the use of the river, observations of users on select days and at select times throughout the study period were recorded. Therefore, the purpose of the first objective of this research was to review current river use in order to understand the timing and type of use occurring along the Lower Kananaskis River.

The user observations were conducted between May 16th, 2006 and September 4th, 2006 and included 54 weekdays and 23 weekend days, including four long weekends. The observations recorded the number of users (commercial and recreational) entering the day use area every 15 minutes along with the recreational activity. The information obtained helped to provide a better understanding of how commercial and recreational users were using the river and also provide some background for the sampling. A sample of this information is provided in Appendix F and enforced the decision to use a form of systematic sampling identified in the following section.

3.2.2 Systematic Sampling

As it was unreasonable to attempt to sample the entire population of commercial and recreational users, it was deemed that a probabilistic sampling procedure, more specifically a modified systematic sampling would be the most appropriate approach and produce the most representative sample of these users (Palys, 1997; Neuman, 2000c). Neuman (2003) states, that “systematic sampling is simple random sampling with a short cut for random selection” (pp.221), which involves choosing every n^{th} element within the sampling frame. For this research, the sampling frame included commercial and recreational river users along the specified length of the Lower Kananaskis River and the associated day use areas (Figure 3). However, as mentioned above there was no information available on the exact number of people using the Lower Kananaskis River for commercial and recreational purposes, thus this sampling technique had to be modified from approaching every n^{th} user within a sample as this could not be calculated. Therefore, it was decided that to gain the most representative sample, that the researcher would approach all possible users, including a commercial and recreation on a specified day.

It is also important to note that only those users, commercial and recreational, who were over the age of 18 were surveyed. This meant that consent from another party, guardian or parent, was not required and it also avoided ethical considerations with interviewing children.

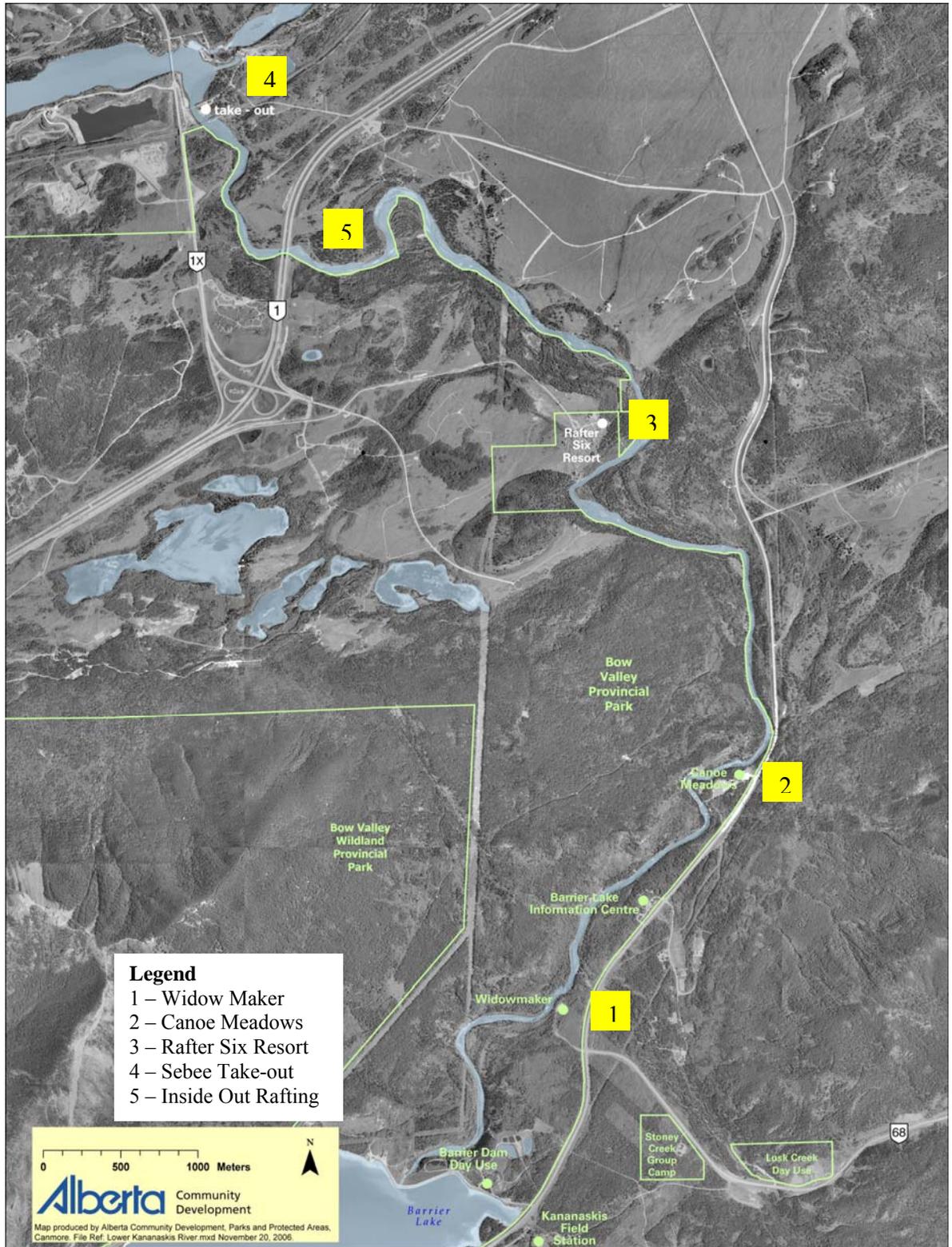
Users were approached at the end of their visit at the survey location: 1) Widow Maker, 2) Canoe Meadows, 3) Rafter Six Resort, 4) Sebee take-out, and 5) Inside Out Rafting (Figure 11). Each person was given background on the research and asked whether they were willing to participate and complete a survey. If users refused to participate, they were thanked for their time and the researcher recorded a refusal and moved onto the next user. When respondents agreed to participate, basic demographical information was obtained from them using the information sheet (Appendix B), after which they were asked to complete the survey with the researcher (Appendix C). The surveys were completed on site with the researcher asking the questions and recording the users' responses. Completing the survey on site helped to increase the response rate.

A total of 270 surveys were completed at the various survey points along the Lower Kananaskis River between May 28th, 2006 and September 4th, 2006, however only 264 of them were deemed usable. The 6 surveys not used in the analysis had data missing. The respondents could not participate in the survey due to a time constraint.

No one refused to participate in the study, which made for a response rate of 100%. Of the completed surveys, 112 were completed by commercial users and 152 by recreational users.

The collection period included 71 possible weekdays and 29 possible weekend days, including 4 long weekends, totaling 100 possible collection days. However, it should be noted that the number of surveys conducted depended directly on the number of people who were utilizing the river on the given day. Additionally, due to the nature of the river and its unpredictable flow, the surveyed days varied from week to week due to changes in flow times and no flow days. In May, only three days of surveying occurred but observations were done on six additional days, including the Victoria Day Long Weekend. In June and July due to the flow of the river, 22 and 23 days, respectively were spent surveying. In August the number of survey days decreased slightly, to 19 days in total, due to no flow days, 4 of which were on the weekend and 2 mid week. Another point of consideration for the month of August were decreases in flow time of the river, the time TransAlta Utilities opened the Barrier Dam decreased significantly due to water shortages and a dry summer. Earlier in the season the river would flow from 8am or 9am to 8pm, but during the month of August the time decreased to 10am to 5pm or 10am to 3pm on some weekends. This is important as it had a direct impact on the use of the river and the ability of the researcher to survey users. Users were surveyed on 4 days in September. In total, out of the 71 possible weekdays, 50 were spent surveying and out of the 29 possible weekend days, 20 were spent surveying.

Figure 11 – Survey Locations on the Lower Kananaskis River



(Adapted from Alberta Community Development, 2006g)

3.2.3 Snowball Sampling

To acquire a sample of policy leaders, a second sampling technique was used. The type of sampling used when speaking to policy leaders is what Palys (1997) and Neuman (2000c) refer to as non-probabilistic sampling, and more specifically snowball sampling. This sampling was chosen because it is typically used when researchers are interested in a specific network of people or organizations (Neuman, 2000c). More specifically,

snowball sampling (also called network, chain referral, or reputational sampling) is a method for identifying and sampling (or selecting) the cases in a network. It is based on an analogy to a snowball, which begins small but becomes larger as it is rolled on wet snow and picks up additional snow (Neuman, 2000c, pp.199).

Snowball sampling is a multi-stage process of sampling where the researcher begins with a few key people and gathers a larger sample from there based on links to the initial individuals questioned (Neuman, 2000c). For this research, key policy leaders were identified through a list obtained from Alberta Parks and Protected Areas, Kananaskis Country Office. Selected individuals were sent an information letter via e-mail about the research and asked if they would be willing to participate in an interview (Appendix D). Key policy leaders were interviewed following an interview guide (Appendix E), at the end of which they were asked who they would recommend that the researcher talk to. This sampling technique continued throughout the data collection period of May through September 2006). This technique allowed for a collection of a sample of key policy leaders that represent a network of key policy leaders in the Lower Kananaskis Area.

3.3 Data Collection Tools

3.3.1 Commercial and Recreational User Survey

Several techniques were used to gather information on current river usage along the Lower Kananaskis River from both commercial and recreational users. Due to the fact that this research is exploratory and descriptive in nature, the main tool that was used was a survey. As Neuman (2000a) states,

Surveys are often used in descriptive or exploratory research. A survey researcher asks people questions in a written questionnaire (mailed or handed to people) or during an interview, then records answers. He or she manipulates no situation or condition: people simply answer questions. In survey research, the researcher asks many people numerous questions in a short time period (pp.34).

This research approach and tool was appropriate in this study because of the large number of commercial and recreational users that frequent the area and the need to gather

as much information from them as was possible during the survey period. Surveys are seen as a tool that provides a quantitative description of opinions, trends and perhaps attitudes of a given population through the study of a sample of the population (Creswell, 2003b), which is vital information for those managing parks and protected areas, such as the Lower Kananaskis River and its surrounding land area.

The commercial and private users survey (Appendix C) consisted of mainly closed-ended questions to keep the responses from respondents for ease of analysis (Babbie, 1992), but did contain some open-ended responses to build on closed ended ones. As with any type of survey and questions, there were shortcomings that needed to be considered. Babbie (1992) identifies two shortcomings of closed-ended questions as being: 1) the structure of the question, and 2) the use of exhaustive and mutually exclusive response categories. These shortcomings were examined and monitored for in the most appropriate way possible. The interviewing of key policy leaders served to both compliment and supplement information received through the survey process.

The survey included a number of different types of questions that concentrated on the original objectives (Table 1, Figure 4), that was to understand current use levels along the Lower Kananaskis River in an attempt to develop recommendations on how recreational use can be managed in the future. When developing this survey, prior surveys used along the Lower Kananaskis River were referenced (Squires, 2001a) to determine what type of information had been previously collected and where more information was needed or missing. One of the types of questions used on this survey was a Likert Scale type question to quantitatively measure user's attitudes towards select items (Neuman, 2000b). These scale questions include those that ask respondents to agree or disagree with a statement, to approve or disapprove or indicate their level of satisfaction (Neuman, 2000b). Researchers have debated or altered the number of choices or categories of responses given to respondents, from scales that give anywhere from 2 to 20 options (Neuman, 2000b). As Wegener and Fabrigar (2004) state, scales with many option points can capture distinct or subtle differences but there is a limit to this; and that an examination of the reliability and validity on the optimum number of options is between 5 and 7. Thus, for the purposes of this research and to remain consistent with other visitor surveys conducted by Alberta Parks, a 5- point Likert scale was used to assess the users' satisfaction with services and facilities at the day use sites and along the river.

3.3.1.2 Description of User Survey Variables

The variables explored in the survey are important to note. The following section will explore all questions asked in the user survey and the reason for doing so. As noted several times throughout this thesis, the purpose of the user survey was to gather information from the different users of the Lower Kananaskis River to meet the original purpose and objectives of this research.

As Eagles and McCool (2001) state, it is important to collect information from all types of visitors as they often have unique needs and desires. To address this, the survey asked the following questions:

- *What type of user would you classify yourself as?*
 - O Commercial*
 - O Recreational*
 - O Non-profit*
- *How many people, including yourself, are you visiting with?*
- *What was your length of stay along the river?*
- *What activities did you take part in on the river during your visit today? (Check ALL that apply – fill the circle for the primary activity and an X for all others)*
 - O Kayaking* *O Sport Yaking*
 - O Canoeing* *O Other (specify): _____*
 - O Rafting*
- *Was this your FIRST visit to the Lower Kananaskis River to participate in river recreational opportunities?*
 - O Yes*
 - O No*
 - If NO, please indicate the number of previous visits to the Lower Kananaskis River to participate in river recreational opportunities in the past two years (excluding this year).*

- *Where did you enter the river today?*
 - O Canoe Meadows*
 - O Widow Maker*
 - O Other: _____*
- *How many trips did you take down the river during your stay today?*
_____ trips

As noted by Rollins and Robinson (2002), concerns have been noted throughout the outdoor recreation literature and professionals regarding crowding and users perceptions towards increased use of outdoor recreational areas. To deal with this issue, the following question appeared within the user survey:

- *Please indicate your perception of use on the Lower Kananaskis River on a scale of 1 through 5, where 1 = “too much use” and 5 = “just right”.*

Use	Too much use		Just the Right level of use	Too little use	
	1	2	3	4	5
Overall Use	0	0	0	0	0
Rafting	0	0	0	0	0
Kayaking	0	0	0	0	0
Canoeing	0	0	0	0	0
Sport Yaking	0	0	0	0	0
Other	0	0	0	0	0

Related to perceptions on crowding and carrying capacity within outdoor recreational areas, are the experiences that visitors are seeking in their leisure activities. Lee and Schaefer (2002) indicate that leisure experiences are seen to be dynamic and to emerge through some type of interaction process. They also identify that it is ultimately the main goal of leisure providers to provide enjoyable leisure experiences (Lee & Schaefer, 2002). Stewart and Cole (2001) also indicate that it is important to research visitor experiences. Eagles and McCool (2002), also state that visitor management focuses on both what can be done to enhance the quality of visitor experiences but also how to manage the impacts of them at acceptable levels. Thus it is important to know whether and how these experiences are being met (Eagles & McCool, 2002). To deal with these issues and to examine the experiences of users of the Lower Kananaskis River, the following question appeared on the survey:

- *Do you feel that the experiences you were looking for today were met?*
O Yes, If YES please explain why:
O No, If NO please explain why not:
- *How, if at all, could your visit along the Lower Kananaskis River been improved today?*

As noted by Eagles and McCool (2002), it is important to measure visitor's satisfaction with services and facilities to gain a better understanding of their needs, wants, desires and their willingness to potentially pay for these. The survey addressed this through asking users how important different services and facilities were and how well management was currently performing on them. The specific question was:

- *Please rate the importance of the items listed below. In addition, how well is management currently performing on them.*

For Importance: Please shade in the appropriate circle, where 5 = "very important" and 1 = "not at all important". Please fill in N/A for those that do not apply.

For Performance: Please shade in the appropriate circle, where 5 = "very good" and 1 = "very poor". Please fill in N/A for those that do not apply.

	Importance						Management Performance					
	N/A	Very Important			Not at all important		N/A	Very good				Very poor
		5	4	3	2	1		5	4	3	2	1
Parking	0	0	0	0	0	0	0	0	0	0	0	0
Access to the river (launching areas)	0	0	0	0	0	0	0	0	0	0	0	0
Cleanliness of washrooms	0	0	0	0	0	0	0	0	0	0	0	0
Availability of washrooms	0	0	0	0	0	0	0	0	0	0	0	0
Quality of picnic areas	0	0	0	0	0	0	0	0	0	0	0	0
Availability of garbage containers	0	0	0	0	0	0	0	0	0	0	0	0
Number of users in the day use areas	0	0	0	0	0	0	0	0	0	0	0	0
Number of special/organized events held on the River each year	0	0	0	0	0	0	0	0	0	0	0	0
Number of OVERALL users encountered along the river	0	0	0	0	0	0	0	0	0	0	0	0
Kayakers	0	0	0	0	0	0	0	0	0	0	0	0
Canoers	0	0	0	0	0	0	0	0	0	0	0	0
Body Boarders	0	0	0	0	0	0	0	0	0	0	0	0
Rafters	0	0	0	0	0	0	0	0	0	0	0	0
Sport Yakers	0	0	0	0	0	0	0	0	0	0	0	0
Availability of general area information	0	0	0	0	0	0	0	0	0	0	0	0
Availability of river information	0	0	0	0	0	0	0	0	0	0	0	0
Availability of maps/guides	0	0	0	0	0	0	0	0	0	0	0	0
Overall River	0	0	0	0	0	0	0	0	0	0	0	0
waves	0	0	0	0	0	0	0	0	0	0	0	0
eddies	0	0	0	0	0	0	0	0	0	0	0	0
holes	0	0	0	0	0	0	0	0	0	0	0	0
slalom course	0	0	0	0	0	0	0	0	0	0	0	0
Natural environment around the river	0	0	0	0	0	0	0	0	0	0	0	0

As discussed in Chapter 2, Wager (1964) and Manning (1999) recommend that management goals be clearly identified and that some type of effective management activity be in place. To determine whether the current management activities along the Lower Kananaskis River are working, the following questions appeared on the user survey:

- *How, if at all, could your visit along the Lower Kananaskis River been improved today?*
- *Are you happy with the way the River is managed?*
O Yes, If so, why?
O No, If not, why not?

3.3.2 Key Policy Leader Interview Guide

To gather information from key policy leaders, a structured interview was deemed the most appropriate way to gather complimentary and supplemental information from these individuals. The interviews followed a set interview guide (Appendix E) and all policy leaders were asked the same questions. These questions were developed to

gain additional information from those involved in the decision making along the river or involved in the LKRUA to complement and add to the information collected from river users. All policy leaders were asked to respond to the questions and provide insight into the topics being explored. The responses were recorded by the researcher during the interview and later transcribed into a word document and sent to policy leaders for their review prior to analysis.

3.3.2.1 Description of Key Policy Leader Interview Guide Variables

The questions explored in the policy leader interviews are important to note. The following section will explore all questions found in the interview guide and asked of policy leaders and the reason for including them. As noted several times throughout this thesis, the purpose of the policy leader interviews was to gather information from different members of the users association, LKRUA, to meet the original purpose and objectives of this research.

As Eagles and McCool (2001) state, it is important to collect information from all types of visitors, users in this research, as they often have unique needs and desires. For the policy leader interviews, it was important to identify how they utilized and its associated facilities and services. To address this, the following questions were asked in the interview:

- *How and why do you use the Lower Kananaskis River and its associated facilities?*
- *What do you see as some of the upcoming trends in activities when it comes to river recreational activities?*
- *Was there anything else that you thought I was going to ask in regard to the Lower Kananaskis River and associated facilities that I did not? Please explain.*

As discussed in Chapter 2 and above, Wager (1964) and Manning (1999) recommend that management goals be clearly identified and that some type of effective management activity be in place. To determine whether the current management activities along the Lower Kananaskis River are working and effective in carrying out appropriate management of the area, the following questions were asked in the interviews:

- *In your opinion, who do you think has or should have responsibility over the current management and maintenance of the Lower Kananaskis River and its facilities?*
- *How do you feel about the current management of the Lower Kananaskis River?*

- *In what ways is the Lower Kananaskis River being managed effectively?*
- *In what ways is it being managed poorly?*
- *Are there ways to improve upon the current management model to improve experiences at the river?*

Brown (1977) noted that it is important for managers to understand how individuals feel about different management tools and directives, including potential emerging issues, since they are directly impacted by decision making and implemented tools. To address this, the following question was asked of policy leaders:

- *What do you see as some of the management issues currently being encountered along the Lower Kananaskis River?*
 - *How do you think these can be addressed?*
 - *Who do you think is responsible for addressing these?*
 - *What do you see as some of the obstacles in addressing current management issues?*

Hockings et al. (2006) state that it is necessary to have adequacy in human capacity, facilities, operational money and equipment. To assess this information along the Lower Kananaskis River, the following questions were asked of policy leaders:

- *Are the current _____ adequate for the management of the recreational use on the Lower Kananaskis River and its associated facilities? If they are not, what changes would you recommend?*
 - *Laws?*
 - *Regulations?*
 - *Policies?*
 - *Money Resources?*
 - *People resources?*
 - *Management structure?*
- *What monetary and human resources are necessary for effective management of the Lower Kananaskis River and recreation?*
 - *In your opinion, would it be realistic to acquire these?*
 - *Who do you think is responsible for providing these resources?*

McCool and Utter (1981) have noted that there is often debate over how to allocate use and what the resource can handle. One common place technique that has been implemented in outdoor recreational settings is the use of permits. Permits are seen as a good tool in that they keep track of the number of boats who could potentially use the river in a given season and can help to ensure that the river resource is not overused. But the question becomes how does one determine how many permits should be given out, how many different types of permits should be available (commercial vs. private users), and what the rules and regulations should be behind the permits and finally how they can be monitored. To determine policy leaders current opinion on the permitting

process and how well it is currently working the following question was asked in the interviews:

- *In your opinion, do you feel the current commercial permitting process is appropriate? Please explain.*
 - *If any changes were to be made to it, what would you like to see?*
 - *In your opinion, what would be appropriate changes?*

Manning & Valliere (2001) indicate that participants have different behavioural coping mechanisms for dealing with increases in use at different sites and different activities occurring at outdoor recreational areas. To investigate the impact of special events on the policy leaders the following question was asked:

- *What impact, if any, do special or organized events have on your operation for that particular day? Please explain.*

3.4 Data Analysis

Analysis of this data took place in different steps and used two different techniques, one for examining the results of the commercial and private users survey and another for examining the results of the discussions with key policy leaders.

3.4.1 Analysis of Survey Results

Due to the nature of the results of the survey and for ease of analysis, a statistical software package, SPSS, was used. This was seen as an appropriate approach to analysis as Wilson (2005) states “One of the most efficient tools used to calculate either descriptive or inferential statistics is computers...The most popular statistics program today [being] SPSS” (pp.7). Before SPSS could be used to analyze the survey results, the data was entered into SPSS. All surveys were coded for ease of analysis and for purposes of comparing responses and therefore conceptualizing ideas. After all survey data was inputted, the data was checked by selecting every 10th survey entered and checking the associated data for accuracy.

Initial analysis of the survey data involved running simple frequencies through SPSS of all the questions. This data was used to gain a general understanding of survey results and is presented in the following chapter of the thesis. In addition to running simple frequencies the short answer questions were examined for common themes and ideas. This was done by reading over the responses numerous times and coding them for similar themes and ideas.

After initial analysis of the data, the respondents were divided into two groups, commercial and recreational users. This was done to determine whether there were

similarities or differences among these two groups of users. After dividing the respondents into these two groups, cross tabulations were run in SPSS to compare these groups along with Chi-Square tests to determine whether any differences seen among them were statistically significant. For the purpose of this research, a statistical significant difference was deemed to be when $p < 0.05$, this was chosen due to its wide use in the recreation literature. Differences among the user groups are presented in the following chapter.

Importance-performance analysis (IPA) was first introduced in the field of marketing in 1977 by Martilla and James to measure ways in which products and services with multiple attributes could be modified to predict a customers' level of satisfaction with them (Tarrant and Smith, 2002). Since this introduction, IPA has been employed in other areas of research, including outdoor recreation to examine visitor centres, wilderness conditions and park facilities (Tarrant and Smith, 2002). Recreation professionals have used IPA to develop effective programs and marketing strategies (Hendricks et al., 2004) and have come to accept this method of analysis because it is easy to interpret the results and make decisions based on these results (Oh, 2001).

IPA is typically done in three steps. The first part of IPA involves identifying those attributes that management controls and that impact the recreation experience that individuals seek (Simon et al., 1998). The second step of IPA, is done by respondents who rate the importance of the elected attributes on their importance and on how well the agency performs; this is typically executed with a Likert scale ranging from high levels of importance and performance to low levels of importance and performance (Simon et al., 1998). The final step of IPA is to calculate the importance and performance of each attribute. This is achieved by calculating the mean value of the scores for the attributes, which are then placed on a two-dimensional grid. By placing the mean scores on this grid, each of the attributes will fall into one of four categories from which management can make the appropriate decisions. The four quadrants include 1) concentrate here, 2) keep up the good work, 3) low priority and 4) possible overkill (Oh, 2001). For the sake of this research, the services and facilities upon which commercial and recreational users were to rate importance and performance were determined in referring to previous surveys and in talking to individuals working within Alberta Parks. These items were then placed in a question on the commercial and recreational users survey where they were asked to rank the importance of them and how well they felt management was

currently performing on them. These results are presented along with the rest of the results of the user in the following chapter (Chapter 3).

3.4.2 Analysis of Interview Results

In total, seven interviews were completed with key policy leaders; four commercial representatives, one recreational, one academic institution and one non-profit representative, each lasting between 30-60 minutes depending on the responses given. Before analysis of the interviews could begin, the responses were each transcribed verbatim by the researcher into separate Microsoft Word documents. These files were returned to the policy leaders through e-mail for their revision for accuracy and then returned to the researcher electronically. Once all of the interviews were returned to and received by the researcher, analysis began. Analysis of the data began with combining all the responses from all interviews into one document. The responses for each question from policy leaders were noted and distinguished through the use of colour to which the researcher only knew the identity of the respondent. After combining all the responses into one document the researcher began the initial read through the data and open coding to identify general themes found within the responses for each of the questions. Examples of themes included; the sufficiency of facilities, use of the river, number of people utilizing the river and interaction among different users.

After identifying general themes found within the responses, the researcher went through the data looking to expand on these themes and to organize them into more specific groupings or related groupings. This process is termed axial coding and according to Neuman (2006), “During axial coding, a researcher asks about causes and consequences, conditions and interactions, strategies and processes, and looks for categories and concepts that cluster together” (pp.331). This coding helped to identify common thoughts or ideas that the policy leaders had on each of the questions, while at the same time identified some key differences. Some of these included the reoccurring idea of the need to improve facilities, differing opinions on the level of use and issues concerning management responsibility.

Finally to elaborate on the themes found within the responses, the researcher completed selective coding focusing on the themes or ideas already identified focusing on expanding these and relating them to one another. This was done by grouping the responses from the policy leaders from the different questions under broad themes. This step helped the researcher to pull and identify the most common and important themes from the interview discussions.

After the coding process, the information was compiled into written format under key topics from the interviews questions and underlying themes from the responses were discussed. This information is presented in the following chapter.

3.5 Ethical Considerations

To ensure the ethical treatment of the participants in this study all surveys and associated tools were submitted to the Office of Research Ethics at the University of Waterloo and also submitted to the Alberta Parks and Protected Areas for approval. Once approval was given by these two bodies research began in the field. Involvement by all individuals was voluntary and they were given the opportunity to withdraw at any time during the survey or interview. During the data collection period, all returned surveys and associated demographic information were kept in a secure location, this included surveys, field notes, demographical information and computer files to which only the researcher had access. The anonymity of the participants was also maintained throughout, as the only personal information collected was their origin or place of residence for the purpose of developing an understanding of where river users were coming from for commercial and recreational users and for key policy leaders no names were used in the analysis and only general titles were used when quoting responses, such as commercial operator. There were no further ethical considerations as all participants were informed about the overall purpose of the research and were participating voluntarily.

Chapter 4 – Research Findings

Chapter 4 presents the results of the research carried out along the Lower Kananaskis River in the May through September of 2006. Surveys were completed by commercial and recreational users, interviews were held with key stakeholders, and user observations were made. The purpose of this chapter is to: 1) present the results of the commercial and recreational users' survey; 2) compare the two main user groups, commercial and recreational, and 3) present information from interviews with key stakeholders. This chapter opens with a discussion of findings from the preliminary analysis of the commercial and recreational users' survey. This is followed, by a more in-depth analysis of the two main user groups. A discussion of the results from the key policy interviews is followed by a comparison of these results from the survey and interviews.

4.1 Introduction

Analysis of the survey results reveals several key pieces of information regarding the commercial and recreational use of the Lower Kananaskis River. These initial findings give a general picture of the amount of commercial and recreational use of the Lower Kananaskis River, as well as some basic demographic information on the users. Information is also provided on the activities participated in and whether the users are currently satisfied with the services, the facilities and the management of the river. The following section gives a question-by-question general overview of these primary findings and is followed by a more comprehensive analysis in subsequent sections. Additional information will also be presented from the key policy leader interviews.

4.2 Primary Survey Findings

The following sections provide information on each type of user (commercial and recreational) in the summer of 2006, their age, length of stay, origin, activity, whether they are repeat users of the river, the importance that they assign to different services and facilities, their satisfaction with management and general comments concerning the river. This section is meant to provide a general overview of the survey findings by providing frequencies and general percentages for each question.

4.2.1 Demographical Information

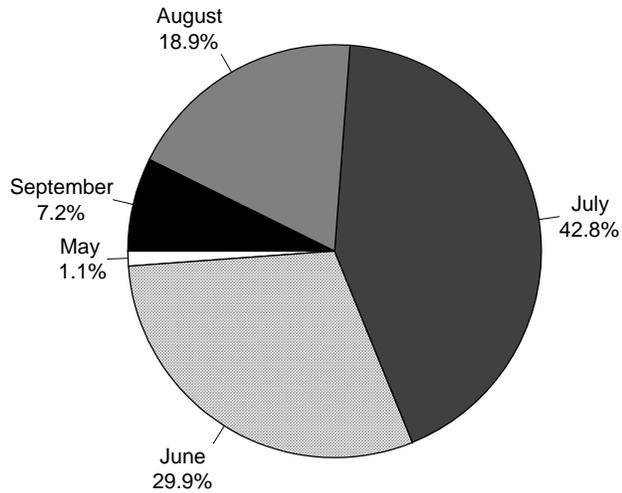
The river use peaked in July with just under half of the surveys, 113 (42.8%), completed in the month of July (Table 5 and Figure 12). About two thirds of respondents (179 or 67.8%) were males and about half of the respondents (119 or 45.1 %) were within

the 35 to 44 year age bracket. About 40% (105 or 39.8%) were visiting with friends and about 40% (104 or 39.4%) were visiting in groups of three to five people. Of those who responded to the surveys, 179 (67.8%) were male and 85 (32.2%) were female. It is also interesting to note that two thirds of the respondents came from Alberta (66%) and 10% were from the United States (Table 6; Figure 13 and 14).

Table 5 – Characteristics of Lower Kananaskis River Users

Month of Visit	n	%
May	3	1.1
June	79	29.9
July	113	42.8
August	50	18.9
September	19	7.2
Total	264	100
Gender	n	%
Male	179	67.8
Female	85	32.2
Total	264	100
Type of Group	n	%
Family	84	31.8
Family and friends	28	10.6
Organized group	22	8.3
Friends	105	39.8
Alone	25	9.5
Total	264	100
Age Category	n	%
18 to 24 years	10	3.8
25 to 34 years	75	28.4
35 to 44 year	119	45.1
45 to 54 years	51	19.3
55+ years	9	3.4
Total	264	100
Party Size	n	%
one person	27	10.2
two people	71	26.9
three to five people	104	39.4
six to ten people	40	15.2
eleven to fifteen people	11	4.2
sixteen to twenty people	1	0.4
more than twenty people	10	3.8
Total	264	100

Figure 12 - Month of Visit



n=264

Table 6 – Origin of Lower Kananaskis River Users

Origin	n	%
Newfoundland and Labrador	0	0
New Brunswick	1	0.4
Nova Scotia	0	0
PEI	0	0
Quebec	2	0.8
Ontario	16	6
Manitoba	4	1.5
Saskatchewan	9	3.4
Alberta	176	66.7
<i>Calgary</i>	102	57.6
<i>Canmore</i>	15	8.5
<i>Edmonton</i>	9	5.1
<i>Cochrane</i>	3	1.7
<i>Other</i>	47	26.7
British Columbia	13	4.9
Nunavut	0	0
Northwest Territories	1	0.4
Yukon	0	0
United States	27	10.2
International	14	5.3
did not know	1	0.4
Total	264	100

Figure 13 - Origin of River Users

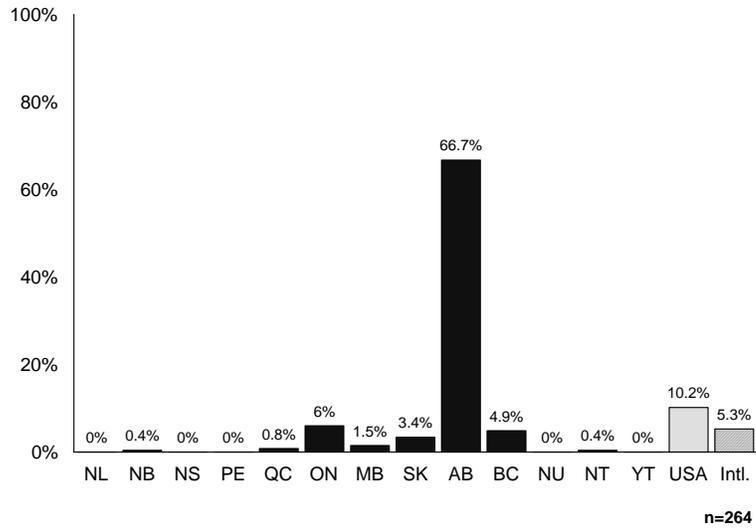
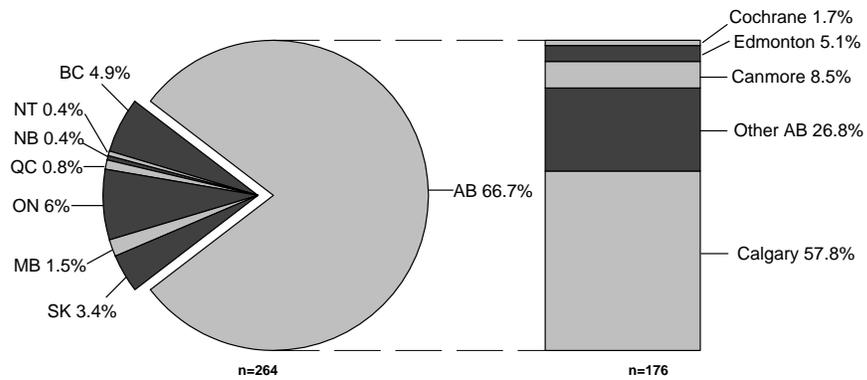


Figure 14 - Canadian Users



4.2.2 Commercial and Recreational Users' Survey Question General Findings

What type of user would you classify yourself as?

Commercial (i.e. participating as part of a rafting company)

Recreational

Non-profit / Organized group (i.e. Alberta Whitewater Association)

Are you participating as part of an organized or special event? (i.e. Kananaskis Whitewater Festival)

Yes

No

Are you participating as part of an organized group? (i.e. Alberta Whitewater Association)

Yes

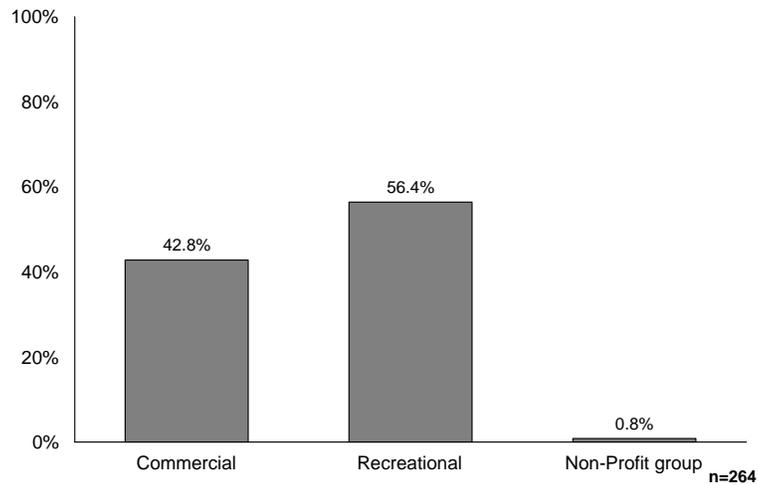
No

According to the survey results, 113 users identified themselves as commercial users, those going down the river with one of the authorized operators, while 149 users identified themselves as recreational users and 2 were part of a non-profit group (Figure 15). As one can see from Table 7, no users identified themselves as participating in a special event, and only 18 out of 264 users were part of an organized group. Examination of the users who identified themselves as participating as part of an organized group, found that many of these groups were office or work groups, with a couple of school groups and youth groups, including Boy Scouts and Pathfinders.

Table 7 – Groupings of Surveyed Users of the Lower Kananaskis River

Type of User	n	%
Commerical	113	42.8
Private Citizen	149	56.4
Non-profit group	2	0.8
Total	264	100
Participating as part of a special event	n	%
Yes	0	0
No	264	100
Total	264	100
Participating as part of an organized group	n	%
Yes	18	6.8
No	246	93.2
Total	264	100

Figure 15 - User Classification



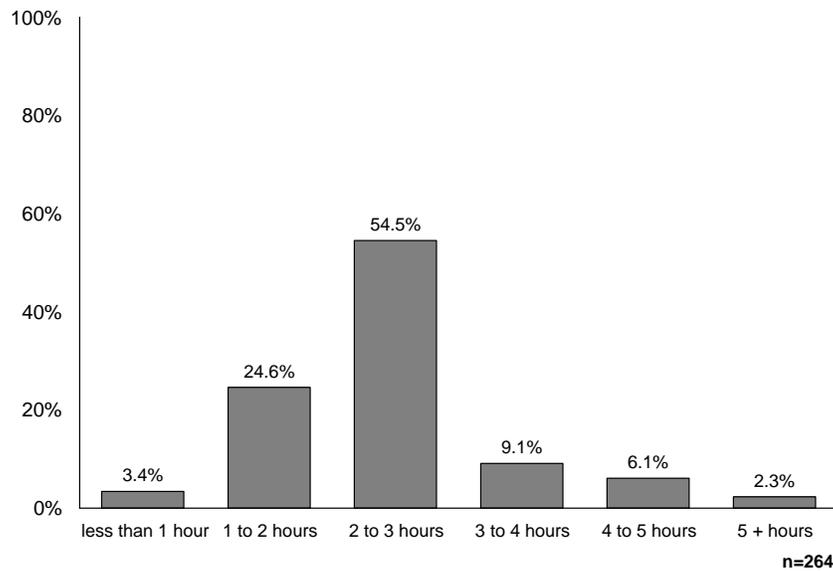
What was your length of stay on the river today? _____ hour(s)
How many days did you spend at the Lower Kananaskis River on this trip? _____ day(s)

As one can see from Table 8 and Figure 16, the average length of stay on the river was about 2 hours, with approximately half of the users (47.7%) indicating a trip length of 2 hours. However, it should be noted that the average length of a commercial rafting trip is two hours from start to finish (from river launch to river take out), which will be an influencing factor on the average trip length for all users. It should also be noted almost all of the users (96.2%) indicated that they were only spending one day at the Lower Kananaskis River for this particular trip. This shows that users of the river are typically day users, which is also evident from the demographical information.

Table 8 – Length of Stay at the Lower Kananaskis River

Number of hours spent on the River	n	%
less than 1 hour	9	3.4
one to two	65	24.6
two to three	144	54.5
three to four	24	9.1
four to five	16	6.1
more than five	6	2.3
Total	264	100
Number of days at the River on this trip	n	%
one	254	96.2
two	8	3
three	0	0
four	2	0.8
five or more	0	0
Total	264	100

Figure 16 - Length of Time on the River



What primary activity did you take part in *on the river* during your visit today?
(Please fill in the appropriate circle)

Kayaking Sport Yaking
 Canoeing Boating
 Rafting Other (specify): _____

As one can see from Table 9 and Figure 17, the two most popular activities on the Lower Kananaskis River are kayaking (Figure 18) and rafting (Figure 19), with 123 users (46.6%) participating in each of them. It is important to note that of the users who participated in rafting, 112 participated with one of the permitted commercial companies and the remaining 11 users participated with a rented raft or had their own raft. Canoeing was undertaken by 16 (5.9%) users. Individuals participating in these three activities may be looking for different experiences and potentially different services and facilities at the site. This could be a potential source of conflict.

Table 9 – Activities Participated in on the Lower Kananaskis River

Primary activity participated in on the River	n	%
Kayaking	123	46.6
Canoeing	16	6.1
Rafting	123	46.6
Sport Yaking	0	0
Boating	0	0
Other	2	0.7
Total	264	100

Figure 17 - Primary Activity on the River

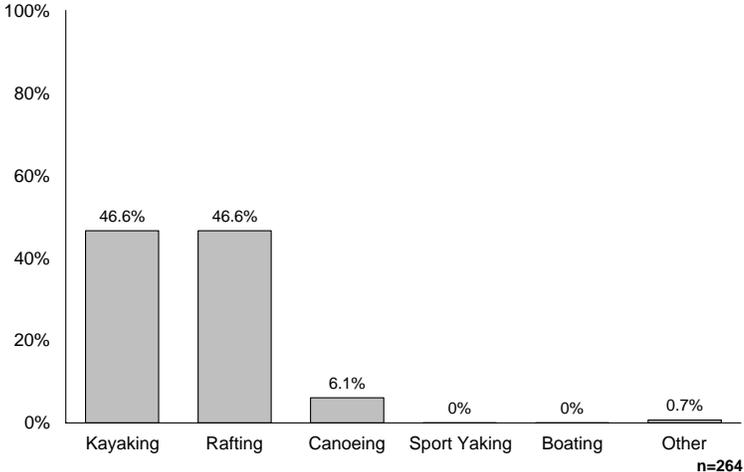


Figure 18 – Kayaking on the Lower Kananaskis River



(Rae, K; Kananaskis Country, Alberta; September 4, 2006)

Figure 19 – Rafting on the Lower Kananaskis River



(Rae, K; Kananaskis Country, Alberta; September 3, 2006)

Was this visit today your FIRST visit to the Lower Kananaskis River to participate in river recreational opportunities? (Please fill in the appropriate circle)

Yes

No

If NO, please indicate the number of previous visits to the Lower Kananaskis River to participate in river recreational opportunities *in the past two years* (excluding this year). _____

The distribution of previous visits to the Lower Kananaskis River is interesting to note. Of the users surveyed, the number of first time users and repeat users was almost

evenly split with 133 (50.4%) and 131 (49.6%) users respectively. Of those individuals who had used the river and its facilities in the past two years, approximately one fifth (16.8%) said that they had participated in river recreational opportunities six to 10 times. As one can see from Table 10, the number of previous visits indicated by users' ranged from none to more than 100 in the past two years, with the larger number of visits demonstrating a high repeat use rate.

Table 10 – Previous Visits to the Lower Kananaskis River

First visit to the river to participate in river recreational activities	n	%
Yes	133	50.4
No	131	49.6
Total	264	100
Number of previous visits to the river to participate in river recreational activities in the last two years	n	%
no visits in the last two years	5	3.8
one	11	8.4
two	10	7.6
three to five	18	13.7
six to ten	22	16.8
eleven to fifteen	9	6.9
sixteen to twenty	11	8.4
twenty one to twenty five	5	3.8
twenty six to thirty	5	3.8
thirty one to forty	5	3.8
forty one to fifty	6	4.6
fifty one to sixty	3	2.3
seventy one to eighty	1	0.8
ninety one to one hundred	15	11.5
more than one hundred	5	3.8
Total	131	100

Where did you enter the river today? (Please fill in the appropriate circle)

Canoe Meadows

Widow Maker

Other: _____

How many trips did you take down the river today? _____ trips

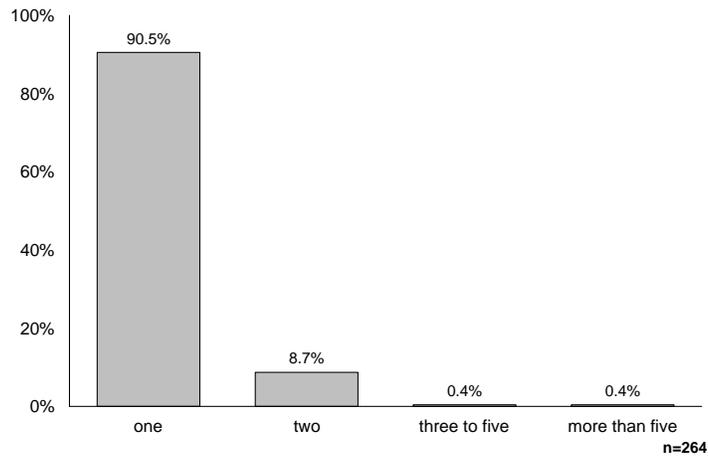
A large percentage (86.4%) of surveyed users entered the river at the Widow Maker area. This finding is expected since the river features used are between this location and the Canoe Meadows area. As can be seen in Table 11, 90% of users surveyed indicated that they only took one trip down the river that day. This may not seem like a lot of use, but it is important to mention that the length of trips on the river varies from user to user. The number of trips also depends greatly on the activity they are

participating in and the experience that they are looking for, in addition to the length of water flow on the given day.

Table 11 – Entrance Point and Number of Trips That Day

Entrance point to the Lower Kananaskis River	n	%
Canoe Meadows	34	12.9
Widow Maker	228	86.4
Other	2	0.8
Total	264	100
Number of trips down the Lower Kananaskis River that day	n	%
one	239	90.5
two	23	8.7
three to five	1	0.4
more than five	1	0.4
Total	264	100

Figure 20 - Number of Trips Down the River that Day



Do you feel the experiences you were looking for today were found? (Please fill in the appropriate circle)

Yes
If YES please explain why:

No
IF NO please explain why not:

As seen in Table 12, the majority of users surveyed (97.7%) indicated that the desired recreational experience was met. Generally speaking, those users whose experiences were met said so because they had a good time and it was fun, the river was predictable, weather was good, it is a safe setting, the river and surrounding area was clean, and the features were good. For a complete listing of reasons of why users experiences were met please see Appendix G. For those few respondents who indicated that the experience they were looking for was not met, the reasons given included; “it was fun but the features could have been better”, “more water was needed”, “it was not to par but this is all I have and is good for playing only and I don’t really get too much from it”, “waves were flushy and hard to set up for moves, may be due to floods” and “would like to see more advanced features”.

Table 12 – Experiences Sought on the River Met

Feel the experiences you were looking for today were	n	%
Yes	258	97.7
No	6	2.3
Total	264	100

<p>How, if at all, could your visit today along the Lower Kananaskis River been improved?</p> <hr/> <hr/>

When users were asked how their visit could have been improved, the majority of those surveyed said that their visit had been okay, and nothing really could have been improved. For those users who said that their visit could have been improved, they mentioned things like better signage, new and bigger features, having better access points to the river, more organized parking, camping close by and access to the shelter at Canoe Meadows to name a few. A more detailed listing of the user’s responses can be found in Appendix H.

Please indicate your perception of use on the Lower Kananaskis River on a scale of 1 through 5, where 1 = “level of use should be reduced” and 5 = “level of use could be increased”. (Please fill in the appropriate circle).

Use	level of use should be reduced		Just the Right level of use		level of use could be increased
	1	2	3	4	5
Overall Use	0	0	0	0	0
Rafting	0	0	0	0	0
Kayaking	0	0	0	0	0
Canoeing	0	0	0	0	0
Sport Yaking	0	0	0	0	0
Other	0	0	0	0	0

As seen in Table 13, the majority of respondents (88.3%) were happy with the current level of use of the Lower Kananaskis River and felt that this level of use was just right. This finding held for each of the activities of rafting, kayaking, canoeing, yaking and other uses. This is an important finding for management as it shows that users are happy with the current use levels. Few indicated a desire for an increase in use levels in any of the six types of use.

Table 13 – Perception of Current Use of the Lower Kananaskis River

Perception of level of overall use	n	%	Perception of level of canoeing use	n	%
1 - Level of use should be reduced	4	1.5	1 - Level of use should be reduced	0	0
2	4	1.5	2	2	0.8
3 - Just the right level of use	233	88.3	3 - Just the right level of use	233	88.3
4	10	3.8	4	11	4.2
5 - Level of use should be increased	13	4.9	5 - Level of use should be increased	18	6.8
Total	264	100	Total	264	100
Perception of level of rafting use	n	%	Perception of level of sport yaking use	n	%
1 - Level of use should be reduced	13	4.9	1 - Level of use should be reduced	1	0.4
2	9	3.4	2	1	0.4
3 - Just the right level of use	230	87.1	3 - Just the right level of use	241	91.3
4	6	2.3	4	9	3.4
5 - Level of use should be increased	6	2.3	5 - Level of use should be increased	12	4.5
Total	264	100	Total	264	100
Perception of level of kayaking use	n	%	Perception of level of other use	n	%
1 - Level of use should be reduced	1	0.4	1 - Level of use should be reduced	1	0.4
2	2	0.8	2	1	0.4
3 - Just the right level of use	236	89.4	3 - Just the right level of use	241	91.3
4	11	4.2	4	9	3.4
5 - Level of use should be increased	14	5.3	5 - Level of use should be increased	12	4.5
Total	264	100	Total	264	100

Listed below are several river and recreation facilities. How important are these to you and how well is management currently performing on these?

For Importance: Please shade in the appropriate circle, where 5 = “very important” and 1 = “not at all important”. Please fill in N/A for those that do not apply.

For Performance: Please shade in the appropriate circle, where 5 = “very good” and 1 = “very poor”. Please fill in N/A for those that do not apply.

	Importance						Performance					
	N/A	5	4	3	2	1	N/A	5	4	3	2	1
Parking	0	0	0	0	0	0	0	0	0	0	0	0
Access to the river (launching areas)	0	0	0	0	0	0	0	0	0	0	0	0
Cleanliness of washrooms	0	0	0	0	0	0	0	0	0	0	0	0
Availability of washrooms	0	0	0	0	0	0	0	0	0	0	0	0
Quality of picnic areas	0	0	0	0	0	0	0	0	0	0	0	0
Availability of garbage containers	0	0	0	0	0	0	0	0	0	0	0	0
Number of users in the day use areas	0	0	0	0	0	0	0	0	0	0	0	0
Number of special/organized events held on the River each year	0	0	0	0	0	0	0	0	0	0	0	0
Number of OVERALL users encountered along the river	0	0	0	0	0	0	0	0	0	0	0	0
Kayakers	0	0	0	0	0	0	0	0	0	0	0	0
Canoers	0	0	0	0	0	0	0	0	0	0	0	0
Body Boarders	0	0	0	0	0	0	0	0	0	0	0	0
Rafters	0	0	0	0	0	0	0	0	0	0	0	0
Sport Yakers	0	0	0	0	0	0	0	0	0	0	0	0
Availability of general area information	0	0	0	0	0	0	0	0	0	0	0	0
Availability of river information	0	0	0	0	0	0	0	0	0	0	0	0
Availability of maps/guides	0	0	0	0	0	0	0	0	0	0	0	0
Overall River	0	0	0	0	0	0	0	0	0	0	0	0
waves	0	0	0	0	0	0	0	0	0	0	0	0
eddies	0	0	0	0	0	0	0	0	0	0	0	0
holes	0	0	0	0	0	0	0	0	0	0	0	0
slalom course	0	0	0	0	0	0	0	0	0	0	0	0
Natural environment around the river	0	0	0	0	0	0	0	0	0	0	0	0

Tables 14 and 15 show that users believed that the majority of the services and facilities currently available at the river were important, with a mean score of 3 or more. Those services and facilities that users felt were not as important included the “number of specialized and organized events held on the river each year” and the “number of canoers on the river”. Tables 14 and 15 show that users state that management was performing fairly well on the items listed. However, it should be noted that majority of the mean scores were around “3” indicating that users only moderately thought these services and facilities were important and being performed moderately well. Also noted in Table 15 are the I-P Gaps for the services and facilities, that is the difference between importance and performance. If performance is ranked higher than importance, then the site management is seen as being successful. However, there is a problem if performance is ranked lower than importance. The biggest positive gaps were for: 1) quality of picnic areas (+2.54), 2) wave features (+0.46), and 3) cleanliness of washrooms (+0.36). The

largest negative gaps were for: 1) number of body boarders (-0.61), 2) number of canoers (-0.59), and 3) parking (-0.44).

Table 14 – Importance and Performance on Different Services and Facilities

	Importance										Performance									
	5 Very Important		4		3		2		1 Not at all Important		5 Very Good		4		3		2		1 Very Poor	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Parking	74	28	103	39	46	17.4	13	4.9	9	3.4	120	45.5	89	33.7	35	13.3	3	1.1	1	0.4
Access to the river (launching areas)	102	38.6	97	36.7	53	20.1	5	1.9	3	1.1	117	44.3	96	36.4	37	14	12	4.5	0	0
Cleanliness of washrooms	94	35.6	83	31.4	43	16.3	16	6.1	6	2.3	66	25	78	29.5	57	21.6	22	8.3	13	4.9
Availability of washrooms	98	37.1	86	32.6	44	16.7	17	6.4	6	2.3	87	33	87	33	50	18.9	12	4.5	8	3
Quality of picnic areas	37	14	64	24.2	73	27.7	35	13.3	10	3.8	68	25.8	87	33	47	17.8	13	4.9	0	0
Availability of garbage containers	108	40.9	70	26.5	42	15.9	15	5.7	4	1.5	89	33.7	79	29.9	48	18.2	12	4.5	2	0.8
Number of users in the day use areas	48	18.2	91	34.5	67	25.4	12	4.5	20	7.6	67	25.4	98	37.1	56	21.2	10	3.8	0	0
Number of special/organized events held on the River each year	32	12.1	49	18.6	54	20.5	27	10.2	25	9.5	50	18.9	58	22	44	16.7	12	4.5	0	0
Number of OVERALL users encountered along the river	52	19.7	70	26.5	86	32.6	21	8	21	8	71	26.9	88	33.3	64	24.2	12	4.5	1	0.4
<i>Kayakers</i>	47	17.8	65	24.6	79	29.9	25	9.5	29	11	74	28	83	31.4	63	23.9	12	4.5	4	1.5
<i>Canoers</i>	35	13.3	49	18.6	83	31.6	29	11	36	13.7	60	22.7	84	31.8	63	23.9	11	4.2	4	1.5
<i>Body Boarders</i>	25	9.5	37	14	76	28.8	29	11	39	14.8	52	19.7	75	28.4	60	22.7	12	4.5	2	0.8
<i>Rafters</i>	46	17.4	77	29.2	75	28.4	21	8	31	11.7	58	22	79	29.9	78	29.5	18	6.8	5	1.9
<i>Sport Yakers</i>	31	11.7	55	20.8	70	26.5	27	10.2	38	14.4	54	20.5	79	30	61	23.2	11	4.2	4	1.5
Availability of general area information	71	26.9	68	25.8	53	20.1	21	8	20	7.6	75	28.4	83	31.4	44	16.7	11	4.2	5	1.9
Availability of river information	92	34.8	86	32.6	35	13.3	14	5.3	10	3.8	80	30.3	74	28	49	18.6	14	5.3	8	3
Availability of maps/guides	84	31.8	79	29.9	38	14.4	21	8	10	3.8	71	26.9	78	29.5	44	16.7	22	8.3	4	1.5
Overall River	164	62.4	74	28.1	18	6.8	1	0.4	1	0.4	120	45.5	102	38.6	30	11.4	4	1.5	1	0.4
<i>waves</i>	160	60.6	80	30.3	17	6.4	2	0.8	2	0.8	100	37.9	93	35.2	55	20.8	9	3.4	2	0.8
<i>eddies</i>	146	55.5	77	29.3	25	9.5	6	2.3	3	1.1	109	41.3	92	34.9	47	17.8	8	3	0	0
<i>holes</i>	136	51.5	79	29.9	31	11.7	4	1.5	5	1.9	100	37.9	89	33.7	48	18.2	13	4.9	1	0.4
<i>slalom course</i>	88	33.3	54	20.5	46	17.4	16	6.1	22	8.3	92	34.8	81	30.7	37	14	7	2.7	3	1.1
Natural environment around the river	166	62.9	73	27.7	18	6.8	2	0.8	2	0.8	150	56.8	86	32.6	20	7.6	4	1.5	0	0

Table 15 – Mean Importance and Performance Scores on River Services and Facilities

	Mean		Gap
	Importance	Performance	I - P
Parking	3.62	4.06	-0.44
Access to the river (launching	4.07	4.2	-0.13
Cleanliness of washrooms	3.68	3.32	0.36
Availability of washrooms	3.83	3.68	0.15
Quality of picnic areas	2.82	0.28	2.54
Availability of garbage containers	3.74	3.57	0.17
Number of users in the day use	3.28	3.57	-0.29
Number of special/organized events held on the River each year	2.43	2.52	-0.09
Number of OVERALL users encountered along the river	3.31	3.61	-0.30
<i>Kayakers</i>	3.12	3.6	-0.48
<i>Canoers</i>	2.76	3.35	-0.59
<i>Body Boarders</i>	2.42	3.03	-0.61
<i>Rafters</i>	3.2	3.45	-0.25
<i>Sport Yakers</i>	3.05	3.15	-0.10
Availability of general area	3.25	3.37	-0.12
Availability of river information	3.61	3.41	0.20
Availability of maps/guides	3.46	3.3	0.16
Overall River	4.49	4.24	0.25
<i>waves</i>	4.48	4.03	0.45
<i>eddies</i>	4.31	4.24	0.07
<i>holes</i>	4.19	3.92	0.27
<i>slalom course</i>	3.22	3.48	-0.26
Natural environment around the river	4.49	4.44	0.05

Are you happy with the way the River is managed?
 Yes
 If so, why?

No
 If no, why not? What do you see as some of the obstacles in addressing these management concerns you outlined above?

Table 16 – Happy with River Management

Happy with the way the river is managed	n	%
Yes	264	100
No	0	0
Total	264	100

Table 16 shows that all of the users indicated that they were happy with the current way that the river is being managed. Some of the general ideas from their comments include: everything was really good, that there is a concern for users, the area is generally safe, people are friendly and seem to work well together, the area is clean, the features are good, access to the river is easy, they like that the area is not too

developed and that there is not too much management in the area. For a complete listing of the users' responses please see Appendix I. This is quite an important finding. Overall, the users express high levels of satisfaction with the way the river is managed. However, as will be noted later, there are individual features of the services and facilities that the users feel require improvement.

Do special or organized events have an impact on your experience or time spent on the river?

Yes
If so, please explain how:

No
If no, please explain why not:

Table 17– Impact of Special Events on River Experience

Special or organized events impact your experience or time	n	%
Yes	40	15.2
No	224	84.8
Total	264	100

The majority of users (84.8%) indicated that special or organized events do not negatively impact their time or experience on the river (Table 17). Those who indicated that organized or special events impacted their time on the river did not necessarily feel these events had a negative impact on their experience. Some users felt that the events were good for users and the paddling community, that they enhance the river experience and that they have an overall positive impact. However, some users did indicate that they would not like to see special events on the river every weekend and would like to see more notices posted ahead of time listing when the events are occurring. For those users who said that special or organized events do not negatively impact their time or experience on the river; they said that they did not participate in them, do not come out when they are on, simply work around them, were out on the river for the first time and were not at the river enough for them to impact their time or experience. For a complete listing of responses see Appendix J.

Do you have any other comments or concerns that you would like to share dealing with the management of the Lower Kananaskis River and associated day use facilities?

When users were asked whether they had any general comments or concerns regarding the management of the Lower Kananaskis River, many users indicated that they were happy with the way that it was being managed and did not want to see any major changes to the area and how it is looked after, which is different to comments made by policy leaders presented later in this chapter. Many of the comments received from users dealt with making changes to the area surrounding the river including, Widow Maker and Canoe Meadows day use areas and things that should be examined. The comments are too numerous to mention here but a complete listing of them can be found in Appendix K.

4.2.3 Summary

As discussed throughout this thesis, the purpose of this research was to create a management framework for water-based river recreation of the Lower Kananaskis River in Kananaskis Country, Alberta. This section of the report has presented simple preliminary and basic information from the surveys completed between May 28th, 2006 and September 4th, 2006. The purpose of this section was to provide some basic information that came out of the commercial and recreational user survey in the summer of 2006. The following sections will provide a more in-depth analysis of the commercial and recreational user survey results and will be followed by a discussion of the results from the interviews completed with key policy leaders.

4.3 Differences amongst user groups of the Lower Kananaskis River

Initial analysis of the commercial and recreational users' survey indicated that there were two main users of the research area, commercial and recreational. As previously mentioned, commercial users are defined as those individuals using the services of a permitted commercial operator on the Lower Kananaskis River (Figure 19). Recreational users are defined as those individuals participating in river recreational activities on their own free time (Figure 18). This section of the thesis will compare and contrast the characteristics of these two main user groups. As described in the methodology chapter, a statistically significant difference among commercial and recreational users for this research will be those where $p < 0.05$, as calculated using a Chi-Square test within SPSS and. This analysis will be divided into sub-sections based on questions asked to both groups of users. Following this analysis will be a discussion of the results from interviews with key policy leaders. This will expand on the responses provided by commercial and recreational users to provide an overall picture of use of the Lower Kananaskis River and its associated services and facilities.

4.3.1 River user characteristics

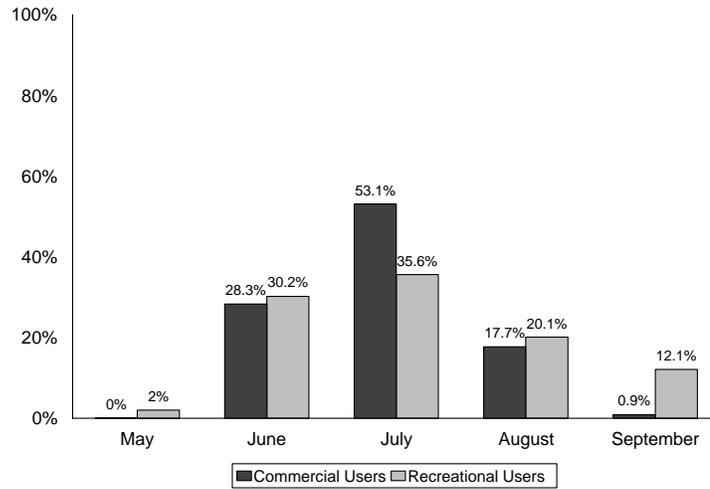
When looking at the two main user groups of the Lower Kananaskis River, a number of significant differences were found with respect to: 1) place of origin, 2) gender, 3) age, 4) the size, and 5) composition of their visiting party. Both user groups use the river in the May through September periods (Table 18). The majority of commercial users utilized the river in the summer months of July and August (Figure 21), as compared to recreational users whose visits were dispersed over a wider period from May through September. With respect to the users' place of origin, a chi-square test showed that commercial users were more likely to come from distant locales ($p < 0.05$). Table 18 shows that about half of commercial users were from Alberta (47.8%), whereas 80.5% of the recreational users were from Alberta ($p < 0.05$).

Table 18 – River User Characteristics

Month of visit by user group *	Commercial User		Recreational User	
	n	%	n	%
May	0	0	3	2
June	32	28.3	45	30.2
July	60	53.1	53	35.6
August	20	17.7	30	20.1
September	1	0.9	18	12.1
Total	113	100	149	100
Origin of user by user group *	Commercial User		Recreational User	
	n	%	n	%
Newfoundland and Labrador	0	0	0	0
New Brunswick	0	0	1	0.7
Nova Scotia	0	0	0	0
PEI	0	0	0	0
Quebec	2	1.8	0	0
Ontario	12	10.6	4	2.7
Manitoba	4	3.5	0	0
Saskatchewan	5	4.4	4	2.7
Alberta	54	47.8	120	80.5
British Columbia	1	0.9	12	8.1
Nunavut	0	0	0	0
Northwest Territories	1	0.9	0	0
Yukon	0	0	0	0
United States	22	19.5	3	2
International	11	9.7	4	2.7
did not know	1	0.9	1	0.7
Total	113	100	149	100
Gender of users by user group *	Commercial User		Recreational User	
	n	%	n	%
Male	59	52.2	118	79.2
Female	54	47.8	31	20.8
Total	113	100	149	100

* $p < 0.05$

Figure 21 - Month of Visit by User Group



In regards to the gender of the users, commercial users were evenly divided between male (52.2%) and female users (47.8%), whereas the majority of recreational users were male (79.2%) ($p < 0.05$). This difference in gender suggests that those using the commercial operators came in couples, families and mixed gender groups, while the recreational users were predominantly males.

A chi-square test revealed a significant difference in the party size of the user groups. The commercial user group size was larger than the recreational user group size. Table 19 identifies that almost half of the commercial users came in parties of 3 to 5 people (46.9%), whereas approximately one third of recreational users (34.2%) visited in groups of two, and another third came in a group of 3 to 5 people (34.2%) ($p < 0.05$).

Table 19 – Age and Party Size of River Users

Party size by user groups *	Commercial User		Recreational User	
	n	%	n	%
one person	1	0.9	26	17.4
two people	20	17.7	51	34.2
three to five people	53	46.9	51	34.2
six to ten people	25	22.1	15	10.1
eleven to fifteen people	6	5.3	5	3.4
sixteen to twenty people	1	0.9	0	0
more than twenty	7	6.2	1	0.7
Total	113	100	149	100
Age of user by user group	Commercial User		Recreational User	
	n	%	n	%
18 to 24 years	4	3.5	6	4.0
25 to 34 years	24	21.2	51	34.2
35 to 44 year	55	48.7	64	43.0
45 to 54 years	24	21.2	25	16.8
55+ years	6	5.3	3	2.0
Total	113	100	149	100

* $p < 0.05$

Figure 22 - Party Size by User Group

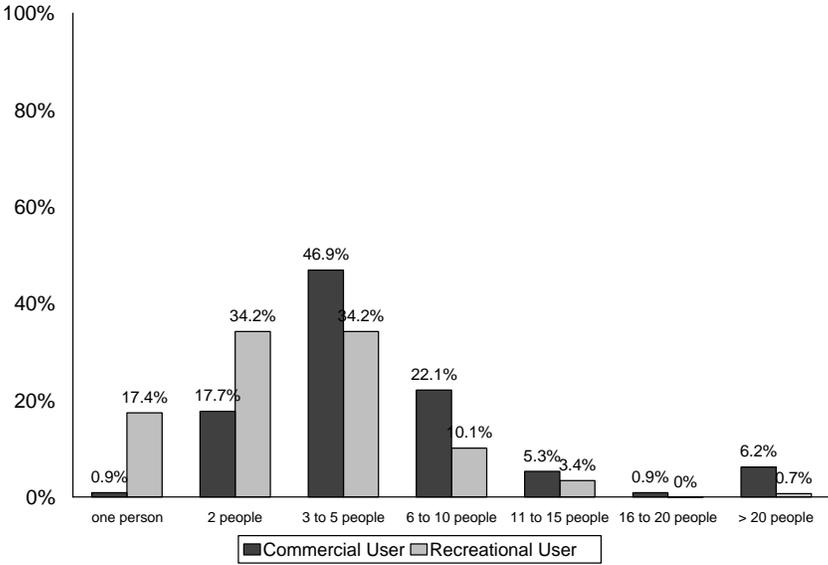
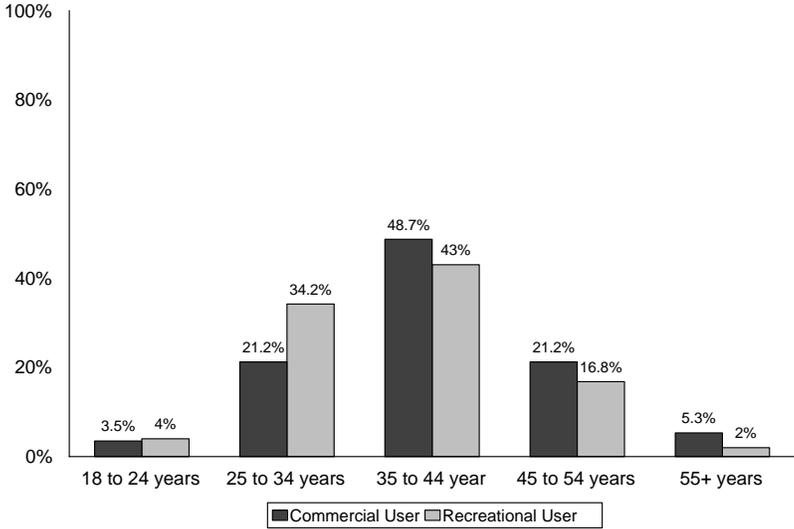


Figure 23 - Age of Users by User Group



4.3.2 River usage

The survey examined the recreational activities, the number of runs down the river, and the length of time users were on the river. As seen in Table 20, the majority of commercial users were rafting (97.3%), 1.8% were kayaking, and less than 1% (0.9%) were participating in other activities, which included certification courses in kayaking and swift water rescue. The activities of the recreational users were quite different with only 7.4% rafting, 81.2% kayaking, 10.7% canoeing and less than 1% (0.7%) participating in other activities. A chi-square test showed that there was a statistical difference among the two groups in their main recreational activity carried out on the river ($p < 0.05$). This is not a surprising

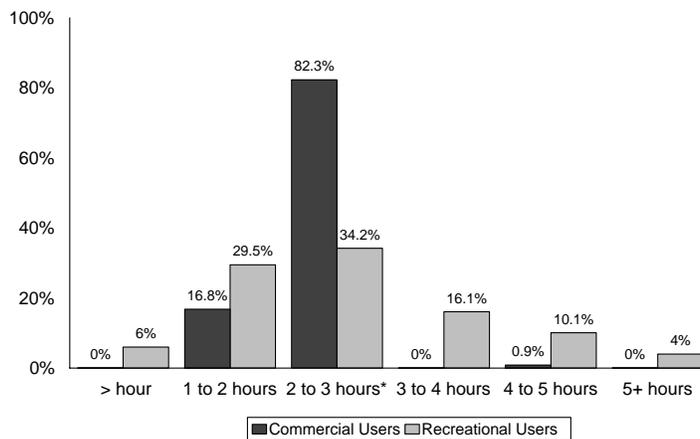
Table 20 – River Usage Comparison by User Group

Activity participated in by user group *	Commercial User		Recreational User	
	n	%	n	%
Kayaking	2	1.8	121	81.2
Canoeing	0	0	16	10.7
Rafting	110	97.3	11	7.4
Other	1	0.9	1	0.7
Total	113	100	149	100
Number of trips down the River by user group*	Commercial User		Recreational User	
	n	%	n	%
1	112	99.1	125	83.9
2	1	0.9	22	14.8
3	0	0	0	0
4	0	0	1	0.7
5+	0	0	1	0.7
Total	113	100	149	100
Length of time spent on the river by user group*	Commercial User		Recreational User	
	n	%	n	%
less than an hour	0	0.0	9	6.0
one to two hours	19	16.8	44	29.5
two to three hours	93	82.3	51	34.2
three to four hours	0	0.0	24	16.1
four to five hours	1	0.9	15	10.1
five or more	0	0.0	6	4.0
Total	113	100	149	100

* $p < 0.05$

difference as the majority of commercial operators along the river only offer rafting trips.

Figure 24 - Length of Time on the River by User Group



* The commercial trip length was the total time (travel to, changing, time on river, travel from) - average time on the river was 1.5 hours

The survey explored the number of times each user went down the river. The commercial users went down the river only once (99.1%) (Table 20). The recreational users were more distributed their use, with 83.9% going down the river once and 14.8% twice. It is important to note that there were a few recreational users who said that they had gone down the river four (0.7%) and five or more times (0.7%). Another interesting difference was in the length of time each group spent on the river (Figure 24). A chi-square test revealed that commercial users were more likely to spend between one and three hours on the river (99.1%), while the recreational users spent more time on the river ($p < 0.05$) (Table 20). This is an important difference to note between the two user groups and is easily explained. The time that the commercial users spend on the river is controlled by the operator, while recreational users have more control over the amount of time they spend on the river. Recreational users would typically play on the white-water features, take their time coming down or go down the river more than once. Not only is this an important difference to note among the users, but it is also something that decision makers need to be aware of for management purposes.

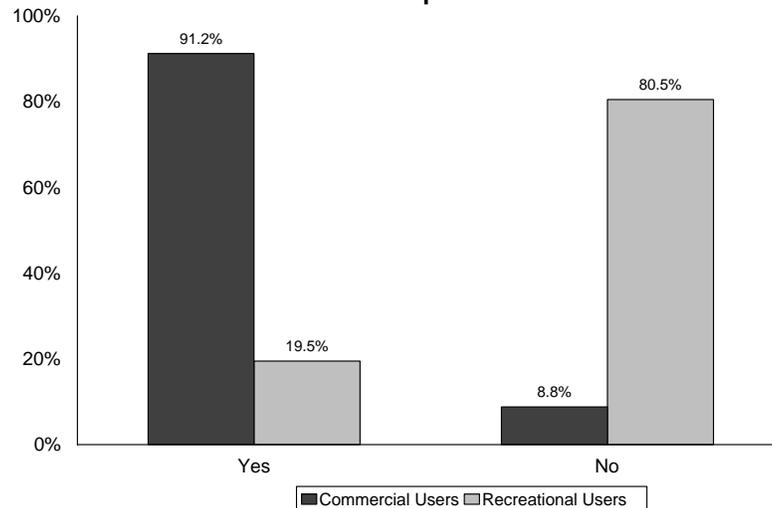
Commercial users were more likely to be visiting for the first time (91.2%), as compared to recreational users (19.5%), as shown by a chi-square test result of $p < 0.05$ (Table 21, Figure 25). This finding is important since it defines a notable difference between the two populations. From the data presented so far, those using the services of the commercial operators have traveled a longer distance, have a larger number of people in their group, have equal gender distribution, and are visiting for the first time. This implies that many are individuals on holidays in the nearby area and looking for something to do with their family for half a day. The data also suggests that recreational users are kayakers from the local area and are able to vary their length of time on the river according to their own personal situation. They tend to come to the river on a regular basis.

Table 21 – First Visit and River Entrance by User

First visit to the River by user group *	Commercial User		Recreational User	
	n	%	n	%
Yes	103	91.2	29	19.5
No	10	8.8	120	80.5
Total	113	100	149	100
Enter the river by user group *	Commercial User		Recreational User	
	n	%	n	%
Canoe Meadows	2	1.8	32	21.5
Widow Maker	111	98.2	115	77.2
Other	0	0	2	1.3
Total	113	100	149	100

* $p < 0.05$

Figure 25 - First Visit to the River by User Group



An additional significant difference noted through a Chi-Square test, between these two groups was in the location of entering the river. Almost all commercial users (98.2%) entered the river at Widow Maker, as compared to just over three quarters of recreational users (77.2%) ($p < 0.05$) (Table 21). This is an important difference for managers since it indicates a difference in the use of the river between commercial and recreational users, in terms of entry point. It is also important because there have been some concerns and issues surrounding crowding at the Widow Maker day use area and concerns about both the commercial and recreational utilizing the same access point. These concerns have also been expressed about the Canoe Meadows day use area as well. More will be discussed on this issue in Chapter 5.

4.3.3 User expectations of the Lower Kananaskis River

When users were asked whether their expectations were met, no difference was found between the two groups, as all commercial users (100%) said that their expectations were met on that particular day and a large majority (96%) of recreational users indicated the same (Table 22). When asked why their expectations were met, users gave a wide range of answers. Although all users had all their expectations met, commercial and recreational users had different focuses for their experiences. The commercial users concentrated more on the total atmosphere, the operators, the scenery, the camaraderie, safety and organization. Recreational users talked about their paddling, practicing their skills, the challenge of the river and its features, the natural and social

environment, and the overall safety that they feel at this river because the features are man made.

Table 22 – Expectations of the Users Met on the River

Experience met on the River by user group *	Commercial User		Recreational User	
	n	%	n	%
Yes	113	100	143	96
No	0	0	6	4
Total	113	100	149	100

* p < 0.05

When the river users were asked their feelings on the current level of use of the river, the commercial and recreational users' opinions did not differ significantly (Table 23). A chi-square test revealed that the only significant difference between the two groups was in their opinion of rafting use ($p < 0.05$). A small number of recreational users felt that the level of rafting use should be reduced. This may be due to high levels of commercial use at certain times of the day that might inhibit recreational use. However, the majority of both user groups felt that the current level of use was acceptable (Table 23). This lack of difference between the groups on their perception of the use of the Lower Kananaskis River is important to note, as it shows that even though there are different groups of individuals utilizing this resource, both seem to be happy with the level of use and how things are currently being done. It appears that both groups have adapted to the current conditions and have learned to work well around and with one another. The 13% of recreational users who wish to reduce the level of rafting use is possibly an indicator of an emerging conflict or could be those individuals who have been using the area for many years who have witnessed the growth in use.

Table 23 – Perception of Use of the Lower Kananaskis River by User Group

Perception of level of overall use	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	2	1.8	2	1.3
2	0	0	4	2.7
3 - Just the right level of use	103	91.2	130	87.2
4	3	2.7	7	4.7
5 - Level of use should be increased	5	4.4	6	4
Total	113	100.1	149	100
Perception of level of rafting use *	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	2	1.8	11	7.4
2	1	0.9	8	5.4
3 - Just the right level of use	104	92	125	83.9
4	2	1.8	4	2.7
5 - Level of use should be increased	4	3.5	1	0.7
Total	113	100	149	100
Perception of level of kayaking use	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	1	0.9	0	0
2	0	0	2	1.3
3 - Just the right level of use	105	92.9	130	87.2
4	4	3.5	7	4.7
5 - Level of use should be increased	3	2.7	10	6.7
Total	113	100	149	100

Perception of level of canoeing use	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	0	0	0	0
2	0	0	2	1.3
3 - Just the right level of use	107	94.7	125	83.9
4	3	2.7	8	5.4
5 - Level of use should be increased	3	2.7	14	9.4
Total	113	100	149	100
Perception of level of sport yaking use	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	0	0	1	0.7
2	0	0	1	0.7
3 - Just the right level of use	107	94.7	133	89.3
4	3	2.7	6	4
5 - Level of use should be increased	3	2.7	8	5.4
Total	113	100	149	100
Perception of level of other use	Commercial Users		Recreational Users	
	n	%	n	%
1 - Level of use should be reduced	0	0	1	0.7
2	0	0	1	0.7
3 - Just the right level of use	107	94.7	133	89.3
4	3	2.7	6	4
5 - Level of use should be increased	3	2.7	8	5.4
Total	113	100	149	100

* p < 0.05

4.3.4 Importance performance analysis

The users were also asked their opinion on services, facilities and general management of the area. As mentioned in the methodology chapter (Chapter 3), importance performance analysis (IPA) is a tool management can use to measure the effectiveness of programs and services that they offer and determine where to focus efforts (Hudson & Shepard, 1998; Oh, 2001; Hammitt et al., 1996; Tarrant & Smith, 2002; Mount, 2000). A chi-square test revealed some significant differences among commercial and recreational users in what was considered to be important and how well the services and facilities were being performed on.

Tables 24 and 25 show how commercial and recreational users ranked the importance of and performance on services and facilities offered along the Lower Kananaskis River. In these tables, several items stand out as being more important to commercial users than to recreational users and vice versa. The highest ranked priorities of commercial users were the natural environment surrounding the river (M=4.58), the overall river (M=4.28), and the wave features of the river (M=4.21). The recreational users identified the wave features (M=4.68), the overall river (M=4.66), and the eddies on the river (M=4.62) as being most important to them. These help define the different

expectations that the users have and points to the trend that commercial users seem to look at the overall experience whereas recreational users look at the river and its features demonstrating their recreational specialization.

Table 24 – Commercial User Ranking of Importance and Performance on Services and Facilities

Commercial Users		Mean		Gap
		Importance	Performance	(I-P)
Parking ^{*, **}	A	3.10	3.71	0.61
Access to the river (launching areas) [*]	B			
		3.76	4.13	0.37
Cleanliness of washrooms ^{*, **}	C	3.58	2.86	-0.72
Availability of washrooms ^{*, **}	D	3.81	3.19	-0.62
Quality of picnic areas ^{*, **}	E	2.36	2.39	0.03
Availability of garbage containers ^{*, **}	F	3.39	3.07	-0.32
Number of users in the day use areas [*]	G	3.05	3.5	0.45
Number of special/organized events held on the River each year ^{*, **}	H			
		1.62	1.78	0.16
Number of OVERALL users encountered along the river	I			
		3.25	3.69	0.44
<i>Kayakers</i> [*]	J	2.81	3.44	0.63
<i>Canoers</i> ^{*, **}	K	2.51	2.98	0.47
<i>Body Boarders</i> ^{*, **}	L	2.16	2.46	0.30
<i>Rafters</i> ^{**}	M	3.15	3.62	0.47
<i>Sport Yakers</i> ^{*, **}	N	2.27	2.86	0.59
Availability of general area information [*]	O	3.24	3.07	-0.17
Availability of river information	P	3.37	3.23	-0.14
Availability of maps/guides ^{*, **}	Q	3.41	3.22	-0.19
Overall River [*]	R	4.28	4.19	-0.09
<i>waves</i> [*]	S	4.21	3.93	-0.28
<i>eddies</i> ^{*, **}	T	3.90	3.79	-0.11
<i>holes</i>	U	3.83	3.67	-0.16
<i>slalom course</i> ^{*, **}	V	2.82	2.96	0.14
Natural environment around the river	W	4.58	4.52	-0.06

^{*} p < 0.05 for importance between commercial and recreational users

^{**} p < 0.05 for performance between commercial and recreational users

Table 25 – Recreational User Ranking of Importance and Performance on Services and Facilities

Recreational Users		Mean		Gap
		Importance	Performance	(I-P)
Parking ^{*, **}	A	4.03	4.34	0.31
Access to the river (launching areas) [*]	B	4.30	4.25	-0.05
Cleanliness of washrooms ^{*, **}	C	3.77	3.66	-0.11
Availability of washrooms ^{*, **}	D	3.84	4.05	0.21
Quality of picnic areas ^{*, **}	E	3.18	3.95	0.77
Availability of garbage containers ^{*, **}	F	4.01	3.93	-0.08
Number of users in the day use areas [*]	G	3.44	3.63	0.19
Number of special/organized events held on the River each year ^{*, **}	H			
		3.00	3.04	0.04
Number of OVERALL users encountered along the river	I			
		3.36	3.55	0.19
<i>Kayakers</i> [*]	J	3.36	3.73	0.37
<i>Canoers</i> ^{*, **}	K	2.95	3.62	0.67
<i>Body Boarders</i> ^{*, **}	L	2.62	3.43	0.81
<i>Rafters</i> ^{**}	M	3.26	3.34	0.08
<i>Sport Yakers</i> ^{*, **}	N	3.62	3.36	-0.26
Availability of general area information [*]	O	3.24	3.57	0.33
Availability of river information	P	3.79	3.52	-0.27
Availability of maps/guides ^{*, **}	Q	3.48	3.33	-0.15
Overall River [*]	R	4.66	4.28	-0.38
<i>waves</i> [*]	S	4.68	4.11	-0.57
<i>eddies</i> ^{*, **}	T	4.62	4.57	-0.05
<i>holes</i>	U	4.47	4.11	-0.36
<i>slalom course</i> ^{*, **}	V	3.52	3.85	0.33
Natural environment around the river	W	4.43	4.36	-0.07

^{*} p < 0.05 for importance between commercial and recreational users

^{**} p < 0.05 for performance between commercial and recreational users

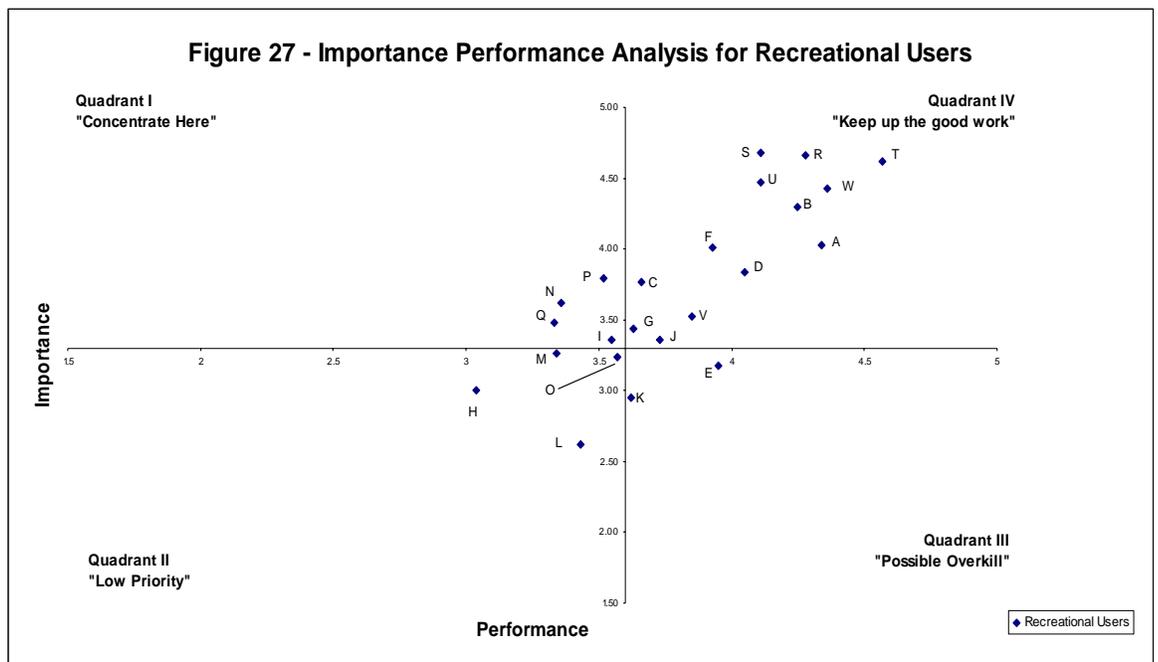
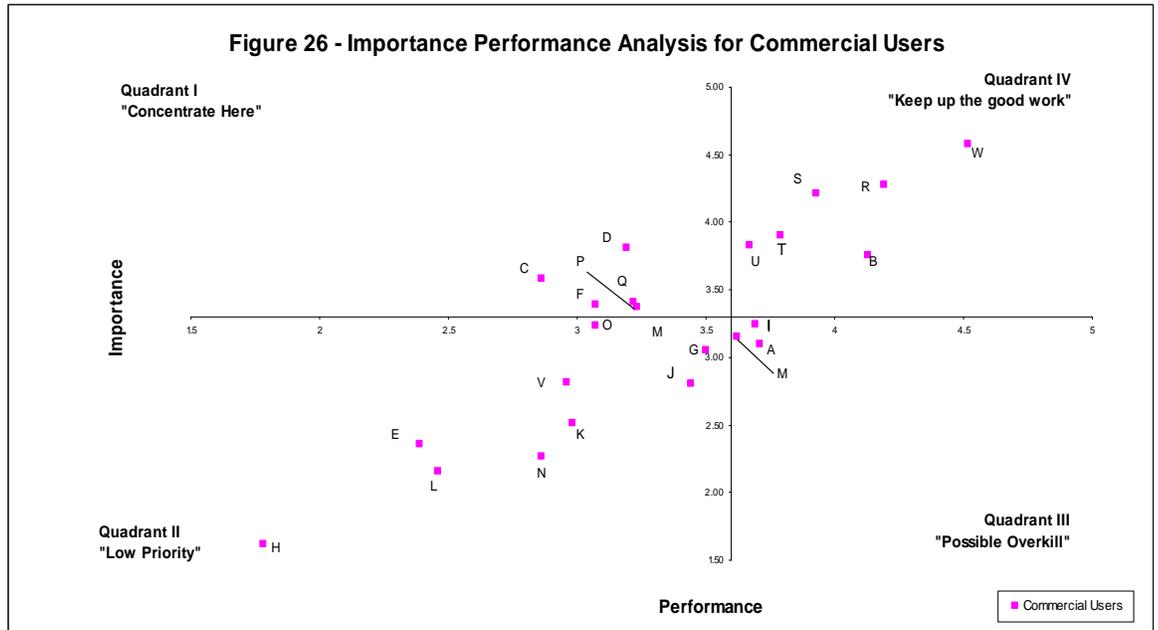
Tables 24 and 25 also show the performance ranking. These tables show that the highest ranked performance variables for the commercial users were: the natural environment around the river (M=4.52), overall river (M=4.19), and access to the river (M=4.13). The highest ranked performance variables for recreational users were: the eddies on the river (M=4.57), the natural environment around the river (M=4.36), and parking (M=4.34). These rankings identify that both groups found high performance in their perception of the natural environment around the river. The commercial group found high performance for the launch area and the recreational users the parking. The recreational users ranked eddies very strongly, indicating that they are kayakers who enjoy playing in the eddies, while the large commercial rafts did not use the river in this way.

These top-ranked features show that the commercial users are most interested in the natural environment around the river as well as the river itself including the waves. The recreational users concentrate more on the river's waves and eddies, which points out a difference in recreational interest. The commercial users are interested in the overall river experience, including the natural environment of the land observed during the trip. The recreational users concentrate much more on the skills needed to run the waves and eddies. One might deduce that the commercial users are looking for a pleasant, but thrilling, ride down the river, while the recreational users show evidence of more expert and specialized experience for white-water challenge recreation. These two different goals could lead to conflict in the future if use increases and members of either group are inhibited in attaining their desired goals.

An additional way to evaluate importance performance data is through utilization of I-P Gaps, that is the difference between importance and performance. If performance is ranked higher than importance, then the site management is seen as being successful. However, there is a problem if performance is ranked lower than importance. With commercial users, the biggest positive gaps were for: encounters with kayakers (+0.63), parking (+0.61), and encounters with sport yakers (+0.59) (Table 24). With recreational users the biggest positive gaps were for: encounters with body boarders (+0.81), quality of picnic areas (+0.77) and encounters with canoers (+0.67) (Table 25). These findings show that both groups were quite pleased with the number of encounters they had with other user groups. The commercial users found parking to be excellent, however most came by bus. Importantly, the recreational users were pleased with the quality of the picnic areas.

With commercial users the biggest negative I-P gaps were for: cleanliness of washrooms (-0.72), availability of washrooms (-0.62), and availability of garbage containers (-0.32) (Table 24). For the recreational users, the biggest negative I-P gaps were for: waves on the river (-0.57), overall river (-0.38), and the holes on the river (-0.36) (Table 25). These data show stark differences between these two groups. Commercial users show strong concern for the infrastructure and management of the site, most importantly the washrooms and garbage collection. Commercial users also show a concern regarding the sufficiency of services and facilities for high traffic use times to service all the users of the area. The recreational user's concerns are very different and included the quality of the river, waves and holes; specifically features of the river. This reinforces the point that the recreational users are an advanced group of specialized users looking for excellent white-water conditions and river features.

The use of importance and performance scales helps managers understand their clients' opinions regarding services and facilities. An IP analysis can show where resources should be allocated. As Hendricks et al. (2004) state, recreation professionals have used IPA to develop effective programs and marketing strategies. Additionally, IPA has been accepted by professionals and researchers as it is easy to interpret the results and base decisions on them (Oh, 2001). As discussed in the methodology chapter (Chapter 3), the results of an IPA analysis can be plotted on a two dimensional grid where the mean scores are plotted and fall into one of four categories. These categories include: 1) concentrate here, 2) low priority, 3) possible overkill and 4) keep up the good work (Oh, 2001). The mean importance and performance results from the commercial and recreational users were plotted on such a two dimensional grid which can be found in Figure 26 and 27 below. As mentioned in the methodology chapter, there are numerous ways to determine where the cross points of the axis should be. For these results, the cross point was placed to ensure that at least one quarter of the responses fell into each of the categories (Hudson & Shepard, 1998). The cross point for commercial and recreational users were both placed at (3.3, 3.6). The letters seen in these figures refer to the services and facilities listed in Tables 24 and 25.



Legend

- | | | |
|--|---|--|
| A – Parking | I – Number of overall users encountered along the river | Q – Availability of maps/guides |
| B – Access to the river (launching areas) | J – Number of Kayakers | R – Overall River |
| C – Cleanliness of washrooms | K – Number of Canoers | S – Waves |
| D – Availability of washrooms | L – Number of Body Boarders | T – Eddies |
| E – Quality of picnic areas | M – Number of Rafters | U – Holes |
| F – Availability of garbage containers | N – Number of Sport Yakers | V – Slalom course |
| G – Number of users in day use areas | O – Availability of general area information | W – Natural environment around the river |
| H – Number of special/organized events held on the river each year | P – Availability of river information | |

Figures 26 and 27 show a central tendency for the study population that places most of their evaluations either in Quadrant IV or II. This means that there are only a small number of features within the Quadrant I, the area that indicates those features that require the most attention. This is also perhaps an indication of how users of the area have learned to adapt to and work with what is available in the area. Further discussion on the importance of this analysis is discussed below.

As previously mentioned, Figures 26 and 27 are another way to look at the results of an importance performance analysis. The figures identify where management should focus attention, where it is doing well, what is not a priority and where it could cutback. Of major concern are the areas where they are doing well and where they need to concentrate. The areas that the commercial users thought were being done well by management included: 1) the natural environment around the river, 2) the overall river, wave, eddie and hole features, and 3) access to the river. Areas that the recreational users felt were being done well were: 1) the eddie, hole, wave and slalom course features, 2) the overall river, 3) the natural environment around the river, 4) access to the river, 5) parking, 6) availability of garbage containers and washrooms, 7) cleanliness of washrooms, 8) number of people encountered in the day use area and also, 9) the number of kayakers encountered on the river. The commercial users ranked fewer items as being done well compared to recreational users. Recreational users felt that management was doing well on more of the items associated with the river features and the specialty of the sport as opposed to the general river area and experience. This reinforces the idea that they are a specialized group of users looking for a specific white-water experience on the river as compared to the commercial users who may be simply looking for a fun day for the family.

The areas where commercial users thought attention was needed were: 1) the cleanliness and availability of washrooms, 2) availability of garbage containers, and 3) the availability of river information, maps and guides. The areas where the recreational users thought attention was needed were: 1) the availability of river information, 2) the numbers of encounters with sport yakers, 3) the availability of maps/guides, and 4) the number of overall encounters with users while on the river. This reiterates the idea brought forth previously that commercial users are more concerned about the infrastructure of the river and feel that this is where resources should be concentrated. Contrastingly, the recreational users felt that resources should be focused more on providing information on the river and the number of encounters with different users of

the river. These differences demonstrate potential differences that exist between the commercial and recreational users in the experience sought. They also reveal the potential for future conflict due to differing expectations of their time spent on the river, the services and facilities, on and off the river.

4.3.5 Special events on the river

The users were also asked whether special or organized events had an impact on their time spent on the river. As seen in Table 26, 99.1% of the commercial users said that special/organized events did not have an impact on their experience on the river, whereas 74.5% of recreational users said that events did not impact their experience or time on the river. This difference was statistically significant ($p < 0.05$).

Table 26 – Impact of Special/Organized Events on Users’ Time on the River

Special/organized time on the river by user group *	Commercial User		Recreational User	
	n	%	n	%
Yes	1	0.9	38	25.5
No	112	99.1	111	74.5
Total	113	100	149	100

* $p < 0.05$

They were also asked to indicate how events did or did not impact their time on the river and why the events did not impact their time on the river. Analysis of these results found some differences among commercial and recreational users in their responses. When asked for reasons why special events did not impact their experience, the majority of commercial users stated that they were using the river for the first time (10), or that they were not on the river that much (6). Recreational users gave different reasons as to why special events did not impact their time on the river. Of those recreational users who answered the question; a number of users indicated that it was their first time on the Lower Kananaskis River (25), while others indicated that they would participate in the special events (8). However, a number of recreational users said that they would just go around the event that was taking place (14), or that the events do not impact their activities on the river (40). For the most part, recreational users understood why these events occurred and appreciated their value of them to the paddling community. These users were typically able to work and plan around them as long as they were posted ahead of time on the information panels at the day use sites, Widow Maker and Canoe Meadows, or on the LKRUA, or AWA, or Alberta Parks Web Sites.

A large majority of recreational users also indicated that special events had a positive impact on their experience on the river. Some of the reasons given by users

included: 1) an opportunity to meet people (4), 2) it is good for the kayaking community for people to be made aware of the sport (12), and 3) that it is just an overall general positive time when they participate and come out to participate (8). The only negative response for special events having an impact on their experience was that some people would simply avoid the area on those days because it was too crowded. This is important to note because it demonstrates again the different expectations that the users have when they come to the Lower Kananaskis River and differing opinions towards how the area is used by different groups for different activities, including special events and competitions. It also gives decision makers a better sense of how to better meet the needs of all users.

4.3.6 Current management of the river

River users were also asked whether or not they were happy with the way in which the river was being managed. As seen in Table 27, all users indicated that they were currently satisfied with the management of the river. Commercial users were happy with the way things were currently being done along the river, their reasons differed slightly from their recreational counterparts. Commercial users felt that the area was clean and kept natural (13), enjoyed their time (8), and then made additional comments about their trip and their guides. Analysis of the responses from recreational users found that the majority of them had good things to say about the river and the way that things were currently being done (147) for various reasons including: easy access, fun place, good features and overall a clean area. There were a number of recreational users who indicated that they were happy with the river and the way things were currently being done but that a few changes could be made (16). Some of these changes requested included more information on the river, events and signage along the river; removing caps on events, garbage in the area and the addition of more or newer features. Evident from these responses is a difference in concern for the river with recreational users voicing their concern over numbers of people on the river, the features and other issues, while commercial users focus was on the trip and their enjoyment of it. The commercial users were all willing to share their opinions and thoughts on the river and how it was currently being managed. However, the recreational users demonstrated more enthusiasm in their opinions and suggestions on where things could be improved along the river and were happy to see that they were being asked, reinforcing the idea that this is a specialized group of users who are looking for a unique white-water experience and truly care about the area. These results are another indication of potential adaptation of

the users to the current circumstances along the river and their probable lack of acceptance of major change to the area in the future.

Table 27 – Happy with the Current Management of the River

Happy with the current management of the river	Commercial User		Recreational User	
	n	%	n	%
Yes	113	100	149	100
No	0	0	0	0
Total	113	100	149	100

4.3.7 Summary

The overall purpose of this research was to create a management framework for water based-river recreation of the Lower Kananaskis River in Kananaskis Country, Alberta. This section identifies similarities and differences among the two main users, commercial and recreational, of the river. Along with similarities and differences, this section has also identified some key ideas or themes coming out of the responses of commercial and recreational users. Some of these include; differences in recreational expertise and expectation in river experience, the need to examine current services and facilities offered, growing use of the area by different types of users, and the adaptation of users to current conditions. This section, along with those to follow, identify where potential conflict may be and also where management should be focusing their attention. The following section will build on this and examine results of interviews with key policy leaders. This will be followed by a discussion of the results and what they mean for the Lower Kananaskis River and the greater body of literature.

4.4 Key Policy Leader Interviews

The previous sections of the thesis examined the results of the quantitative survey of the commercial and recreational user surveys, identified the two main user groups, and outlined some of their similarities and differences. This section of the thesis examines responses of key policy leaders obtained through interviews. In total, seven structured interviews were held with policy leaders in the fields of commercial recreation operation (4 interviews), recreational paddling (1 interview), academic institution representative (1 interview), and non-profit recreation groups (1 interview). All of these people were involved in the Lower Kananaskis River Users Association (LKRUA) in 2006. Discussions with park staff are reported elsewhere in the thesis.

Each interviewee was asked the same questions, to provide for consistency. The interviews dealt with: 1) amount and maintenance of current facilities; 2) impressions of interactions among different user groups and level of use; 3) responsibility for and

resource needs for effective management; 4) current management of the river and associated facilities; and, 5) current permitting process for the river. These structured interviews were analyzed to reveal key themes that encompassed issues and concerns regarding the river, its use and management. The following sections will outline the comments and will provide initial analysis. Following this section will be a more detailed discussion of the results of the research, and how these findings relate to river management, and what they mean to the greater body of recreation literature.

4.4.1 Facility Sufficiency on the Lower Kananaskis River

The availability of the facilities on the Lower Kananaskis River has become a concern, particularly with increasing number of recreational and commercial users using the area. To address this policy leaders were asked *“How and why do you use the Lower Kananaskis River and its associated facilities?”* Preliminary analysis of the data identified varying types of use of the river; including personal recreational use, instructional purposes, military training, programming and commercial operation. Relevant comments from interviewees are given below.

Academic Institution 1: “The university uses the Kananaskis on Sundays as part of our weekend course series for river kayaking and canoeing.”

Commercial Operator 3: “I use it more for military purposes – water rescue courses with rafts from the Widow Maker down the river, kayaking with a half day on Barrier Lake and then half a day on the Kananaskis and also canoeing on the lower section of the river from Canoe Meadows down.”

Recreational 1: “Because it’s convenient and there and year round. A place you can go on your own because it is relatively safe.”

Non-profit Organization 1: “We use it because it is there and use it as part of our programming. We don’t have camp just to bring kids to have fun, we use camp as a place to build knowledge and use rafting as part of our Great Beads program. Rafting for us is set up as teamwork and personal development initiative and we see it as a means to achieve some type of goal.”

These quotes identify the varying uses of the river. For example, Academic Institution 1 states that they use the river “as part of our weekend courses”, Commercial operator 3 for “military purposes – water rescue courses”, Recreational 1 “because it is convenient and there” and Non-profit Organization 1 as “part of our programming”. This emphasizes the popularity of the river for different recreational, instructional and commercial purposes.

Interviewees were also asked to indicate whether they felt the current facilities along the Lower Kananaskis River were sufficient. To address this, policy leaders were

asked the following question, “*Do you feel that the current facilities are sufficient?*”

Relevant comments from all seven interviewees are given below.

Commercial Operator 1: “I think that there needs to be a new car park and that would make the area nice at Widow Maker. The washrooms are only sometimes a problem in the mid-summer when it is busy.”

Academic Institution 1: “Yes and no. The facilities are sufficient right now but I only see it on a minor basis because we are only there on Sundays. We only use the race course and down, primarily the lower section down to Seebe for teaching purposes. I think that the washrooms could always be improved. At the Widow Maker it is sometimes hard for recreational paddlers to get on the river because of rafts being all over the place. On the river, facilities are okay in the upper section but the teaching site on the lower section of the river (below Canoe Meadows) has been degraded over the years and needs to be looked at and repaired but it involves a lot of money to get in there.”

Commercial Operator 4: “No, a few years ago yes but now with recreational use and events and companies there is not enough. The area is poorly designed, for example Canoe Meadows where you have a group camp area, parking area and many different uses and people going everywhere and no thought of access to the green tongue area especially.”

Non-profit Organization 1: “No, not even close but like what the permit officer has doing to keep the volume down and companies as well. I think that the Widow Maker needs a second parking area and this would help with some of the congestion. The take outs also need some work for sure at Seebe, they have done some work there but more still needs to be done with the road and parking area. Overall the facilities definitely need to be improved for the volume that the area sees.”

Recreational 1: “I think that they are sufficient. This is a unique facility and there are very few rivers like this in North America and it has a lot to offer. But could offer a lot more but there needs to be investment into the river features and you could have a world class facility with world class features. The campground area in Canoe Meadows should be dedicated to river users and have change rooms, a classroom, etc. added to the area and also be more available to paddlers. The trails in the area also need to be improved and added for easier access to the river and also to accommodate all the people.”

Commercial Operator 2: “Think so. There are days when it is busy but the river can handle it because it is controlled by man. It is occasionally congested with rafts coming in waves but there seems to be a lag time in between.”

Commercial Operator 3: “Yeah I think that Canoe Meadows is fine in terms of parking and river access. The river features are great and the increase in the number of them is great.”

Recreational 1: “We do not need a multi-million dollar hotel area, but improved basic facilities would add a lot to the area.”

These quotes show two different opinions in regards to the sufficiency of the recreational facilities. Four of the respondents state that the facilities are not sufficient,

while three indicate little problem in this regard. However, even those who state that the facilities are sufficient, often provide qualifiers. For example, Commercial Operator 2 states that the facilities are sufficient, but then mentions congestion on the river with “rafts coming in waves.” Also, the Academic Institution respondent states that: “the facilities are sufficient right now”. This implies that they may not be sufficient in the future.

Those who identify problems mention the need for more parking, more washrooms, and overall design problems. There is a theme of carrying capacity problems as shown with the comments: “rafts all over the place”, “but now with recreational use and events and companies there is not enough”, “congestion”, “keep the volume down”, “trails in the area also need to be improved”, “overall the facilities definitely need to be improved for the volume that the area sees”, “lower section of the river (below Canoe Meadows) has been degraded over the years” and, “congested with rafts coming in waves.” Clearly, the key contacts feel that the site is experiencing both physical and social carrying capacity problems.

There is also the theme of need for improvement: “improved basic facilities would add a lot to the area”, “needs to be a new car park”, “the area is poorly designed” and, “overall the facilities definitely need to be improved.” This is a forward-looking group that identifies problems, but also sees the potential for positive change to deal with those problems. As seen above, most of the policy leaders show unease with the sufficiency of the facilities along the river at present, and show concern with the growing use and popularity of the area. Specifically, concerns were noted with the parking areas at the main access points, Widow Maker and Canoe Meadows. Also brought forth was the need for work at the take out points and on the trails that run along the river from Widow Maker to Canoe Meadows and throughout the Canoe Meadows Day Use Area. These comments are an indication that some carrying capacity limits have been reached. In the answers to this question, the policy leaders suggest that the recreation system needs to be re-evaluated, in terms of site planning, use flows, facilities, and quotas.

The importance of the area is noted with the comment: “This is a unique facility and there are very few rivers like this in North America and it has a lot to offer. But could offer a lot more but there needs to be investment into the river features and you could have a world class facility with world class features.” Clearly, river and recreation use planning must attain a high standard if this world-class facility is to continue to meet its full potential as a site for training and competitions.

4.4.2 Interaction amongst River Users

Along with the differing uses of the river, including instructional, recreational, training, commercial operations, and programs for children's camps, comes a diverse group of users. The diversity of use of the Lower Kananaskis has increased over the years and so has the complexity of interactions amongst the many user groups. Specifically, policy leaders were asked *"What is your impression of the interaction among users of the river? What makes this interaction negative or positive? What should be done, if anything to address user interaction?"*

Relevant comments from all seven interviewees are given below.

Commercial Operator 1: "I think that there are very few conflicts and feel that they have been resolved well and people move on. Also sometimes people don't know river ethics and sometimes that is an issue and I think that signs on river ethics for recreational paddlers would help."

Commercial Operator 2: "I think that the interaction among rafts and kayakers is good but people should have normal river etiquette and not take over areas. Overall relations are pretty good and people are definitely out to have a good time and work around each other."

Academic Institution 1: "On the water and lower section teaching wise it is fine and all the groups tend to work together and around each other very well. For the play boating, there are definitely more and more companies playing and there are definitely people who have more control than others of their boats or rafts. I see a little bit of river rage (like road rage) developing on the river and play boating is definitely not as friendly as it was 20 years ago."

Commercial Operator 3: "Generally, there is a lot of good interaction and people work well around each other and have learned to do so."

Recreational 1: "I think that the interaction is reasonable among the different user groups and among different recreational user groups. I believe that some of the companies are better at supporting recreational paddlers."

Commercial Operator 4: "User groups at the present time are getting along well but this has taken time. The association, LKRUA, has been the mediator among the user groups. Right now everyone is set in their own ways and work well around each other but I think as use increases this will fail and also think that this will become a problem."

Non-profit Organization 1: "Overall I think that everyone works well together and that we need to continue to do so for the good of everyone and overall community there. Everyone is also very helpful along the river when it comes to safety and even picking up lost paddles, etc. and especially in emergency situations"

There is a general feeling of a lack of conflict: "there are very few conflicts", "relations are pretty good", "there is a lot of good interaction", "the interaction is

reasonable among the different user groups”, “User groups at the present time are getting along well” and, “everyone works well together.” These statements show a positive set of relations amongst the various user groups.

Additionally, those interviewed spoke about how groups and users have worked through a number of conflicts over the years and have learned to “work around each other”. This theme of on-going conflict resolution and adaptation is strong.

However, there is an indication of increasing stress amongst the groups: “sometimes people don’t know river ethics”, “I see a little bit of river rage (like road rage) developing” and, ominously, “Right now everyone is set in their own ways and work well around each other but I think as use increases this will fail and also think that this will become a problem.” These problems concerning ethics about the interaction of people while recreating on the river, increasing unwillingness to adapt, and concerns about increasing use overwhelming the current adaptation capacity. These comments appear to signal a recent increase in conflict and a prediction that this conflict will grow as river use increases.

There was mention of the need for proper river etiquette. A commercial operator feels that the recreational kayakers are the problem and “signs on river ethics for recreational paddlers would help.” This is an important statement because it suggests that the commercial operator feels his groups have proper ethics, but some of the kayakers do not. Some context to this situation may be appropriate. The large river rafts take precedence over other users as they go down the river. A large raft largely moves with the current. There is little opportunity to move sideways, to stop, or to move against the current. Conversely, the kayaks are much more nimble. They can move in all directions, quickly and with ease. Therefore, when rafts and kayaks interact on a fast flowing river, the kayaks usually give way as the rafts barge through. This quote from the commercial operator may be an indication that some kayakers are becoming less willing to give way to the “waves of rafts” that come down the river at different points throughout the day. The term “waves of rafts” is used because when companies go down the river they tend to stick together and come down the river together. This again may be an indication of a social carrying capacity problem.

The important role of the Lower Kananaskis Recreation Users Association was highlighted by one commercial operator when he stated: “The association, LKRUA, has been the mediator among the user groups.” This statement notes that user group interaction management is an important aspect of overall river use management. This

mediation is currently done within the users association. Such user group mediation should be added to the planning concerns identified earlier: site planning, use flows, facilities, and quotas.

From the policy leaders' point of view, the interaction among the various users of the river seems to be positive. Individuals adapted to one another over time and learned to work around each other. However, there is a feeling that future increases will create conflicts that are beyond the capacity of the existing users' association to manage.

4.4.3 Level of Use

Not only were the policy leaders were asked about interactions amongst user groups, but they were also asked to identify their feelings towards the current level of use of the river. The questions posed to them were: *"How do you feel about the current level of use on the Lower Kananaskis River? Is there too much use, just the right level of use, or room for additional use when looking at each of the following: rafting, kayaking, canoeing, sport yaking and other?"* Relevant comments from all seven interviewees are given below.

Commercial Operator 1: "I think that the level of use is pretty good but also think that it should stay to or keep current 5 or 6 companies and then work in an expansion model with quotas."

Commercial Operator 2: "The current level of use is good and may be able to handle some more if launching areas are fixed up and could spread out companies more and also because of it not being a natural flow river there are not a lot of ecological concerns with the area and it is also good that it compresses people in one area and could handle slight increases if the launch areas were fixed up."

Academic Institution 1: "Okay. There are definite patterns to the season (March, April, May) where there are a lot of people out and then it dies off and over the summer months people paddle elsewhere and in the fall months people then come back to the Kananaskis. I see definite rush hours on the river. For our courses, we work well with the other people teaching beginner courses in the same area, below the race course past Canoe Meadows. However, if we offered more intermediate courses there would be more of an issue with others playing on different features."

Commercial Operator 4: "The government has to control river use more because it will be a "gong" show in the end and this will also help to make it safe." "There are so many users on the river: schools, guide courses, training, recreational paddlers and even movies and control needs to be taken before it is totally out of control or too late." "I think that no additional permits should be given out and that current permits should be reduced proportionally across the board to keep the experience and also to preserve the area for the future."

Recreational 1: "I think that you could have a lot more use on the Kananaskis going back to the ski hill idea and think it should be used as a facility and see very little

environmental impact on the river below the race course and would not change the quality of the experience. However, I would not want to see unlimited use.”

Non-profit Organization 1: “From what our use of the river is, the number of people on the river is good and perfectly fine. There are definitely a lot of kayakers on the river but from our perspective it is fine and people respect others and move out of the way when we are coming through.”

Most policy leaders state that the current level of use is acceptable: “the level of use is pretty good”, “The current level of use is good”, “Okay” and, “the number of people on the river is good and perfectly fine.” Several mention that increased levels of use is possible: “may be able to handle some more” and, “you could have a lot more use”. No one suggested that the increased levels of use were desirable, only that an increase was possible. One person suggested reducing use.

Suggestions were made of management changes that would be required if increased levels of use were to occur: “work in an expansion model with quotas” and, “could handle slight increases if the launch areas were fixed up”. The use of quotas requires an overall framework to set use levels and to determine methods to allocate quotas. The provincial park managers would require legal authority to set use levels, assign quotas and manage the quotas. Presumably such authority exists now. There is a comment that the physical facilities must be improved if more launches were to occur in the future.

Commercial Operator 4 is quite concerned about the current high levels of use. He proposes to reduce the existing commercial permitted use levels “across the board.” He has carrying capacity concerns when he states the need to: “keep the experience and also to preserve the area for the future.” He is concerned about a “gong show”, caused by too many different groups and too much use. Lowered safety is expressed as an outcome of this carrying capacity concern. He makes it clear that the government has the responsibility to “control river use more.” He does not mention the LKRUA group, implying he feels that this group does not have the capability to undertake this function. Undertaking such river use control would require the park agency to have sufficient capability to set use levels and to monitor and control them.

There are three different opinions on this issue of the current use level. Most policy leaders seem to feel that the current use level is acceptable. A few suggest that the use level could be increased, but only with appropriate planning. One feels that the current use level is too high, and should be reduced.

It is probable that the use level will increase in the future, given the rapid population growth in Southern Alberta as discussed earlier in the thesis. The policy leaders interviewed are concerned about the impacts of such an increase. If it is too occur, better planning and management is necessary to ensure that recreational experiences are not hindered due to this increased use. Bow Valley Provincial Park has the responsibility to work with the policy leaders to deal with these anticipated changes.

4.4.4 Responsibility for Effective Management

Participation in outdoor recreational activities on the Kananaskis River is popular and increasing. With the increase in participation in these activities and the increase in diversity of activities, there is a need to evaluate the present management framework of the Lower Kananaskis River. So the question becomes who is responsible and what resources are needed to meet the increasing number of users and visitors to the area? In the interviews, key policy leaders were asked to identify who they thought was currently responsible for management of the land and water resources of the Lower Kananaskis River. The specific interview question was *“In your opinion, who do you think has or should have responsibility over the current management and maintenance of the Lower Kananaskis River and its facilities?”* Relevant comments from all seven interviewees are given below.

Commercial Operator 1: “Bow Valley Campground does a good job cleaning and maintaining everything and LKRUA and the AWA maintain the water features well.” “There have been some times where people go over limits (quotas) or who may not have permits and it would be nice to have some more policing of permits and have someone keep track of launches, etc. If there was more policing then people would always obey the rules.”

Commercial Operator 2: “Keep things the way it is, if it ain’t broke don’t fix it. Whole system seems to work. The infrastructure is pretty good but I may like to see more development in the Widow Maker area.”

Commercial Operator 3: “Contractors are taking care of the facilities right now and they are currently being maintained well. The actual river facilities, the AWA is doing a good job at keeping the area safe and maintained.”

Commercial Operator 4: “Existing operator contracted to take care of these is not doing a good job (i.e. washrooms smell, garbage not emptied on a regular basis, parking lot not graded) and it is a money losing situation for them. Basically regular maintenance is not done well. If the government is giving out permits for business they should take care of these necessary facilities and not have someone who is looking to make a profit take care of them. They should re-look at whether to have some private recreational concessionaire, the park or association (LKRUA) take care of these facilities or services.” “I think you need to have someone there to make sure that people are following rules all the time to ensure that the quota system works you need this. The scariest thing in my

opinion is that this is the only river in the west that is rated as a family friendly river and where kids can go down. Need to ensure that things are monitored properly to ensure that things remain safe and not just give quotas and be done with it.”

Academic Institution 1: “I think it should be LKRUA who could bring a lot of this forward but they have very little ability to influence government, fundraise, etc. But I think that the ideal would be LKRUA.” “Upkeep and money is hit or miss and it is about trying to find money as there is no real budget set aside to things and with government cutting down on money or spending everywhere it is difficult.” “I see very little enforcement of things or very little presence of Alberta Parks Staff. You don’t really see the Conservation Officers. This is may be a good thing as well though because it might mean that there is less conflict; it seems like a double edged sword.”

Recreational 1: “I think that the area should be dedicated to the users and that Bow Valley Campgrounds should not manage the campground area, washrooms, etc. Ultimately whether it is the AWA, LKRUA or another organization, they should have control over the area because of the potential of the area to be a world class area and facility. I also think that the area should be managed by a not-for-profit organization and any money generated should go right back into the river.” “I am not totally against charging a fee for recreational use and that goes back to the ski hill facility idea. Therefore, a nominal fee for use that is reasonable or a yearly pass for those who come out on a regular basis and perhaps a membership with LKRUA (showing that the money is going back to the river). I also think that if recreational paddlers were to pay money or a fee that the government should match the amount put in.”

Non-profit Organization 1: “I think that the responsibility falls on the people who have set up the operation (i.e. Parks, LKRUA, etc.). I think that it definitely falls under everyone’s responsibility to maintain and upkeep things in the area. I also think that the place is kept really clean and good and I rarely see garbage in the area.”

Several different themes appear in the responses to this question on the responsibility for management. There are comments on the current contractor companies that do the site maintenance. There are comments about finance, including fees. Significant comments are made on current management effectiveness. Most importantly, people address the central aspect of the question, which group has responsibility.

The garbage collection and the washroom cleaning are done by a local contractor, who also manages the campground in the Bow Valley Provincial Park. There is a stark difference of opinion from the commercial operators on the effectiveness of this operation. Three operators express satisfaction with this function: “Bow Valley Campground does a good job cleaning and maintaining everything” and, “Contractors are taking care of the facilities right now and they are currently being maintained well”. One operator has an opposite opinion: “Existing operator contracted to take care of these is not doing a good job (i.e. washrooms smell, garbage not emptied on a regular basis,

parking lot not graded) and it is a money losing situation for them. Basically regular maintenance is not done well.” It is unclear why such a difference of opinion occurs.

The management of the river use is a shared responsibility amongst Alberta Parks – Kananaskis Country, Bow Valley Provincial Park, the Lower Kananaskis Recreation Users Association (LKRUA) and the Alberta Whitewater Association (AWA).

Comments were made of the effectiveness of this operation: “LKRUA and the AWA maintain the water features well” and, “The actual river facilities, the AWA is doing a good job at keeping the area safe and maintained.” There appears to be satisfaction with this specific aspect of river use management being shared amongst the three parties.

Comments were also made about finance. One person feels that the contractor who does basic site maintenance does not have sufficient funds, stating: “it is a money losing situation for them.” The Recreational User representative provided a fulsome answer that dealt both with finance and the management of that money. He made it clear that fees for use are acceptable but such fees must be used for river recreation management. This is a common finding with fee policy; people are willing to pay fees if they see the money going directly into management of the recreation resource. The Academic Institution representative points out that the park budget is not sufficient: “there is no real budget set aside to things and with government cutting down on money or spending everywhere it is difficult.” These two comments suggest that there is insufficient money now available for river recreation management. These comments also suggest there are two financial options available to gain increased money for management. One is encouraging the Government of Alberta to provide more money. The other is to use recreation fees and charges to also assist with management. It is probable that a combination of these two options would be a reasonable scenario for increasing management budgets.

There were different opinions of the current level of management effectiveness. Commercial Operator 2 felt that: “Whole system seems to work.” However, Commercial Operator 1 pointed out major problems: “There have been some times where people go over limits (quotas) or who may not have permits and it would be nice to have some more policing of permits and have someone keep track of launches, etc. If there was more policing then people would always obey the rules.” This person states that some operators on the river do not have permits. He also states that some operators go over their permitted quotas. He points out that this is allowed to occur because there is no monitoring or policing of the commercial launches. Commercial Operator 4 provides a

similar comment when he states: “Need to ensure that things are monitored properly.” The Academic Institution representative agrees when he comments that “I see very little enforcement of things or very little presence of Alberta Parks Staff.” These people feel that there is a major management effectiveness problem in regards to river use monitoring, management and enforcement. The interviewees identify this problem, and at least one person implies that it is the provincial park management that is responsible for these activities and is deficient in this regard. Policy leaders overwhelmingly feel that more human resources are necessary for effective management of the river, including staff presence and policing of the area. Of course the application of increased human resources requires increased financial resources.

This brings up the issue of overall management responsibility. There are a plethora of suggestions, but all center their comments on the existing institutional structure. Commercial Operator 4 gives a direct opinion that the government, probably in the form of the provincial park management, has the responsibility: “If the government is giving out permits for business they should take care of these necessary facilities and not have someone who is looking to make a profit take care of them. They should re-look at whether to have some private recreational concessionaire, the park or association (LKRUA) takes care of these facilities or services.” The person feels that provincial park management has the overall management responsibility. However, he wishes to see revisions made to who does the facility and service management. He implies that the commercial operator should be removed, and that either LKRUA or park management should undertake this function. The Recreational User has no opinion on who should do the job. However, whoever does it should have sufficient power and money to do a proper job: “Ultimately whether it is the AWA, LKRUA or another organization, they should have control over the area because of the potential of the area to be a world class area and facility.” The Academic Institution respondent pointed out that LKRUA as now constituted does not have sufficient capability: “they have very little ability to influence government, fundraise, etc.”

This analysis points out that there is a major management effectiveness problem with the site. The respondents maintain an open mind on which management organization or which combination of organizations should do specific jobs. However, it is clear that the provincial park management has the overall authority and responsibility. The comments imply that an overall management review is needed to address the many issues raised, including: use monitoring, quota enforcement, fees, finance, and policing powers.

It is probable that an upgraded arrangement involving the current actor groups would be sufficient. Such an arrangement would need to be established on a firm financial and legal basis. Presumably the legal authority now exists, but it is clear that the financial resources are too small.

4.4.5 Current Management of the River

To further explore views on the management of the river and services and facilities, policy leaders were also asked to identify their feelings towards the current management and what they thought was being done well and what was being done poorly. Specifically, they were asked *“How do you feel about the current management of the Lower Kananaskis River? In what ways is the Lower Kananaskis River being managed effectively? In what ways is it being managed poorly? Are there ways to improve upon the current management model to improve experiences at the river?”* Four respondents are quoted below.

Commercial Operator 1: “I think there are things that are lacking in some areas (i.e. picnic tables, garbage containers, etc.). There are some weekends where it is busy but I still see it as worthwhile for clients but I would not want to have a river like in the U.S. Companies or people may not necessarily be reaching their limits but there are days when it is definitely busy and if there were more companies it would make the river too crowded and lose the appeal.”

Commercial Operator 2: “System seems to be working and only time it breaks down is when companies go over quota. There are also times when kayak, canoe and raft instruction go down the river who may not have permits. Would rather see launch system to change over the years to reflect changes in companies’ business and would be nice for companies to be able to grow and also allows more room for change over the years. There is also a constant battle for launches because of the money making nature of the business and maybe things should change over time.”

Academic Institution 1: “It seemed this year we were going to have a breakthrough with LKRUA but it has stalled out. I would like to see Alberta Community Development take more of a lead role than just sitting there. They don’t see a vision for this place as we do and see it just as something else to manage.”

Non-profit organization 1: “The flow times are definitely a factor for use and have a great impact on our programming. When they turn off the river for a full day we have to send two groups down in one day which can become a logistical nightmare for us. The only thing that I would say would be that it would be nice to have access to the hut at Canoe Meadows on a colder or sunnier day for lunch time and this would make our lunch time programming a lot easier or even to have some type of shelter at Canoe Meadows.”

The answers to this question reinforce concepts gleaned from the answers to other questions. There is a carrying capacity problem at peak use times: “I think there are things that are lacking in some areas (i.e. picnic tables, garbage containers, etc.)” There

is also the problem of operators without permits: “There are also times when kayak, canoe and raft instruction go down the river who may not have permits.” This reinforces the point about the lack of effective use monitoring and enforcement. There appears to be a lack of management effectiveness with the LKRUA: “It seemed this year we were going to have a breakthrough with LKRUA but it has stalled out.” There is a call for more leadership shown by the responsible government agency: “I would like to see Alberta Community Development take more of a lead role than just sitting there. They don’t see a vision for this place as we do and see it just as something else to manage.” At the time of data collection Alberta Provincial Parks were under Alberta Community Development. The park agency is now under Alberta Tourism, Parks, Recreation and Culture. One quote mentions that need for “a vision for this place.” The creation of such a vision would be an essential part of any new management plan for this facility.

There is concern shown about the difficulty of all users dealing with river flow fluctuations caused by the upstream dam manager: “Additionally, they are also concerned over the constant fluctuation in river flow times and feel that the organization responsible for the flow of the river, TransAlta, should work more closely with the recreational and commercial users of the river. They feel that in doing so, needs can be met both for energy demand and river recreational use.” The overall water level management is a large issue that can only be addressed in a coherent multi-stakeholder administrative arrangement. At present this arrangement is oddly ad hoc, poorly integrated, and badly communicated with users.

4.4.6 Current Permitting Process

Key policy leaders were also asked to identify their current feelings towards the permitting process that is in place for commercial and instructional use of the river, “*In your opinion, do you feel the current commercial permitting process is appropriate? Please explain. If any changes were to be made to it, what would you like to see? In your opinion, what would be appropriate changes?*” The concerns of all seven respondents are listed below.

Academic Institution 1: “I think that the current permit is just fine for use and changes were made to it this year and we took out the rafting part of it because we never used it but can still get a 20 day special permit if needed.

Recreational 1: “I think that it is an appropriate way to have a permitting structure and control people on a river. I am not sure how I feel about the current numbers or launches and not sure how I feel about the current split of numbers or launches.”

Non-profit Organization 1: “Our permit is great and meets our needs and I like how it requires us to have certifications and from our standpoint overall it works well. I think that the current number of operators on the river is great and works well for us and I would recommend not changing it or adding more to the current number.”

Commercial Operator 1: “The permits are currently adequate but there needs to be a better way to re-allocate boats. I would like to have or see an increase in quotas or bigger quotas and we should be able to increase quotas over time and with changes in business. I believe that research is important and there is a need to look at what people are currently doing and determine quotas from there.”

Commercial Operator 2: “Need more weekend launches or even changes to the number given to companies over time. Need to change the system with changing times and re-allocate permits from one year to another or every couple of years.”

Commercial Operator 3: “I think that the process should be reviewed every few years to see if figures are appropriate but before this can be done, you have to define what a review is and what it would consist of and then go from there. There was talk of some type of review in 2004 but I did not see anything.”

Recreational 1: “I think that someone has to look at permits and launches given to each company because as it stands companies who have been around longer have larger quotas. I think that a review of the permits or quotas should be done every few years to see who is maxing out and who is not and base launch numbers on that.”

Some policy leaders are fairly content with the current permitting structure and think that it is adequate, as reflected in the comments: “I think that the current permit is just fine”, “The permits are currently adequate” and, “Our permit is great and meets our needs”. However, several policy leaders indicated that they would like to see changes to the permits, such as increase quota limits: “I would like to have or see an increase in quotas or bigger quotas and we should be able to increase quotas over time and with changes in business.” One operator wants more launches at peak times: “Need more weekend launches.”

The important issue was raised of how the capacity level is determined, how quotas are set, and how quotas are changed. Commercial Operator 3 stated: “I think that the process should be reviewed every few years to see if figures are appropriate but before this can be done, you have to define what a review is and what it would consist of and then go from there.” The Recreational User 1 wants to see an ongoing review of the entire system: “I think that someone has to look at permits and launches given to each company because as it stands companies who have been around longer have larger quotas. I think that a review of the permits or quotas should be done every few years to see who is maxing out and who is not and base launch numbers on that.” No respondent

provided comments on who should review the quota system and how it should be done. Commercial Operator 1 felt that any review should be based on research: “I believe that research is important and there is a need to look at what people are currently doing and determine quotas from there.” A review of the quota system should be part of any overall management plan review and should be based on research.

An additional concern dealt with quotas for special circumstances, for example using the river for instructional and programming purposes or special events. The following two quotes address this concern.

Non-profit Organization 1: “I think that there should however be special circumstances for certain companies or operators that would give them special access to different areas. For example, for our program we used to put in at Canoe Meadows and go down from there with the children in the morning and then for those who were ready for whitewater or more a challenging trip we would do a second trip in the afternoon starting at Widow Maker through the Race Course, which is the more challenging part of the river. Our concern here is definitely safety and we would rather put the children on class 1 rapids to begin as this may be the first time that some of the kids were on a raft or their first whitewater experience and then put them on the upper section which is class 3 rapids in the afternoon after some practice. Our permit changed and we were told that we could no longer do this and put in or take out at Canoe Meadows and various reasons were given which included trail damage, timing, etc. We would still like to be able to go in and out at Canoe Meadows but understand the impact that rafting has on the area there but think that special permission should be given to organizations who run more programs on the river rather than just sending people down the river for a dollar (e.g. Tim Horton’s who use the river for programs and activities for development).”

Recreational 1: “[In regards to special event permits], special event permits, this year they withdrew changes to the permit for the Whitewater Festival because it was done quickly. I don’t necessarily think a limit is bad but feel 150 is something too small and think that the number should be more reasonable and assessed and discussed through consultation. There needs to be a 2 way discussion with group and base permit on facts and data and not just previous year’s numbers. There will be an impact on the Kananaskis and river and don’t think that it is a lasting one and some of the events do raise money for the river (i.e. the whitewater festival raised money and many hours have been put into fixing up the river.”

This concern for special event purposes is valid. However, the point begs the question of who should operate such a system and how it should function. At present, all permits come from the parks agency, so presumably a new, more interactive system would require increased capability within the park.

While some policy leaders stated that the current permit system is acceptable, one commercial operator has a strong, counter opinion.

Commercial Operator 4: “The permits right now are a joke. The way that the permits were developed was initially good and each company got x number of launches or boats but over the past 10 years companies that were just starting out when quotas were given

out initially have begun to grow and mature. Right now rafting is being saturated. A major concern over the quota system is that if they are not used that they are give to other people which will impact all aspects of the experience. The government is basically threatening to produce or they will be taken away. The whole permit structure needs more backbone or structure to it and need to have one thing and keep things on paper and need to keep things the same for everyone. My recommendation is that everyone's quotas should be reduced across the board and would like to see them enforcing goal of park and wilderness experience more. This would not impact the operators because they will still have business and can increase prices. What is the point of having a quota system if people are putting down a large number of boats, there needs to be more enforcement and monitoring.”

This operator wants to see a much more effective and interactive approach to the development, application and monitoring of quotas and permits. The implementation of such a system would require a much enhanced management capability for the system.

This is a stark difference among commercial operators on the quota and permitting process. This difference may lead to conflict in the future when any new quota system is being developed. A functional management system is necessary to deal with such conflict and to implement any advanced quota system effectively.

4.4.7 Summary

The analysis of the interviews with seven policy leaders provides opinions on a wide range of planning and management issues. This site is recognized as a unique river recreational facility, with world class potential. Interviews suggest that the current management regime is effective, but certainly not world class and possibly outdated.

This analysis shows that the current management structure is functioning, but has many obvious and fixable problems and areas in need of examination. The following paragraphs review the problems and comment on possible solutions.

Many policy leaders see the current recreational facilities as sufficient. Others see problems now and see increasing problems if use levels increase in the future. Those who identify problems mention the need for more parking, more washrooms, and overall site design problems. There are also problems with congestion, high volume, and poor trails; clearly, the site is experiencing both physical and social carrying capacity problems that need to be addressed before the site is degraded.

There is also the theme of the need for improvement, as many comments mention the potential for positive change to deal with current problems. The policy leaders suggest the entire recreation system needs to be re-evaluated, in terms of site planning, use flows, facilities, quotas, and permitting.

From the policy leaders' point of view, the interaction among the various users of the river seems to be good. The individuals have adapted to one another and learned to work around each other. However, there is a concern that future increases will create problems that are beyond the capacity of the existing management institutions.

There are three different opinions on the issue of the level of current use. Most policy leaders seem to feel that the current use level is acceptable. A few suggest that the use level could be increased, but only with appropriate planning. One feels that the current use level is too high, and should be reduced.

It is probable that the use level will increase in the future. The policy leaders interviewed are concerned about the impacts of such an increase. If it is to occur, better planning and management is necessary to ensure that experiences are not hindered with increased use. Bow Valley Provincial Park and Kananaskis Country have a responsibility to work with the policy leaders to deal with these anticipated changes.

There are several different themes on the issue of the responsibility for management. There are comments about the current contracted companies that do the site maintenance. There are comments about finance, including fees. Significant comments are made on current management effectiveness. There is a stark difference of opinion on the effectiveness of the current contracted function of washroom clearing and garbage collection. These range from doing a good job, to doing a bad job. The comment on finance reveals a lack of sufficient financial allocation by the provincial government for this aspect of provincial park management. There is a potential to introduce new fees, as long as these fees are used for river use management.

This analysis points out that there is a major management effectiveness problem with the site. The respondents maintain an open mind on which management organization or which combination of organizations should do the job. However, it is clear that an overall management review is needed to address the many issues raised, including: site design, use monitoring, quota enforcement, fees, finance, and policing powers. It is probable that an upgraded arrangement involving the current actor groups would be sufficient. Such an arrangement would need to be established on a firm financial and legal basis.

There is a need to develop a much more effective and interactive approach to the development, application and monitoring of quotas and permits. The implementation of such a system would require a much enhanced management capability for the system.

Overall, the respondents expressed a guarded approval of the existing system. However, the many identified problems lead to the suggestion that a review of the entire management system should be undertaken. Given that the entire lands, waters and activities take place with Bow Valley Provincial Park, it is reasonable to conclude that his park should undertake such a review. However, the lack of monitoring, the absence of staff, and the inability of policy leaders to point to a clear decision-making framework at this park leads one to conclude that the current park agency does not have sufficient capability at present to undertake such a review and then to ensure the implementation of recommendations. There is consensus of policy leaders that change is desirable and this creates a positive political atmosphere in which to undertake a full management review.

4.5 Comparison of Results from the River User Survey and Key Policy Leader Interviews

The preceding sections identified the findings of the commercial and recreational users' survey and the interviews with key policy leaders. Both of these provided a wealth of information on use of the Lower Kananaskis River and its current management system. Due to the extent of and the importance of the information provided by these two important groups on the Lower Kananaskis River, some of the key similarities and differences found among their responses are noted below.

One of the first similarities noted among the responses from both commercial and recreational users and key policy leaders was in regards to how individuals have adapted to the different users of the rivers. Both groups are reporting that users of the river are working well with one another and have adapted to one another's use. Additionally both report that the level of use is acceptable.

Both groups, commercial and recreational users and policy leaders also see that there is potential for an emerging conflict if the infrastructure remains as it is and the use of the area increases. Both feel that there is a need to examine how the area is managed and also identified similar areas of concern when it came to specific services and facilities.

An additional similarity was in the type of recreational use noted by these groups. Both groups noted the same type of recreational use, kayaking, rafting and canoeing, occurring on the Lower Kananaskis River.

A similarity noted between the responses from commercial and recreational users and policy leaders was in the need for additional resources, particularly monetary resources. The commercial and recreational survey did not specifically ask a question

about monetary resources. The survey did identify areas that needed attention that require monetary resources. Particularly, they identified the presence of staff, availability and cleanliness of washrooms and the need for trails in the day use areas. On the other hand, the policy leaders were specifically asked about monetary resources in the interviews and identified the need for additional financial resources to maintain and enhance the river and its associated services and facilities.

A difference noted among these groups was in reported levels of satisfaction. The commercial and recreational users noted a higher overall level of satisfaction with their time on the Lower Kananaskis River and the services. As opposed to the policy leaders who noted a lower level of satisfaction with the Lower Kananaskis River and its services and facilities. The difference in level of satisfaction is mainly due to the fact that the policy leaders are more involved in the river and its management and see more than the users themselves, the policy leaders also noted more experience and time on the river or involvement in the river.

An interesting difference between the two groups is in their focus of concern. The users, commercial and recreational, thought that resources should be focused on upgrading washrooms and garbage containers, while policy leaders felt that more attention should be put on the river itself and upgrading its features and access points.

Another important difference to note among the groups was in their overall understanding of the management of the Lower Kananaskis River and the need to have numerous individuals involved in the management and decision making of the area. The policy leaders have more experience in the area and therefore understand more about the area in regards to its management and the complexity of it.

Another difference among the response given by the groups was in regards to the presence of staff along the Lower Kananaskis River. Users mentioned that they used to see more staff along the river throughout the season.

A major difference among the groups was in their focus on the management of the Lower Kananaskis River. The commercial and recreational users did not talk about the overall management of the area whereas the policy leaders spoke in great depth about the overall management of the river and the need for an effective management system. This is to be expected. The users are typically concerned about facilities and features that directly impact the recreational activity. The policy leaders play a different role. They are much more attuned to the large political, legal and managerial aspects of the entire system.

Chapter 5 – Discussion

This research examined current use levels, surveyed users, and interviewed key stakeholders in an effort to develop management recommendations for future use along the Lower Kananaskis River and associated day-use facilities. The user survey revealed important information about commercial and recreational use of the river, including differences among these two user groups. The key policy leader interviews also identified key information concerning planning and management of the area and suggested that the current management structure is effective but in need of revision.

This chapter will build on the previous chapter and presents a detailed review of the information received from commercial and recreational users and key policy leaders relating to the overall objectives of this research (Figure 4). Additionally, it provides recommendations on where managers can make changes and improvements to the management of the area in the future. Also expanded on is the theoretical contribution of this research to the greater body of recreation research.

5.1 Use of the River

5.1.1 Users of the River

This research identified and emphasized the use of the Lower Kananaskis River by two distinct groups, commercial (42.8%) and recreational (56.4%) users. The survey found that the majority of commercial users went down the river with one of the rafting operators, while recreational users were more likely to be kayaking. There were also differences in the users' experience and previous use of the river. It was found that commercial users were visiting the area for the first time, while recreational users had visited previously. These are notable differences among the two groups of users, they identify differences in the potential experience that users were seeking in their river activities. Schreyer (1982) as cited in Manning (1999), found similar differences among floaters of the Green River in Desolation Canyon, UT where users who were more experienced tended to be floating on a private rafts as compared to first time floaters who were more likely to be on a commercial trip. Schreyer (1982) also found that more experienced users were more descriptive in their motivations for the trip (Manning, 1999). This reiterates the idea that users with more experience on the river tended to be those looking for a more in-depth experience alone or with a small group and not to be those involved in a commercial trip.

Another point of discussion on differences among commercial and recreational users of the river was the difference in party size. Differing party sizes is important for decision makers, as it is an indication of the experience that the users look for on the river. The commercial operators served larger groups who chose an activity that would be fun, exciting and inviting to all in their group. While the recreational users came in smaller groups to practice their skills on the water or to 'play' on the rivers' white water features. The smaller groups of recreational users and their desire to 'play' and utilize the different features is evidence of their specialization and commitment to the sport. The commercial operations cater to tourists who often travel long distances to come to this site, while the recreational users are more likely to be local citizens. Additionally, this may also be implying a difference in group dynamics among commercial and recreational users that needs to be recognized in the decision making process and adapted for in future planning. The common bond between commercial users is that they are a vacationing, fun loving group drawn to the area for the thrill of trying something new or to see more of nature. The recreational users on the other hand share knowledge, experience, respect and love for the river, its features the sport and the area. This is also an important finding from this research because it shows that these two groups of users are different in terms of how they use the river and in group characteristics.

An additional point to note in regards to users of the river is their commitment to the area and how they feel about it and relate to it. Those who frequent the area more often, more specifically recreational users, tended to be more committed to the area than those using the area for more tourist related endeavours. That is, they showed more concern over the changing nature of the area, were able to relate to previous visits to the area and to the paddling community that utilizes the river area. Unmistakably, recreational users emphasized their overall commitment and possible attachment to the area through their genuine concern expressed towards the river and its facilities and overall maintenance and management. As seen in the previous section, they were more committed and concerned about changes along the river to features, facilities such as trails and river access points, in addition to special events held along the river throughout the season. While commercial users, did not demonstrate the same commitment and attachment to the area as this was simply another activity to take part in on their vacation. Knowing that people who utilize natural resources for recreational purposes in parks and protected areas is important not only to understand what they are looking for in their experience and pursuits but also when it comes to effective management. As Dearden

and Rollins (2001) state, “Without adequate monitoring, management actions are not defensible, and we will have made little progress in protecting the values...” (pp.405) that are cherished in these areas. This is why it is important for decisions makers to understand the different users of their resources and to plan effectively for these varying uses to ensure little conflict amongst users and with the natural surroundings.

This research has noted the distinct differences among commercial and recreational users of the Lower Kananaskis River and their unique needs and desires. Not only is this important for managers and their decision making in this setting but it is also important for researchers to note as it identifies that there is a difference among different users of the same river recreation resource and they do look for different services and facilities and see the area differently from another. The users of such a recreation resource need to be recognized by both management and researchers of the field; their unique opinions, views and uses need to be planned for and also examined in research initiatives.

5.2 Crowding and Carrying Capacity

As discussed at the beginning of this thesis, the impact of participation in outdoor recreational pursuits, particularly in protected areas and natural settings has increased and has led to many concerns regarding its impact over time. As noted by Rollins and Robinson (2002), one of the key impacts associated with this influx in participation is crowding and carrying capacity. According to Manning (2007), carrying capacity and common resources, such as natural areas or protected areas, are long standing issues in environmental management. One of the most fundamental questions in the field becomes, “...how much can we use the environment without spoiling what we find most valuable about it?” (Manning, 2007, pp.5). This is an important premise when it comes to the management of parks and protected areas as they are used by many individuals for many different reasons and are considered to be available to all. Not surprisingly, the themes of carrying capacity and crowding emerged as key themes in both the user survey and policy leader interviews as both a concern and an emerging issue.

In Chapter 4, it was seen that users and policy leaders identified a number of concerns regarding the number of people using the area for commercial and recreational purposes. Users and policy leaders indicated that even though the current level of use has continued to increase that groups have learned to work well around one another but are concerned as to whether this will continue in the future with increasing use and variety in use. To reiterate this idea, specific concerns were raised by both commercial and

recreational users and key policy leaders with respect to parking, crowding both on the river and at available facilities at the day use sites along the river. Figure 28 and 29 illustrate the parking areas at Canoe Meadows and Widow Maker day use areas on busy days on the river. As one can see from these photographs, the area can become quite

Figure 28 – Canoe Meadows Parking Area on a Weekend



(Rae, K; Kananaskis Country, Alberta; August 19, 2006)

congested with vehicles of all sizes parking in different directions and continuously entering and exiting the area. This is an important factor to examine when it comes to crowding of an area. Manning (2007) found at Muir Woods National Monument that many visitors began to feel especially crowded in parking areas when they had to wait for spaces. Parking is one item that is commonly used to determine levels of use at a given area in addition to overuse of an area. That study is significant because it shows that parking areas at recreational sites can influence a feeling of crowding. In my research both users of the area and policy leaders identified the availability of parking as a concern at times, with there being limited space on busy days with commercial buses and trailers and recreational users' vehicles. Figure 28 and 29 reiterate this fact visually. There are times where plenty of parking is available (Figure 30). Issues surrounding crowding at parking areas or entrance ways can be mitigated in a variety of ways including increased guidelines on who can park in certain areas, how people should park to maximize space, in addition to an increased staff

congested with vehicles of all sizes parking in different directions and continuously entering and exiting the area. This is an important factor to examine when it comes to crowding of an area. Manning (2007) found at Muir Woods National Monument that many visitors began to feel especially crowded in parking areas when they had to wait for spaces. Parking is one item that is commonly used to determine levels of use at a given area in addition to

Figure 29 – Widow Maker Parking Area on a Weekend



(Rae, K; Kananaskis Country, Alberta; July 23, 2006)

presence and monitoring of areas. From the perspective of management, the issue of parking needs to be addressed in the future. Additionally, this aspect is important for

Figure 30 – Canoe Meadows Parking Area on a Weekday



(Rae, K; Kananaskis Country, Alberta; May 20, 2006)

researchers in the field as it reiterates the use of parking areas as an indicator of crowding in outdoor recreational areas.

However, parking capacity can also be used to limit use on the river. For example, if a river use level is determined, the parking capacity can be used to limit river use to the predetermined value.

Crowding along the river and at different features white-water features was also revealed

to be a concern. Figure 31 illustrates crowding of the river with commercial and private users trying to use the same play area or feature, the Widow Maker a popular area on the river. As Manning (1999) states, as more visitors are added to a given recreation area, the marginal satisfaction of individual visitors declines due to crowding. However, their total satisfaction increases because the total number of people increases. This process is seen to continue until a saturation point where, when another visitor is added the visitor's overall aggregate satisfaction declines and social carrying capacity is met (Manning, 1999). A visual representation of this is in Figure 32. This concept is important for decision makers of the Lower Kananaskis River as the area has slowly become more well-

Figure 31 – River Crowding at Widow Maker

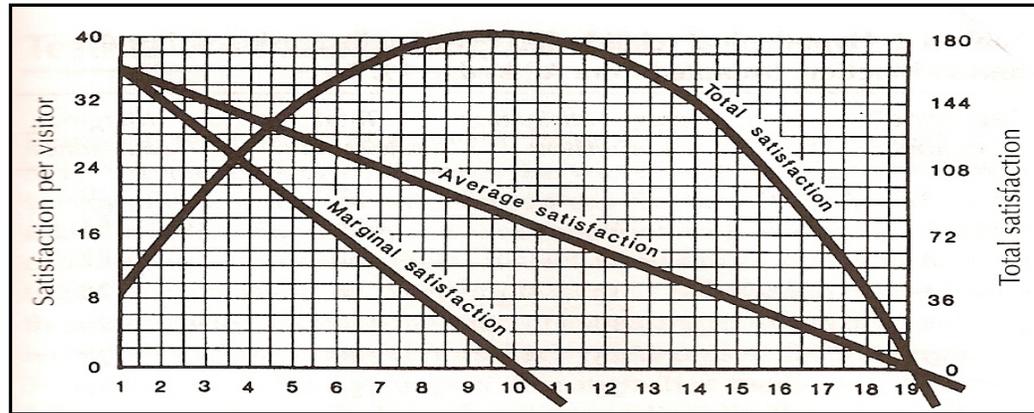


(Rae, K; Kananaskis Country, Alberta; August 19, 2006)

known to white water recreation enthusiasts and grown in popularity due to its predictability, features and safety. Even with the continued use and growth in use of the area, very little management effort has been put forth to deal with this growing

number of users, the need for more features, services and facilities and the continuous upkeep of these. Some additional features were added to the river in the last few years, as discussed in Chapter 2, to help to spread users out and to alleviate crowding, however

Figure 32 – Relationship between Increased Use and Satisfaction



(Adapted from Manning, 1999)

the number of users still continued to grow. Studies found that as more people visit and use outdoor recreational areas, not only do the natural resources but also the overall experience of the visitors, and in this case other users, feel the impact. Studies conducted at the Boundary Waters Canoe Area, found that crowding had an impact on the satisfaction of groups using the river differed based on their needs and motivations (Manning, 1999; Adelman et al, 1982). Manning (1999) found that paddlers were more sensitive to crowding than motor canoeists who were in turn more sensitive than motor boatists. That study is relevant to this research as it supports the idea that one's activity and motivations for use will determine one's feelings towards other users and in turn feelings towards crowding. For this thesis, it can be hypothesized that the recreational users are like the paddlers identified by Manning (1999) who are most sensitive to crowding. This assumption can be made due to the fact that they are both experienced users and are seeking a potentially specialized experience. Whereas one can say that the commercial users are like the motor canoeists who are looking for an overall group experience with excitement and thrill. This is important to decisions makers and management of the area because it was found through the user survey and policy leader interviews that users are currently satisfied with their time on the river. However, some people did identify concerns over changes in the quality of the features of the river, services and facilities being inadequate for the number of users and play areas on the river being crowded. All of these will impact users' level of satisfaction with their leisure

experience over time, and as more people are forced to use these, according to Manning's idea presented in Figure 32, satisfaction will slowly begin to decrease. This is additionally important for researchers in the field as it shows that there is more to carrying capacity and crowding and that even though things may currently look fine that there may be issues deeper down that need to be examined and explored to ensure expectations are continually fulfilled.

5.3 Displacement

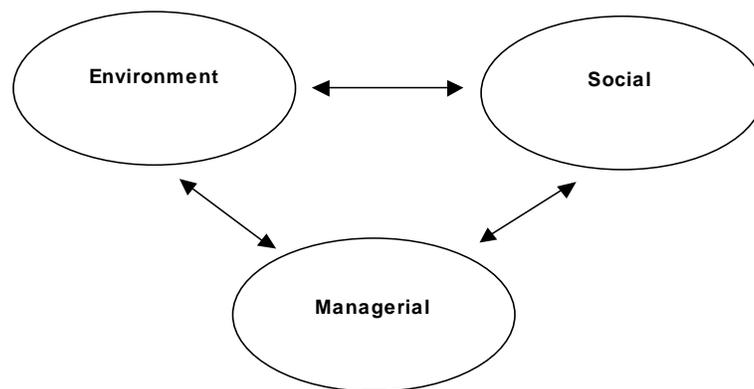
As mentioned earlier in this thesis, people respond to crowding and carrying capacity issues in several ways. This research found displacement currently occurs as recreational users of the river changed their own behaviour as a result of crowding at prime use times. A level of recreational use was met that forced users to change their patterns of use due to decreases in their levels of satisfaction (Manning and Valliere, 2001).

The idea of personal displacement became evident in the responses received from recreational users. Many indicated that they do not come to the river on weekends during the summer months, July and August, because they know that the area will be busy and there are other areas that they can paddle during that time. These users avoid busy days of the week, but also other busy times, during the day, when rafts use the river, typically once in the morning and afternoon. The recreational users pointed out that they would come either before or after the rafts to avoid encountering large groups and rafts on the river. This is an important behavioural change to note, as it identifies an overall adjustment in their river use due to an unacceptable level of commercial rafting use. Shelby et al. (1988) identify such behavioural changes due to unacceptable levels of use and changes in timing of use as displacement. Even though displacement has already occurred along the river, the question becomes whether these changes or substitutions made by users allow them to still meet their desired river experience. In a study of Grand Canyon River users it was found that there were few substitutions for the trips through the area (Dekker, 1976 as cited in Manning, 1999). That is, there were very few instances where the participants were able to gain the same benefits as they would if they took their trip through the Grand Canyon. This is important for decision makers as it shows that users coming to an area for river recreational purposes are looking for a specific purpose and experience and that few other areas may provide such experiences. Therefore, one could say the displaced users may or may not be getting the experience that they are looking to acquire when they have to change their location of recreation participation and

timing of participation. However, it is important to note that this research found that users were still satisfied with their experience on the river and have accepted the displacement that has occurred. Most of the users and policy leaders surveyed are content with the current situation and feel that things are currently working well but fear that this will not last with continued growth in the activities. This is an important aspect for managers of outdoor recreational areas and a definite sign that it is important for them to manage for the social and environmental aspects of the area.

Manning (1999) described the idea that experiences can be maintained or enhanced even when there is increasing use, if visitors are distributed within the area, appropriate rules and regulations exist in addition to appropriate levels of visitor services and programs. The idea of increasing or enhancing management of this portion of the Lower Kananaskis River was an issue outlined by key policy leaders and some users. This is a significant factor because, as seen in Figure 33, and mentioned above, not only does carrying capacity impact the natural environment but also the social aspects of the recreational area. One could say in the case of the Lower Kananaskis River, it would be in the best interest of current and future managers of the area to look to developing stringent management objectives and guidelines. Development of these objectives and guidelines would help to alleviate the impact of users on the natural environment of the area and the impact of users on other users. Suggestions on how this could be done are discussed further below.

Figure 33 – Three Dimensions of Recreational Carrying Capacity



(Adapted from Manning, 1999)

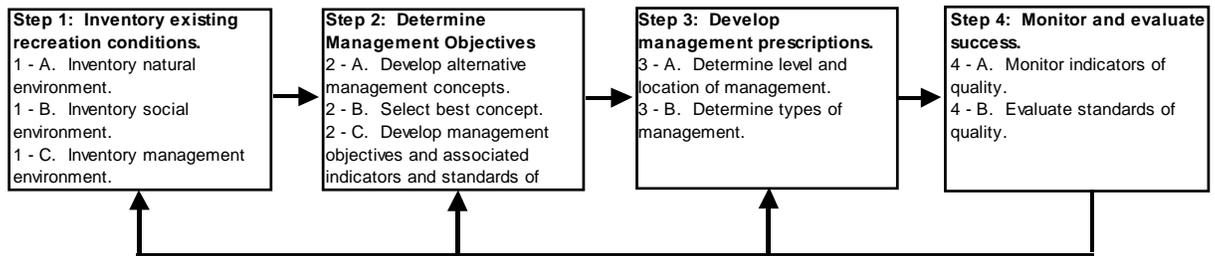
5.4 Management Implications

At a basic level, the tools and approaches management uses should be geared towards “... (i) influencing visitor decision processes; (ii) controlling visitor behaviour; or, (iii) mitigating the impacts of visitors” (Eagles & McCool, 2002, pp.132). When individuals visit a recreational area or participate in recreational pursuits, managers should focus their attention on the provision of these pursuits, in addition to the potential problems that may come about from these recreational endeavours (Eagles & McCool, 2002). Managers can do this by managing visitor participation and also by developing techniques for management that managing the overall impact of recreational participation (Eagles & McCool, 2002). This research found that the users were generally satisfied with current management. The policy leaders were more critical, pointing out many areas in need of improvement, including concern about a lack of management responsiveness and a concern about negative outcomes of future increases in use.

It is important to re-emphasize the lack of implementation of previous recommendations emerging from research conducted along the river in the summer of 2000. As discussed at the beginning of this thesis, Squires (2001a) made several recommendations on management of the Lower Kananaskis River. My research found that few of these recommendations were implemented, except for the recommendation to conduct further research in the area, and this only happened 6 years after the fact. Not only have those recommendations not been implemented, but policy leaders and some users remembered this research and showed concern about the lack of implementation of its recommendations. The lack of implementation can be seen as an indication of the lack of management capability by the park agency. Therefore, if the recommendations of this current research are to be useful, there is need for a new and improved management framework.

The literature on river recreation has dealt with different underlying parts of management including carrying capacity, crowding and visitor experiences. However, investigation into the literature identified only one approach for dealing with the overall management of a recreation area. Manning’s Outdoor Recreation Management Structure (1999) is that approach, and was used in this research. This management structure has 4 stages: 1) inventory existing recreation conditions; 2) determine management objectives; 3) develop management prescriptions; and 4) monitor and evaluate success (Manning, 1999) (Figure 34).

Figure 34 – Outdoor Recreation Management Structure



(Adapted from Manning, 1999)

The first step of this framework involves gathering baseline data on the three main components of outdoor recreation; the natural, social and management environments (Manning, 1999). This is followed by determining the management objectives of the area. This involves developing broad objectives moving to more specific ones using the data collected in the previous step (Manning, 1999). According to Manning (1999), after developing management objectives the next step is to develop management prescriptions to be used to move from the current situation to the desired situation. This involves not only knowing what the desired outcome is but also determining what the type and level of management action needs to be implemented to obtain it (Manning, 1999). The final step involves monitoring and evaluating the success of the whole management program, from objectives and prescriptions to the implementation of key indicators and standards (Manning, 1999). This in turn leads back to the first step, signifying the continuous nature of this framework.

This management structure reveals key components for managing an outdoor recreational area and resource. One of the overall goals of this research was to develop and create a management framework for water-based river recreation use of the Lower Kananaskis River. However, the research uncovered a problem with management capability in the case study. Manning’s Framework assumes that an organization has the capability to develop and implement management objectives, including monitoring. However, it in this research we found that the management organization that did not have the full capability to perform these tasks. Therefore, it is important to add an additional component to Manning’s Framework, a method of assessing management capability of the organization.

I propose adding management capability elements to Manning’s Outdoor Recreation Management Framework (Figure 34). For the purpose of this research,

management capability is being defined as the ability of an organization to reach its mission and goals. In order to achieve this, I propose that an organization needs capability in the following areas: 1) staff, 2) staff expertise, 3) budgetary resources, 4) legal effectiveness, and 5) management guidelines. It is necessary to discuss each of these five areas.

Hockings et al. (2006) suggest that all management of protected areas requires adequate resources. They suggest five important areas: human capacity, facilities, information, operational money and equipment.

All organizations require sufficient human capacity (Eagles, et al., 2002). This includes sufficient numbers of staff, both part-time and full-time basis. In order to effectively monitor and implement any management process, it is necessary to have staff members. These staff must have the appropriate expertise. For visitor and tourism management the site requires sufficient numbers of staff with training and experience. Eagles (2003) provides a list of seven competencies that are required for effective tourism management: 1) understanding the visitors' needs and wants, 2) service quality management, 3) leisure pricing policy, 4) leisure marketing, 5) tourism and resource economics, 6) finance, and 7) tourism management. Some of these competencies may occur centrally, and be shared across a park agency. Others may occur at the park level. Each situation would need to be evaluated to determine the appropriate amount and location of these competencies.

Any organization required sufficient finances. All facilities and equipment requirements can be fulfilled with sufficient money. Determination of sufficiency will depend upon the demands and the service standards of an organization. A government body requires the appropriate laws. The agency must also have the capability to fully utilize the powers derived from the legislation. For example, a park agency must have the powers needed to implement all aspects of visitor and tourism management. A government agency should have a stated vision that guides actions, for example a management plan. This is a common measure of management effectiveness (Hockings et al., 2006). Therefore, very simply, for an organization to have sufficient managerial capability, it requires sufficient numbers of appropriately-trained staff, appropriate budgets, a competent legal structure, and a plan for the future.

Realizing the enormous range of management capability that occurs in parks within a large agency, Hornback and Eagles' (1999) proposed five levels of program for public use measurement. Similarly, I suggest five levels of management capability

(Figure 35), spanning from a laissez faire, to advanced management. These five levels of management capability are: 1) initial, 2) basic, 3) intermediate, 4) developed and 5) advanced. Within these five levels of management capability, one can assess each management capability using each the five criteria; staff, staff expertise, budgetary resources, legal effectiveness, and management guidelines. Table 28 describes in detail each of the levels.

This addition to the Manning framework adds an essential tool for managers and other decision makers to understand an agency's current level of management capability. This addition can help the identify the number of staff needed, their expertise, the budgetary resources, the legal effectiveness, and the policies required. According to Hornback and Eagles (1999) the minimum level that an organization should be on their level of public use measurement is 3 where "...the park has a comprehensive estimate of public use of the entire park, at least for one period of time. The complexities of park uses are now known including local day visits, non-local visits, visitation and total entries, overnights, and visitor hours" (pp. 22). At this level 3 of public use measurement, managers have a good idea of how the park is being users; who is coming, how long they are staying and where they are coming from. This minimum level of public use measurement is important to this framework because level three is also being identified as the minimum level of management capability that an organization should aim for. This is also seen as a suitable level of management capability as it outlines having at least one staff member assigned to the resource management with some expertise, training and background in recreation management, an intermediate amount of budgetary resources and legal basis and implementation and finally management guidelines that are present and followed. However, it is also important to note that an organization could be at different levels of management capability at the same time.

An application of the research findings to the framework found that the Bow Valley Provincial Park is currently at the initial level when it comes to staff expertise, budgetary resources, and the basic level when it comes to staff numbers, legal effectiveness and management guidelines (Figure 35). It is acceptable for an organization to be at different levels of management capability on the different criteria, but it is necessary to determine the minimum level necessary to ensure the management can be effective. The research findings suggest that the management capability of Bow Valley Provincial Park needs to be upgraded in all five areas.

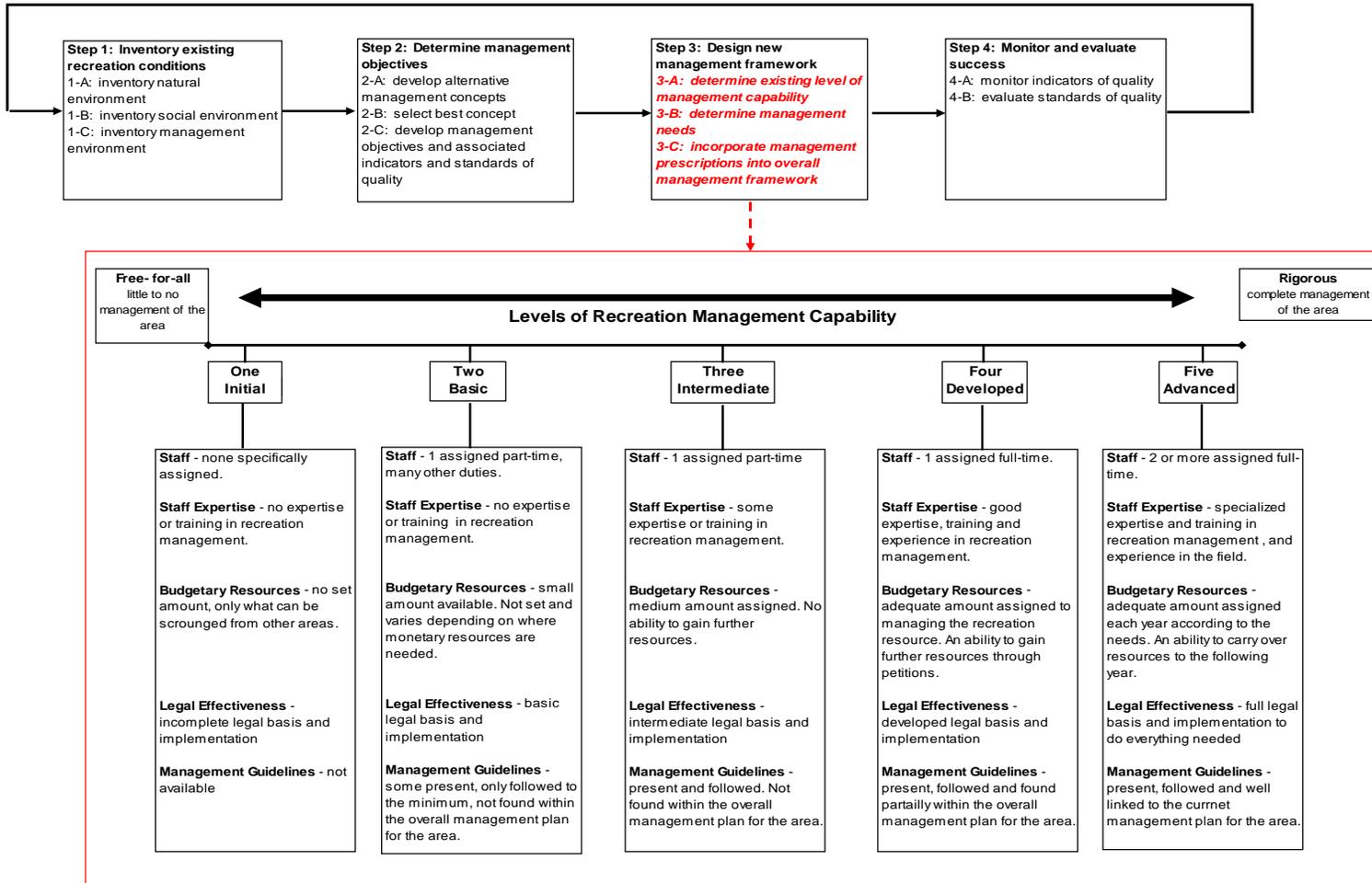
5.4.1 What might be the most appropriate level of management capability for each of the five criteria for Bow Valley Provincial Park?

As a minimum, the park should have one full-time staff devoted to recreation and tourism management. This would be capability level 4. This person should have specialized training in recreation and tourism management. This is capability level 5.

Funding should be a level 4, which is an adequate amount of monetary resources assigned to the resource and the ability to gain further resources for management needs through the use of petitions.

This research is unable to fully assess the legal competence of the Bow Valley Provincial Park. However, we predict that it is currently at level 5. The management capability for planning should be upgraded to Level 5. At present, the park management plan is deficient in both content and process in regards to visitor and tourism management. Therefore, the river-based management should be placed into the overall park management plan and should be fully linked to the overall goals of the plan. In this case, with a world class river recreation activity, Level 3 is not sufficient. This site requires management capabilities at levels 4 or 5. The addition of a management capability component to Manning's overall management framework produces a more comprehensive approach to outdoor recreation management. This new, adapted framework might be useful to other outdoor recreational resources and settings. Use of this framework helps ensure that any organization has the capability to meet the goals and objectives for recreation and tourism.

Figure 35 – Adapted Outdoor Recreation Management Structure



(Adapted from Manning, 1999 and Hornback & Eagles, 1999)

Table 28 – Proposed Levels of Management Capability and Associated Criteria

<p><i>Initial Level</i></p> <ul style="list-style-type: none"> • Staff – No staff are assigned specifically to managing or monitoring the area, there is an assortment of staff whom take on this task as time and resources permit. • Staff Expertise – Staff have no special training or expertise in recreation management and are trained for another position and only take tasks on as an additional requirement of their position. • Budgetary Resources – There is no amount in the yearly budget set aside for managing or monitoring the recreational area and the only monetary resources acquired are those that are left over or that can be scrounged from other areas. • Legal Effectiveness – There is an incomplete legal basis, meaning that there is a weak ability to set and implement guidelines in the area and little is done to enforce them or implement them. • Management Guidelines – There are no management guidelines available for the area.
<p><i>Basic Level</i></p> <ul style="list-style-type: none"> • Staff – One staff member is assigned on a part-time basis to manage and monitor the area but has additional duties outlined in their position. • Staff Expertise – Staff have no special training or expertise in recreation management and are trained for another position and only take tasks on a part-time basis. • Budgetary Resources – There is a small amount of monetary resources set aside for management of the resource but it varies from year to year depending on how monetary resources are allocated. • Legal Effectiveness – There is a basic legal basis and implementation, meaning that there is some ability to set and implement management guidelines. There are current laws and policies that are in place that relate to and help to carry out management guidelines of the area. • Management Guidelines – There are only minimal guidelines available, for recreation management.
<p><i>Intermediate Level</i></p> <ul style="list-style-type: none"> • Staff – One staff member is assigned on a part-time basis with no additional requirements of the position other than the recreational resource. • Staff Expertise – Staff have some special training or expertise in recreation management. • Budgetary Resources – There is a medium amount of monetary resources set aside for the resource management and maintenance but there is no ability to gain further resources and they are not carried over. • Legal Effectiveness – There is an intermediate legal basis and implementation, meaning that there is an ability to set and implement management guidelines. There are minimal laws and policies currently in place that relate to and help to carry out management guidelines of the area • Management Guidelines – There are guidelines available and are followed but are not found within the overall management plan for the area, but are found within their own separate area management goals and objectives.
<p><i>Developed Level</i></p> <ul style="list-style-type: none"> • Staff – One staff member is assigned on a full-time basis to ensuring the proper management of the area. • Staff Expertise - Staff have a good amount of training, background and expertise in recreation management. That is, the assigned staff member has some educational background in planning and management and also some previous work experience in

the field.

- **Budgetary Resources** – There is an adequate amount of monetary resources assigned to the resource with the additional benefit of being able to gain further resources for management needs through the use of petitions.
- **Legal Effectiveness** – There is a developed legal basis and implementation, meaning that there is an ability to set and implement management guidelines. There are current laws and policies that are in place that relate to and help to carry out management guidelines of the area.
- **Management Guidelines** – Management guidelines exist and are followed but are only partially found within the overall management plan for the area. For example, a separate set of guidelines for managing recreational use may exist for managing specific recreational use of the area but at the same time it may not be fully implemented in the overall management plan other than being mentioned or named.

Advanced Level

- **Staff** – Two or more staff members are assigned on a full-time basis to ensure proper management of the area.
- **Staff Expertise** – The assigned staff have specialized training and expertise in recreation planning and management and a good amount of related experience in the field.
- **Budgetary Resources** – There is an adequate amount of money assigned each year to manage and maintain the recreational resource according to the needs for the year. In addition to being able to acquire a varying amount of monetary resources there is also an ability to carry resources, over to the following year if not all used.
- **Legal Effectiveness** – There is full legal basis and implementation to do everything needed. That is, policies and laws exist that allow staff to implement all management objectives and prescriptions effectively. In other words, policies and laws will support management of such a recreational resource.
- **Management Guidelines** – Management guidelines exist and are followed and are also found in the management plan for the overall area. In addition to being within the overall management plan, the guidelines are seen to be well linked to the overall goals of the plan and to complement it.

5.5 Recommendations

The following recommendations are based on the theoretical foundations of recreation management and in particular information obtained from the commercial and recreational river users' survey and key policy leader interviews. Those who completed the river users' survey and participated in the key policy leader interviews provided valuable insight into the area and associated issues and concerns regarding recreational use of the Lower Kananaskis River and associated management. This research recognizes that the Lower Kananaskis River and its recreational use take place within a larger area governed by provincial and federal policies and legislation as well as other regional frameworks. However, as with any research it is important to note and identify recommendations coming from it. The following is a list of these:

Recommendation 1: Increase the presence of Alberta Parks personnel along the Lower Kananaskis River and at associated day use facilities throughout the use season, particularly the high use season going from May through September. The personnel would be responsible for monitoring commercial and recreational use of the area and also for addressing any questions or concerns brought forth by users.

Recommendation 2: In addition to increasing staff presence during the high use season, it is also recommended here that Alberta Parks, specifically Kananaskis Country look to having someone on staff who has training in the field of recreation management . This individual would oversee all recreation management and use within Kananaskis Country and would help to ensure that guidelines are set for recreational use of key areas, such as the Lower Kananaskis River and that these guidelines are kept up to date and enforced.

Recommendation 3: Revise the Lower Kananaskis River Recreation Area Policy Guidelines for Management and Instructing Activities. This would include a revision of current quotas for permits through the development of new objectives and goals, and monitoring that take into consideration changes in business and overall use. This would help to ensure that quotas are being followed and enforced on a continual basis and would allow those seeking permits to acquire launches or those with current permits to seek additional ones or decrease the number that they currently are allowed.

Recommendation 4: Develop overall management guidelines and procedures for the Lower Kananaskis River and place them within the overall management plan for Bow Valley Provincial Park. This would help to guide decision making in the area and to ensure that the resource is maintained both for recreational use and its natural beauty.

Recommendation 5: Implement the adapted outdoor recreation management framework as recommended in this thesis. This bring the recreation management capability to levels 4 or 5 in each of the five areas of concern.

Recommendation 6: Revise the role of the Lower Kananaskis River Users Association (LKRUA) in the decision making process along the Lower Kananaskis River to ensure that its opinions are heard and considered in all management decisions, including making the decision making more transparent. That is, have the role of the users association include guidelines on its involvement in the decision making process. The purpose of this specialized group of individuals is to work collaboratively to make decisions in regards to management and development of the river and associated facilities. In revising the role of LKRUA, it is recommended that guidelines be developed that state that the majority of members of the association attend meetings and agree on any changes made to the area, or if they cannot attend no final decisions be made on changes until all members have read and signed off on the changes. Also ensure that there are representatives from all areas participating as voting members of the association. This includes; governmental departments, user groups, commercial operators, industry, non-profit groups and others.

Recommendation 7: Implement an on-going monitoring and research program for the Lower Kananaskis River. The purpose of this program would be to help to ensure that the policy framework is fully implemented and that if any problems develop they will be detected early.

Recommendation 8: It is recommended that a written agreement be developed and signed between various stakeholders, including those representing TransAlta, Alberta Parks, Commercial Operators, and recreational users; or generally speaking members of LKRUA, on water flow management. This agreement would include a description of when the river would be flowing and for how long, how notification of flow would be done and a written outline of how special circumstances would be dealt with, for example river maintenance.

Recommendation 9: It is recommended that Alberta Parks look to developing a user fee system for the Lower Kananaskis River to help to cover the costs of managing the area. The financial resources obtained from these user fees would be used to help to manage the river and recreational activities.

5.6 Limitations

In the completion of this research a number of limiting factors were identified. The initial lack of available accurate information on the number of people using the Lower Kananaskis River for commercial and recreational purposes at the onset of the research was a concern. Such information would have allowed the researcher to more accurately calculate a sampling frame.

An additional limitation dealing with user numbers was in the unpredictability of use of the area. During the development of this thesis, there was an indication that the use of the river was higher on some days than others. This was proven correct for the most part with more people using the river on weekends than weekdays. However, at times there was also a lack of users to survey due to a total absence of water and river users.

An additional point of concern was the controlled flow of the river. Every effort was made to acquire a sample of river users from different days of the week and at different times of the day, over the data collection period. Due to changes in flow times, on-going changes to the original sampling schedule had to be made. There were a number of days in the later part of the summer, particularly August where there was often no river flow and therefore no sampling of users. These days were accommodated for as best as possible by surveying other days when the river was flowing.

Besides limitations to knowledge on use of the river and changes in the flow of the river were the different survey locations with only one researcher conducting surveys. Every effort was made to survey at the different locations at different times of the day and days of the week throughout the survey period. But due to the fact that the researcher could not be in more than one place at a time, it should be recognized that some users may have been missed while the researcher was at a different surveying location.

It is also important to note that this research only examined use of the Lower Kananaskis River in the spring and summer months, May through September, the high use time. The river runs year round. Therefore, there is a potential for recreational use in the fall and winter months, which was not included in this study.

The key policy leader interviews provided a large amount of information that added to and enriched the information collected from recreational and commercial users. However, this is also a limitation of the study as it was only possible to complete 7 interviews in the allotted time. A limitation of the key policy leader interviews was that there were additional policy leaders that were not interviewed and therefore the opinions presented are only of those were interviewed.

A final limitation of this research is that it was beyond the scope of this project to implement any of the recommendations listed above. That is up to the governing body, Alberta Parks and its associated stakeholders to take the recommendations presented along with all supporting information and make a decision on how they are going to use this information and what their next step will be.

Chapter 6 – Conclusions

This thesis used a mixed methods approach to create a management framework for water based-river recreation of the Lower Kananaskis River in Kananaskis Country, Alberta. This research examined the type and amount of recreational use of the river, the impact of recreational use on users' experiences, and the type of management structure and recommendations that should be implemented to manage recreational use in the future along the river and at the associated day-use sites. This research achieved the research objectives outlined in Table 1 (Chapter 1). Information from the literature, data from the user surveys, policy leader interviews, and park staff enabled the development of recommendations and conclusions. Not only has this research highlighted some recommendations for future management, but it also identified a gap in the recreation literature and gaps in current management of the Lower Kananaskis River.

This research found that the Lower Kananaskis River is a well-known, multi-use area within Bow Valley Provincial Park and Kananaskis Country. Not only is it highly used by the recreational paddling community, but it is also used for commercial river experiences. With this use comes numerous issues surrounding use and management of the resource. This thesis identified issues ranking from those surrounding crowding and carrying capacity to displacement to issues. Specifically, this research found that the two main user groups, commercial and recreational users, have learned to adapt well to each other's activities and work well with one another. In addition to adapting to the different activities of the river, users reported a high level of satisfaction with their experience and the river itself. However, continued increases in use will begin to pose problems when it comes to the overall satisfaction of users and their experiences. It was also found that users recognize the need for better infrastructure both on and off the river. Users indicated that changes were needed in the parking areas to accommodate all of the vehicles and users, work was needed at the put-ins and take-outs to accommodate the increases in users.

The interviews with policy leaders emphasized the well-known nature of the issues of the area and emphasized issues within the current management structure. Policy leaders were more critical of the current management structure of the river than the users. The critical comments from the policy leaders were expected, as they are more aware of

the management issues than recreational users. The policy leaders made many insightful comments for change in the interviews and recognize that management has not been responding to the needs of the users, the area and recommendations of previous research. The lack of response from management to deal with present issues is an indication and evidence of the lack of effectiveness of current guidelines and policies. With the continued growth of the area and expectations of users, the situation is not going to get any better without the implementation of an improved management framework and guideline. This research has found that the current management structure for the Lower Kananaskis River is weak and in need of improvement before major problems develop. One of the key aspects of managing any type of recreational resource is ensuring the capability of the organization to achieve outlined recommendations and management prescriptions.

The major theoretical contribution of this research is the addition of levels of recreation management capability to Manning's (1999) Outdoor Recreation Management Framework. This was done by adapting Hornback and Eagles (1999) levels of public use measurement, in an attempt to develop a tool for management to assess and improve their capability to govern recreational areas and associated activities. This new tool is an example of how previous theoretical concepts and ideas can be built upon and expanded. This is something that is noted by many researchers including Manning (1999). Manning (1999) states that

“the last several decades of social science research in outdoor recreation have enhanced understanding of this social phenomenon and offered a number of implications that might help guide management more effectively. The success of future research will be determined, to a large degree, by the extent to which researchers and managers understand and appreciate each role's and processes” (pp. 296).

This is but one example of how research can benefit management of an outdoor recreational resource and how research can build on frameworks to benefit not only the practical management side of things but also continue to build on and develop the theoretical basis within the recreation field. The current capability of the management of the Lower Kananaskis River needs to be improved. The adapted framework is a tool that can be used to help guide changes in management of the river and overall management capability of organization. It is the hope of the researcher that this framework and recommendations made serve as a resource for future management of the Lower Kananaskis and other similar outdoor recreational areas.

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Appendix A – Notice about Research Posted at Widow Maker and Canoe Meadows Day Use Sites

Notice about Lower Kananaskis River Research - Summer 2006/07 Alberta Community Development, Kananaskis Country

Since 1996 concerns over use the increased number of users along the Lower Kananaskis River and surrounding day use facilities has increased and led to several initiatives. The first initiative was a moratorium on issuing new guiding and instructing permits followed by public meetings in 1997/98 to review management of activities along and adjacent to the River. After these public meetings, new Policy Guidelines for Management of Guiding and Instructing Activities at Lower Kananaskis River Facilities in Bow Valley Provincial Park were developed in 1998 and then updated in 2000.

As a follow-up to past research in the summer of 2000 and increasing use-levels by various user groups on the Lower Kananaskis River, research will be conducted by Alberta Community Development, Kananaskis Country during the summers of 2006 and 2007. This research will be conducted by, a Master's student in the Department of Recreation and Leisure Studies from the University of Waterloo. The overall purpose of the research is to monitor and assess the use of the Lower Kananaskis River and associated facilities with the intent of developing recommendations for long term recreational management of the area. The research will be conducted between May and September of 2006 and 2007 and will involve monitoring the number of people using the river and surrounding area for recreational purposes and also surveying select users at day-use sites (Canoe Meadows, Widow Maker and Seebe). The survey will be looking at how satisfied people are with their experience both in the staging areas and on the river. Alberta Community Development is working closely with members of the Lower Kananaskis River Users Association and other concerned groups on this research.

After the summer of 2006, a brief summary report will be produced that will present the interim findings from this summer period. After the summer of 2007, a final summary report outlining the findings from each of the summer periods will be produced along with recommendations for long term recreational management of the area.

If you wish to find out more about this research please contact either Mr. Steve Donelon, Heritage Protection Team Leader, Kananaskis Country (Steve.Donelon@gov.ab.ca) or the researcher, Kim Rae at k2rae@ahsmail.uwaterloo.ca.

Appendix B – Demographic Information Form for Recreational and Commercial Users

Lower Kananaskis River Users Survey Demographical Information

Date:		Survey #:	
Time:		Location:	

Type of Visitor: Commercial <input type="checkbox"/> Private <input type="checkbox"/> Nonprofit <input type="checkbox"/>	Number in Party: <input type="text"/>
---	--

Postal Code / Zip Code: <input type="text"/>	Type of group: Family <input type="checkbox"/> Family & Friends <input type="checkbox"/> Organized group <input type="checkbox"/> Friends <input type="checkbox"/> Alone <input type="checkbox"/>
---	--

Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>	
---	--

Age: 18-24 yrs <input type="checkbox"/> 25-34yrs <input type="checkbox"/> 35-44yrs <input type="checkbox"/> 45-54yrs <input type="checkbox"/> 55+yrs <input type="checkbox"/>	
--	--

Lower Kananaskis River Users Survey Demographical Information

Date:		Survey #:	
Time:		Location:	

Type of Visitor: Commercial <input type="checkbox"/> Private <input type="checkbox"/> Nonprofit <input type="checkbox"/>	Number in Party: <input type="text"/>
---	--

Postal Code / Zip Code: <input type="text"/>	Type of group: Family <input type="checkbox"/> Family & Friends <input type="checkbox"/> Organized group <input type="checkbox"/> Friends <input type="checkbox"/> Alone <input type="checkbox"/>
---	--

Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>	
---	--

Age: 18-24 yrs <input type="checkbox"/> 25-34yrs <input type="checkbox"/> 35-44yrs <input type="checkbox"/> 45-54yrs <input type="checkbox"/> 55+yrs <input type="checkbox"/>	
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Appendix C – Commercial and Recreational Lower Kananaskis River User Survey

Commercial and Recreational users of the Lower Kananaskis River Survey

Location: _____

Day: _____

Time: _____

Good morning/afternoon, my name is _____ and I am a University of Waterloo Graduate Student and am currently working with Alberta Parks on determining how people are using the Lower Kananaskis River and its associated facilities and their level of satisfaction with these and the current management of the area. I was wondering if you had a few minutes to answer some questions on your visit on the Lower Kananaskis River today.

1) What type of user would you classify yourself as?

Commercial

Recreational

Non-profit

2) How many people, including yourself, are you visiting with? _____

3) What was your length of stay along the river today?

_____ hour(s)

_____ day(s)

4) What activities did you take part in on the river during your visit today?

(Check ALL that apply – fill the circle for the primary activity and an X for all others)

Kayaking

Sport Yaking

Canoeing

Other (specify): _____

Rafting

5) Was this your FIRST visit to the Lower Kananaskis River to participate in river recreational opportunities?

Yes

No

If NO, please indicate the number of previous visits to the Lower Kananaskis River to participate in river recreational opportunities in the past two years (excluding this year). _____

6) Where did you enter the river today?

Canoe Meadows

Widow Maker

Other: _____

7) How many trips did you take down the river during your stay today?

_____ trips

8) How, if at all, could your visit along the Lower Kananaskis River been improved today?

9) Please indicate your perception of use on the Lower Kananaskis River on a scale of 1 through 5, where 1 = “too much use” and 5 = “just right”.

Use	Too much use		Just the Right level of use		Too little use
	1	2	3	4	5
Overall Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rafting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kayaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Canoeing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sport Yaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10) Do you feel that the experiences you were looking for today were met?

Yes

If YES please explain why:

No

If NO please explain why not:

11) Please rate the importance of the items listed below. In addition, how well is management currently performing on them.

For Importance: **Please shade in the appropriate circle, where 5 = “very important” and 1 = “not at all important”. Please fill in N/A for those that do not apply.**

For Performance: **Please shade in the appropriate circle, where 5 = “very good” and 1 = “very poor”. Please fill in N/A for those that do not apply.**

	Importance						Management Performance					
	N/A	Very Important		Not at all important			N/A	Very good		Very poor		
		5	4	3	2	1		5	4	3	2	1
Parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Access to the river (launching areas)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Cleanliness of washrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Availability of washrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Quality of picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Availability of garbage containers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Number of users in the day use areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Number of special/organized events held on the River each year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Number of OVERALL users encountered along the river	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Canoe Yakers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Canoeers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Canoe Boarders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Canoe Rafter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Canoe Sport Yakers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Availability of general area information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Availability of river information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Availability of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						

maps/guides													
Overall River	<input type="radio"/>												
waves	<input type="radio"/>												
<i>eddies</i>	<input type="radio"/>												
holes	<input type="radio"/>												
lalom course	<input type="radio"/>												
Natural environment around the river	<input type="radio"/>												

12) Are you happy with the way the River is managed?

Yes

If so, why?

No

If not, why not?

13) Do you have any other general comments or concerns that you would like to share dealing with the management of the Lower Kananaskis River and associated day use facilities?

*Thank you very much for your time.
Your input is greatly appreciated.*

Appendix D – Letter sent to Key Policy Leaders

June 19, 2006



To whom it may concern,

This letter is an invitation to consider participating in a study that I am conducting as part of my Master's degree in the Department of Recreation and Leisure Studies at the University of Waterloo under the supervision of Professor Paul Eagles in conjunction with Alberta Parks. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

Kananaskis Country, a multi-use recreation area, provides a variety of opportunities for outdoor recreation enthusiasts, including river recreationists. Since 1996, the number of river recreationists utilizing the Lower Kananaskis River has increased significantly both on the river and at adjacent day-use facilities in Bow Valley Provincial Park. The increase in use and concerns over social carrying capacity lead to research during the summer of 2000 looking at current river usage and carrying capacity. The research resulted in recommendations on how to manage the area and use, but pressure on the River and surrounding resources has continued to intensify as the levels of use have continued to grow and the number of users allowed in the area and permit requirements are now being questioned. The concern over recreational use of the River and its impact on the surrounding areas as well as conflict among various recreational river users forms the basis of this research.

Therefore, the purpose of this research is to develop an understanding of how people are currently using the river for recreational purposes and how different stakeholders feel about the current management of the Lower Kananaskis River and associated facilities in an effort to develop recommendations for future decisions surrounding its management. Therefore, I would like to include you as one of the stakeholders involved in my study. I believe that because you are actively involved in the Lower Kananaskis River, you are best suited to speak to the various issues, such as recreational use, facility use, crowding along the river and other management issues.

Participation in this study is voluntary. It will involve an interview of approximately 30 minutes in length to take place in a mutually agreed upon location. You may decline to answer any of the interview questions if you wish. Further, you may decide to withdraw from this study at any time by advising the researcher. With your permission, I will be taking handwritten notes throughout the interview to facilitate the collection of information and will later transcribe the information for analysis. Shortly after the interview has been completed, I will send you a copy of the transcript to give you an opportunity to confirm the accuracy of our conversation and to add or clarify any points that you wish. All information you provide is completely confidential. Your name will not appear in any thesis or report resulting from this study, however, with your permission anonymous quotations may be used. Data collected during this study will be retained for 2 years in a secure location and then destroyed. Only myself and those

associated directly with this research will have access to this information. There are no known or anticipated risks to you as a participant in this study. If you are interested in participating in this research please contact myself, Kimberley Rae, through e-mail at k2rae@ahsmail.uwaterloo.ca to set up an interview time at a mutually agreed upon location, day and time.

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me through e-mail at k2rae@ahsmail.uwaterloo.ca. You can also contact my supervisor, Professor Paul Eagles at (519)888-4567 ext.2716 or through e-mail eagles@uwaterloo.ca.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. However, the final decision about participation is yours. If you have any comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes of this office at (519) 888-4567 ext. 6005.

I hope that the results of my study will be of benefit to those stakeholders directly involved in the study, other river recreational users, as well as to the broader research community.

I very much look forward to speaking with you and thank you in advance for your assistance in this project.

Yours sincerely,

Kimberley Rae
Student Investigator
k2rae@ahsmail.uwaterloo.ca

Lower Kananaskis River Stakeholder Interview Consent Form

I have read the information presented in the information letter about a study being conducted by Kimberley Rae of the Department of Recreation and Leisure Studies at the University of Waterloo. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I am aware that I have the option of allowing my interview to be recorded through hand written notes and later transcribed to be confirmed by myself to ensure an accurate recording of my responses.

I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This project had been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. I was informed that if I have any comments or concerns resulting from my participation in this study, I may contact the Director, Office of Research Ethics at (519)888-4567 ext. 6005.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Yes No

I agree to have my interview recorded through handwritten notes.

Yes No

I agree to the use of anonymous quotations in any thesis or publication that comes of this research.

Yes No

Participant Name: _____ (Please Print)

Participant Signature: _____

Witness Name: _____ (Please Print)

Witness Signature: _____

Date: _____

Appendix E – Key Policy Leader Interview Guide

Lower Kananaskis River Key Policy Leader Interview Guide

These are an outline of the questions that will be addressed in semi-structured interviews with Lower Kananaskis River Stakeholders. It is important to note that the information/topics addressed in these discussions will be highly dependent on what comes out them.

1. How and why do you use the Lower Kananaskis River and its associated facilities?
2. Do you feel that the current facilities are sufficient? Please define what you mean by sufficient.
3. What is your impression of the interaction among users of the River? What makes this interaction positive or negative? What should be done, if anything to address user interaction?
4. In your opinion, who do you think has or should have responsibility over the current management and maintenance of the Lower Kananaskis River and its facilities?
5. How do you feel about the current management of the Lower Kananaskis River?
 - a. In what ways is the Lower Kananaskis River being managed effectively?
 - b. In what ways is it being managed poorly?
 - c. Are there ways to improve upon the current management model to improve experiences at the river?
6. Are the current _____ adequate for the management of the recreational use on the Lower Kananaskis River and its associated facilities? If they are not, what changes would you recommend?
 - a. Laws?
 - b. Regulations?
 - c. Policies?
 - d. Money Resources?
 - e. People resources?
 - f. Management structure?
7. What do you see as some of the management issues currently being encountered along the Lower Kananaskis River?
 - a. How do you think these can be addressed?
 - b. Who do you think is responsible for addressing these?
 - c. What do you see as some of the obstacles in addressing current management issues?
8. What monetary and human resources are necessary for effective management of the Lower Kananaskis River and recreation?
 - a. In your opinion, would it be realistic to acquire these?
 - b. Who do you think is responsible for providing these resources?

9. In your opinion, do you feel the current commercial permitting process is appropriate? Please explain.
 - a. If any changes were to be made to it, what would you like to see?
 - b. In your opinion, what would be appropriate changes?
10. How do you feel about the current level of use on the Lower Kananaskis River? Is there too much use, just the right level of use, or room for additional use when looking at each of the following: rafting, kayaking, canoeing, sport yaking, other?
11. What impact, if any, do special or organized events have on your operation for that particular day? Please explain.
12. What do you see as some of the upcoming trends in activities when it comes to river recreational activities?
13. Was there anything else that you thought I was going to ask in regard to the Lower Kananaskis River and associated facilities that I did not? Please explain.

***Thank you very much for your time.
Your input is greatly appreciated.***

Appendix G – Why the Experience of Users was Met

Question: Do you feel the experiences you were looking for today were found?

If YES please explain why:

- a little crowded but expect it and it is still fun
- a lot of fun, liked the level of other users, there was not a lot of people
- absolutely met; got to see what was going on and it was fun
- and then some; have done a nice job with race course; good time and fun for everyone even for new people
- awesome river and good features, reliable flow
- b/c beautiful scenery, fun, family oriented and a few rapids
- b/c have not boated for 2 years, so it was fun
- b/c it was enjoyable and interesting
- b/c kayaked the river, did what I came to do
- b/c know what features are like and what getting into
- b/c like the Kan and always have a good time
- b/c made it through features (i.e. Santa Claus); like new features
- b/c not as scary as I thought it would be and it was fun
- b/c on vacation and no real expectations and pretty much just out for a paddle
- b/c out on the water; had fun playing and the weather was good
- b/c things have changed and different features that are new from last year
- b/c safety oriented and friendly, welcoming environment and the history of the area was presented; also good to have equipment
- beautiful day and got a chance to go out and practice
- beautiful day and river environment clean
- beautiful day and water flowing well
- beautiful river with nice features and scenery
- because it is free and there are no fees; and it was a good time with friends
- been here and know what to expect of the river
- been here before and already had expectations
- challenging and had to self rescue
- changed after the floods but good
- came from BC to paddle here b/c alone and feel safe here
- cause we were looking for play site and to learn; good place to come for consistent water and not to have a car shuttle
- definitely fun and guides were excellent safe and fun at same time
- did not have any expectations so it was fine
- did not really have any expectations
- didn't have to work and had fun
- didn't know what to expect but was a lot of fun
- didn't know what to expect; good mix of activities and got to play games
- didn't know what to expect and good first time river; good time
- easy course to take and good time for family
- enjoyable white water and area and scenery
- enjoying the peaceful nature of it and seeing the scenery; guide was informative and good to try b/c have never done it
- enough excitement for everyone (kids / parents) and it was a good time

- especially since improvements and good atmosphere
- everything was good; enjoy the play features and that it is not crowded
- exceeded expectations; fun and a good time
- excellent time, good weather, lovely scenery, meeting new people, good instructor
- exciting trip and great guide
- expectations were low today but had a good trip
- fantastic and fun river; good features and facilities; good gorgeous river
- fantastic, scenery is great and accommodations; key point had good access and great area and well kept
- features have been changed and great but a bit crowded
- first rafting trip and was great first time
- first time and didn't know what to expect but it was a good time
- first time doing it so it was good
- first time rafting and it was wonderful and a good guide
- first trip for me and it was very enjoyable
- for the first time it was a good time and really had no expectations
- for first time pretty good and not too rough; pleasurable ride
- friend is learning to paddle and it is a good place
- fun and a good time would like a little more splashing
- fun and awesome and wet
- fun and exciting and outside
- fun and good greeting and everything went well
- fun and guide was great
- fun and not scary; lots of water and a great guide; excellent activities and river area
- fun and rapids at beginning, good time
- fun and something completely different; got wet and good instructors
- fun and the guide was awesome
- fun for everyone and great experience
- fun for the kids and got wet
- fun river and handy to come to and great place to be
- fun river trip
- fun time, did not see much other than nature but nice not to see hotels
- fun time, met new people, exercise, and the scenery was nice and weather perfect
- fun, exciting, entertaining, got to get wet; friendly staff
- fund an din nature and a beautiful day; guides were great and it was uplifting
- generally what was expected
- get confidence up to run other rivers and get out
- glorious day and water great
- good all around and good features and surfing areas
- good and nice river and can't get enough of it
- good area to learn on especially smaller features but also larger ones at points
- good community atmosphere; things kept in good shape; I like the recreational experience and volunteerism
- good features and good access
- good features to play on and range of levels
- good fn and lots of places to stop and play
- good fun; guide great
- good medium and while water rafting trip that was expected

- good place to come and good facility that is controlled and great for play boating and safe
- good play boating
- good play river; short but nice b/c can play when it is not too busy
- good river and good to have maintained features
- good run, good company and nice area
- good time
- good time and instruction good
- good to be in my boat b/c have not been out in awhile, that was all I was looking for
- good weather and there was water
- got a lot of play features for kayaking
- got scared and good water and beginner area and easy access
- got what we expected and came for, water was on
- great and fun; good weather for paddling
- great day, the weather was good, water level was up a bit and the features seem okay; it is a sweet river and convenient
- great fun for kids and safe; scenery was great; good family fun
- great guide; awesome; refreshing and everything that was expected
- great people, well organized and the water was great, for the first time it was wonderful
- great place, natural environment, enhanced for paddlers, it is easy to access b/c of trails
- great river and forgiving for when you make mistakes; safe river
- great river and new features in the upper part are great
- great river has 2 phases and changes b/w them in terms of features
- great time and could get a lot from the features on the river or learn a lot; here for the social aspect
- guide was fantastic ; view of the river great; little thrill with calm at the same time
- guides were great and it was a different family experience
- had a fun day, good play day
- had a great instructor
- had been before and why I came back, it was a lot of fun
- had fun; good day; wanted to go rafting and got what we came for
- had some fun and got wet
- having a good day and good experience
- here with my daughter and family and people were friendly and nice; beautiful day
- I like coming b/c pretty but also challenging at the same time
- I was looking to run rapids and play on features, practice kayaking
- introductory and good
- it was a good day; good water; excuse to come out
- it was a good time and had never done it before; new experience
- it was a good time; beautiful area and place and the guides were good
- it was a great family adventure or trip for a variety of ages
- it was a little crowded but okay; nice river to paddle and feel safe because it is man made
- it was a lot of fun and we got wet
- it was beautiful, exciting, fun, friendly people
- it was enjoyable and did not have high expectations good time

- it was enjoyable and knowledgeable guide
- it was enjoyable; relaxing and pretty and guides were good
- it was fun and a good time
- it was fun and a great time and good area and also very close to home
- it was fun and entertaining
- it was fun and got to see K-country
- it was fun and had everything that we were looking for
- it was fun and had good guides and good scenery
- it was fun and nice being in the outdoors
- it was fun and no one went swimming
- it was fun and safe and a beautiful area
- it was fun and the kids had a good time
- it was fun and we got wet; kids had fun and it was a new experience
- it was fun and we had a great guide
- it was fun but was maybe expecting some more rapids but overall fun
- it was fun going down the river and the rapids
- it was fun, great time, 1st time for my wife and daughter
- it was good and features well set up and it is a handy river
- it was good and the swimming and rapids were good as well as the people
- it was good because of drops and was fun
- it was good, a good time, well organized and good guides
- it was good; good access and water was clean; nice features on the river
- it was good; good guide and made it fun
- it was great; guides were good, water was good and good service
- it was perfect for me because it is a good learning stretch
- it was the first time rafting and was a lot of fun
- its always fun
- just come to play and like all the features
- just a good day to be on the river; water was nice and good exercise
- just fun
- just looking to feel good and get out of the city and good day b/c not too many users
- kids had fun and something new; good guides who were pleasant and good weather
- knew what to expect and it was nice weather and a good day
- knew what to expect and was met
- knew what to expect and what it is like and see the improvements from last year
- know the river and what to expect
- know the river well and what to expect
- know what is here and to expect, not crowded and weather great
- know what to expect; good day to be out; great place to come to if time is limited
- learned a lot from instructors and learned about the river
- learned something and had a good time; good day
- level we were looking for; great experience; good guide and scenery
- like coming here and nice to have water here when all other rivers are down
- like it because has good features / holes /eddies; nice week day because it is not busy; would be nice if can construct more
- like it here and good area for white water kayaking and water levels consistent
- like kayaking and got out of the city and it was good exercise

- like the features and convenience because man made and able to use the area year round
- like the trip but would have liked more rapids
- lovely scenery and trip was as advertised or expected
- looking for fun time and had never been before
- lose proximity to come out and play on the river for a few hours; safe river to come an play on your own
- lots of laughs and got wet; nice to share as a big group of people; one of the better things that we have done
- more than met; guide was great and lover the games and activities; safety was also key
- more than met; it was fun and a good time and I survived the trip
- never been rafting before so it was unique
- never been rafting so it was awesome
- never done it, new experience, nice and comfortable
- never rafted and it was a good time; got what we were looking for
- new kayaker and any water is good; any waves are also good
- nice day and lots of fun
- nice day out and not raining; day was good and like the river area and the nature
- nice features and good fun, nice overall river area
- nice and fun and the rapids were good but a few more would have been nice
- no comment
- no it was not because the water was turned off early
- only place with water and good place to come
- predictable river and know what you are going to get
- pretty calming and peaceful, also a beautiful day
- pretty much what I expected and it was mellow and easy run on the river
- pretty nice and relaxed; warm-up and fun
- put in some new features which makes it feel new and not old
- really good; didn't know what to expect and everything exceeded expectations
- really nice out; water clean and water level good
- ride was great, rapids great and guides great
- river being high; had fun playing in waves and other features
- river has some good features and waves and it is good for learning; good water
- river to know and know to expect
- river was good and the guide was also good
- scenery was beautiful and nice to be with friends
- simply a day out and that was met
- sure was; something never done and was a good time and would go again
- surprised how few people on the water; water clean and good temperature; nice clean area at Canoe Meadows
- swam a lot but it was an overall good time
- testing out a new boat and fun as well
- the competition was good, nice people, good waves
- the rapids were good and the guide was also fun and good
- there is a good variety and the access is great
- think b/c we had good guides and it was fun and well planned
- to get on the water was worth it, nice river to paddle and not intimidating

- to have fun was all I was looking for and that was met
- took brother in law down who has never done white water
- training and practice; good day to be on the water and cool down
- tremendous fun and surprising fun
- tried new stuff, it was fun and learning experience for us
- variety of things to do, playing in the features
- wanted a river experience without a lot of travel; fun family experience; good first experience for first timers
- wanted to get out of the city and hustle and bustle and into the fresh air
- was a fun family outing
- was a lot of fun and brand new to kayaking so good place to learn
- was a lot of fun with some challenge to it
- was a lot of fun; good family outing and close to home
- was awesome and nice and relaxing
- was fun and educational and not beyond abilities as a beginner
- was just looking for a paddle
- was not as scary as everyone made it out to be
- water and got wet and was also fun
- we're wet, it was fun and a good experience on white water
- we had fun and did things I thought I would not do
- went swimming a few times but a good time
- were able to kayak to do so, so yes
- were out on the river; out of the city; exercise and the people were friendly
- were out with some paddlers improving their strokes and good day
- what I expected, lots of rapids and fun
- what I expected, the rapids are safe and well maintained
- what was expected and it was a nice family run
- what was expected and was very safe for a family
- wonderful day with a tour in the morning and rafting in the afternoon
- yea, was looking for a fun day with my family and that was met
- yeah just travelling around and it is good
- yes and know what to expect here; water was warm and good playing features
- yes b/c of the convenient play features
- yes but better 2 years ago b/c of floods last year things not as good
- yes had a good time and was what we expected and great guide/instructor
- yes I love this place; fortunate to have a river so close to Calgary; it is a beautiful place
- yes it was a lot of fun and more than thought it would be
- yes it was it is a good section of river and a beautiful area
- yes it was, my intention was to have a good day on the river and have done that
- yes love the white water race course; undisturbed nature
- yes the water levels were good and trails good
- yes was here with a group of 15/16 year old boys and they had fun; and the guides were great
- yes, there were rapids and it was fun

Appendix H – How Visit could be improved

Question: How, if at all, could your visit today along the Lower Kananaskis River been improved?

- a clear marker for take out at canoe meadows, a shuttle service b/w canoe meadows and widow maker would be nice but good otherwise
- a few new features past canoe meadows and race course
- AWA should have access to the shelter; have longer flow times on weekend; Santa's little helper eddies needs to be bigger; parking sometimes a problem
- better waves
- bigger features; may have something like this closer to Edmonton
- Bigger play spots, waves, etc.
- by having stairs at the take out at Canoe Meadows and I would volunteer to help out
- can't think of anything
- can't think of anything seems to work well
- Canoe Meadows facilities b/c inadequate for the number of people
- change the new wave to what it used to be
- could have been longer b/w widow maker and canoe meadows
- crowded in some areas
- did not know about race event and could not go on the course
- didn't like changing process
- don't think anything
- don't think so
- don't think so everything was great
- don't see how
- drinking water station; nothing else, pretty good
- everything has been great; guide was good
- everything alright and well organized
- everything seemed to be okay except for put in at widow maker a little crowded
- few railroad ties on steps at canoe meadows are out
- fewer rafts on the river but other than that good
- fine
- fix Santa Claus
- fix Santa Claus and the Green Tongue
- flow rate could be a little faster
- gates on the race course should not be down and should be put up
- good
- heavier rapids would have been fun
- if the run was longer
- information was very fast at the beginning of the trip and risk people not understanding
- knowing that races or training were going on would have been nice if it was posted for people
- larger rapids but other than that good
- launch area at widow maker wider and safer
- less rain but other than great; the closed in shelter at canoe meadows is great
- letting the water flow longer but nice to be able to get flow times now

- long and more rapids further down; longer ride
- longer flow time and more flow
- longer trip
- lower fees for river rafting trips
- make better waves and twique some of them to make them better
- make waves steeper and do more work
- maybe a little longer trip
- maybe more rapids along the river
- maybe more time in b/w the two activities
- more access to the river
- more and bigger features and improved features
- more consideration by rafters for canoers and kayakers/ taking people out of eddies or pushing them out; need to respect other boaters; river etiquette needs to be there
- more features
- more features and play waves
- more features up and down the river
- more features would be nice to spread people out
- more organization at the of the race course during the slalom event
- more parking
- more places where you can stop at features to take breaks at; more garbage cans
- more rapids at the bottom but did a good job doing things at bottom
- more rapids but other than that okay
- more rapids that are bigger would be nice
- more time here
- more time on the river and more rapids
- more water but other than that it was good
- need to inform people more about the hazards along the river; vandalism and education need to be addressed
- need a better eddie below wave
- new wave above the green tongue eddie on right side needs to be deepened
- nice to have camping here; smaller, longer, greener features for novices
- no
- no cannot think of anything
- no comment
- no don't think so
- no don't think so other than information on layout of the course and where features are located because people always ask
- no fine way it is; convenient
- no got money worth
- no guides were great and had good stories
- no had a good time
- no it is good
- no it was a good experience
- no it was good
- no it was good and awesome
- no it was good and perfect
- no it was great
- no just don't like to see garbage

- no met everything I expected
- no not based on first time except maybe warned about the cold water
- no not really
- no not really all around good
- no think pretty good
- no tour guide had a lot to say
- no wonderful facility
- no, well kept
- nope but maybe speed bumps in parking lot ; more organized parking; bike racks
- nope
- nope beautiful area and like modifications done to the river
- nope but I like the changes since the flood
- nope but if I did not have the kids with me I would have liked larger rapids
- nope but it was busy with commercial rafts on the river
- nope but maybe longer
- nope can't ask for anything more
- nope didn't think so unless maybe directions to get here (inside out)
- nope don't think so
- nope everything seems good; maybe add a few more features (the more the better)
- nope everything was good
- nope everything was really good
- nope except maybe cleaner washrooms
- nope generally happy
- nope good
- nope good day
- nope good guide and well entertained and maintained
- nope got what we wanted
- nope great the way it is
- nope it was good
- nope it was great
- nope it was great other than more rapids maybe
- nope it was great; well manned facility considering
- nope it was okay
- nope knew what we were doing
- nope not like you have control
- nope overall good and can't think of anything
- nope pretty good
- nope river has everything for every level
- nope thought it was good
- nope very well organized
- nope, beautiful
- nope, good as is
- nope, one wave is not as nice as it used to be in 2000 (wave narrower and steeper now)
- nope; good can't complain
- nope; new features before the race course only, there needs to be an eddie before hand (need to block off wash out)
- nope; no people and quiet day and could not ask for anything more

- nope; other than take down falling building in front of Inside out meeting spot
- not a lot of people today and all pretty good
- not a thing
- not at all
- not having water Sunday - should run the river
- not it was good and what was expected; maybe a few more rapids
- not really
- not really quite happy
- not so many rafts going down; had to wait in a boily eddie for rafts to pass
- nothing everyone did a good job
- nothing
- nothing comes to mind
- nothing first time out and it is great
- nothing other than weather
- nothing that I can think of
- nothing, very good
- one wave still needs some work; bottom of the race course need to be cleaned up a bit
- not really; maybe more of a drop area; more areas to watch from for spectators mainly in the Canoe Meadows area
- people driving too fast in the Widow Maker parking area (i.e. rafters and others); should be more cautious; feature Santa Claus on extreme right side hard to eddie out and intimidating
- posting or keeping to the dam schedule and flow times
- rougher waves, "more dangerous"
- Santa Claus is very difficult now and difficult to get on
- Santa Claus not as good as it used to be
- some of the features have been washed out
- the water flow times should be improved
- there were a few rocks that should be moved
- things have changed with features after the floods and now they are more turbulent
- timing of the river flows
- wanted more whitewater
- water on earlier
- water on earlier than noon
- wave around canoe meadows
- yes with higher river flows

Appendix I – Happy with the Way the River is Managed

Question: Are you happy with the way the River is managed?
If so, why?

- a lot of team work and interaction and good communication; not being on a river before it was nice to get out and it was natural
- always things happening; facilities being improved all the time
- access is very good and a lot of concern towards river users themselves
- all forms were explained; safety was well explained and makes things enjoyable; trip was very informative; river itself was great and there were enough rapids; everything checked out
- all really good
- always thought well managed; thought good coop to have working b/w different groups to have on site; well maintained
- always upgrading the features; always clean and people very pleasant
- have been on many other rivers and has been by far the most safety oriented one; river was well maintained/clean
- awesome; professional and yet fun and friendly
- awesome, well organized friendly and informative and safe; river itself was also good
- b/c came in with a group and very well organized; expecting more rapids but overall impressed
- b/c close to Calgary and good play area for boating
- b/c even though guide novice, everyone was safe; nice to be out and on the river and beautiful area (rapids and calm part as well)
- b/c everyone had fun and everyone friendly and good
- b/c everything turned out right and everyone was okay
- b/c not super citified and don't need to be much development and don't want to see it; can appreciate the nature here
- b/c perfect, wonderful recreational opportunity that is close to the city especially in early and late season
- b/c there are controlled and natural areas
- b/c very quiet today and were able to play and take out time
- beautiful area and good they are fixing it up all the features on the river
- because man made area and good place to learn or learning river
- but they should take away cap on events (i.e. Kanfest)
- care and thought being taken to ensure usage is ok, it is kept clean and the parks are very accommodating
- cause able to enable a lot of people to enjoy the area while still maintaining natural environment
- cause all features/services there and available; good put in and take out and overall great area
- clean and good overall access; good experience
- clean and not many others on the river, nice experience
- clean and people clean up after themselves; features kept up and also debris around the river is limited
- clean area and good time

- clean area; like the steps at Santa Claus; none of the features are eroded and it is fun
- clean, accessible and good environment, should have more smaller group camping areas or single sites, people are friendly
- clean, refreshing, a fun memory for many kids
- confidently done; friendly people; prefer something more extreme but this was relaxing
- definitely; had no guide but was nice to be self guided; good to know flow times
- developed river and made access to river easy with stairs and pathways
- did not notice too much management so that was good (not overly developed anywhere)
- did not see litter, the area was clean and natural
- didn't see garbage and seemed to be managed in terms of limited erosion and area was still natural
- didn't see too much garbage floating in the river, the water level was good and everything seemed maintained
- does a good job and clean; cares about environment
- still fun and things are getting fixed
- easy access and reliable water levels and there is parking available at access
- efficient and organized; river was what was expected
- efficient, information was clear and informative; river is well kept and clean
- enjoy the place and convenience of it and it is a happy place
- especially with new features; always been happy
- every time been here place is clean and safe for equipment; premiere paddling river with easy access; good place to learn
- every time I have been here it has been great
- everyone was friendly and nice and people were available to help if needed
- everything seems good
- everything taken care of and river was not too busy and it was well enjoyed by all
- everything was easy and organized and was also happy with the river area itself; first time here
- everything was good and good guides on the river
- everything clean and the water was flowing today
- everything consistently the same; the facilities are good and water levels are good
- everything good and unfortunate that things got washed out last year
- Everything good around the river; put in, take out, parking, etc.
- everything good; weather good and the current facilities are good
- everything organized for use; guides kept people entertained and the river areas was very natural and clean
- everything seems good
- everything was safe; everything okay with river itself
- everything was taken care of and it was a nice overall rafting experience
- everything was well organized and worked out
- everything well laid out and number of people on it was reasonable
- excellent and good; seemed to have fun with jobs and responsible yet fun ; good river environment and well managed
- experiences have been happy and good experience

- explained everything great and river itself was better than ones back home in terms of being natural
- features were good and seems to be good changes from previous year; great area
- felt safe all the time; everything well explained and had practice; guide was in control; river itself was lovely and environment was beautiful
- felt safe and well organized
- felt very safe
- first experience on the river/white water so nothing to compare to but the river itself was clean and the environment and area was as well
- first time and it was a fun trip from canoe meadows to widow maker
- first time and well explained all the way; couple more rapids would be nice
- flow dropped a bit in the middle of the run but generally the area is well managed with features and play spots
- found flows were good for a variety of ages and people; feel that the river is managed well and it is clean
- Free and easy. safety was important and it was still fun
- friendly and good instructions; happy with river itself as well; right amount of time to work and rest
- fun all around and entertaining and pretty easy to please
- Fun and everyone was very helpful and nice and guide was really nice; for a beginner river it was great.
- fun and friendly environment and good area
- fun and in good shape and clean and convenient to come to

Appendix J – Impact of Special or Organized Events on Experience/Time on the River

Question: Do special or organized events have an impact on your experience or time spent on the river?

If so, please explain how:

- a little and had to get out of the way; would be nice to know about them ahead of time
- b/c don't come when going on
- but important for paddlers and good for community; as long as not every weekend ok
- don't come when they are on
- don't mind once in awhile but not every weekend., doesn't impact my use because accommodating to other users
- generally stay away
- get me to volunteer at the events all the time, so a good impact
- gets crowded and busy but also see why they have them and why important
- good impact and good time to meet up with people
- good impact b/c gets people out and can learn from them; good atmosphere
- good impact because I enjoy them and feel they enhance the experience and make people aware of the sport
- good impact really positive thing for kayaking community
- good impact to get people involved in the sport
- good way and fun way to get involved and also gets beginners out
- I come specifically to attend special events
- I like to attend some and respect others.
- if busy will not come or will avoid them
- if there is a lot of people but good to know of them and if they posted somewhere to know about
- if there is one just have to work around it
- like to come and participate so it is a positive impact
- lots of people here and only slightly impacts experience
- makes the river experience more fun
- enjoy Kanfest and don't really understand why we need to have a limit so small but understand some limit
- only when you can't go on it
- opportunity to come out and meet people so it is positive
- personally something to stay away from and like to have them posted ahead of time
- planning our events around others
- positive b/c like to make Kanfest each year
- positive impacts and enhance experiences
- positive impact especially Kanfest and don't like to see it limited in numbers
- tend to participate and good way to learn and meet people
- the river was very crowded
- think they are great and it helps the community and has a positive impact; would not mind seeing and have never run into problems
- will be here b/c son races so it is a good impact
- would probably not come out

- would take part in them and be a good impact
- Yes but I don't always have time to come to the events; it's always nice to meet new people who have the same passion.
- yes but it is a good impact and gets people out
- yes there needs to be more organization at the top of the race course
- yes they do but it is a good impact and participate in them

If no, please explain why not:

- b/c don't participate and don't come into contact with them
- b/c not really an issue
- because participate in them or son does
- been here for them and think that they are great
- don't compete and avoid those times
- don't come out often enough to get annoyed and participate in them
- don't come out or go around them and don't bug me
- don't come out to them
- don't come to them
- don't come when they are going on
- don't participate and can still go down the river
- don't really attend them
- don't really go and if I do it is a good impact
- don't tend to be here
- don't tend to come
- don't tend to come to them
- don't tend to come when they are occurring
- don't tend to go or just watch; what it is here for
- don't typically have them when here and only have come once or twice when there was one
- don't attend them and don't interfere when here on the river
- either part of it or go around
- events happen on weekends when I'm not here so not really
- first time here
- first time here
- first time here
- first time at the river
- first time here
- First time here
- first time here in awhile and never been here when one on
- first time here so do not know
- first time in a while
- first time on the river
- first time here
- first visit
- first year coming here
- fist time here
- fun to watch and don't generally impact time
- go and participate in them
- have not done much on the river so they don't impact really

- have not really been here
- haven't been here or kicked off
- if there is one, will still come and doesn't tend to impact time
- in general I like to watch them and people are having fun
- just blend in
- just go by them and don't get involved
- just go when I want to go and don't interfere with play spots
- just like to paddle; been to the rodeo a couple of times
- just recreational use and go around them and don't tend to participate
- minimal not more or less likely to come and may come out to watch and see what's going on
- never encountered
- never encountered one
- never had; have come out in past and seems to be good
- no but participate and come if possible
- no but would come to them
- nope
- nope, not here enough and was only here years ago
- normally here for only a few hours
- not as much; good to have events and a good way to meet people
- not at my age and don't tend to go to them
- not been here often enough
- not generally here
- not generally here that much
- not here and first time
- not here enough
- not here often enough
- not really
- not really and don't tend to be here when on
- not really and not here for them usually
- not really and people really good and work around each other
- not really at all; tend to come but when here there may be too many people; maybe more notice about races and more communication about times and dates
- not really b/c don't tend to be around and go around them
- not really but think it is good to have them
- not really here when they are and don't really
- not really just go through or around them
- not really just work around them
- not really; go around and not typically here
- not really; not here enough
- not something that usually does and tend not to come out
- not this time and only came for a week
- not usually very co-operative and can typically plan if posted
- occasional event is good for awareness and good for the sport
- only 2nd time here
- only attend Kanfest
- only my second time here
- only really go to one and other don't impact

- other rivers to go to and other sports to participate in
- pretty new to the river and therefore it does not impact me yet
- stay away from them but also fun to come
- still come and go around them and think they should have them and it is a place for everyone
- tend to go around them and they are fun to watch
- they are important to have and just go around them
- they bring people to the river and I participate in some
- they don't
- they have not yet
- think have been here when going on and they were accommodating and you can go down river; don't want to have too many that cannot use
- think one time it was a little packed and crowded ; only time and went around them
- try to avoid the place and come when it is quieter
- understand and respect them, so no real problem
- unless a competition going on
- usually avoid them
- usually not here
- will come out and participate
- will not specifically come to participate but if here I will
- work around them and go to see them
- you work around them or you don't come out

Appendix K – General Comments or Concerns Regarding the Management of the River

Question: Do you have any other comments or concerns that you would like to share dealing with the management of the Lower Kananaskis River and associated day use facilities?

- access to hole around Santa Claus and there should be a sign to where it is and how to get to it easily; benches at different spots on the river for spectators
- add more features to Canoe Meadows and would be nice to see this on other rivers for equal opportunities at different places
- An emergency phone and drinking water station other than that good.
- as long as the place remains clean and respected is the biggest thing
- awesome time and more than expected
- build more features and better water flow times for Transalta and BBQ pits would be nice
- cleaner washrooms but other than that people were great
- definitely will come again and use Canadian Rockies
- don't know but sometimes see garbage around river
- don't want to see them implement user fees; would prefer just to see a yearly pass if something had to be done; open gate at Canoe Meadows in Winter; everything else good and other improvements have been good
- enjoyable morning
- everything seems to be well done
- everything was well done and the guides knew the river very well
- everything good
- excellent
- excellent experience
- Fantastic experience looking to next year.
- fantastic trip
- flow rates linked to K-country website and more surf waves
- for a quick ride this was good
- good day of fun, happy with everything
- good first experience
- good job
- good management
- good overall experience and would use again
- good place to come; Santa Claus and the green tongue need to be fixed
- good playground and keep it here; great recreational facility for k-country and good stretch of river to play on and safe
- good raft guide, funny
- good to have something like this close to the city (Calgary)
- great and good time
- great area and good time
- great facility
- great job
- great job with the river
- great time

- great time and spot
- guides were excellent and there was a lot of comradery b/w guides; good guidance on what to do and not to do but fun at the same time
- have to paddle a lot but good
- I hope things continue as they are.
- ideally teach play boating need to have waves where people can get out better and get a better feel for them; I think an awesome area/river; drying facilities for kayaking gear would be nice
- increase river features and decrease the number of rafts
- interested more in trails in the river area and learning more about how to get to them
- it there is going to be more control use would not be too bad, but should not be overtaken by rafts but here is definitely more room for use but needs to be controlled; should flag new features or changes so people know;
- it was good and enjoyed it
- keep it clean and the way it is
- keep it fun and beautiful
- keep it the same and don't change a thing and don't think we need a quota system like in the US
- keep up the good work
- keep working on features
- Like having pathways to watch.
- like the way that people like the job
- link to the transalta website on the AB parks website; great river
- map where you go on the river before heading out
- may need more parking at put in the future; sometimes crowded but would not like to see it get too crowded
- maybe bigger change rooms
- maybe cleaner washrooms
- maybe find a way to fix features throughout the season
- maybe upkeep of parking area at Inside Out
- more picnic tables would be good at canoe meadows
- more places like this within parks
- more shade at take out points
- natural environment and free of garbage
- need cleaner washrooms
- need to look at developing a more concise trail system to below the eddies @canoe meadows; need to make more stairways and trails throughout the canoe meadows area; increase length of features along the river; should increase the area
- need to run the river later during the week; nope
- need to run water more on weekends and at night during the week in the summer months
- nice to have cleaner washrooms or flushable toilets
- no
- no but I hope that it does not get too overcrowded and kept natural
- no but maybe recycling containers
- no but wish there was a closer campground for kayakers
- no but would think continued operation is needed and essential and needing releases of water

- no everything good and good no user fees
- no first time rafting but overall good
- no good river
- no great area
- No I enjoyed it and like the way it is today.
- no its fine
- no just lover the experience
- no keep up the good work
- no we will be back for sure
- no well run and very clean and well maintained area
- no, it was a good adventure and experience
- no; just maybe improve features a little but really good
- nope
- Nope
- nope all good
- nope all was good
- nope but for the first time it has been good
- nope but good to see quality assuring own performance; good work b/w staff
- nope but having canoe meadows open year round is great; think presence of park personnel would be good here and make it positive and be good to have and show that the province cares
- nope but hope water runs more or continues to run, it has a good take out
- nope but maybe more garbage cans here at Canoe Meadows
- Nope doing a good job.
- nope don't think so
- nope enjoy it and good place to come and wish there was more of them
- nope everything was good
- nope everything was great
- nope excellent trip
- nope except maybe a changing area or shelter at put ins; would be nice to have water on Sundays for some time in Aug; a few more features on lower section for people to practice on for upper section but also have space so they can be avoided
- nope good area; nice to understand what users have to say
- nope good area; should water on Sundays
- nope good experience and guides
- nope good overall
- nope good time
- nope good trip overall
- nope great trip and time and value
- nope had a good time
- nope it was a good time
- nope it was an excellent trip
- nope it was good
- nope it was great and easy to get to
- nope it was great and good fun
- nope it was the first time and enjoyed it
- nope just hope the one in Calgary carries through
- nope just hope user fees don't get put into place

- nope keep up the good work
- nope keep up the upgrades to the features
- nope nice river when nothing else flowing
- nope only a campground closer to the river
- nope good day
- nope overall good trip
- nope overall the river is fun
- nope quite like that it is so close and nice and quick
- nope terrific trip
- nope think everything is pretty good
- nope think it is good
- nope think it is pretty good; hopefully not a lot of control on the number of people
- nope we were happy with everything
- nope would be nice something like this near Calgary
- nope would recommend it to others
- nope, content with everything
- nope, every time has been a good day
- nope, good trip
- nope, good way it is and good 1st time rafting
- nope, maybe make run longer
- nope, think the area is great and good to have people here and involved, all positive
- nope; just good enough for me; have events on the river posted on the parks website so people know about them
- nope; overall I think there is a reason why people come, easy access to all points
- nope; overall very satisfied with condition of river and facilities
- not it was a fun trip
- not it was great for a group and perfect weather
- not really
- not really and thankful still here and still used ; too many rafts and should be more for kayaking and would not want to see more
- not really other than maybe having slightly bigger or larger rapids
- not really, guides were good
- NOTE: English was not their 1st language so they had difficulty and had to rush to finish
- only thing would be timing in b/w trips but great day overall
- overall felt management has been held and good flows
- overall very good
- parking at the widow maker is being taken over by commercial operators
- people spread out more because of the features on the river; great facility and world class and good to have close by
- prefer flow times to run longer on weekends and earlier in the morning or later in the evening
- rafting companies and who has right of way
- really good
- Regulations on raft guides need to be more stringent. I witnessed Inside Out flip twice in one trip. Both flips were unnecessary. They did not have the safety of their guests as their foremost concern. They ran an unreasonable dangerous trip.
- schedule of the flow times should be kept

- should have duckies or the inflatable two person kayaks
- should put poles/gates back up when not being used and more picnic tables would be nice
- some of the features could be repaired from erosion; some of the areas near the features for spectators should be improved
- spread out different companies more when they are launching
- the cook shelter being closed and inaccessible unless we pay money in the winter, for the kids slalom this is important
- there is insufficient tenting available on weekends that is unreserved
- think all was good but maybe have a more challenging area along the river
- think I would come back
- thinks looks good and got what we came for
- user fees should not to be implemented but if they had to there should be an annual pass
- very beautiful area and a good time
- very good
- very well done
- water flow times need to be improved
- water flow changes but we were accommodating to re-book
- wave at race course not as stable
- weekends are very busy; the number of rafts should be capped but enjoyable as is
- weekends in the summer are busy
- well kept secret and area; did not know this was here
- well worth the money and something I would take visitors to do because it is worth money
- will be back again
- would be nice to have longer flowing during the week
- would be nice to have individual camping close
- would be nice to see some type of railing from Canoe Meadows take out up the stairs
- would like to see more features past canoe meadows, really develop as a recreational destination and leave others; limit on special even t participation to 150 should not be implemented; people along the river who are not prepared to use the river
- would like to see more play features and like the waves/eddies to be added to narrow areas
- would not allow or want to see expansion of commercial use
- would not change anything; had a really good day
- would not mind user fees with changes to the river or money going to the river; awesome river area; would be nice to have camping close to area to camp with fair prices and facilities; upgrade green tongue and Santa Claus
- would recommend trip to other people and will be back

Appendix L – Responses from Key Policy Leader Interviews

Lower Kananaskis River Stakeholder Interview Guide

This appendix contains the interview questions and the responses to each question by each key contact.

Lower Kananaskis River Stakeholder Interview Guide

1. How and why do you use the Lower Kananaskis River and its associated facilities?

Institutional 1:

- *The university uses the Kananaskis on Sundays as part of our weekend course series for river kayaking and canoeing.*
- *If there was more evening flows we would use it more in the summer time.*

Commercial Operator 3:

- *I use it more military purposes – water rescue courses with rafts from the Widow Maker down the river, kayaking with a half day on Barrier Lake and then half a day on the Kananaskis and also canoeing on the lower section of the river from Canoe Meadows down.*

Recreational 1:

- *Because its convenient and there and year round*
- *Place you can go on your own because it is relatively safe*
- *Do some teaching there as well*
- *Organize whitewater festival each year*
- *Used to guide but now only guide on occasions*
- *It's great for Training*

Non-Profit 1:

- *We use it because it is there and use it as part of our programming.*
- *We don't have camp just to bring kids to have fun, we use camp as a place to build knowledge and use rafting as part of our Great Beads program.*
- *Rafting for us is set up as teamwork and personal development initiative and we see it as a means to achieve some type of goal.*

2. Do you feel that the current facilities are sufficient? Please define what you mean by sufficient.

Commercial Operator 1:

- *I think that there needs to be a new car park and that would make the area nice at Widow Maker.*
- *The washrooms are only sometimes a problem in the midsummer when it is busy.*
- *I think that everything is working and everyone seems to get along and work together.*

Commercial Operator 2:

- *Think so*
- *There are days when it is busy but the river can handle it because it is man controlled*
- *It is occasionally congested with rafts coming in waves but there seems to be some lag time in between*
- *Congestion point seems to be mainly where rafts launch from and only area where I really feel crowded which will be helped by the construction of a new commercial parking lot but the launch area could be improved by making it wider, bigger or more accessible*
- *Parking lot is sometimes congested at the Widow Maker*
- *On some occasions some of the swimming spots can be congested but just move to other ones at that point*

Institutional 1:

- *Yes and no.*
- *The facilities are sufficient right now but I only see it on a minor basis because only there on Sundays.*
- *We only use the race course and down, primarily the lower section down to Seebe for teaching purposes.*
- *I think that the washrooms could always be improved.*
- *As a recreational paddler it is nice that the area at Canoe Meadows was opened up in the winter.*
- *At the widow maker it is sometimes hard for recreational paddlers to get on the river because of rafts being all over the place.*
- *On the river facilities are okay in the upper section but the teaching site on the lower section of the river (below Canoe Meadows) has been degraded over the years and needs to be looked at and repaired but it involves a lot of money to get in there.*

Commercial Operator 3:

- *Yeah I think that Canoe Meadows is fine in terms of parking and river access.*
- *The river features are great and the increase in the number of them is great,*
- *At the Widow Maker we are there for rafting 95% of the time in the morning and it is generally okay and quieter. There is talk of extending the parking area which would make sense. There are certain commercial operators who*

are using the parking area for the majority of the day were not there taking up the area the parking would be okay.

- *5/7 rafting companies do their staging off premises or nearly all of it and if all did this it would help and companies who are currently staging there have areas at the take out where they could stage as well.*

Recreational 1:

- *I think that they are sufficient*
- *This is unique facility and very few rivers like this in N. America and has a lot to offer but could offer a lot more as well but there needs to be investment into the river features (\$500,000 approx) and you could have a world class facility with world class features*
- *The Campground area in Canoe Meadows should be dedicated to river users and have changerooms, a classroom, etc added to the area and also be more available to paddlers*
- *The trails in the area also need to be improved and added for easier access to the river and also to accommodate all the people.*
- *We do not need a multi-million dollar hotel area but improved basic facilities would add a lot to the area.*
- *I think that TransAlta should also cater more to recreational paddlers and could potentially split flow times to cater more (for example: run the river for a few hours during the day and then a few hours in the evening). I also think that TransAlta should be putting more money back into the river because they currently are not.*

Commercial Operator 4:

- *No, a few years ago yes but now with recreational use/events and companies because there is not enough*
- *The area is poorly designed for example canoe meadows where you have a group camp area, parking area and many different uses and people going everywhere and no thought of access to the green tongue area especially.*
- *Now to get to the green tongue find that boaters have to take the long way around to the river*
- *The concessionaire rents the area out to non-river users as well.*
- *Right now access to the river at Widow Maker is at a bottle neck and gets really congested.*
- *There is also no indication at the sites of the types of use and no signage for parking areas, etc.*
- *If there were signs at each of the areas designating areas this would alleviate a lot of the problems. You could have more vehicles in the area if it was more organized and most people would follow signs.*
- *For the permit holders there is not staging area at the Widow Maker area which they need to have to get their clients changed and ready for rafting as it is ridiculous to have people change and then drive them half an hour on a hot bus. The park should have considered this when planning the area.*
- *Recreation paddlers want close access to the river and only stay for a short time.*
- *Kananaskis River did not anticipate the level of use that it sees today and first designed as a kayak only facility and training area and then use changed over time.*

- *River facility not thought through thoroughly but widow maker did have some thought to it but now it is about 5 years behind the times and the need.*
- *Santa Claus feature behind Barrier Information Centre needs more infrastructure as it is seeing more use – need to look at parking, trails, etc. you can see an increased amount of use in the area and the impact on the surrounding area.*
- *As Calgary continues to grow more people will come to park and play and will have a negative impact on the area and surrounding environment.*
- *The launch area that we have right now is not adequate (especially on short water days). The entire use of the river is controlled by one area and unless another access to the river is built, no matter how many parking areas there are it does not take the stress off access to the water.*
- *For example, In a 3 hour stretch everyone is rushing to get boats on the water and because of this I have changed my own schedule to avoid the rush and crowds.*
- *The put in should be proportional to the parking area. If another put in area is built need to make sure you go up river or stay right at widow maker area because people want to run the widow maker.*
- *Smitties (a feature) will see more and more ser in the area with people going to watch and take pictures, etc. and the trails are being impacted.*
- *I believe that they did not thoroughly think through the development of the river and its impact on the surrounding land environment.*

Non-Profit 1:

- *No not even close but like what permit officer has done to keep volume down and companies as well.*
- *I think that the Widow Maker needs a second parking area and this would help with some of the congestion.*
- *The take outs also need some work for sure at Seebe, they have done some work there but more still needs to be done with the road and parking area.*
- *Overall the facilities definitely need to be improved for the volume that the area sees.*

3. What is your impression of the interaction among users of the River? What makes this interaction positive or negative? What should be done, if anything to address user interaction?

Commercial Operator 1:

- *I think that there are very few conflicts and feel that they have been resolved well and people move on.*
- *Also sometime people don't know river ethics and sometimes that is an issue and I think that signs on river ethics for recreational paddlers would help.*

Commercial Operator 2:

- *Think the interaction among rafts and kayakers is good but should have normal river etiquette and not take over areas*
- *Our company is relatively political neutral and we do not get caught up on little things*
- *Overall relations pretty good and people definitely out there to have a good time and work around each other*

Institutional 1:

- *On the water and lower section teaching wise it is fine and all the groups tend to work together and around each other very well.*
- *For the play boating there are definitely more and more companies playing and there are definitely people who have more control than others of their boats or rafts (ie. Santa Claus).*
- *Surfers are another group and some of them do not know proper river etiquette.*
- *I see a little bit of river rage (like road rage) developing on the river and play boating is definitely not as friendly as it was 20 years ago.*
- *With the various different groups, they seem to work well together but the rafters tend to work to their own good especially with TransAlta and everything right now seems to be very much based on money.*

Commercial Operator 3:

- *Generally there is a lot of good interaction and people work well around each other and have learned to do so.*
- *On the river, for our river rescue courses we will use Hollywood for training but if there are recreational users there we will not stay long and respect them.*
- *Commercially when doing kayak or canoe courses we will work together and around each other with different eddies.*
- *I worked on the Thompson River back in '88 and there were times when we would be held up going through rapids and this has never happened here.*
- *Things are overall pretty good.*

Recreational 1:

- *I think that the interaction is reasonable among the different user groups and among different recreational user groups.*

- *I believe that the commercial operators are winning babies though and are getting a lot for what they are paying and should be putting more back into the river.*
- *Removed the one about Miami*
- *I believe that some of the companies are better at supporting recreational paddlers.*
- *I think that the biggest problem is getting commercial operators to put more money back into the river (for example they could put back an average per head on their max quota – ie. 10 000 heads / season @ 60% and pay \$1.00 a head or \$2 per head)*
- *The companies will never completely max out on the shoulder season*
- *I also think that if the companies were not for this type of charge or fee that they should not get a permit (deleted a few words) there are plenty of other companies out there.*
- *I would also not be adverse to paying fee for recreational paddling on the river. I basically see it like a ski hill in terms of how it is used, etc. if you would like to go and paddle on your own and explore you can head to the backcountry.*

Commercial Operator 4:

- *User groups at the present time getting along well but this has taken time*
- *The association has been the mediator among the user groups.*
- *Right now everyone is set in their own ways and work well around each other but I think as use increases this will fail and also think that this will become a problem.*
- *Also when people start to rush around and do not work well with people things become unsafe.*
- *The uniqueness of river and being dam controlled can be both a curse and blessing at the same time.*
- *Everyone seems to get best of it because people have learned to get along and good common courtesy have made things good now but if the use increase this will fall apart.*
- *When you have someone who does not know the routine it throws everything off and impacts everyone.*

Non-Profit 1:

- *From other industries (ie. climbing, hiking) I have seen the Rafting community as tending to be more positive and find that it is generally an overall positive environment.*
- *I also think that it is good to see the different outings or activities for the rafting guides to bring them together and think that this should continue and will benefit everyone within the community.*
- *Overall I think that everyone works well together and that we need to continue to do so for the good of everyone and overall community there.*
- *For us specifically a lot of the companies will let us sneak in and go ahead of them so that we do not have to wait another 45 minutes for them to put their large groups down the river.*
- *Everyone is also very helpful along the river when it comes to safety and even picking up lost paddles, etc. and especially in an emergency situation.*

4. In your opinion, who do you think has or should have responsibility over the current management and maintenance of the Lower Kananaskis River and its facilities?

Commercial Operator 1:

- *Bow Valley Campground does a good job cleaning and maintaining everything and LKRUA and AWA maintain the water or river features well.*

Commercial Operator 2:

- *Keep things the way it is, if it ain't broke don't fix it*
- *Whole system seems to work*
- *There have been some times where people go over limits (quotas) or who may not have permits and it would be nice to have some more policing of permits and have someone keep track of launches, etc.*
- *If there was more policing then people would always obey the rules*
- *Infrastructure is pretty good but may like to see more development in the Widow Maker area*

Institutional 1:

- *I think it should be LKRUA who could bring a lot of this forward but they have very little ability to influence government, fundraise, etc. but I think that the ideal would be LKRUA.*
- *Upkeep and money is hit or miss and it is about trying to find money as there is no real budget set aside to things and with government cutting down on money or spending everywhere it is difficult.*
- *This area could be such a world class recreational site and you could use the same type of approach as the Canmore Nordic Centre with a lot of focus on training in the winter for the slalom paddlers but you would then need to have proper facilities to be used year round (ie. changerooms, etc.)*
- *As a tourist attraction this could be really something for people to come and see.*
- *There also needs to be more signage and education on what is happening here (ie. interpretive). There almost needs to be a river map for tourists giving suggestions on where to watch people play, etc. There is good and bad to this because for this to happen the trails need to be improved greatly.*

Commercial Operator 3:

- *Contractors are taking care of the facilities right now and they are currently being maintained well.*
- *One place that has been an issue is the Canoe Meadows group camp area and boggles my mind that this is not a regular camp site where you could pay a fee and camp on individual sites. This is a hugely missed opportunity.*
- *The actual river facilities, the AWA is doing a good job at keeping the area safe and maintained.*
- *The Widow Maker put in is crowded but people work around each other and if it becomes a major issue you could put in up further above the Widow Maker.*

Recreational 1:

- *I think that the area should be dedicated to the users and that Bow Valley Campgrounds should not manage the campground area, washrooms, etc.*
- *Ultimately whether it is the AWA, LKRUA or another organization, they should have control over the area because of the potential of the area to be a world class area and facility.*
- *I also think that area should be managed by a not-for-profit organization and any money generated should go right back into the river.*

Commercial Operator 4:

- *Existing operator is not doing a good job (ie. washrooms smell, garbage not emptied on a regular basis, parking lot not graded) and it is a money losing situation for them.*
- *Basically regular maintenance is not done well.*
- *If the Government is giving out permits for businesses, etc. they should take care of these necessary facilities and not have someone who is looking to make a profit take care of them. They should re-look at whether to have some private recreational concessionaire, the park or association take care of these facilities or services.*

Non-Profit 1:

- *I think that the responsibility falls on the people who have set up the operation (ie. Parks, LKRUA, etc)*
- *I think that it definitely falls under everyone's responsibility to maintain and upkeep things in the area.*
- *I think that the place is kept really clean and good and I rarely see garbage in the area.*

5. What monetary and human resources are necessary for effective management of the Lower Kananaskis River and recreation?
- In your opinion, would it be realistic to acquire these?
 - Who do you think is responsible for providing these resources?

Recreational 1:

- I am not totally against charging a fee for recreational use and goes back to the ski hill facility idea. Therefore a nominal fee for use that is reasonable or a yearly pass for those who come out on a regular basis and perhaps a membership with LKRUA (showing that money going back to River).*
- I also think that if recreational paddlers were to pay money or a fee that the government should match the amount put in.*
- I think that most raft companies would agree to user fees because they could up their own costs and they do not lose in the long run and if permits were longer than a year they may be more willing to do this or invest into the river.*
- If there was a way to come up with a way to charge per head (commercial) or to monitor more closely the numbers.*

Commercial Operator 4:

- I think you need to have someone there to make sure that people are following rules, etc. all the time because to ensure that the quota system works you need to do this.*
- The government gives permits and indicates that equipment must be upto par but now people are discounting their trips more and in doing this it brings down the overall quality of the trip when it comes to equipment, safety.*
- The scariest thing in my opinion is that this is the only river in the West that is rated as a family friendly river and where kids can go down. Need to ensure that things are monitored properly to ensure that things remain safe and not just give quotas and be done with it.*

6. How do you feel about the current management of the Lower Kananaskis River?
 - a. In what ways is the Lower Kananaskis River being managed effectively?
 - b. In what ways is it being managed poorly?
 - c. Are there ways to improve upon the current management model to improve experiences at the river?

Commercial Operator 1:

- *I think there are things are lacking in some areas (ie. picnic tables, etc.)*
- *There are some weekends where it is busy but I still see it as worthwhile for clients but I would not want to have a river like in the US.*
- *I think that rafters sometimes have an impact on kayakers but it is only for a short time.*
- *There are a lot more features now and more places to teach and play and spreading people out more.*
- *Companies or people may not necessarily be reaching their limits but there are days when it is definitely busy and if there were more companies it would make river too crowded and lose the appeal.*
- *I also don't hear many complaints and everyone seems to be getting along.*

Commercial Operator 2:

- *System seems to be working and only time when it breaks down is when companies go over quota*
- *There are also times when kayak, canoe, raft instruction go down the river who may not have permits*
- *Rather see launch system to change over years to reflect changes in companies' business and would be nice for companies to be able to grow and also allows more room for change over the years.*
- *Also constant battle for launches because of the money making nature of the business and maybe change things over time*
- *Pretty neat the we got to increase out launch numbers this year and got to up operation and to take more seriously and would be good to get clients on the Kan on weekends. Right now we book clients with Inside Out on the weekend and get 15% commission. Right now this is working and also is not increasing the overall number of people on the river but would be nice for our company from a business perspective to take them down the river ourselves. By not being able to take these potential clients down the river on the weekend this impacts our group rates, and choice of trip location (ie. river – force to go on other rivers such as the Bow or Horseshoe Canyon).*
- *It is also a pain if people have to change trips from a Friday to a weekend for example and have to then change everything and a bit of a pain to do all of that. From a business perspective it is a problem not being able to take trips down the Kan on the weekends.*
- *Spring time is also an issue especially with Horseshoe Canyon and fluctuating river levels – on the weekdays we can use the Kan as a back up*

river if the water levels are too high but on the weekends we have to refund because we do not have an alternative.

- *We also offer what we call a Kananaskis Full Day trip where clients go on the Kan in the morning and Horseshoe Canyon in the afternoon and these are selling really well on weekdays and would like to be able to sell these on weekends as well.*
- *Right now we have unlimited launches on Horseshoe Canyon and because of limits on the Kan (9) we are reluctant to sell trips to clients sometimes but this year there have not been many problems.*
- *Good to be able to share launches and share with inside out and works for everyone and everything still – everyone benefits*
- *Weekend launches would help to resolve company and help out with business overall and not actually change the number of people on the river*
- *Works well to work with Inside Out and good way not to lose the money completely – logistical problems that occur are the major problem because hard to change times for trips but overall we are happy to be on the Kan*
- *Midweek launches can see why put in place because quieter and definitely help in a business sense to have more on wknd.*
- *An increase in overall launches may not necessarily impact overall number and would not impact other companies or experiences because other companies may not have a busy day*
- *Rafting industry may not change that much in the future and may not increase overall and campies may only change slightly*

Institutional 1:

- *It seemed like this year we were going to have a breakthrough with LKRUA but it has stalled out.*
- *I would like to see Alberta Community Development take more of a lead role than just sitting there. They don't see a vision for this place as we do and see it as just something else to manage.*
- *I see very little enforcement of things or very little presence of Alberta Parks Staff. You don't really see the Conservation Officers. This may be a good thing as well though because it might mean that there is less conflict, it seems to be a double edge sword.*
- *At one point everything was outside the park and just in recreational area but now things are in the provincial park.*
- *In terms of trails at the Widow Maker area, where people seal launch there needs to be some work done to the trails as there is a lot of erosion and also at Smitties wave the trails need some work as there is also erosion.*
- *All adds together and if you arrive and it is busy and sets a tone for the rest of the trip and sometimes you can get gaps or even have more features to spread people out but LKRUA and Alberta Community Development have done a good job at getting things done and fixed.*
- *Association would be great but they would need a steady income and went forward a few years ago to get Canoe Meadows group camp area but they failed and I thought it was a way to get money for the river.*
- *It is hard to get money within Alberta and government needs to find revenue stream to get money from.*
- *Really need to have put a lot of money back in K-Country right now.*
- *Need to have to find a steady stream of revenue for the area.*

- *There is the potential for parking passes, etc. I have suggested in the past is a voluntary drop box where people could drop a donation.*
- *It will also be interesting to see what the Weir project will bring to Kayaking and teaching progressions, will it bring more people to the river.*
- *There also needs to be more development at Seebee for recreational paddlers.*
- *If there were alternative sites it may begin to take impact off the ones that are overused.*

Non-Profit:

- *The flow times are definitely a factor for us and has a great impact on our programming.*
- *When they turn off the river for a full day we then have to send two groups down in one day which can become a logistical nightmare for us.*
- *When there are shorter flow times the timing still works for us to do our programs.*
- *There is constant maintenance to the river and there has been a lot of time and money put into the area.*
- *The only thing that I would say would be nice would be to have access to the hut at Canoe Meadows on a colder day or sunnier day for lunch time and this would make our lunch time programming a lot easier or even to have some type of shelter at the Canoe Meadows area.*

7. Are the current _____ adequate for the management of the recreational use on the Lower Kananaskis River and its associated facilities? If they are not, what changes would you recommend?
- a. Laws?
 - b. Regulations?
 - c. Policies?
 - d. Money Resources?
 - e. People resources?
 - f. Management structure?

Commercial Operator 1:

- *The permits are currently adequate but there needs to be a better way to re-allocate boats.*
- *I believe that it is the British Army and Special Permits that has brought all of this up.*
- *I would like to have or see an increase in quotas or bigger quotas and should be able to increase quotas over time and with changes in business. I believe that research is important and there is a need to look at what people are currently doing and determine quotas from there.*
- *This is a world class facility and good place for river recreation and a facility we want to keep and functioning well over time.*
- *In June especially we have trouble with limits and quotas and will go to the Elbow instead because we are allowed 2 launches with unlimited numbers*

Commercial Operator 3:

- *I think a commercial user fee would be the best because it has the side effect of people being honest with their numbers (ie. Bow River you have to pay \$3000 per season to take out on reserve.*
- *You could do post season report and depending on the number of people that a company puts down and charge a dollar a head and proportion for use, this would get acceptance and then put money right back to the river for fixing things, etc. There needs to be a certain budgest that goes back into the facility.*

8. What do you see as some of the management issues currently being encountered along the Lower Kananaskis River?
- a. How do you think these can be addressed?
 - b. Who do you think is responsible for addressing these?
 - c. What do you see as some of the obstacles in addressing current management issues?

Commercial Operator 1:

- *I see water management is a big issue and our fear is that it may come to a point where we will have to pay for water. As long as TransAlta stays at the table (or on LKRUA) things will be okay and it is key to keep them there. A lack of water is also not good for tourism.*
- *I also think that there may be a need to add more features below Canoe Meadows to Seebe which would add to river experiences and places to play and teach.*
- *I also think safety is important and that having certifications is important and all guides need to be certified so that the river remains safe. We cannot let standards go and in the future it may be an idea to have an internal audit to monitor and check and have own Kananaskis Country standards.*

9. How do you feel about the current level of use on the Lower Kananaskis River? Is there too much use, just the right level of use, or room for additional use when looking at each of the following: rafting, kayaking, canoeing, sport yaking, other?

Commercial Operator 1:

- *I think that the level of use is pretty good but also think that it should stay to or keep current 5 or 6 companies and then work in an expansion model with quotas.*
- *I think that water management, numbers, etc will definitely come up in the future and need to be addressed.*

Commercial Operator 2:

- *The current level of use is good and may be able to handle some more if launching area fixed up and could spread out companies more and also because of it not being a natural flow river there are not a lot of ecological concerns with the area and it also good that it compresses people in one area and could handle slight increases if the launch areas were fixed up.*

Recreational 1:

- *Okay.*
- *There are definite patterns to the season (March, April and May) where there are a lot of people out and then it dies off and over the summer months people paddle elsewhere and in the fall months people then come back to the Kananaskis.*
- *I see definite rush hours on the river.*
- *For our courses, we work well with the other people teaching beginner courses in the same area, below the race course past Canoe Meadows. However, if we offered more intermediate courses there would be more of an issue with others playing on different features.*

Commercial Operator 3:

- *There is nothing that you can do to stop recreational users and you cannot really control this. The facilities seem to be okay and parking does not seem to be an issue.*
- *When Mirage fills up the Eddie at Widow Maker recreational users have a hard time putting in and sometimes to have squeeze in between rafts or use the rafts to support themselves while they get into their boats.*
- *Given the extra parking lot there is a lot more room on river for rafts (double) on the river and a slight bottle neck at the put in but once on the river it is not an issue and if any commercial operator has said this is an issue I would like to hear why.*
- *Commercially for kayaking and canoeing we do not generally use Widow Maker to Canoe Meadows and use the lower part of the river and only see it as an issue if you get a large group of people and it could get crowded.*

Recreational 1:

- *I think that you could have a lot more on the Kananaskis going back to the ski hill idea and think it should be used as a facility and see very little environmental impact on the river below the race course and would not change the quality of experience. However, I would not want to see unlimited use.*
- *If use on the river were to increase, would need to have more facilities and features to cater to all the people and to open up the river or spread people out.*
- *Let this be a training playground, meeting spot, place for team trials, etc. We have an opportunity to make this the best whitewater facility in N.America and the major predictability of the river flows is a great benefit to the area over others in the US.*
- *This is a modified man made river which is nice and still can be used by and enjoyed by different groups of people.*

Commercial Operator 4:

- *The government has to control river use more because it will be a “gong” show in the end and this will also help to make it safe.*
- *There are so many uses on the river: schools, guide courses, training, recreational paddles and even movies and control needs to be taken before it is totally out of control and too late.*
- *Realistically looking at whether we want to have river experience or just raft/boat people and make like a Disney experience and basically shoot ourselves in the foot.*
- *I think that no additional permits should be given out and that current permits should be reduced proportionally across the board to keep the experience and also to preserve the area for the future.*
- *Need to have strict rules that are regulated tightly and monitored on a regular basis to ensure proper use.*
- *If we put more people on the river we are basically shooting ourselves in the foot because it is taking away from the experience of everyone. It was nice in the old days when the customer had an experience and my concern is that when use increases so will the animosity among the different groups using the river and thus impact the safety of everyone and someone may seriously get injured.*
- *You cannot say put in at one time because of the varying flow times and those days when there is no water and that is why operators use horseshoe canyon.*
- *By making major changes to the river and rapids the demographics of the users have begun to change as well (ie. we had a flip in Miami and hydraulics are getting stuck and flipped for 1st time in Miami and now liability issue on river). I spoke with some operators and now have new company policy to avoid Miami for safety reasons and because more of a hazard now. We need to begin to think ahead when making changes to the river.*

Non-Profit 1:

- *From what our use of the river is, the number of people on the river is good and perfectly fine. There are definitely a lot of kayakers on the river but from our perspective it is fine and people respect others and move out of the way when we are coming through.*

- *When there are competitions or races on the race course I think that there should be more communication at the beginning of the course indicating when we can go through with the raft so that we are not bumping into kayakers and we are not told to go at the same time as them.*

10. What impact, if any, do special or organized events have on your operation for that particular day? Please explain.

Commercial Operator 1:

- *People are kept above the race course and communicate with everyone when passing through and does not seem to be a major issue. The main thing here is good communication.*
- *There are times when the gates are down but other than that things okay.*

Commercial Operator 2:

- *Not really because we do not have any launches.*
- *We went through Kan Fest this year and just had to wait and work around the event.*
- *There are swift water rescue courses and when they are there we just work around them and have not had an issue.*

11. Was there anything else that you thought I was going to ask in regard to the Lower Kananaskis River and associated facilities that I did not? Please explain.

Commercial Operator 1:

- *This is a very unique situation within a provincial park.*
- *I do not agree with the British Army getting a special permit and then Camp Horizon cannot get one when they are a non-profit organization and I think that there should be more lenience for them. Then Camp Horizon would not have to use mine but we have an agreement right now and they use my quota.*
- *I think that these organizations should be allowed to get these permits as they give people the opportunity to experience rafting and I think that everyone should be able to go down the river and experience it.*
- *The British Army is a political thing and think that they do have a right to be here as well but that they should also not disadvantage others and should be able to get permits for others for days when they have large bookings or there is a potential for going over quota and with the special permitting this would help.*

Commercial Operator 2:

- *The Kan is a beautiful river but also a facility at the same time because of the dam control and I see it as almost a ski hill and therefore since it cannot be preserved one might as well use it*
- *Only seems busy because of the actual put in because once on the river people spread out and if changes were made to the launch area this would also help*
- *Our clients still get the wilderness experience and experience that they are looking for because of being away from the city.*
- *This area is also convenient for tourists and for those passing through because they have an opportunity to raft for a couple of hours (3-4 hours) in a semi-natural environment*
- *This area also gives children a chance to have an experience in a natural environment as well and it is a place where they can experience the natural environment which is important for those who don't get out in this type of environment*

Recreational 1:

- *Nope, I think that I have covered everything.*
- *My view is that it should be treated more as a skill hill and that the commercial operators should give back more.*
- *There should be more investment into the area because it has the potential to be world class and should be used like that.*
- *The government definitely has to step up and make some changes to the area.*
- *The canoe meadows area should not be operated by a profit company and I am not happy wit the changes that have been made to the weather shelter and it being locked and before it was locked you did not see any graffiti but after it was locked up graffiti started to appear. I believe that they are using the area as more of a profit making/generating area (ie. firewood) and think that it would be different if it is was run by a not-for-profit.*

- *I also think that there should be an area for day use and more camping for overnight for a night at a time at a more reasonable cost than the group campsite, (for river users)*

Commercial Operator 4:

- *The 85 boat quota weekday and 65 weekend and never included Tim Horton's and Easter Seal's Camps have never been included in the total allotted quota and they are now getting them, seems hypocritical with it when giving it to them.*
- *The special permit with 20 launches during peak season and there was no forethought on this and I think that it was all about pressure from lawyers and others and this makes it more crowded.*
- *With permits we do need quotas and all operators should have some quota and there are different options and something definitely needs to be done. I would be the first to say that the quotas should be reduced and I would rather see the river preserved than over used.*

12. In your opinion, do you feel the current commercial permitting process is appropriate? Please explain.
- If any changes were to be made to it, what would you like to see?
 - In your opinion, what would be appropriate changes?

Institutional 1:

- Permits are a fact of life and will not go away. The river is just a small part of everything.*
- I think that the current permit is just fine for us and changes were made to it this year and we took out the rafting part of it because we never used it but we can still get the 20 day special permit for rafting if needed.*
- If they issued more kayaking permits then there would not be enough room for all people on the river and in the teaching area that we use on the lower section of the river.*
- An outstanding issue is around how can we self regulate so that everyone with a permit becomes part of LKRUA and has to put money into the river. Two of the biggest sources of income for the river are the Whitewater festival and rafting, this should be seed money and the government should have to match the amount of money for different projects on the river.*
- Something to look at for the future would be to look at improvement district and going after money as part of a recreational or tourist attraction as the river is very much a recreational outlet for people.*
- I have seen people who are renting from us (U of Calgary Outdoor Centre) running the river more who do not have a clue and I think it is going to take an accident to shape everything for everyone. I am not sure how to go around this other than education and more information on river safety. Safety on the river is a big thing and more accidents tend to happen on the lower section than the upper where people are learning and where the area is not as maintained.*
- If we have more and more people on the river we may have to look at the concept like in the USA of a river ranger where there is someone who is paid to paddle up and down the river and monitor things. But with this also becomes the question of liability. The sport itself is safe it is all the other things that can lead to problems.*

Commercial Operator 2:

- More weekend launches or even changes to number given to companies over time and need to change system with changing times and re-allocate permits from one year to another or every couple of years.*
- May need to have a policing system then if this were to happen because the honesty system that is currently in place may not work*
- Quite happy with the current number of mid week launches that we have but would like to gain weekend launches*

Commercial Operator 3:

- I would like to get a permit.*
- In 2000 study it came that more transparency should exist (ie. post season report and I don't care if anyone sees it or my numbers).*

- *I would like to see more transparency in the final numbers and clarification and more careful checking of numbers at the end of the season.*
- *I think that the process should be reviewed every few years to see if figures are appropriate but before this can be done, you have to define what a review is and what it would consist of and then go from there. There was talk of some type of review in 2004 but I did not see anything. Back to when Megan did the study on the river, I had asked to see the numbers that she had collected over the summer and went to Jim Dennis to get the number because I thought that they were public domain and I was never given them.*
- *Right now I have been able to work under Rainbow Riders but have been subcontracting permits but no discretion has been applied here for me to offer my own program.*
- *I was not the only one who had asked to see the numbers from the study in 2000.*
- *Generally speaking rafting versus kayaking don't really notice and for example the green tongue, the biggest constraint to recreational users is other recreational users and not rafts because they pass by quickly.*

Recreational 1:

- *I think that this is an appropriate way to have a permitting structure and control people on a river.*
- *I am not sure how I feel about the current numbers or launches and not sure how I feel about the current split of numbers or launches.*
- *I do believe that there should be stricter things/conditions put on permits (ie. use of car park, money into river).*
- *I think that someone has to look at permits and launches given to each company because as it stands companies who have been around longer have larger quotas.*
- *I think that a review of the permits or quotas every few years to see who is maxing out and who is not and base launch numbers on that.*
- *If a raft company is given 20 launches and then have to pay for each launch and then if they do not use them the other companies can buy them. This way everyone has a base permit and submits numbers and therefore forecasts their numbers and permits and ultimately works to fill.*
- *This also may not be too much more work because there are only 6 or 7 companies and this could be done in February or March at the latest and gives the companies time or a chance to market and they can still buy and sell with each other but still have to buy own individual launches ahead of time because if not it could become a headache.*
- *Special Event Permits*
 - *This year they withdrew changes to the permit for the Whitewater Festival because it was done quickly*
 - *I don't necessarily think limit is bad but feel 150 is something too small and think that the number should be more reasonable and assessed and discussed through consultation.*
 - *There needs to be a 2 way discussion with group and base permit on facts and data and not just previous years numbers. There will be an impact on the Kananaskis and river and don't think that it is a lasting one and some of the events do raise money for the river (ie. the*

whitewater festival raised money and many hours have been put into fixing up the river)

Commercial Operator 4:

- *The number of boats/day was picked out of a hat and with no thought by gov't and the impact on the river and overall experience.*
- *Quotas should be reduced all around to a better proportion because it is reducing the experience of everyone and would also hate to see the Kananaskis turn into the Ottawa River.*
- *The permits right now are a joke.*
 - *The way that the permits was initially good and each company got x number of launches or boats but over the past 10 years companies that were just starting out when quotas given out initially have begun to grow and mature*
 - *Right now rafting is being saturated.*
 - *A major concern over the quota system is that if they are not used that they are give to other people which will impact all aspects of the experience. The government is basically threatening to produce or they will be taken away. The whole permit structure needs more backbone or structure to it and need to have one thing and keep things on paper and need to keep things the same for everyone.*
 - *My recommendation is that everyone's quota's should be reduced across the board and would like to see them enforcing goal of park and wilderness experience more. This would not impact the operators because they will still have business and can increase prices. What is the point of having a quota system if people are putting down a large number of boats, there needs to be more enforcement and monitoring.*

Non-Profit 1:

- *The volume that I see at the parking lots definitely needs to be alleviated because of the potential for problems to occur but on the river the volume is okay and our specific programming is not impacted or never seems to be impacted.*
- *The companies have developed ways to get people onto the river quickly by having their clients come dressed ready to go and move their vehicles out of the way as quickly as possible but there are still some companies who base their operations out of the parking area and have a definite impact on the entire area.*
- *Our permit is great and meets our needs and I like how it requires us to have certifications and from our standpoint overall it works well.*
- *I think that the number of operators on the river is great and works well for us and I would recommend not changing it or adding more to the current number.*
- *I think that there should however be special circumstances for certain companies or operators that would give them special access to different areas. For example, for our program we used to put in at Canoe Meadows and go down from there with the children in the morning and then for those who were ready for whitewater or more a challenging trip we would do a second trip in the afternoon starting at Widow Maker through the Race Course, which is the more challenging part of the river. Our concern here is*

definitely safety and we would rather put the children on class 1 rapids to begin as this may be the first time that some of the kids were on a raft or their first whitewater experience and then put them on the upper section which is class 3 rapids in the afternoon after some practice. Our permit changed and we were told that we could no longer do this and put in or take out at Canoe Meadows and various reasons were given which included trail damage, timing, etc.. We would still like to be able to go in and out at Canoe Meadows but understand the impact that rafting has on the area there but think that special permission should be given to organizations who run more programs on the river rather than just sending people down the river for a dollar (ie. us Tim Horton's who use the river for programs and activities for development).

General Notes:

Institutional 1:

- *Special events do not seem to have an impact on the beginner programs that we offer because we tend to be downstream of them.*
- *I think that there is potential for more development of the river and features below the race course but this would take a lot of maintenance and money.*

Commercial Operator 3:

- *Surfing but relatively minimal and don't think that will expand any further.*
- *Kayaking may continue to increase and canoeing is fairly static.*
- *I don't see boogie boarding, inflatable kayaking or canoeing increasing because of all the technical aspects of them.*
- *Special events do not seem to have a huge impact on us and just wait and on occasion dodge polls and as long as everyone is polite and works together it is good and to me it is not an issue even when North American Championship was going on.*
- *Need to recognize commercial side's economic incentive to keep other permits or new permits down.*
- *Certain company said that it is the economic value that is affecting my company.*
- *Chinook is getting U of C quota to make their business more economically feasible and I did not know that Community Development was in the market of making companies more economically feasible. I do not understand why they did not give me 5 of the boats so I did not have to pay \$7500 to Rainbow Riders per year and therefore make me more economically feasible.*
- *I have mentioned things before but tend to keep out of the politics of everything.*
- *Some companies do not want to see me have a permit as they all bid on the army contract and see with getting me out of the picture that they can then bid on it and it is open to others.*
- *I think that there is a lot of politics behind everything.*
- *I think in terms of safety there needs to be a sign at the entrance and exit to the Widow Maker parking area indicating that there are slow vehicles turning out the roadway onto Hwy 40 so that people know to slow down and expect slower vehicles turning.*

NOTE: Also gave me the information sheet on permit requests.

Recreational 1:

- *Tryweren River in Wales – close to the Town of Bala*
 - *Very similar to the Kananaskis, it is dam controlled and is also a modified river area as well.*
 - *The river has recreational use (kayaking, etc.) and commercial use but there is only one company there running a business.*
 - *People who wish to use the area, pay about \$20.00 a day but if you are a member of BC then you a slight discount and you can also buy a season pass for the area as well.*

- *I believe that this is the closest thing to the Kananaskis because it is controlled and man altered, there are others but they are completely man made.*

Commercial 4:

- *I see surfing at the green tongue increasing and that they have no river etiquette on the river with other users.*
- *Rafting privately has also increased as well and I think that this will continue to increase.*

Non-Profit 1:

- *I think that everything is good and perfect the way it is and it works well for our programming. I think that if changes are made to the Widow Maker parking area and Seebe things will be just fine.*

Appendix M – LKRUA Members 2006

LKRUA Contacts		
Voting		
Chairman		AWA
Vice-Chair		Commercial
Treasurer		Commercial
Secretary		Commercial
Past-Chair		Recreational
		Institutional
		Non-Profit
		Corporate
Non-Voting		
		AB Comm. Dev.
		AB Comm. Dev.
		Transalta
Other Contacts		
		Canadian Rockies
		Chinook
		AWA President
		AB Comm. Dev.
		Kan ID
		Kan ID
		DFO
		Nav Waters
		Nav Waters
		AENV
		AENV
		AENV
		Alta Transport
		Bow Valley Camp.
		Undercurrents
		Slimdoor
Permit Holders		
		Alberta Whitewater Association
		Aquabatics Calgary Ltd.
		Blast Adventures Ltd.
		Bow Waters Canoe Club
		Canadian Rockies Rafting Company
		Chinook River Sports
		Easter Seals Camp Horizon
		Experience Adventure Recreation
		Fall Protection Group
		Inside Out Experience
		Mirage Adventure Tours Ltd
		Rainbow Riders Adventure Tours
		Rocky Mountain Canoe Adventures
		Special Adventure Services Inc.
		Tim Horton Children's Ranch
		U of C - Campus Recreation