Utilizing Irrigation Canals in Northern Utah for Recreational Trail Use: An Evaluation of Issues and Concerns

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UTILIZING IRRIGATION CANALS IN NORTHERN UTAH FOR RECREATIONAL TRAIL USE: AN EVALUATION OF ISSUES AND CONCERNS

by

James G. Carlson

A report submitted in partial fulfillment of the requirement for the degree of

MASTER OF LANDSCAPE ARCHITECTURE

Approved:

UTAH STATE UNIVERSITY
Department of Landscape Architecture and Environmental Planning
Logan, Utah
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ABSTRACT

Utilizing Irrigation Canals in Northern Utah for Recreational Trail Use:
An Evaluation of Issues and Concerns

by

James G. Carlson
Utah State University, 2000

Major Professor: Michael Timmons
Department of Landscape Architecture and Environmental Planning

This study fills a need for documentation of the issues and concerns related to
planning recreational trails along irrigation canal rights-of-way through interviews with
canal company officials and research of related literature. While this study provides
valuable information for recreation planners and cities involved in the planning and
development of these canal trails within northern Utah, it also has a universal application
that will aid anyone interested in taking on the often complex task of developing a canal
trail.

The report will be reformatted and summarized in a smaller publication for the
purpose of informing and educating planners. The report does not attempt to address the
validity of the many issues and concerns, but rather, attempts to increase awareness of
their legitimacy and existence.

(235 Pages)
ACKNOWLEDGMENTS

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I would like to thank all the professionals listed in the reference section for taking the time to talk with me and I would especially like to thank all the canal company officials who took the time to sit through an interview and those who spent the extra time answering all my endless questions.

James G. Carlson
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CHAPTER I
INTRODUCTION

"When we lose our ability to contact the common species...the ordinary everyday species in our immediate vicinity, they might as well be extinct, in one sense...These humble little places where a kid can still go and not do damage, can have an enormous impact in creating a national character that cares for the land"

Robert Pyle, *The Thunder Tree*

For a number of years, public interest in using pathways along the banks of irrigation canals in the state of Utah for recreational purposes has been increasing, particularly in urbanized areas. Many cities within major metropolitan areas throughout the state of Utah have been struggling for years with the idea of using irrigation canals that run in and around their borders as recreational corridors. Pressure for public access onto these canal corridors has increased in response to rapid growth and development, resulting in growing community demand for trail networks that allow access to nearby parks and public lands. It is their interlaced presence throughout communities and their optimal physical and ecological characteristics, including a graded maintenance road, that make these canal corridors perfect candidates for fulfilling these needs for open space and pathways.

A number of cities within Utah have realized the unique recreational opportunities provided by irrigation canal corridors, but have only recently begun implementation of plans to utilize them. Logan is one such city. Given the adoption of the 1998 Parks, Recreation, Trails and Open Space Master Plan, the City of Logan offers a prevalent illustration of general issues related to canal trails and the related concerns of canal
companies and adjacent homeowners. The plan calls for pursuing rights-of-way acquisition for the banks of portions of Logan’s irrigation canal system as part of its goals and policies to “Establish a multi-use trail where possible to connect the existing portions of trails.” Even Utah’s Recreational Trails Council has interest in funding these canal projects. Because Logan is not alone in this effort, a study that deals with the contemporary issues and concerns specific to Utah is needed.

**General Background and Challenges**

**Informal Use**

Informal use of canal rights-of-way is widespread. Every spring, water is diverted and flows through headgates into the web of canals throughout the state of Utah and every spring more people make use of the maintenance roads and paths that run along them for recreational purposes. Whether it is formal or informal, legal or illegal, irrigation canal rights-of-way throughout the west have been used as recreational corridors for many years. As cities have grown around these canals their informal or unauthorized use has increased exponentially. While this situation is understandably preferred by recreationists who see it as their own personal and “private” open space, this increasing unmanaged use is a concern for canal companies.

Whether one likes it or not, a single use has turned into a multiple use. Although the original intention of canal companies was purely utilitarian (convey water to shareholders as efficiently as possible and minimize any obstructions that interfere with that goal), these utility corridors have taken on an informal “underground” value that is much wider in scope. They are used by communities as alternative transportation
corridors and recreational assets. The maintenance roads that run along the banks of these canals have often become established and ingrained as recreational corridors within the surrounding communities. Walking, jogging and biking are the most typical, but other activities such as off-road vehicle use, cross county skiing, snowshoeing, tubing and swimming are also occurring. These uses can sometimes interfere with the goal of the canal company to efficiently supply their shareholders with water. In some cases, especially along easement owned canals, canal companies have met this unmanaged use halfway. They have realized that putting up fencing is not going to solve their problem and opted to tolerate the use while posting signage and taking the time to occasionally stop to educate users of the dangers and ownership issues.

Figure 1. Gate/signage to informally used trail.

In response to expanding use, canal companies have erected fences or intensified their signing and notice efforts warning recreationists to use the canal banks at their own
risk. Frequently, adjacent landowners uncertain about legal right status will assume ownership of the right-of-way and obstruct access by fencing across the maintenance path. Regardless, whether they are gated, fenced, posted or monitored the public has found ways to overcome these obstacles by taking advantage of the existing recreational potential canal maintenance roads have to offer. Professor James Kennedy of Utah State University, a long time proponent of public access who has done extensive research on this subject was interviewed for this study. According to Professor Kennedy, "...you are going to get recreational use out of the canals whether it is on the black market or the table market. It is either going to be trespass or law abiding; you get people using these canals and they are going to maintain them. The canal companies are inhibited just as much as the recreationists when they put a fence up, and they never had the courage to go tear it down any more than we did with the Berlin Wall...".

Figure 2. Fenced-off canal maintenance road.
Conflicts of Interest

The interests of cities, recreationists, adjacent homeowners and canal companies can vary widely in response to a proposal for canal trail development. While canal company officials have some critical concerns, many recognize the existing public services their canal system provides and consider it "neighborly behavior" to allow such use (Kennedy and Unhanand, 1974). Unfortunately, recreationists tend to show their gratitude by not picking up after their dogs, throwing debris and general garbage into the canal inhibiting flow and compounding the trashy appearance. Adjacent homeowners, assuming or claiming ownership, will fence and landscape the right of way, blocking canal access. Adjacent homeowners also see recreationists as a threat to their privacy and safety.

A conflict of interest also occurs between city planners and canal companies. When the critical interests of canal companies are overlooked or wrongly perceived, the potential for conflict is heightened. Canal company interests are not the same as those of the cities. One of the problems is not giving the canal companies interests equal status. The canal companies interests ultimately have to do with the bottom line, or their main goal, which is to administer to the canal and keep tabs on any obstructions to conveyance to the shareholders. They also understand the dangers associated with canals better than anybody and the prospect of opening it up to the public will undoubtedly be greeted with some trepidation.

Once formal recognition of recreation occurs, a big fear of canal companies is interference of the routine operation and maintenance of the canal. Among other duties, ditchriders need to keep the canal flowing by pulling snags and general garbage out of the
canal and make sure the operating lateral gates are working properly. Therefore their trucks will more than likely, need to use the same trail as recreationists, causing a possible conflict with trail users such as joggers listening to headphones.

**Liability Issues**

Liability issues connected to opening canal banks for recreational uses are of primary concern for the underlying landowners and canal companies. As far as the canal companies are concerned the two key problems posed by recreational use are (1) interference with ditch operation and maintenance and (2) greatly increased exposure to lawsuits. On narrow easements for example, the construction of sidewalks may be incompatible with the ditch companies deposit of dredge silt and other ditch debris or the company’s operation of heavy equipment. Due to these and other potential dangers, lawsuits initiated by cyclists or others are a realistic concern. (Henderson, 1987)

Therefore, any plan for trail development needs to consider the operational requirements of the canal company, such as suitable space for the piling of debris and the unencumbered access of heavy equipment.

Utah and many other states have recreational use statutes (RUS) which immunize landowners from liability when they allow the public to enter their land for recreational activities. States vary in regard to the recreational activities covered and whether landowners need to give permission for the public to engage in those activities in order to receive protection. Questions arise over duty of care and whether the owner acted willfully and maliciously in endangering users (Lee, 1995). Fear of suit is legitimate and unfortunately is a major obstacle to developing canal trails.
One way canal companies overcome this problem is to pipe the canal and fill in the ditch with soil. The primary reasons for piping are to decrease evaporative loss and seepage, to decrease water contamination, and to reduce maintenance costs, thereby increasing delivery efficiency. While piping is also effective in decreasing liability risks, it is an extreme undertaking and very costly. From the community perspective, such action results in the loss of an aesthetic amenity and a possible cultural and historical landmark. Fredrick Law Olmsted Jr. summed up the essence of an open canal in his 1910 pamphlet of “Plan of Improvements” for Boulder Colorado:

Given sunshine and breeze and the wonderful plunging view across the valley to rugged mountains bathed in sunlight; given shade from the direct glare of the sun and sky, easily to be obtained by planting; the one thing wanted to complete the situation is water, and the quiet flowing canal on its way to irrigate the fields beyond the city gives the very note that is needed. To be sure its banks are here shabby and neglected, the vegetation is weedy and an appearance of squalor is more or less in evidence, so that a superficial observer might turn away without feeling the least interest in the ditch. But all the essential elements of the most beautiful scenes of Italy are here, waiting only a little patient, skillful care to unite them into a little picture of paradise.

(Qtd. By: University of Colorado at Denver)

Ownership and Legal Standing

Ownership and legal standing of the irrigation canals is varied and in some cases perplexing. When most canal construction began a century ago, ditches were dug across public domain land. Their role was so obvious to state and local communities that no one questioned their legality or legitimacy. “In such a social climate or setting, few companies got around to seeking legal title... the water and time flowed on without problems” (Kennedy and Unhanand, 1974, p.20). Knowledge of the legal ownership of a canal corridor is important in beginning to see the existing picture of the canal. Generally, canals are either privately or publicly owned. If a city owns a section of a canal, it is only a small percentage of the total distance of the canal. There are cases in
which a city owns the canal in fee title such as the 71 mile long Highline Canal in Denver, but this is rare. Canal rights-of-way can also be privately owned by the respective canal company. As is the case with a couple of the canals studied in this paper, they are also publicly owned by the United States Bureau of Reclamation. Things begin to get complicated when the land up to the canal is owned in fee title by adjacent landowners. In these cases canal companies usually possess a form of easement through each of the individual properties.

The question of whom has the right to provide access for recreational use of the canal corridor is the first legal stumbling block. For recreational use to occur on a canal easement, the underlying landowner would need to provide permission, as long as the use does not unreasonably interfere with the operation and maintenance of the canal (Grand Junction Urban Trails Committee, 1996). The first issue is identifying the type of ownership that exists. Determining whether it has been adversely possessed by the canal company or is owned by the adjacent landowners and/or what type of easement exists, can necessitate a long and arduous search of city-county records. A second issue involves determining the method used for acquiring the right-of-way. Techniques may include condemnation, prescriptive rights, adverse possession and other legal strategies.

Need for Open Space Conservation

Throughout the United States there is a growing understanding of the importance and benefits of conserving and utilizing open space within communities. According to the City of Logan Parks, Recreation, Trails and Open Space Master Plan, about 86% of the respondents to a Community Needs Survey conducted in July of 1997, indicated that
the city should acquire land to preserve open space and develop future parks. Respondents rated walking and jogging as one of the top five activities they participate in (Landmark Design, Inc., 1997). Individuals between the ages of 25-64 rated it as their first choice. In terms of trails, about 73% of the respondents felt that recreational trails are either very important or important, over 77% desired walking/jogging trails and another 52% wanted recreational bicycle trails (Landmark Design, Inc., 1997). This overwhelming public mandate is common throughout the United States. The results of a 1995 home buyers study which was published in the Washington Post suggested that citizens “are putting an increasingly high premium on interaction with the outdoor environment through the inclusion of wooded tracts, nature paths and even “wilderness where possible.” People want “lots of natural open space” and “plenty of walking and biking paths” (qtd. in Utah Division of Parks and Recreation, et.al., 1997, p. 1).

The idea that municipalities cannot afford to invest in bicycling and walking facilities is challenged by the fact that local communities across the country, through their overmatching of Federal transportation funds, have shown a strong desire to fund bicycle, pedestrian and trail projects. In fact local contributions often exceed the minimum requirements. For example, while the Federal government requires a 20 percent funding match from state or local public agencies for Transportation Enhancement projects, they have been averaging a 27 percent match for bicycle and pedestrian projects using these funds (NBPC, 1996). According to a 1994 poll of what American home shoppers want and will pay a premium for in a new community, approximately 70 percent cited availability of “walking and biking paths” as an important consideration. This ranked third highest out of 39 features listed as crucial in persuading them to buy in a particular
new development. ("Lots of natural open space" ranked second at 77 percent, and "community designs that deliver low traffic and quiet" ranked first at 93 percent.) The results were based on responses of at least 800 consumers who bought or shopped for a home in planned communities (Harney, 1995).

Utah’s need for trails as valuable open space is similar to that of the nation. The results of a 1990 Household Recreation study conducted for the state’s Comprehensive Outdoor Recreation Plan (SCORP) show that development, integration and improvement of trail systems is one of the top ten outdoor recreation issues in the state. The most popular activity was walking for pleasure, and bicycle paths, lanes, and walking paths were among the top ten most needed new recreation facilities in communities (Utah Division of Parks and Recreation, et.al. 1997). According to the 1997 Utah Trails Assessment, development of more new trails was by far the most important trail issue/need identified in a series of public meetings held throughout the state in 1993 and 1994 (Utah Division of Parks and Recreation, et.al., 1997). In this study both Logan and St. George identified canals as possibilities for trail development.

According to the 1997 U.S. Bureau of the Census state profile there are 25.08 people per square mile in Utah and almost 80 percent of the state’s population lives within major metropolitan areas. In terms of percent of population living in metropolitan areas, Utah ranked 20th in 1994 (U.S. Census Bureau, 1995). According to a state population ranking summary from 1995 to 2025, Utah’s population in 1995 was approximately 2 million and is projected to be 2.9 million in 2025 making it the 34th most populous state. This net gain (931,000 people) ranks as the 18th largest in the nation. An important statistic reveals that at 47.7 percent rate of projected population change from 1995 to
2025, Utah ranks as the 7th largest rate of change. And between 1995 to 2000, with a net increase of 256,000 people, Utah would rank as the 13th largest net gain in the nation. Whereas in 1995, 0.7 percent of the nation’s population resides in Utah, in 2025, 0.9 percent will. The number and proportion of Utah’s population that is 18 years old and over is expected to increase from 1.3 million or 65.4 percent in 1995 to 2.1 million or 71.2 percent in 2025. And the proportion of Utah’s population classified as elderly (65 and older) is expected to increase from 172,000 or 8.8 percent in 1995 to 495,000 or 17.1 percent in 2025. If the preferences of Logan residents age 25-65 for walking and jogging are representative of the state as a whole, it could be concluded that by the year 2025 approximately 2 million residents or 70 percent of Utah’s population will be demanding walking and jogging access within their communities.

Although Utah has a low population density overall, its residents are crowded into a relatively small area of private land. As Kennedy and Unhanand (1974) warned more than a quarter-century ago:

Utah is one of the most urban and congested states in the nation. Still, most of Utah’s people and its community-state agencies perceive themselves as rural. A few of the numerous reasons for this are (1) a strong attachment to the pioneer past (2) immediate automobile access from Utah cities to public land, and (3) being able to view isolated mountain peaks from most downtown Utah urban area. So, why worry about neighborhood canals, a stream corridor, or the last undeveloped farm in the neighborhood— one can easily escape to the mountains on the weekend… Many Utah urbanites are mentally or physically off to Fish Lake or the Uinta Mountains as a developer files for a zoning change on the last piece of open space in the neighborhood…. The euphoria this produces may inhibit the eleventh most urban state in the nation from waging the long hard battle of shaping humane cities and identifiable, enjoyable neighborhoods… Canals are one open space asset Utahn’s must fight to protect in the future. This will require increased public awareness of present and future recreation-open space values of canals (Kennedy and Unhanand, 1974).
As the recent studies indicated above show, cities such as Logan and others throughout Utah are beginning to understand and share this urgent view which was foretold 25 years ago and are looking to canals as an open space asset worthy of protection.

Need for Linkage of Open Space

There is a sometimes easily overlooked need for linkage of open spaces within and around our communities. As commercial and residential development in communities such as Logan have spread out at an ever-increasing pace they have left only traces and remnant patches of open space within the new communities. The demand for links to these patches and the nearby mountains increases in response to this growth. Irrigation canals offer a unique opportunity to fill a need most growing communities in the west have for interconnected systems of alternative transportation. They can provide linkages between recreation opportunities, and add cohesion to many attractions within the city (Landmark Design, Inc., 1997).

The identification of the need for a trail network throughout Logan City is not new. It has been brought up as a need in many planning efforts and documents including the Parks, Recreation, Trails and Open Space Plan (1985-1995), the Bike/ Pedestrian Trails Master Plan for Logan and surrounding Cache Valley (1994) and the City of Logan General Plan (1995). The Bike/Pedestrian Trails Master Plan recommended the implementation of a network of bike lanes and dedicated bike/pedestrian paths throughout the City of Logan and Cache Valley. One of its goals was to establish a continuous bike/pedestrian trail system for inter- and intra-city transportation. The plan
suggested the use of irrigation canals to establish trails that traverse the city (Landmark Design, Inc., 1997). Logan City is not the only city in Utah that has long been struggling with the idea of utilizing existing irrigation canals that are in proximity or accessible to urban areas in order to fill a need for trail network plans. According to John Knudson, trails coordinator with Utah Division of Parks and Recreation, “the Recreational Trails Advisory Council (advises and makes recommendations to the Division and State Parks Board and reviews proposals for funding through the Non-Motorized Trails Fiscal Assistance Program) really wants to start funding canal projects because the canals go everywhere.” He also mentioned that the Salt Lake County Regional Trails Plan calls for this but has not yet accomplished it.

In Whyte’s *The Last Landscape* (Whyte, 1968), within the chapter “Linkage” he writes: “There are all sorts of opportunities to link separated [open] spaces together, and while plenty of money is needed to do it, ingenuity can accomplish a great deal. Our metropolitan areas are crisscrossed with connective strips. Many are no longer used,… but they are there if only we will look” (qtd.in Little, 1995).

**Need for a Large Scale Pilot Project**

After searching for a large scale, formally developed canal-trail within the state of Utah it became apparent that there is a need for a pilot project for recreation planners and communities to look to as a model. While there are a handful of established canal trails in northern Utah (which for the most part are small-scale), there are no well-known large scale trails which can be emulated.
The Extinction of Experience

It is important for the average resident to begin to understand the significance of viewing their immediate natural surroundings as valuable open space, which, in the case of canal corridors, could offer them an alternative form of access to outlying amenities. Quality open space goes hand in hand with quality neighborhoods. The paradigm that generally views open space as parks every other mile or so along a main street should begin to include smaller, better distributed space that is closer to one’s living room (Kennedy and unhanand, 1974). As William Whyte (author of many books and papers on open space and credited with advancing the term and concept of greenways to a large audience) has argued:

“The trouble with the generalized green belt approach is that it asks for too much land and without justifying it. We will not save much open space that way... I argue that we must concentrate on the smaller spaces, the irregular bits and pieces, and especially those that we can connect together. There are an amazing number of connective links right under our noses if we will only look for them old aqueducts, abandoned canals, railroad rights of way, former streams the engineers have put in concrete troughs” (qtd. In Kennedy and unhanand, 1974, p. 57).

In Robert Pyle’s The Thunder Tree he asks, “What do shreds and scraps of the natural scene mean, after all in the shadow of the citified whole? What can one patch of leftover land mean to one person’s life, or to the lives of all who dwell in the postindustrial wasteland?” In answering this question, he uses his lifelong experience of growing up near the High Line Canal in Denver as a method for “weaving a rooted companionship with home ground” and for “awakening interest in places like the High Line Canal in every community.” In his chapter “The Extinction of Experience”, he warns of the loss of our experience of nature, within our own local radius, through extinction of neighborhood species and a lack of access to it:
“One of the greatest causes of the ecological crisis is the state of personal alienation from nature in which many people live. We lack a widespread sense of intimacy with the living world...this implies a cycle of disaffection that can have disastrous consequences...as citizens grow more removed from personal contact with nature, awareness and appreciation retreat. This breeds apathy toward environmental concerns and, inevitably, further degradation of the common habitat...This is how the passing of otherwise common species from our immediate vicinities can be as significant as the total loss of rarities. We all need spots near home where we can wander off a trail, lift a stone, poke about, and merely wonder...For these purposes, nothing serves better than the hand-me-down habitats that lie somewhere between formal protection and development” (Pyle, 1993).

While there are a number of challenges to developing recreation trails along irrigation canals, the “extinction of experience” Robert Pyle speaks of is probably one of the most fundamental. Irrigation canals would be a good example of the “hand-me-down habitat” he speaks of. Canal rights-of-way can provide urban populations the common, local contact with nature needed to improve awareness and appreciation for the ecology of our immediate surroundings. And since in most cases these corridors would connect us to the outlying agrarian landscapes and watersheds, they would also improve awareness and appreciation for the larger matrix of our regional landscapes.

Scope of the Study

This study examines the issues of recreational use of canals in the state of Utah. Because of the emphasis on urban settings, most of the research has been focused on the Wasatch Front since this is where the metropolitan majority is. Given the extraordinary growth in Washington and Summit Counties these areas have also been considered. This is not to say that the information herein is not pertinent to other regions of the state, but that the research has been based on regions most likely to be developing canal trails. While the locally driven issues particular to each city are quite different, it is the belief of
this study that there are general issues on the state level that may be pertinent to most cities interested in developing canal trails. Therefore, by concentrating on the state of Utah as a whole it is hoped that this study has illuminated general issues that may help any city within the state develop these unique corridors.

**General Goals of the Research**

1. To gain an understanding of and to identify the significant issues and concerns of canal company officials and adjacent homeowners as related to recreational trail development along irrigation canals which are in close proximity or accessible to urban areas in the state of Utah.

2. To identify pertinent legal constraints and opportunities with an emphasis on canal companies in Utah. This has been accomplished by researching legal information in order to find out if there are general consistencies related to legal ownership standings of urban canal corridors within the state of Utah. Research of liability information as it relates to the canal company and the adjacent homeowner has also been conducted.

3. To identify the possibilities and solutions generated by the research and interviews of issues and concerns.

4. To develop planning recommendations based on findings.

**Significance of the Study**

"Whether its our agency or any body else, I think it is helpful to be able to have something that says as you move forward you need to be aware of all the issues, and possible ways in which to address them. Maybe there are some ways to resolve them, maybe not, but at least a study is something that gives you insider direction or recommendations, if not resolving it, then at least addressing the issues. The issues can then be isolated and easier to deal with."

Russ Akina, Director of Logan Parks and Recreation
After a thorough literature review it is apparent that there is a need for documentation of the concerns and issues specific to developing recreational trails along irrigation canals. There are many unpublished studies and reports that briefly deal with the subject but no actual published studies that deal specifically with the critical concerns of canal companies related to development of irrigation canals in Utah.

This study has compiled and summarized the major issues related to use of irrigation canal rights-of-way as recreational trails. It is hoped that the findings of this evaluation will be of use in addressing common issues and concerns related to the planning of a canal trail.

It is also hoped that the findings that are specific to Utah will provide useful information (a source book) for recreation planners and cities within the state that are involved in the development of trails along irrigation canals. Logan’s plans for establishing trails along the canals that would link major recreational uses in and around their city are not unique. Since other major metropolitan areas within the state of Utah are also in the midst of similar efforts, general issues and concerns that come out of this study should be of use to planners throughout the state. A completed (or partial) urban canal trail within the state of Utah would serve as a long needed pilot project, modeling the benefits of such projects for other metropolitan areas. An evaluation of the concerns and issues involved in such a project could be valuable as a reference not only for Logan but for other cities in Utah as well.

A major source of information for this report involved open-ended interviews with canal company officers throughout the state of Utah. These open-ended interviews were held with the intent of enabling the officers to speak in as natural a conversation as
possible. In addition to this I have reviewed literature dealing with the concerns related to trail development efforts including, but not limited to canal corridors. These range from rail-trail efforts, to river trails, to utility corridors. Where further information is pertinent excerpts are taken from surveys and reports dealing with the impacts and effects of these trails on communities and landowners.

Disclaimer

This study is not a substitute for legal advice. The research, interview results and conclusions presented in this study are offered simply as examples. The legal consequences, risks, and benefits of these examples are for the reader with legal counsel to determine. This study mentions some basic liability issues and legal defenses, but it is not a legal guide or substitute for legal advice. Anyone concerned with liability and landownership should get their own legal counsel to consider and protect their interests.
CHAPTER II
HISTORY OF UTAH'S WATER DEVELOPMENT

The longer you look back, the farther you can look forward
Winston Churchill

It is important to have a general understanding of history. A heightened awareness and understanding of where we are today and how we got here can only aid in the preparation and planning of our future. An understanding of the central role irrigation canals and ditches in the arid west have played in the development of this region will lead to an appreciation of their value in the landscape and enhance our sense of place. For these reasons a brief history of irrigation canals in Utah follows.

Vital Role in Successful Civilizations

Throughout history canals have played a vital role in successful civilizations. The diversion of water for the purpose of irrigation goes back to ancient civilizations such as Egypt, Mesopotamia, China, India, and Mexico and of course the New World (Kienast, 1996). Throughout history societies such as these expanded and grew from river valleys that contained the arteries needed to supply their life's-blood through man made irrigation systems.

In North America, specifically the West, evidence of irrigation is found in prehistoric remains of the Mogollon culture in southwestern New Mexico and southeastern Arizona, the Anasazi in the Four Corners area and the Hohokam along the Salt and Gila Rivers in Arizona. The Hohokam diverted and built over 1200 miles of
irrigation canals dating from approximately 100 B.C to 1450 A.D (Kienast, 1996). Long before the discovery of the New World by Europeans, Indians of the North American Southwest diverted water to irrigate their crops (Fuller, 1994). Archaeological evidence of ancient ditches in Arizona, New Mexico, and the southern part of Utah, indicates people who practiced irrigation thousands of years ago populated these areas. The modern practice of irrigation farming in the Gila and Salt River valleys, and the Colorado River Basin, is to an extent a revival of ancient irrigation developments (Zierer, 1956).

These ancient cultures had been long gone by the time the Spanish conquistadors arrived in the sixteenth century. However they did encounter the remaining Pueblo peoples who were still practicing a fundamental form of irrigation. Making note of this, they also brought with them a long tradition of irrigation knowledge and practice. They came from an old Castillion culture which had inherited the knowledge of centuries of irrigation practice in the hot, dry lands of their Spanish and Moorish ancestors (Kienast, 1996).

Some cities are known for the beauty of their canals such as Venice, Amsterdam and Bangkok, to name only a few (Kienast, 1996). These canals are not irrigation canals but are used for navigation and transportation of people and goods. In the eastern United States close to 5,000 miles of navigation canals were built from the late 1700’s to the mid 1800’s. During this time these canals and their adjacent towpaths served as primary transportation arteries, along which numerous cities and towns grew and flourished (Rails-to-Trails Conservancy and National Park Service, 1995). Chicago is one such city. On July 4, 1836, a few pioneers from other East coast cities, began digging and twelve years and 97 miles later finished the Illinois and Michigan Canal, connecting the Chicago
and Illinois rivers bringing the eastern and western waterways together. This narrow waterway opened the Midwest to farmers and industrialists in the East, helping to transform the United States from a union of small coastal colonies into an expanding nation (Davidson, 1998).

A basic summary of the major philosophical paradigms that existed during this pioneering and territorial period of American history will help in understanding the different lexicon of thought that existed and how it effected the way water was ultimately viewed in Utah's history. During this period, the Anglo view of water and the way it had been treated was based on their general view of the world and their belief in the tenets of democratic capitalism, in the Protestant ethic, and in development and progress. The resources of nature, which were viewed as inexhaustible and removable, were to be harnessed and developed. Increased production and economic growth would lead to progress, which in turn would produce benefits to be equitably distributed throughout the market. The land and its resources were viewed as capital to be used to produce and accumulate wealth and as commodities to be marketed and used for speculation. Eventually, water too was seen as a commodity with rights and shares of irrigation stock to buy and sell. In the arid west water was the key to utilizing and profiting from the land and its natural resources (Endter, 1987).

**Mormon Settlement of Utah**

Mormon settlement of Utah was an anomaly in this capitalist development of the western United States, and they made up a distinct American subculture. Towns and
settlements were uniquely patterned to promote community and religious life and the land and all its natural resources were treated as public property (Endter, 1987).

The Mormon settlement of Utah was entirely dependent upon diversion of water for irrigation. They were the first Anglo-Saxons to practice irrigation on such a large scale in the United States (Hutchins, 1965). Mormon pioneers have been called the fathers of irrigation in America, but were not the first to irrigate land in the west. The Catholic Missions in California and New Mexico, for example, had been irrigating their orchards and vineyards long before the Mormons settled in Utah in 1847. Several years prior to the arrival of the Mormon pioneers to the Salt Lake Valley, some of the first settlers in Oregon had been using small ditches to irrigate their crops. And, at the time of the Mormon settlement in Salt Lake Valley, Indians in southern Utah were raising crops with the aid of irrigation. While on an expedition to southern Utah, Parley P. Pratt wrote about the existence of irrigation ditches used by Indians living along the Santa Clara River (Fuller, 1994). So, it would be more correct to say that the Mormon pioneers significantly influenced modern irrigation law (namely, the theory of beneficial use as part of the doctrine of prior appropriation) and should be credited to elevating irrigation to something of a science (Palmer, 1978).

The development of irrigation in Utah dates back from July 21st 1847 when pathfinders for the first company of Mormon Pioneers, Orson Pratt and Erastus Snow, upon entering the Salt Lake valley, made a preliminary survey of its resources. Two days before Brigham Young entered the Salt Lake Valley and proclaimed “this is the place,” this advance party began to dig furrows diverting water from City Creek and proceeded to build a dam to irrigate the dry soil. They planted potatoes the morning of the next day.
In October of 1848 there were a total of 1,891 immigrants in Salt Lake valley (Israelsen, 1954). Eventually, small irrigation works with their small carrying capacities were constructed at the mouth of canyons and extended only short distances along the lower foothills of the valleys of the Great Basin (Fuller, 1994). The pioneer and territorial period, 1847-1896, was largely a period of building canals. By the 1860’s the immigrants had built 277 canals having a total length of 1,043 miles, irrigating an area of 115,000 acres (Israelsen, 1954).

In this early period of irrigation development, settlements were based upon cooperative construction of irrigation systems and common enclosure and pasturing of fields. Construction was focused upon self-sufficiency, building up the Mormon territorial economy, and establishing the earthly Kingdom of God (“Zion”) (Endter, 1987). It was this spirituality which kept them united and allowed them to hold community interest above private gain (Palmer, 1978). It also was the motivation behind giving full jurisdiction to the “church courts” or the all-Mormon legislature. When this territorial legislature was set up in 1851, they confirmed the system of public ownership of natural resources and the county courts were given broad powers of supervision over these resources. Probate judges who generally held positions within the church staffed these courts. Land and resources continued to be governed by Mormon Church officials in accordance with their theocratic and cooperative social and economic institutions (Endter, 1987).

In the early years only the low-lying lands near streams were irrigated and excavation of shallow ditches to convey water to land near the creeks or rivers was the common scene. Sometimes, small wooden flumes were used to divert the water over
ravines. Simple check gates and turnouts of wooden construction were the principle makeup of the water control structures (Zierer, 1956).

During the incipient stages of this territorial period of irrigation development, streams had to be equitably divided among many inexperienced users. Control over a limited and strategic source of water gave a person power over the quantity and quality of water down stream. This was a problem, because at the time, there was no law in all America governing the use of irrigation water. When it came to litigation the old English Common Law of Riparian Rights, used in the east, governed the case. Riparian water rights were usufructuary as apposed to proprietary, which entitled a person to the full and undiminished flow and quality of water from that stream. Rights accrued to one who owned land on the bank of a stream and was held in common with all other landowners along that stream (Endter, 1987). The problem Mormon leaders had with this was that it dictated that title to land is inseparable from water running through that land and it did not take non-riparian land into consideration. So, along with the cooperative movement discussed above, which was based on the principle that water was public property, Mormon leaders proposed a new doctrine known as “Beneficial Use”. Under this doctrine they proposed that all water belongs to the people and no one can procure rights to more of it than they can make beneficial use of. In terms of water rights, beneficial use was declared to be “the basis, the measure, and the limit to those rights” (Palmer, 1978; Israelsen, 1954). A landowner had to divert water from a stream and put it to beneficial use continuously in an economic activity in order to claim and maintain water rights (Endter, 1987).
The Act of 1852 confirmed this cooperative ideology and territorial government. The basic principle of this act was that in order to obtain rights to use this public property, its owner, the public, must confirm that right. The county courts were given extensive powers to control water and they were to administer them in the interest of the public. The commonwealth oversaw every water claim and controversy (Endter, 1987).

This distinct form of irrigation law along with the state’s social and economic institutions continued until capitalism gradually seeped in and overtook it. Eventually Utah’s institutions had to conform to national customs of private property and market competition. Utah’s water laws, which initially treated water privileges as a community resource under the administration of the county courts, were changed in 1880 to private and competing rights. These rights were dependent on prior appropriation (Endter, 1987).

**History of Conflicts**

There is a long history of conflicts over water resources in Utah between Ute Indians and Mormon farmers and ranchers. Control over water was lost as land was taken through forceful expropriation and through the encumbrance on Utes of a foreign political-economic system and ideology. As capitalism spread into the west, Indians in general were dispossessed and confined to reservations on land that was valueless and unsuitable for farming, while the control over valuable land, water and resources were transferred to private Anglo interests (Endter, 1987).

Throughout the 1850’s and 1860’s, armed conflicts between Utes and Mormons ensued as a result of Ute resistance of encroachment in their territory. In order to
dissuade the Utes from raiding Mormon settlements, treaties were entered into. The Utes were promised food, clothes and protection if they accepted small reservation farms and learned to grow crops. Starvation and freezing decimated the Utes in Sanpete Valley in 1856 when provisions were not delivered. While fighting to maintain their traditional way of life, many Utes died from disease, starvation, frostbite, or warfare while the rest became destitute (Endter, 1987).

**Doctrine of Prior Appropriation**

"First in time, first in right", or the doctrine of prior appropriation, evolved from disputes over water between gold miners in California after the discovery of gold in 1849. Because most of the gold mines were far from streams, making it necessary to divert the water, disputes over initial rights were common. The Mining Act of 1866 and its 1870 Amendment formally authorized the right of prior appropriation on public lands. Colorado was the first state to make prior appropriation the law of the land. The doctrine was written into the Colorado State Constitution in 1876. To this day the doctrine of prior appropriation remains the foundational doctrine of water law in the west. Under this doctrine, water rights are dependent upon beneficial use of the water, not on ownership of the land along the watercourse. Water cannot be privately owned but it can be diverted to riparian or non-riparian land and put to beneficial use (Kienast, 1996).

With the Law of 1880 the county court water legislation, enacted in 1852, was replaced to recognize private and competing rights to water. Under this law water belonged to no one and private appropriation would be how one would establish property rights to water, independent of land ownership. This essentially stripped the county
courts of the power to grant rights to water and hear petitions (Endter, 1987). The requirement to petition the county court for permission to make an appropriation was no longer needed. Just as before, appropriation was dependent on diverting and putting the water to beneficial use, but without the terms, conditions and administrative constraints the county courts had been previously authorized to impose (Hutchins, 1965). In the ensuing years the principles of prior appropriation for beneficial and economic use of water were upheld in numerous court decisions. By the time Utah became a state in 1896 decisions such as these were legalized and codified. So, the unique features of its early irrigation law were eventually abandoned for a system of prior appropriation (Endter, 1987). The size and number of farms increased exponentially during these last two decades of the 19th century. After 1880 Utah’s agriculture changed from small self-sufficient farms to commercial production based on larger, more productive units. A second generation of canals was needed. They were generally situated up on the foothills, and were longer, deeper, and had larger carrying capacities (Fuller, 1994).

Unfortunately, the “use it or lose it” philosophy encouraged by the new laws led to increased competition and a frenzied scramble to use and claim rights before others did (Endter, 1987). It is interesting to note that prior to the Law of 1880, the principles of the doctrine of prior appropriation for beneficial use had already been the basis for acquiring water rights in Utah. It is also interesting to note that during this territorial period very few water disputes found their way into higher courts because the simplicity, directness and promptness the county courts, acting in the interest of the community welfare, proactively settled these disputes (Hutchins, 1965).
While the statute of 1880 took away the county courts broad powers of supervision over resources such as water, it did make the county selectmen of these courts official commissioners of the county. It gave them the authority to measure stream flow, determine all claims of right to the use of water, issue and record certificates of water rights, and to distribute the waters accordingly. Although the 1880 law recognized accrued rights to water acquired by appropriation, and provided for the recording of these rights, it did not contain a procedure for making new appropriations. The 1880 law remained in effect until the enactment of the Act of 1897, which established procedures for appropriating water and repealed all conflicting legislation (Hutchins, 1965). The first complete water appropriation statute was enacted in 1903, which repealed all pre-existing water right laws in effect. It was revised and reenacted in 1905 and in 1919 (Hutchins, 1965).

New Era of Irrigation

The turn of the century marked a new era of irrigation in the state. After the first national irrigation congress, held in Salt Lake City in 1891, and once Utah became active in this congress in the 1890’s, it was seen that Utah’s irrigation laws and management of water policies were outdated and needed replacing. Acting on this need, the state legislature established the office of state engineer whose responsibilities and authority for managing water resources were limited at first but were greatly expanded along with improving water legislation (Fuller, 1994). Along with the enactment of Utah’s first complete water appropriation statute in 1903, the office of state engineer was initially given the responsibility of collecting data and the measuring and controlling of streams.
This office helped to improve the chaotic conditions that existed after the 1880 repeal of the laws of 1852.

Between 1900 and 1910 irrigated lands in Utah increased 132 percent, the largest increase in the history of the state. Old systems were expanded and new ones built in order to meet the needs of newly established farms. An extensive system was built on the Uintah Indian reservation following it’s opening to homesteaders in 1905 (Fuller, 1994). With the passing of the Federal Reclamation Act in 1902, laws were adjusted even further to authorize water improvement and conservancy districts that would contract and guarantee repayment on reclamation projects with the federal government. After the passing of the Federal Reclamation Act the pace of water development in the west overall increased dramatically. It established the Reclamation Service (changed to the Bureau of Reclamation in 1924) and created a national policy which used water development as a way of increasing economic activity and populating the west (McCool, 1995). It would be safe to say that during this first decade of the 20th century the primary role of water development in Utah had been transferred to the federal government from local water users who were under the direction of the Mormon Church (Endter, 1987).

In 1922 the Colorado River Compact was signed by Colorado River Basin states, dividing the waters of this major River between the “upper” and “lower” basin states and Mexico and starting a new era of irrigation development in Utah (Fuller, 1994). This compact designated these two artificial basins and each was allotted 7.5 million acre-feet of water. (McCool, 1995) In 1948 the Upper Colorado Basin States signed the Upper Basin Compact which divided Colorado River water among these Upper Basin States of Wyoming, Colorado, Utah and New Mexico (Fuller, 1994). Utah was allotted 1.7
million acre-feet in this compact (McCool, 1995). These two compacts stimulated new reclamation and irrigation projects in Utah (Fuller, 1994).

As the Salt Lake valley grew to the point when it needed to expand its water supply beyond the ditches diverting water from Wasatch streams within city limits, there were numerous exchanges of water in the Jordan and Salt Lake City Canal’s for higher quality canyon water. Water from streams such as Parley’s Creek in 1888, Big and Little Cottonwood, and Mill Creek during the 1920’s were exchanged. These systems of canals and exchange agreements served the valley well until the late 20’s when water authorities began to look outside the valley for additional sources in order to address the needs of an expanding population. In 1935 Salt Lake City formed the Metropolitan Water District (Metro) to contract with the United States Bureau of Reclamation to build the Deer Creek Reservoir and related Facilities under the Provo River Project. Plans to expand this project to include Utah’s share of water in the Colorado River Basin would eventually mature to become the purpose of the Central Utah Project: get Utah’s share of Colorado River water over the Wasatch Mountains and into the Wasatch front.

The CUP or Central Utah Project has been the main focus of Utah’s water development policy since World War II. It was felt that the Deer Creek project would only temporarily solve the water problems of Salt Lake City along with its adjacent municipalities and the CUP would be the savior. It has dominated Utah’s congressional delegations policy agenda for the last five decades. The project was designated to utilize the rights and 1.7 million acre-feet of shares given to Utah in the Upper Colorado River Basin Compact of 1948. It was authorized as one of several projects in the Colorado River Storage Project Act of 1956 which was passed in order to utilize the Colorado
River water rights of the “upper” and “lower” basin states. This project has two components that consist of the Bonneville Unit which would bring water from the Uinta Basin (part of the Colorado Basin) to the Great Basin (Salt Lake City and other Wasatch Front cities), and five other project units that serve local areas of the Uinta Basin. The Bonneville Unit is the largest, costliest and most controversial of the units. The original counties in the Central Utah Water Conservancy District (CUWCD) voted for the project by a 93% margin in 1965. This would allow the District to use property taxes and the water sales revenues to help repay the federal government. Ever since this early boom period the CUP’s history has been mired in a perpetual series of impediments to construction (specifically the Bonneville Unit) (McCool, 1995).

When the Reclamation Act of 1902 was passed it became obvious the federal government could not administer the enormous amount of projects it planned to build. They needed someone to turn the projects over to when they were done building them. So the act required the beneficiaries of these projects to form a water district or association. As it turned out these organizations became a huge political supporter of the young federal reclamation program. With the passage of the 1992 CUP Completion Act the CUWCD was authorized as the official builder of the project and an official entity of the government. Now they would be giving orders to the Bureau of Reclamation instead of the other way around.

There are dozens of special water districts in Utah and the three largest along the Wasatch Front are the CUWCD, the Salt Lake County Water Conservancy District, and the Metropolitan Water District of Salt Lake City. The CUWCD enjoys the majority of tax revenues. An interesting note is that these districts distribute half of all the water
used in the West which gives them economic power. While they are quasi-governmental, they are in some cases, exempt from a lot of public accountability due to their autonomy and wield additional power through their huge lobbying organizations (McCool, 1995).

**Evolution of the Mutual Irrigation Enterprise**

The evolution of the mutual irrigation enterprise in Utah began with the simple, local, cooperative efforts that gained solidarity through the control of the Mormon Church. As the years went by laws were passed which would allow water users to organize irrigation companies and conduct their affairs like joint stock companies (Endter, 1987). The mutual irrigation company is a common form of irrigation enterprise in Utah. They are a non-profit organization and usually, but not necessarily, are incorporated. An irrigator owns stock usually in proportion to the size of their land and the expenses of operation and maintenance of the canal are paid from the assessments on the irrigators stock. Non-payment calls for a late fee and eventually if the assessment isn’t paid by a certain time the stock is advertised and sold, depriving the previous shareholder of the right to have water delivered (Israelsen, 1954). Under mutual companies, directors or water masters who are elected by and report to the shareholders, manage the facilities and also report problems to the general manager.

As discussed in the previous section, irrigation canals are also publicly owned. This usually consists of Water User Associations (WUA’s), that are contractually obligated to administer to and maintain canals owned by the Bureau of Reclamation. Water User Associations are non-profit, private, stockholder owned corporations,
incorporated according to Utah State law. Understanding a WUA's purpose and meaning can sometimes be difficult. A brief summary of how a WUA develops follows:

- Potential shareholders form a WUA in order to go into contract with the federal government for construction of a canal. This WUA is a non-profit corporation, incorporated according to Utah State Law (Business Corporate Act of Utah)
- The WUA purchases a right-of-way and property for the canal.
- The WUA petitions the Federal government to build the canal under the Federal Reclamation Act of 1902.
- The WUA enters into contract with the Bureau of Reclamation (BOR) for construction of the project in which the property is deeded to the federal government for the collateral needed to build the project. Therefore, the underlying title is now in the name of the U.S.A. Under this contract, the WUA must pay back the federal government for the cost of construction and they must administer to the canal on a regular basis in cooperation with the BOR, who performs general operation oversight.
- Once the construction costs are paid off and the contract is fulfilled, the title stays in the name of the United States.

The three basic forms of canal ownership/canal companies consist of:

- Private mutual stockholder companies owned by the shareholders. These companies can either own the underlying property in fee title or they can have easements for the use of the corridor. Examples include: Davis and Weber Counties Canal Company, North Ogden Irrigation Canal Company and WUA's such as Ogden River Water Users Association.
- Water Conservancy Districts (WCD). These are special districts created under the Water Conservancy Code and are able to impose a general tax on all properties. Examples include: Weber Basin Water Conservancy District (administers to a BOR project) and Washington County Water Conservancy District (has no ties to BOR)
- Canal Companies that are created under the irrigation code of the Utah Code which are also Special Districts that are tax exempt political subdivisions of the state.
Special Districts have basically the same powers as cities. Examples include: South Ogden Conservation District and the Weber-Box Elder Conservation District. (Some, but not all of the last two types of districts, have government contracted facilities they operate while paying for the project.)

Incorporated WUA’s should not be confused with organizations such as the Utah Water Users Association (UWUA) which is a coalition of various interests. The members of the UWUA consist of public and private entities (cities, counties, engineering and legal firms, private individuals, water conservancy districts, water user associations, etc.) from across the state that have an interest in water use of any type (agricultural, industrial, municipal, etc.) The purpose of this organized coalition is for sharing ideas, education, lobbying, etc.

**Improving Water Systems**

Today irrigators and urban residents are turning their attention to improving water systems. Irrigation canals are now serving and running through newly built residential developments in addition to farmland. While it is still common to see the open dirt ditch, canals and ditches are increasingly being lined with cement in order to conserve water and improve water conveyance. As will be discussed later in this report (specifically, question #7 of the interviews) other irrigators are also enclosing their canals within pipes for various reasons including increased conveyance capacities, water conservation, and ease of maintenance. This process can be very cost-prohibitive, which makes it an exclusive venture only taken on by larger companies with the resources to do so.

Canals operate differently today than they did historically. Even though the access roads they needed and used historically are still just as important today, the
equipment used for maintenance, such as the hydro units and back-hoes used to dredge out debris, is much larger and requires much more space along the maintenance roads.

Pressurized sprinkler systems powered by gravity or motors are now widely used for agricultural purposes and have proven to be more efficient than the traditional method of flood irrigation. This type of pressurized system is also used for secondary purposes such as residential lawns and gardens. These systems are favored by farmers due to the ease and effectiveness of their use. Utah farmers are also developing new strains of crops that require less water in order to conserve the resource (Fuller, 1994).

Crop irrigation is not the sole use of canal water as it has been historically. Conversion of canal water into domestic water has become a common practice. As development encroached onto farmland these water rights have slowly been transferred to domestic or secondary purposes. According to Jonathan Clegg, assistant superintendent of Provo River Water Users Association, this conversion process occurs in one of three ways: The water is taken directly from the canal and disinfected in a water treatment plant for domestic use, the water is taken and used in a pressurized secondary system usually for residential lawns and gardens, or canal water can be traded with well or spring water which is generally of higher quality and requires little or no treatment. This trading process can either take the form of an application to the state engineer or it can simply be a mutual agreement between two parties (Jonathan Clegg, e-mail correspondence: 2-24-00). Water quality in open canals which are used for recreation is a concern for some canal companies. (See Chapters V and VI for further explanation of water quality concerns.)
Historical Significance of Irrigation Canals

To write about the development of irrigation in Utah is to write the history of Utah. Hopefully this chapter’s brief summary will offer a little help in understanding why Utah is where it is today and give some direction for future planning.

Irrigation canals in Utah are significant not only because they are economic assets, efficiently transporting water to shareholders, but because they embody the visual character and cultural, religious and political history of Utah. The settlers water evolved into much more than just a resource, it became the lifeblood of community, a thread that held together the fabric of society. Out of necessity, the construction of irrigation canals was one of the first group efforts of the Mormon immigrants representing one of the first forms of community planning. With water flowing across a field of crops, the settlers made a future for themselves in an otherwise inhospitable setting (McCool, 1995).
CHAPTER III
RECREATIONAL USE OF CANALS

"Strange that so few ever come to the woods to see how the pine lives and grows and spires, Lifting its evergreen arms to the light — to see its perfect success..."

Henry David Thoreau

Although the positive perception of the benefits provided by the creation of canal trails is not shared by everyone, there is plenty of evidence in the form of case studies and reports to substantiate the claims of the positive impacts of trails in general. While these studies each focus on a particular type of trail or on a specific location that has its own unique qualities, a cumulative overview of the information they contain can offer comprehensive insight into the general benefits recreation corridors can provide. It is useful for individuals involved in a canal trail planning effort to take a closer look at these studies in order to begin an analysis of the potential impacts of such an effort on their specific city or community. Whether it is a canal trail or a rail-trail, there are impacts which can be considered universal to all trail projects that bisect communities. The findings of some of the major studies that examine these impacts are included in this section.

Canal Trail Benefits

Economic Benefits

While it is important to understand the intrinsic environmental, recreational and social values of preserving these canal corridors, it is the economic impacts, or the amount of spending that results from the use and existence of these trails that often
creates the most powerful argument with decision makers. Across the country, the
development of canal trails has proven to be a wise economic investment for the
communities they pass through (Rails-to-Trails Conservancy and National Park Service,
et.al., 1995). As shown in numerous studies and reports recreation corridors in general
enhance the economic vitality of the local communities they bisect.

The National Park Service has published a resource book entitled *Economic
Impacts of Protecting Rivers, Trails, and Greenway Corridors* (1995), which is a
compilation of the most recent information on this subject. Each section of the study
focuses on a different set of economic rationales. According to this document the
economic benefits of greenways can be broken into the following categories:

*Real Property Values:* Many studies provide evidence that trails may increase nearby
property values, which in turn, increases local tax revenues. Additional revenues
generated in this way can be used to help offset trail acquisition and maintenance costs.

*Expenditures by Residents:* Spending by local residents on greenway related activities
aids in the support of recreation-oriented businesses and employment, as well as other
businesses that are patronized by trail users.

*Commercial Uses:* Often, trails provide the potential for concessions and special events
within the trail, which can boost local business as well as raise funds for the greenway
itself.

*Tourism:* A well-designed and developed trail system can attract visitors to a community,
which supports local businesses that provide lodging, food, and recreation-oriented
services. The trails also improve the overall appeal of a community to visitors.

*Agency Expenditures:* The agency responsible for managing the trail can aid in the
support of local businesses through the purchase of supplies and services. Local
employment opportunities are increased by the jobs created by the managing agency.

*Corporate Relocation and Retention:* There is evidence in the form of studies, surveys
and reports that the quality of life a community has to offer is an increasingly important
factor in retaining and attracting corporations and businesses, and that trails can be an important contributor to the quality of life.

Public Cost Reduction: The conservation of rivers, trails and greenways may help local governments and other public agencies reduce the otherwise intensive development costs such as roads and sewers; reduce costs resulting from natural hazards such as flooding; and avoid costly damages to natural resources.

The economic benefits of greenways and trails can be examined in a more simplified manner by looking at two general categories: (1) Property Values and (2) Tourist-Visitor Expenditures/Business Revitalization.

(1) Property Values: The impact of a recreation corridor on adjacent and nearby property values has been the primary subject of a multitude of studies and surveys throughout the United States. These studies have revealed that trails have no adverse effects on adjacent property values, and in most instances result in enhanced value and increased salability.

- According to a study of property values near greenbelts in Boulder, Colorado, housing prices decline an average of $4.20 for each foot of distance from a greenbelt up to 3,200 feet. This average was $10.20 for each foot of distance in one specific neighborhood. It was determined that, other variables being equal, the average value of property adjacent to the greenbelt would be 32 percent higher than those 3,200 feet away (Correll, Lillydahl, and Singell, 1978).

- In 1992 The National Park Service and Penn State University released a report entitled Impacts of Rail Trails. According to this study of landowners and users along three rail-trails, (the rural Heritage Trail in Iowa, the St. Marks Trail in Florida which runs through small communities and forested areas and the suburban Lafayette/Moraga Trail in California) both landowners near or adjacent to the study trails and real estate agents felt that the trails had no adverse affect on the desirability or values of the properties. Those who felt the trails increased property values outnumbered
those who reported decreased values. A majority of the post-trail development homebuyers reported that the trail either had no effect or added to the properties appeal and along the Lafayette/Moraga Trail a majority of owners felt the trail would increase the value of their home (National Park Service and Pennsylvania State University, 1992).

- According to a survey of residents along the Mohawk-Hudson Bike-Hike Trail in New York State, 85.8 percent of landowners feel that the trail has had no effect or has increased their ability to sell their homes. Similarly, most of the landowners surveyed feel the trail has no effect on or actually increased the value of their property (Schenectady County Department of Planning, 1997).

- Seattle’s Burke-Gilman Trail has not only been used as a selling point for nearby properties, but it has also been proven to increase the value of those properties. The results of surveys of homeowners and real estate agents conducted by the Seattle Engineering Department shows property near but not immediately adjacent to the trail is significantly easier to sell. According to real estate agents, these properties sell for an average of 6 percent more because of its proximity to the trail. However, property immediately adjacent to the trail is slightly easier to sell and the trail has no significant effect on the selling price. Sixty percent of the homeowners believed that being adjacent to the trail would either make their home sell for more or have no effect on the selling price (Seattle Office of Planning, 1987).

- The results of a survey of adjacent landowners along the Luce Line rail-trail in Minnesota show that the majority of owners (87 percent) believed the trail increased or had no effect on the value of their property. Two thirds, or 61 percent stated an increase in their property values as a result of the trail. New owners felt the trails have a greater positive effect on adjacent property values than do continuing owners. Appraisers and real estate agents stated that trails were a positive selling point for suburban residential property, hobby farms, farmland proposed for development, and some types of small town commercial property (Mazour, 1988).

- According to the results of a study of the effects of three urban trails in and around the metro-Denver area on public safety and property values, 57 percent of the
residents of homes adjacent to the trail felt that the trail would make their home easier to sell. The trails ranged from a paved greenway trail through a low income neighborhood to a crusher fines (unpaved) canal trail in an upscale suburb. None of the residents of townhomes, apartments, and condominiums adjacent to the trail felt the trail would decrease the selling price of their home, and 42 percent thought that it would increase the price of their home; 73 percent of the real estate agents believed that a home adjacent to a trail would be easier to sell, and 55 percent agreed the home would sell for more than a comparable home from a different neighborhood (The Conservation Fund and Colorado State Parks State Trails Program, March 1995).

- According to a study of the effect of the Brush Creek Trail in Santa Rosa’s Rincon Valley on property values and crime, 49.3 percent (out of 75 respondents) of the adjacent residents thought the trail would have no effect on selling the home and 29.3 percent thought the trail would make the home slightly easier to sell. 69.3 percent thought the trail would have no effect on the selling price of the home and 20 percent thought it would make the home sell for slightly more. Sixty-one percent of the real estate agents surveyed (out of 31 surveyed) stated that they would use the trail and creek as selling points (Murphy, 1992).

- An increased stability of listing is considered to be the greatest value brought to trailside properties by the Northern Central Rail-Trail in Baltimore County, Maryland. According to this study (Analysis of Economic Impacts of the Northern Central Rail-Trail) conducted for the Maryland Department of Natural Resources in 1994, “if two identical properties are for sale and one is near the trail and the other is not, the trail is used as a selling point and helps many nearby owners sell their property faster.” The study also found that 63 percent of survey respondents, comprised of trail users, nearby landowners and local businesses, felt the trail enhances nearby property values (PKF Consulting, 1994).

- According to James Amon, Executive Director of the Delaware & Raritan Canal Commission: “Realtors show the canal park to potential homebuyers and have reported that proximity to the trail raises the value of these homes. Industrial recruiters tell us that they always show the canal park to prospective employees.
Senior citizens have said that it is the number one reason they stay in the region" (Rails-to-Trails Conservancy and National Park Service, 1995).

Figure 3. Enhanced property value due to presence of canal.

(2) Tourist-Visitor Expenditures and Business Revitalization: Studies have shown that trails stimulate local economies. By attracting bicyclists, hikers, cross-country skiers and other tourists, trails in turn, attract and revitalize businesses, create jobs, and increase public revenues. The income generated by these recreational activities can be of substantial importance to the existing local economy as well as a significant source of new local economic development.

- According to the previously mentioned study, The Impacts of Rail-Trails, use of the trails surveyed generated a significant amount of economic activity from two major sources: trip-related expenditures and additional expenditures on durable goods. Trip related expenditures by trail users (food, lodging, gas, etc.) ranged from $1.2 to $1.8 million per year. Durable goods (bicycles, clothing, supplies, etc.) purchased by
trail users ranged from $130 to $250 per trail user per year. New money brought into the communities by visitors using the trails ranged from $249,000 to $630,000 per year respectively. Local economies of communities through which the trails pass averaged an increase of well over a half a million dollars in annual direct expenditures made by trail users during their visits as well as significant additional expenditures made on durable goods related to trail use (National Park Service and Pennsylvania State University, 1992).

- *Analysis of Economic Impacts of the Northern Central Rail Trail* found that while the 1993 budget to provide the trail to the public was $191,893, the direct economic inputs to the state of Maryland via tax revenue alone were $303,750. The demand for the trail is illustrated by an increase in use of 10,000 visitors per annum in 1984 to over 450,000 in 1993. In 1993, trail users spent an average of $203 on goods for use on the trail. This increase in use has had an enormous economic impact on nearby businesses, leading to the creation and support of 264 jobs statewide. The value of goods purchased because of the trail for 1993 was valued at over $3.38 million (PKF Consulting, 1994).

- Within weeks of the Katy Trail dedication in Missouri, new and old businesses were vying for tourist dollars. These communities which were in economic decline since the demise of the nearby railroad and were initially opposed to the trail, changed their sentiments when the flocks of visitors proved to be responsible, likable guests who needed goods and services available in the small towns. A 1993 user survey showed that it generated an estimated $3 million in local revenue (NBPC Technical Brief, September, 1995).

- When a towpath trail (canal trail) opened in Peninsula, Ohio, the influx of trail users led to the conversion of a former bar and gift shop into a successful bicycle rental and repair shop. The towns Winking Lizard Tavern has also benefited from the trail with an increase of 200 customers a week in the first year since the trail’s opening (Rails-to-Trails Conservancy and National Park Service, 1995).

- Michigan’s Hart-Montague Bicycle Trail follows along the eastern coast of Lake Michigan. After six months of bicycle use along the trail, business has increased for
several owners by 25 to 30 percent. Trail passes brought in revenues of approximately $40,000, up 33 percent from 1991 (Aardema, 1992).

- Peak season hotel rooms along Wisconsin’s Elroy-Sparta State Park Trail are booked up to a full year in advance. A state study of the trail revealed that the destination is so desirable that an average visitor will travel 228 miles to experience it. Half of all the trail users are out-of-state visitors who bring “new” money into the state. The total average expenditure per party is $105.35. In 1988, users of the trail averaged expenditures of $25.14 per day for trip-related expenses. Total trail user expenditures in 1988 were over $1.2 million (Schwecke, Sprehn, Hamilton, and Gray., 1989).

- A ten-foot wide perpetual easement to U.S. Telecom, issued by the trail managing entity of Wisconsin’s Glacial Drumlin Trail, helped pay to pave the 48 mile trail. U.S. Telecom paid out $375,000 for the paving of the trail in exchange for use of the corridor (Ryan, Fink, Lagerwey, Balmori, and Searns, 1993).

- The Campbell Inn in Campbell, California was required to provide an easement for the Los Gatos Trail as a condition for development. Realizing the marketing potential of the trail, developers constructed part of the trail and provide rental bicycles for hotel guests. The Inn promotes the trail in their brochure: “For fitness and fun, The Campbell Inn offers a jogging/ biking trail connecting to a full series par course which...runs along a scenic trail, passing through forests and alongside a stream and two beautiful lakes” (National Park Service, 1995).

- Once known as an industrial city, Pueblo, Colorado made a decision early on to improve its appearance and amenities in order to attract new business. The investment made in trails and parks along the Arkansas River and Fountain Creek is now credited by city fathers as one of the most important components in turning around economic decline (Denver Post, January 27 1990).

- In his book, Greenways For America, Charles E. Little, speaks of the “edge effect”. He compared the total edge in feet of a traditional park and a linear park of equal area (100 square acres) and found the greenway has 5.65 times as much apparent open space or edge (41,800 linear feet) as the traditional round park. In economic terms this meant that for every dollar of taxes spent on the traditional park, you get the same
edge effect (assuming an equal price per acre) with an expenditure of eighteen cents for a greenway (Little, 1995).

Since each trail is unique, all of the examples mentioned above can only point to the possibility that economic benefits will result from the creation of any particular trail. However, knowledge of what factors make significant economic impacts can only help in the planning and management of these recreational trails, and whether it is a river trail, rail-trail or canal trail most of the factors that create the impacts mentioned above are pandemic to each type of trail. Also, economic impact is only one benefit associated with the development of recreational trails. What may be considered even more important than the economic impact is the recreational opportunities, the preservation of open space and the heightened quality of life these resources provide (Moore, Gitelson, and Graefe, 1994).
Social Benefits

The major social impacts of canal trails include recreation, health and fitness and transportation benefits. One of the true potential benefits of a canal trail is that it would allow the community to recreate and exercise in scenic, natural settings that are not available by using streets and sidewalks. Studies have shown that health, fitness, and recreation are considered to be important benefits derived from the use of trails:

- A study of three different trails summarizes the overall value of recreational trails well. When asked why they had visited the trails and their perceptions of the highest benefits the trails have to offer, trail users and adjacent landowners alike emphasized benefits related to: health and fitness, safe/automobile-free recreation, peace and quiet, social interaction, recreation opportunities, preservation of open space, community pride, improved neighborhood quality and nature/wildlife appreciation (National Park Service and Pennsylvania State University, 1992.)

Figure 5. Multiple uses of canal trails.
Trails encourage the use of non-polluting transportation alternatives for short trips to work, school, or the local store. During and after development these trails become an expression of community pride and character and in many cases a means for preserving the natural and historical resources of a region. In cities and suburbs, where close to home recreation opportunities are becoming scarce, and open space is becoming fragmented, these trails are becoming more and more essential (NBPC Technical Brief, September, 1995).

Canal trails can serve as safe non-motorized transportation routes that could improve air quality and one’s health alike. It has become a well-known fact that the consistent practice of moderate physical activity is essential to improving our health and quality of life. Canal trails, with their flat gradients and proximity to communities, are ideal for starting and maintaining a daily routine of physical activity, with the added benefit of reducing vehicle trips if combined with regular commutes or errands (Doherty, 1998).

The most common forms of non-motorized transportation are bicycling and walking, which means that facilities for bicyclists and pedestrians will play a major role in the success of local transportation systems. According to the National Bicycling and Walking Study final report (half the trips we make are within 3 miles of home) these trips are well suited to travel by walking or bicycling. Canal trails would offer communities a means of safe and convenient transportation and keep the essential links within a community open to all. They could help connect neighborhoods to workplaces, schools, commercial and cultural centers, historic sites and transit stations (NBPC Technical Brief, September, 1995).
As previously mentioned in chapter one, one of the most important benefits of developing canal trails in urban areas is the significant potential for accessibility and linkage they provide to the communities they bisect. In northern Utah, developed canal trails could link residents within communities along the Wasatch Front to each other as well as to the nearby mountains. In a phone interview with the executive director of Weber County Pathways, Di Allison, she expressed an interest in forming interconnected trail systems all along the Wasatch Front. The chairman of the North Ogden Trails Group, Dr. Garth Willey expressed a similar interest: “Our dream is to have the highline canal be part of the trail system going from Brigham City and from Box Elder county down to the mouth of Ogden Canyon and tie up with the trail going up Ogden Canyon.”

However, in many cities throughout Utah, the intention is not only to provide improved access and linkages to recreational opportunities and the nearby mountains for an increased number of people along the proposed trails, but to also create a catalyst for improving the cities sense of community and health. Particularly in urban areas, canals bring water, light, fresh air and trees, which goes a long way in helping to humanize our cities (College of Architecture and Planning, University of Colorado, Denver, 1994). So, the creation of these trails is not about a collection of “environmentalists” infringing on property rights, but about a cadre of civic leaders, however disparate, who believe in the emblematic, as well as actual importance of linkage. The linkage of recreational and cultural resources, of wildlife populations, and of bringing neighborhoods, towns, cities and people of all colors and stations together, not only in the use of greenways, but also in the making of them (Little, 1995).
A developed canal trail contains elements of local character and regional influence, and reflects the hard work, enthusiasm, and commitment of individuals, organizations, elected officials and agencies. Everyone is able to take pride in having worked together to successfully complete the trail. As illustrated by the many public events that occur on the Northern Central Rail-Trail in Maryland, there is a sense of community pride associated with trails such as these. Local charities including St. Jude’s Children Hospital, the Maryland Air National Guard, and the National Kidney Foundation raise money and support by using the trail for walk-a-thons, bike-a-thons, and other activities. These linear parks offer inner city children and adults alike a chance to conveniently experience the outdoors and inexpensive access to parks and even national forests that may otherwise be inaccessible. They offer people a chance to get out of their homes and cars and come into contact with each other on a regular basis. They contribute to personal interaction, neighborhood socialization, and community unity (NBPC Technical Brief, September, 1995). As Charles Little very simply states in his book *Greenways for America*: “To make a greenway...is to make a community” (Little, 1995).

**Flora and Fauna Benefits**

Even though a heavily used canal corridor may not always provide high quality habitat due to varying disturbances caused by recreational use, they none-the-less, contain elements that make them valuable among increasingly fragmented habitats. Two major ecological functions that canal corridors can fulfill for wildlife are providing varying levels of habitat and acting as conduits or connections. Although periodic
maintenance, intermittent water supply and frequent human disturbance keep canals from developing certain natural characteristics and fulfilling complex ecological functions, they can exhibit much of the vegetation and wildlife diversity of natural riparian corridors. Although many canals lack the aquatic and microbial processes found in natural watercourses, due to the intermittent water supply, many provide valuable riparian habitat. This is particularly true of those that are unlined and where the long-term seasonal presence of water creates vegetation conditions similar to those of natural riparian corridors. Numerous species of native and non-native trees, shrubs and grasses contribute to the habitat available to wildlife along canals. Whether endangered, threatened, rare or abundant, flora and fauna use these corridors as havens from the fragmented urban landscape (College of Architecture and Planning, University of Colorado, Denver, 1994).

Figure 6. Avian habitat enhancement area sign.
In response to continued habitat loss and isolation, many landscape ecologists stress the urgent need for providing landscape connectivity, especially in the forms of wildlife movement corridors (Dramstad, Olson, and Forman, 1996). According to the still new profession of landscape ecology, corridors must be seen in the context of a larger landscape. Every land use or form is part of a patch, corridor, or a background matrix. Species, energy, and materials move not only through these corridors, and the matrix, but also from patch to patch. Properly designed, these corridors can help wildlife overcome the effects of fragmentation of habitat due to human development by increasing the effective size of protected areas, creating access and linkage to different habitats, and connecting wildlife populations (Labaree, 1992). Therefore, they offer a powerful strategy for helping to maintain ecological integrity in human-dominated landscapes, especially with regard to preserving biological diversity (Smith and Hellmund, 1993).

In terms of the impacts of recreation on the environment, the use of canal corridors makes sense. Studies have found the relationship between the amount of use and the resulting amount of impact to be "asymptotic" (differences in the amount of use influence the amount of impact most when levels of use are relatively low). These studies support the strategy of minimizing impact by concentrating use as much as possible. Increasing use levels in places that are already heavily used will probably have few negative effects (Smith and Hellmund, p.111, 1993). The implications of these studies support increased use of greenways such as the canal corridor, which are being used informally and sometimes intensely by their adjacent neighborhoods.
If thoughtful design strategies for managing impacts on the natural environment are incorporated into a developed canal trail, the quality of the recreational experience will not be diminished by an overly damaged environment within the corridor. Sensitive design can create a canal trail that serves as an environmental education facility. Through interpretation, residents can develop a greater awareness and appreciation for the natural resources in their area. It has been shown that trail users become significant advocates of the natural resources in their immediate surroundings (Rails-to-Trails Conservancy and National Park Service, 1995).

Cultural Preservation

Cultural preservation is another positive impact of developing irrigation canals. Irrigation canals are a living history of Utah. They represent a story of how early pioneers manipulated their environment to survive in a semi-arid climate, on once barren land. They tell a story of the bringing together of neighbors in order to manage and maintain the running of the ditches and the formation of friendships. Many cities throughout Utah are struggling to maintain or in most cases reclaim their sense of place and community, looking for something that makes them unique and distinguishable from every other city. Canals can provide a piece of the missing puzzle. They flow through the center of cities passing neighborhoods of all socio-economic levels, commercial and industrial districts, and through open space into agricultural lands. As a connective thread through the cultural fabric of the region, these canals offer an opportunity not only for understanding the past, but for developing new history (College of Architecture and Planning, University of Colorado, Denver, 1994).
Henderson (1987) suggests that one of the basic critical concerns of the canal company are that they are the holders of historic property interests which are essential to the continuation of their business. As development spreads out over agricultural farmland, their historic value and existing uses are both threatened. In some cases abandoned canals are ignored and eventually take on the status of an alleyway. For these reasons, preservation efforts will become increasingly necessary in the future. In order to preserve them it is important to increase awareness of the canals by educating citizens about their place in history, their cultural value, how they contributed to the development of their city, their uses today, and their vision for the future. If developed as trails, cities or agencies could place placards along the trail with a written history of the canal system, irrigation techniques and uses (College of Architecture and Planning, University of Colorado, Denver, 1994). This may not only increase awareness of the canals historic value but it would also give the canal an important role in the community.

Pilot Projects as Models

A well designed pilot project, no matter how large or small can be effective in demonstrating the benefits of a canal trail. As Robert Searns points out in his paper *The evolution of greenways as an adaptive urban landscape form*: “Well-executed greenways are infectious, and nothing promotes the spread of a greenway, even across jurisdictional lines, like an outstanding pilot effort. The people next door see it, they like it, and want to continue it into their community” (Searns and Baur, 1993). Once this domino effect of successful efforts start, canal company officials and neighborhoods throughout the state will begin to see the multiple benefits that come from a cooperative agreement in which
the critical needs of both the canal companies and the community are carefully taken into consideration.

There are some excellent and well-established examples of successful large scale canal trail projects throughout the United States which have demonstrated the economic, aesthetic and quality of life improvements in the communities they transect. These examples can also serve as models for Utah. One such project is the seventy one mile long and twenty plus year old High Line Canal in Denver Colorado. This canal has demonstrated that multi-jurisdictional ownerships can cooperate to create a valuable community resource.

Underlying Values

Irrigation canal rights-of-ways have values that are not always easily seen. As Robert Pyle notes in his book *The Thunder Tree*, the “potentials and values of irrigation canals go a lot deeper than what is superficially seen” (Pyle, 1993).

In 1910, Fredrick Law Olmsted, Jr., professor of landscape architecture at Harvard University and one of the founders of the profession of city planning, was invited to Boulder, Colorado, to prepare a pamphlet of suggestions for the cities ‘improvement’. In the pamphlet Olmsted proposed a park and trail along Farmer’s Ditch below Red Rocks Park. “Here and anywhere a considerable degree of charm is felt the very moment anyone takes care of the borders of such an irrigating stream in an appreciative spirit” (Qtd. By: University of Colorado at Denver). It is the physical and ecological characteristics of flowing water, flora and fauna, the availability of an existing,
graded maintenance road and their close proximity to neighborhoods which make these corridors/linear open spaces so unique as potential recreation corridors.

While he was speaking of natural corridors, Stanley White, a great teacher of landscape architecture, may as well have been speaking of irrigation canals when he stated that “the form is there, we just have to respect it and fit our human activities around those forms” (Qtd. By Fabos and Ahern, 1995 p. 8).

Figure 7. Canal designed as public space.

**Utah’s Recreational Use Statute**

Three and a half decades have gone by since 1964 when the Council of State Governments passed model state legislation in order “to encourage owners of land to make land and water areas available to the public for recreational purposes”. Model language was used by the Council in hopes that all states would eventually adopt this
legislation. Over the years, each state has done so and in the process state courts have worded, revised, interpreted and applied the legislation in the shape of their own unique interests. As time goes by this statute will become more and more refined (Lee, 1995).

Background

When canal companies and adjacent landowners grant an easement or lease to a public entity for recreational purposes, they open themselves to tort liability when entrants are injured. To promote public recreational use of private land, statutes limiting the liability of landowners have been passed by states. For private trail groups that own and manage trails and for private landowners opening their land to trail use, Recreational Use Statutes (RUS) offer protection from personal injury suits when allowing their property to be used by the public for recreational purposes. These state laws are on the books in all fifty states including Utah. Some state courts have interpreted these laws to include limitation on liability for a broad variety of public land managers, including municipalities, states and the federal government. The breadth of coverage provided by these statutes varies from state to state (NBPC, 1996; Douglas, 1997).

The legislative purpose as stated in Utah’s RUS explains that, “The purpose of this act is to encourage public and private owners of land to make land and water areas available to the public for recreational purposes by limiting their liability toward persons entering thereon for those purposes.” While courts have been interpreting and upholding the RUS in favor of the landowner who opens land for recreational use, it should be made clear that Utah’s RUS does not grant “immunity” from liability. Rather, the statute offers “limits” on a landowners liability toward persons using their land for recreational use.
There is a limit on the duty of care owed by the landowner to recreational users. Generally, property law divides entrants into three groups: trespassers, licensees and invitees. An invitee is owed the highest and a trespasser the lowest duty of care. Under the RUS the only duty of care owed the recreational user is that owed a trespasser. The landowner “owes no duty of care to keep the premise safe” and “warning of a dangerous condition” is not required “except as specifically provided in Subsections (1) and (2) of Section 57-14-6”. (Section 57-14-3) Section 57-14-6 provides, “willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity” can be grounds for suit. Therefore, since most canals have dangerous conditions and structures, canal companies would most likely be required to post warning signs in regards to these structures in order to receive protection from the RUS.

The landowner is not liable for injuries resulting from mere carelessness of the injured party. To recover damages the injured party would have to prove that the landowner engaged in willful or malicious misconduct (Lee, 1995; Douglass, 1997). In a precedent setting case, a plaintiff failed to bring a case for willful or malicious conduct against an irrigation company in a wrongful death action arising out of death of a swimmer who was swept under water while swimming in an irrigation ditch. The allegation that the irrigation company failed to take reasonable action to protect the public in the face of knowledge of an unreasonable dangerous condition failed to bring a case for willful or malicious conduct (Golding vs. Ashley Cent. Irrigation Co., 793 P2d 897, Utah 1990). According to this case, canal companies are not required to post warnings in regards to the swift moving waters of their canals.
As defined by this statute an “owner” includes the possessor of any interest in the land, whether public or private land, a tenant, a lessee, and an occupant or person in control of the premises.” Therefore, since canal companies hold an “interest” in the land, they are offered protections under this statute when they open their canals to the public for recreational purposes.

When landowners allow recreational use of their land they are protected whereas, if they post no trespassing signs in addition to allowing recreational use, they are not. For example, in order to gain protection under the RUS, landowners must show that they have given permission for their land to be used for recreational purposes. Some states presume that unless otherwise indicated permission has been granted. Utah’s Supreme Court, in contrast, has required some showing that the land was open for recreational purposes (Golding v. Ashley Cent. Irr. Co., 1990).

Because the RUS’s intent is to make land available to the public, charging a fee for use of the land would negate its protection. If a landowner attempts to charge individuals entering their land, they will loose the protection of the RUS, regardless of whether or not they have granted an easement. (Section 57-14-4, 57-14-6)

Precedent setting cases for Utah’s Recreational Use Statute include: Golding vs. Ashley Cent. Irrigation Co., 793 P.2d 897 (Utah 1990); Jerz vs. Salt Lake County, 882 P.2d 770 (Utah 1991); Crawford vs. Tilley, 780 P.2d 1248 (Utah 1989); Lossli vs. Kennecott Copper Corp., 849 P.2d 624 (Utah Ct. App. 1993); and Zollman vs. Myers, 797 F. Supp. 923 (D. Utah 1992) (See Appendix C, for Utah’s Recreational Use Statute)
Challenges

A challenge in regards to the RUS is that even though it does offer canal companies and adjacent landowners a significant measure of protection they should be made aware that due to some ambiguities in its language, its susceptibility to the whims of juries and its varied applications from state to state, protection is not a sure thing and should never be assumed. (Lee, 1995) According to Robert D. Lee, a professor at Pennsylvania State University, an owner must ask several questions before assuring themselves protection under the RUS. These question are followed by responses based on research conducted for this study. These questions should be discussed with an attorney.

- **Is my land the type that is protected by the state?**

  “Land” is defined as “any land within the territorial limits of the state of Utah and includes, roads, water, water courses, private ways and building, structures and machinery or equipment when attached to the realty.” (Section 57-14-2)

- **Does my state require that the land be suitable for recreational purposes?**

  There is no language in Utah’s RUS stating that the land be suitable for recreational purposes. (refer to above definition of “Land”.)

- **Should I be concerned about the proposed recreational uses?**

  “Recreational Purpose” is defined as “includes but is not limited to, any of the following or any combination thereof: hunting, fishing, swimming, skiing, snow shoeing, camping, picnicking, hiking, studying nature, water-skiing, engaging in water sports, using boats, mountain biking, using off-highway vehicles or recreational vehicles, and viewing or enjoying historical, archeological, scenic, or scientific sites.”
- **Must I demonstrate that I have given permission for recreational use on my land?**

  Some states presume that unless otherwise indicated permission has been granted. Utah’s Supreme Court, in contrast, has required some showing that the land was open for recreational purposes. (Golding v. Ashley Cent. Irr. Co., 1990)

- **Will I be protected if I charge users?**

  Because the RUS’s intent is to make land available to the public, charging a fee for use of the land would negate its protection. If a landowner attempts to charge individuals entering their land, they will lose the protection of the RUS, regardless of whether or not they have granted an easement. (Section 57-14-4 and 57-14-6)

- **Are there conditions on my land that could be considered attractive nuisances?**

  Section 57-14-13 states that “an owner of land owes no duty of care to keep the premises safe for entry or use by any person using the premises for any recreational purpose,…” Exceptions to this are Subsections (1) and (2) of Section 57-14-6 (see Appendix C.) and whether or not there was an “attractive nuisance”.

  A long time established part of property law states that owners must protect young children from attractive nuisances. An attractive nuisance can be summarized as a situation that is inherently dangerous and enticing to unknowing individuals, and in these cases, the plaintiff must contend that the child was unaware of the dangers in whatever he or she did (Lee, 1995).

  Open, concrete lined canals are most likely to be an attractive nuisance due to the steep ledges and moving water. As noted in the interview by Terel Grimley, President of Utah Water Users Association (question #8), Utah courts have held that irrigation companies are released from liability in regards to “attractive nuisance” due to the sizable
burden of requiring piping of the canal. To mitigate for this, developers building next to canals are now required by law to install fencing along the corridor. So whether or not the courts will continue shielding from liability when a recreational trail is thrown in the picture is a question that will have to be answered by the public entities lawyers and begins to go beyond the scope and purpose of this report.

Affected Parties

The affected parties of a proposed canal trail include regional, county and local communities; the perspective canal company/water authority; adjacent landowners and future trail users. As Charles Little states in his book *Greenways for America* “In the main, greenway-making is by its nature an extremely visible conservation activity. The very linearity of a greenway means that its existence, or lack of it, will affect many lives” (Little, 1995). Canal trails fall into this category because, just like any other form of recreational trail, they are non-exclusive. A single canal trail can impact all socioeconomic levels, embody all types of land uses and fulfill the needs of multiple recreational uses, while hopefully enhancing the impacted canal companies/water authorities needs.

Regional, County and Local Communities

Due to the broad-reaching social, environmental and economic effects of recreational trails, individual communities with their groups, associations, councils, societies and organizations are intensely engaged in all stages of development. Because of this, grassroot groups play a vital role in the trails master planning stages. As illustrated in this chapter, canal trails impact the recreational, economic, transportation,
environmental, wildlife, open space, cultural and quality of life aspects of the surrounding communities and region they bisect. While studies have shown that most of these impacts are positive, there will nevertheless be impacts positive and negative that will be of concern to the communities they bisect.

**Canal Company/Water Authority**

As the impacts on, and concerns of this group have been less examined in literature, it is this group which this study focuses on. A thorough investigation of the perceived effects of a proposed canal trail on this group follows in the subsequent chapter entitled “Canal Company Interviews”, Ch. V.

**Adjacent Landowners**

This is a group that has been extensively examined in numerous studies and reports. Due to the physical presence of a proposed trail in their backyard, the effects on adjacent landowners go beyond the social, environmental and economic impacts experienced by the larger matrix of the community, to include more immediate and personal concerns involving crime, property values and liability issues. There is more intense interest among this group regarding trail design and management issues. To assuage these concerns, this affected group has to be made aware of the project during its inception and should be involved throughout the design and implementation process. A review of related literature can be found in Chapter IV: “Adjacent Landowner Concerns”.
Trail Users

This group consists of a whole gamut of recreational interests including bicyclists, runners, walkers, rollerbladers, horseback riding, photographers, naturalists, etc. These recreational groups often are represented by grassroot associations, nature and recreational societies, non-profit organizations, etc. They are also represented by larger national organizations such as the Rails-to-Trails Conservancy and even governmental agencies such as the National Park Service. The impacts of a canal trail on this group have more to do with trail design issues and availability. Since this group is part of the community and more than likely consist of adjacent landowners, their concerns are representative of concerns of most groups effected by canal trails. An analysis of trail user demographics studies can be found in chapter IV: “Adjacent Landowner Concerns”.
CHAPTER IV
ADJACENT LANDOWNER CONCERNS

"When we try to pick anything out by itself, we find it hitched to everything else."
John Muir

Opposition from adjacent landowners presents the greatest potential obstacle to trail development, as it is these individuals who have a direct interest in what happens in their backyard. The ability to work effectively with and understand the perceptions of this group of people is fundamental for the success of trail initiatives. It is always more than worth the effort to meet with and carefully listen to the concerns of individuals who are affected in any way by a proposed trail (Flink, and Searns, 1993). Simply acquiring the land that cross their property lines is trivial without the association of effectively addressing their concerns. With their support, adjacent landowners can be powerful allies along the road to completing and maintaining a trail project.

It takes only a few opponents to halt a project. Resistance from these few opponents can result in bureaucratic dormancy and financial difficulties. The concerns these individuals have usually stem from fear of the unknown and anxiety about the effects of the trail on their quality of life. Regardless of whether their concerns have merit or are a result of misinformation, "NIMBY" (not in my backyard) attitudes, territorial instincts, etc, have proven to be very capable of inflicting terminal damage on trail projects. To take even one opponent lightly could have negative consequences on the outcome of a trail project. When these fears and concerns are not energetically
addressed and acknowledged at the very outset of a project, five percent opposition may as well be one hundred percent opposition.

Trails are public works projects which have to go through a public approval process. Trails serve an important public interest, so it is an unfortunate loss to the community as a whole when they are blocked by individual opposition or special interest politics. It is important to remember that, after all is said and done, it is a lack of information and unanswered criticism of trail proposals which usually fuel opposition to trail projects (Doherty, 1998).

Due to the linear nature of trails, they not only cross legal and political boundaries but also have varying impacts on adjacent land uses along the length of the corridor. The term “adjacent landowner” is not only exclusive to the urban or suburban homeowner but also includes the rural farmer or rancher whose concerns expand to the impacts of the trail on their livelihood. It is for this reason that agriculturalists will have particularly strong concerns. Although issues vary depending on the particular situation there are some general concerns that all of these landowners share whether the project is a rail-trail, canal-trail, or any other form of recreational trail. The outstanding concerns that are heard most often from adjacent landowners are a fear of increased crime, decreased property values, increase in liability and trail design and management.

There are numerous published studies which examine these fears, concerns and perceptions. Summaries of studies related to these general concerns are noted within this chapter. These studies have concluded that once a trail is opened a majority of the perceived problems associated with trail development do not materialize.
Jennifer Harrington, the former senior landscape architect for Park City, Utah and instrumental in the development of the Park City Rail-Trail, suggests that “the adjacent landowner issue is a “red herring”. (phone interview) There are always going to be adjacent landowners opposed to trail development. While studies and testimonials offer a good starting point in developing support for a project, they are meaningless and irrelevant if not accompanied with broad minded discussion of what is really important and valuable to the community as a whole. It is easier to change someone’s mind with sincere interest and response to their concerns, than throwing figures and tables at them. As Harrington notes, “the documents [studies] help the community planners, not so much the immediate adjacent landowner, because they can see another community has looked at this.”

While the studies reviewed in this chapter can be useful in the development of trails, the political, social, and economic factors surrounding these studies vary. Other parts of the country may have a more or less favorable environment for trail development. As already pointed out, studies such as this one and the ones listed above are not going to get trails built by themselves, as facts, figures and statistics, but can be beneficial as guides.

**Common Adjacent Landowner Concerns and Related Literature**

**Increased Crime**

This category includes issues such as vandalism, trespass, burglary, privacy, safety, and littering. Because the development of a trail opens the corridor to the general public, adjacent landowners view this as an invitation for “undesirable outsiders” to
threaten their existing sense of safety. It is often perceived that what was once a nice informal trail that only the immediate local community used, will now be open to “all walks of life” from the larger community. It is important however, to note that trails not only benefit the community as a whole but also benefit the adjacent landowner as well. What was once an unmanaged and dangerous quasi-public space becomes a managed and maintained amenity. Studies have concluded that trails are safe places for local residents and visitors to enjoy.

- In a survey in which 372 trail managers reported crimes against persons or property committed on their trails during 1995 and 1996, only eleven rail-trails in 1995 and ten rail-trails in 1996 had experienced any type of major crime (3% of responding trails). According to this study major crimes included mugging, assault, forcible rape and murder. In a comparison of urban, suburban and rural trails, only three urban trails reported assaults in 1995 and 1996. According to this same study, only one fourth of the rail-trail managers reported any type of minor crime, such as graffiti or littering and these problems were corrected as part of a routine trail management program. In a letter from a law enforcement official it was noted that litter was virtually nonexistent on a section of converted trail, but was overwhelming on portions which had not been converted (Tracy, and Morris, 1998).

- A 1980 study by the Minnesota Department of Natural Resources compared adjacent landowner attitudes on a pair of proposed trails (Root River and Soo Line) with the attitudes of landowners along two established trails (Douglas and Heartland). On the proposed trails 75% of landowners thought that if a trail was constructed it would mean more vandalism and other crimes. By contrast, virtually no landowners (0% and 6% respectively) along the established trails agreed with the statement “trail users steal”. In response to the statement “summer users trespass”, only 5% of the landowners along the two established trails agreed (Minnesota Department of Natural Resources, 1980).
Eight years after the Minnesota DNR study a graduate student interviewed the same adjacent landowners along the rural Root River and another established urban trail (Luce Line). According to this study, 73% of all landowners view the Root River and Luce Line Trails as a desirable feature. According to the author, "The increase in the desirability rating on the Root River is due to a change in the attitude of farmland residents who owned property prior to trail development." A majority of all landowners (85%) did not experience major problems with the trails. 80% of the landowners believe the trails do not increase the rate of violent crime (Mazour, 1988).

A study of the effects of urban trails on crime and real estate values, completed as a joint project of the Conservation Fund and Colorado State Trails Program, surveyed and interviewed real estate agents, police and residents along three Denver-area trails. The trails ranged from a paved greenway trail through a low-income neighborhood to a crusher fines canal trail in an upscale suburb. The study found that serious public safety concerns have not arisen in neighborhoods with urban trails running through them and there is strong support for urban trail by residents who live either adjacent to a trail or within one block. The general opinion was that the trails are an amenity to the neighborhoods around them (The Conservation Fund and Colorado State Parks State Trails Program, 1995).

In another study of the 12.1 mile long Burke Gilman Trail in Seattle, the purpose was to determine what effect the trail has had on property values and crime affecting property near and adjacent to the trail and to evaluate public acceptance of the trail and the trails effect on the quality of life of adjacent property owners. Data were collected via telephone interviews of 110 residents. Residents were asked what problems, if any, they have had with break-ins and vandalism by trail users. The study concluded that concerns about increased crime due to construction of a multi-use trail were unfounded. Homes immediately adjacent to the trail did not experience any increase in burglaries and vandalism as a result of the trail. The results showed that in the eight years of the existence of the trail there was an average of 1.25 break-ins and 0.9 incidents of vandalism per year where a trail user may have been
involved. This was well below the neighborhood average which, given the number of homes along the trail, would expect about five incidents per year. 84.6% of the respondents did not have to make an effort to keep users off of their property. Not one resident felt that there were problems caused by the trail that warranted its closing. Police officers interviewed stated that there is not a greater incidence of burglaries and vandalism of homes adjacent to the trail mostly due to restricted vehicle use (Seattle Office for Planning, 1987).

- A 1992 study by the National Park Service which evaluated the impacts of rail-trails on nearby property owners found that, overall, trail neighbors had experienced relatively few problems associated with the trail. The problems most frequently reported by landowners were unleashed and roaming pets, illegal motor vehicle use and litter on or near their property. A majority of the landowners reported that since the opening of the trial there had been no increase in problems, living near the trail was better than expected and better than living adjacent to the unused rail corridor before construction of the trail (National Park Service, 1992).

- The purpose of another study done as part of a senior project in Santa Rosa California, was to determine what effect, if any, a bicycle and pedestrian trail (Brush Creek Trail) has on the values of properties and crime rates. The results of the seventy five survey responses do not support claims that trails adjacent to residences cause an increase in crime and suggest that the Brush Creek Trail does not cause an increase in crime. In a question in which the residents were asked if they have directly experienced any crime where someone from the trail was involved, 80% responded no. Of the twenty percent that responded yes, the most common types of vandalism included “kids throwing eggs” and “kids broke fence”. When asked how the trail effects their sense of privacy, 53% stated it had no effect on privacy and 30.7% felt it decreases privacy slightly. Considering the trail has been open for nine years these crimes are very minor in nature. The most overwhelming opinion of the residents (65%) is that the trail has a positive effect on the quality of life in the neighborhood (Murphy, 1992).
The purpose of another study was to examine the effects of the 35 mile long, multi-use Mohawk-Hudson Bike-Hike Trail, located in upstate New York, on adjacent residential property, including the types and extent of trail related problems experienced by trail neighbors. While there were some disadvantages expressed by some adjacent homeowners, most reported being satisfied with the trail as a neighbor and experiencing relatively low rates of trail-related problems. Only 12.2 percent of the residents reported being unsatisfied with the trail as a neighbor and 75.9 percent reported that trail users do not pose a risk to their personal and family safety. 8.2 percent had no opinion and 15.9 percent said yes. The respondents were presented with a list of twelve possible problems associated with the trail and its users which ranged from “litter on/ near my property” to “users harass my pets”. These were scaled from 1 (not a problem) to 5 (major problem). Five of the items had means just above two and seven had means below two. Even for the worst perceived problem “litter on/ near my property”, 41 percent reported that its “not a problem” and 14 percent reported that it’s a “major problem”. When given the opportunity to add additional items not listed, illegal motor vehicle use was listed the most as a problem, followed by teenagers partying at night in the summer and loss of privacy (Schenectady County Department of Planning, 1997).

As illustrated in the summaries above, the experiences of serious problems with crime associated with developed trails are negligible. Two reasons frequently cited by police officers are that there is usually controlled vehicular access to the trail, via Bollard’s or fences that are opened by maintenance personnel only, and there is a “policing effect” of dedicated and observant trail users who report suspicious activities.

According to a study which evaluated trail user demographics, the trail users were well-educated and earned substantial incomes. Over 80% of the users surveyed had acquired some college or technical training, and 26% had earned advanced degrees. The surveys also showed that the leading occupation categories were white collar,
professional and technical (33%) and 15% were managers and proprietors (Illinois Statewide Trail User Study, 1990).

- Another study of user demographics concluded that the majority of the trails users (69 percent) traveled less than five miles to get to the trail and a significant percentage of users (47 percent) appear to be dedicated repeat users, reporting uses of once a week or more (Schenectady County Department of Planning, 1997).

- This is supported by another study in which “many users reported using the trail twice daily, for “fresh air” or walking their dogs” (National Park Service, 1992).

Factual information and testimonials from police who patrol trail areas will go a long way to easing landowner concerns over increased crime. The presence of voluntary or professional trail patrols equipped to alert emergency services and neighborhood watch groups improves enjoyment of the trail. The main function of these patrols should be to educate users and provide assistance when necessary. According to a survey of 372 rail-trail managers in urban, suburban and rural areas, 69 percent, 67 percent and 63 percent, respectively, are patrolled in some way (Tracy and Morris, 1998).

Decreased Property Values

Along with the other major concerns, a recurring concern expressed by landowners living along proposed multi-use trails is that the development of a trail corridor along their property will decrease their property values and will affect their ability to sell their homes. There are numerous case studies which have determined what effect trails have on the property values of adjacent landowners. These studies have concluded that trails have no adverse effects on the value of property adjacent to trails and in most instances result in enhanced value and increased salability. They have also concluded that trails positively stimulate local economies. (See Economic Impacts:
Chapter III for a description of studies/findings regarding impacts of trails on property values.)

Increased Liability

Adjacent landowners fear that a trail user will wander onto their property, injure themselves and hold the landowner liable. While state law provides a measure of protection for property owners via recreational use statutes (RUS), adjacent landowners are still fearful of potential litigation. While these statutes cannot prevent landowners from being sued, it does grant them certain protections. The RUS does not grant immunity but it does offer limitations on a landowners liability when they allow recreational use on their property.

It should be noted that it is always difficult to predict how a court will interpret the RUS as it is or when it gets amended. Therefore, despite the significant liability protection Utah’s RUS offers, a landowner may want the additional liability protection of a commercial liability insurance policy due to the circumstances of the public use arrangement. This insurance can also be purchased by the public entity with the landowner as named as an “additional insured” or “additional named insured” (Carrier and Corbin 1994). These liability fallbacks will hold more weight than the RUS will in court. (See Chapter III and Appendix C)

Maintenance and Management

Adjacent landowners are especially sensitive and aware of the management issues, and happen to be major stakeholders in the overall quality of management of the proposed trail. Therefore, they are going to have grave concerns about the threats a trail
will have to their traditional enjoyment of their property and to the aesthetic quality their neighborhood. They do not want neighboring public lands to become eyesores or junk heaps via careless maintenance. Some of their major concerns are going to be related to trash pickup, trash deterrents, tree pruning, drainage control, weed control, adequate sanitary facilities and screening. One reoccurring problem along trails is irresponsible dog owners not picking up after their pets.

Adjacent landowners must be an integral part of a regular maintenance and management plan for the new trail. The plan should use their knowledge of the existing conditions, their property and the surrounding landscape to better manage the trail. By including landowners in the management and monitoring of the trail, trail managers can keep in touch with landowners and the landowners develop a sense of ownership of their stretch of trail, thereby creating a few hundred managers who can spot maintenance and manage problems as they occur (Illinois Department of Conservation, et. al. 1990; Ryan, et. al., 1993).

Fear of Something New

It is a natural human instinct to fear something that is new and untested. There are many challenges for cities and agencies involved in the establishment of trails along irrigation canal corridors. Any time something new is proposed there is always going to be a certain amount of anxiety which even in small doses can spread like wildfire and eventually dominate and torpedo any project. Generally speaking, proposed trail development may be greeted by 25% acceptance, 25% disapproval and 50% indifference. It's the 50% who can be swayed in either direction. Support for a trail cannot be taken
for granted and legitimate concerns about the impact of trails need to be addressed openly, early, and often, to prevent those concerns from becoming intense opposition (Doherty, 1998). Isolating the most prevalent issues and fears in the very beginning of a project and addressing them throughout the process is the biggest challenge facing any agency or proponent of a canal trail. The solution lies in cooperation between canal companies, municipalities, adjacent landowners and recreationists in order to develop an agreement in which all concerns and needs are carefully and respectively addressed in order to create a “win-win” situation for all effected parties.
CHAPTER V
CANAL COMPANY INTERVIEWS

"Life is no brief candle for me. It is a sort of splendid torch which I have got hold of for the moment, and I want to make it burn as brightly as possible before handing it on to future generations."

George Bernard Shaw

This chapter reports the attitudes and concerns of canal company officials regarding public access and use of their rights-of-way. The source of information is six survey interviews conducted with canal company officials in northern Utah. The interviews were conducted in an open-ended format, enabling the officials to thoroughly express their concerns. The purpose of the open-ended interviews was to obtain as naturalistic a response as possible. The goal was to gauge general sentiments and to determine the major concerns and issues revolving around the development of recreational canal trails. The opinions expressed by each of these individuals does not necessarily reflect the official canal company policies. It is not the intent of this paper to address the ultimate validity of each individual's concerns but rather to attempt to gain insight into attitudes on a number of issues..

Interview Surveys

There are a number of advantages to having a questionnaire administered by an interviewer as opposed to the respondent filling out a questionnaire. First of all, the response rates attained in interview surveys are much higher than in mail surveys. Completion rates are usually at least eighty to eighty five percent (Babbie, 1992).
Respondents are more reluctant to say no to someone who is asking to sit down with them for a few minutes than they are to toss a mail questionnaire into the trash. Because the interviewer can probe for answers the respondents are less likely to say “don’t know” or “no answer”. Interviewers can also help clarify questions that may be misinterpreted or misunderstood, thereby obtaining relevant responses. Most importantly though, the interviewer can observe the reactions to certain questions and ask additional questions in order to help the respondent clarify their reaction, giving the survey an additional level of validity and depth.

Although there are a number of advantages to using the interview survey, there are a number of procedures that must be followed to obtain successful results. The interviewer’s presence should not affect the respondent’s perception of a question or the answer that is given. He or she should be a neutral medium through which the questions and answers are transmitted. Under no circumstances should the interviewer communicate through word or gesture a bias concerning the topic of the interview. The appearance and demeanor should be that of the people being interviewed. The interviewer should have a confident familiarity with the questionnaire: Questions should be read exactly and precisely (Babbie, 1992).

**Interview Development and Methodology**

The canal company data contained in this chapter was collected through the use of interview surveys. The survey instrument is composed of seven sections including a preliminary information section (data collected before the interview) and 39 questions. The average length of each interview was approximately one hour long and was tape
recorded for later use of transcribing the information. (See Appendix B for transcripts). Given the length of the interview an attempt was made to keep the respondent’s burden to a minimum. Questions 20-23 were taken from a feasibility study conducted by the Grand Junction Urban Trails Committee (The Grand Junction Urban Trails Committee, 1996).

Survey Pre-Test

Prior to setting up the interviews, a survey pre-test was conducted on two individuals. After completing the questionnaire, the participants were interviewed to weed out problems with the overall layout, bias or ambiguity in the questions themselves or how they were asked, (confusing questions, repeated questions, etc). It was also noted how much time it took to complete the interview. As a result of the pre-survey several questions were either removed or modified.

Interview Population

The interview population consisted of six individuals in high ranking positions within canal companies who are either dealing with or have dealt with issues of public use of their canal corridors. All six individuals represent irrigation canals which divert from some of the major systems along the Wasatch Front. The goal was to interview canal officials who are in the midst of negotiations to develop a public recreational canal trail on their canal corridor. The individuals were eventually found through word of mouth and referrals after extensive phone conversations with key individuals.
Setting up the Interview

Setting up the interview with these individuals was not difficult. The reason for the 100% response rate was due to the fact that they were very receptive to the idea of discussing a topic that is in the forefront of their minds. Because the issue of opening their canals to public use is of concern to them and to the company as a whole, some strong opinions were voiced.

Preliminary information was obtained before the interview. This information included name, title and technical information about the canal. Two of the six participants asked for the questionnaire in advance of the interview and were granted it. In retrospect, given the higher levels of enthusiasm and preparedness of these two participants, it would have been beneficial to send the questionnaire to all of the participants in advance. The reasoning behind not doing it was to keep the respondent burden to a minimum, especially with the length of the interview.

Preliminary Information

Listed here are the six individuals who were interviewed. For more detailed information about the respective canals see Appendix B.

- **Name:** Terel Grimley
  
  **Title/ Titles:** President of Utah Water Users Association  
  President of North Ogden Irrigation Company  
  General Manager of Pineview Water Systems (Ogden R. W. U. A.,  
  South Ogden Cons. Dist., and Weber/ Box Elder Cons. Dist.)
Administers to what canals?
Ogden-Brigham Canal
South Ogden Highline Canal
North Ogden Irrigation Canal.
Which of these are being considered for trail development by others?
Ogden-Brigham Canal, South Ogden Highline Canal and North Ogden Irrigation Canal.

- Name: Floyd Baham
  Title/ Titles: General Manager of Davis-Weber Counties Canal Company
  Administers to what canals?
  Manages the Davis and Weber Counties Canal Company
  Which of these are being considered for trail development by others?
  A section through Clearfield and Layton which is about 6 miles long.

- Name: Ed Vidmare
  Title/ Titles: Chief facilities management group (Chief of O and M), Bureau of Reclamation
  Administers to what canals?
  Thirty Five Canals Throughout the State of Utah.
  Which of these are being considered for trail development by others?
  Provo Reservoir Canal (Murdock Canal) – Provo River
  Ogden- Brigham Canal (Highline) – Ogden River
  Steinaker Service Canal – Vernal – Uintah County (Existing Trail)

- Name: Jonathan Clegg
  Title/ Titles: Assistant superintendent of Provo River Water Users Assoc. (PRWUA)
  Administers to what canals?
  Weber-Provo Diversion Canal (Conveyance from Weber to Provo R.)
  Provo Reservoir Canal (Murdock Canal)
  Which of these are being considered for trail development by others?
  Murdock Canal

- Name: Peter Kung
  Title/ Titles: President of Crockett Avenue Distribution System
  Secretary Treasure of Logan River Water Users Association
  On board of directors for Logan N.W. Field Canal
  Administers to what canals?
  All seventeen canals in the Logan River Water Users Association, 10 of which are members of Crockett Avenue.
  Logan N.W. Field Irrigation Company.
  Which of these are being considered for trail development by others?
  Logan, Hyde Park and Smithfield Canal
  Logan Northern Canal has been proposed
The following is a summary of the six respondents' answers and is broken down by each question. The questions are bolded as they appear on the actual questionnaire. In some cases, these are followed directly by small text that was used in the interviews to help the interviewer offer more focused questions above and beyond the main question. These are followed by brief summaries of the six respondents' answers and then by quotes which were selected based on their ability to summarize the most prevalent attitudes of the group as a whole. When various points were made in response to a question, they are broken out into separate summaries followed by selected quotes.

**Current Use By The Public**

1- **Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?**

The responses to this question ranged from no use at all to a couple of developed canal trails that are being used extensively by the public. These two trails are the South Ogden Highline Canal, which runs through the Ogden City Golf Course and is piped and covered, and the Steinaker Service Canal in Vernal City which is open. In terms of existing informal uses of their canals, there are numerous uses that range from active to passive recreation.

- **Covers a broad range of the spectrum. A lot of walkers, a lot of joggers, people with dogs, horseback, tubing, kayaking, fishing, motorized vehicles, four wheelers, motorcycles.**
Yes they are all used. All seventeen....Swimming, fishing, tubing...you name it. Everyone overlooks that it is a swamp cooler. These canals act like one...so, people sit and dangle their feet in the water.

There are also varying levels of tolerance between the respondents regarding informal use of the canals. The following quotes give an idea of the range of general attitudes.

- The Ogden Brigham canal is basically an informal use but there are a lot of people who use it to walk and jog on. There are some areas that children walk along the maintenance road going to and from school and parks but its an informal use in undeveloped areas.
- There is no such thing as informal use. They either use or they don't and if they use it, its illegal.
- I would suspect that any canal with a maintenance road is used for recreation. Our canals are definitely used for recreation and all of it is unauthorized.
- There is a lot of walking and hiking and that sort of thing. And we haven't discouraged it.

2- Do you allow public use/ access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?

All of the respondents stated that technically they do not allow public access although, since the public “informally” uses it anyway, they mitigate through the use of signing and education. Here again, the range of policies and attitudes toward informal use are illustrated.

- We don't allow any public access on the canal and we have put up no trespassing signs along the canal. That doesn't mean everybody obeys that but that's what we've got there.
- We obviously do not and we try to keep every possible point of public access posted.
- We do. We don't encourage it though. Wherever we think its dangerous we have a sign that says: be careful, danger. And that is to cover us. The biggest fear we have is people messing with the water works. So, we put signs up saying: messing with the works or turning it on or off unauthorized is against the law and we quote the law and those are on all the head gates through town.
- We as a board have just left it open. If they hike we don't have any objection to that. We have signs that say enter at your own risk for our own protection.
3- How aggressively are these efforts enforced?

The enforcement efforts ranged from issuing trespass tickets to anyone found on the canal to completely fencing off potential entry-ways to posting caution signage. For the most part trespassers are encountered by the ditch riders performing routine maintenance. There is no patrolling of the canal by the local law enforcement, but the ditch rider takes on the added burden of educating the public and notifying local authorities of trespassers. Usually this only occurs when the trespasser has gotten out of hand or is unruly.

- If we catch anybody on there we'll run them off. If we catch anybody on there more than once we will call the police. They could be issued citations....We have put gates up along the canal where it comes off the road, but we have done that for our own benefit to keep people from traveling along the canal with a vehicle.
- We mainly try to educate the people that they are trespassing, that it is government property. Mainly through education in order to maintain the legal liability you have to issue a few trespass tickets now and then.
- We will quite often tell people who are out there on the canal that we have got a job to do and its not to keep people off the canal, its maintenance and operation and so we struggle with that.
- During the irrigation season we have a water master that goes through and will talk to children about being careful, not being on the spillway, not pulling diversion boards. The other thing we do is we lock things in place. We lock canals open or lock them closed just to keep out tampering. So, we are into enforcement. If you listen to us and pay attention to the signs and listen to verbal instructions, fine. If you start fighting back then we will bust them.

4- Do you have any concerns regarding these existing uses?

A majority of the respondents expressed concerns regarding the potential for a lawsuit against their company and for the health safety and welfare of the public. This is a theme that runs throughout the interview. While there is a definite fear of litigation there is also a genuine concern for the safety of anyone using the canal (legally or not) and for the general misunderstanding of the potentially serious dangers associated with the use of open canals for recreational purposes, especially in lined canals with fast
moving water. There was also a concern of the effect on the quality of the water and on operation and maintenance.

- Well we just feel that any kind of recreational use along one of our canals, as long as it's an open canal is just incompatible with what we are doing. The three main concerns we have identified are liability, safety of the public, water quality and impact to our operation and maintenance procedures.
- No, if they are in reason. If they don't tamper with or erode the banks or throw garbage in, no I have no problem with it.

**Liability And Injury**

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what?

Aside from the Bureau of Reclamation (BOR) which is protected by the Federal Governmental Immunity Act, not one of the respondents was aware of ever having to pay liability or injury claims. The cases that did come up were dismissed and settled out of court.

- Yes, We did have one in Pleasantview in our Ogden- Brigham Canal and it was two 17 and 18 year old boys that were tubing down our canal down a drop chute... one of them flipped over and hit his head and he did drown. There was a lawsuit and the lawsuit was dismissed because he was trespassing.

6- What existing risk management do you have in place?

Aside from the B.O.R. all the respondents stated that they carry insurance. They also do a lot of signing and gating at access roads, placement of warning signs at dangerous locations and installing public safety devices which involves among other things, covering or screening dangerous structures such as drop chutes. Educating the general public of the dangers associated with canals is another risk management strategy.
• We do the signing. Signing is hard because signs are shot or removed just about as fast as we can put them up. Theres the education, there is the minimal enforcement if you will... in specific identified areas we will install public safety devices because you know they are going to get there just do the best you can to try to keep them out of the really harmful places.
• Obviously we have insurance and we do our best... to keep people off of the canal. We are contemplating doing some better education of the local community and citizens about the reasons why we want people off the canal. Sometimes people stop and we explain to them and you can see the light go on and hopefully they will be a lot more cooperative in the future.

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canal your company administers too?

All the respondents expressed a high degree of interest in piping their canals. The only things holding them back is the availability/ securing of funding and the man power to take on such an expensive and time consuming project.

• Yes, we’ve done a lot of piping when money is available or we were able to get either state or federal money, low interest loans.
• ...we had a study done a few years ago about piping the entire canal and they figured it would cost about ten million dollars. We would love to be able to pipe the canal, but financially as a company we can’t do it.
• Every one is in favor of it, the biggest obstacle is cost. Its an expensive proposition. For our twenty three miles of Provo river canal it would be roughly about 70-80 million dollars.
• The other problem with piping is access, we would have to put in new head gates, new arrangements for cleaning it out. Its cost prohibitive.

In terms of funding opportunities, a couple of respondents pointed out some opportunities. They ranged from utilizing state and federal monies to sharing the cost with utility companies (gas, power, AT&T, etc.) who may be interested in utilizing the corridor to improve and enhance their system of delivery.

• They have the means to create the funding. They can create an assessment. There is a bunch of things they can do, the state’s got money, Central Utah’s got a lot of money through our conservation incentive programs. So, the money is out there its just a matter of locating it.
According to half of the respondents, water quality, water conservation, ease of maintenance, and improved conveyance are just as much if not more of a reason for this interest in piping than liability is.

- I can’t say it’s not for liability, but that’s a secondary benefit we get from piping the canal is that it will open up the corridor for recreational use. The main issue is to increase water quality and also to increase conveyance capacity.
- Yes we are very anxious to pipe our canal, not to accommodate a trail, that could be an outcome but our main focus would be addressing the other issues. The reduction of liability, water quality issues and there are some advantages to saving water that occurs.
- And if we put that trail in there, and it was covered up, other than us going in for maintenance they [the city] can have the whole canal as far as I’m concerned. I’d just give it to them.

There were also responses that pointed to the social and environmental reasons for keeping the canals open.

- The other canals...and a lot of the smaller ones are dirt lined canals are very slow moving and they add a lot to the atmosphere of the neighborhoods.
- Yes we have...the water resource people in the state... say a substantial proportion of water leaks through the bottom of our canal and recharges the aquifer in the center of the valley. The other thing is we are worried about losing the tree cover. At first they thought the trees were essentially suckers taking on water, now they realize that the evapotranspiration probably lowers the temperature in town by so many degrees and provides refuge for wildlife. So we don’t want to lose the associated riparian benefits.

8- Are you aware of a city’s or county’s ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance? A typical maintenance agreement entered into would state that: The city or agency “holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities.”

The majority of the respondents indicated an awareness of the ability of their respective cities to indemnify them. One respondent indicated no awareness of this, but mentioned having thought of inclusion under the city’s insurance in order to cut the premium down. There was a general feeling of skepticism from each of the respondents, not in terms of an indemnification clause’s ability to shield liability, but its inability to
mitigate for the inevitability of suit in general, with the associated cost and time commitments.

- We are aware of that but from a legal standpoint you will literally never be able to take them out of the picture. You can write indemnification clauses and all that kind of stuff but when push comes to shove and somebody gets a really good lawyer...they are out the window. They are going to come after the owner; they are going to come after the operator.

- I've been told by some people from one of the cities that they can do that but I have remained skeptical.

One respondent mentioned that Utah courts now hold that due to the sizable burden of requiring irrigation companies to mitigate for attractive nuisance via expensive piping or other efforts, they are released from liability. The outcome of this is that the courts now require fences to be installed by developers that build along irrigation canals in order to protect the residents. According to this respondent, if the access easements are used by the city for recreation the irrigation company is released from liability.

9- Are you aware of Utah's recreational use statutes? If so, how much do you know about it?

The responses here were split in half in terms of having heard of this statute but the majority only had a superficial understanding of it.

- The city has talked about it with us, but I'm no attorney so I don't know all the legal ramifications.
- No, I don't know anything about those. I haven't heard it called that but I have heard about some of those statutes.

(See Chapter III and Appendix C for a description of recreational use statutes)

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?

Four of the respondents indicated that they feel liability risks would be higher due to the risk associated with unsupervised children in denser residential areas falling in and
getting pulled into a siphon or drowning in the fast moving current of a larger, concrete lined canal.

- *I think the liability risks are greater along an open canal... You are not getting out of a concrete lined canal without a ladder structure you are not coming out on your own because its fairly swift, you have low structures, bridges, culverts, siphons.* The _____ canal is a pretty good sized canal, 400 second feet.

- *I would say they are higher on the canal. On our canal there are some hydraulic structures that are extremely dangerous we have about four siphons. And once you get in the current of a siphon there is nothing you can do it just sucks you right in. Some areas of the _____ canal are swift moving.*

Two of the respondents felt that the liability risks would be equal, based on setting and location.

- *In a rural setting and it's a trail along a canal provided for horseback riding, mountain biking, jogging, things like that, I would think its about the same because your having more mature individuals use it rather than smaller children accessing it.*

- *I would think the same.*

11- **Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? Which concerns?**

Half of the responses indicated that yes, some if not all of their concerns can be addressed through proper design and one respondent mentioned that they can be handled through agreements with the city.

- *Yes, I think so. I think a part of that would be an educational part to educate people to proper conduct. I think that in combination with the proper design and construction and also the proper attitude, yes..., and I see that around Boulder, they have signs that tell you what to do with your dog and be considerate.*

Two of the respondents indicated that none of their concerns could be addressed unless the canal was piped.

- *I would say no, the only thing that is going to placate our concerns is getting it in a pipe.*
Legal Information

Questions 12-17 directly pertain to the canal sections that are being considered for development. Therefore, they are formatted differently than the rest of the questions.

12- To the best of your knowledge, what is the existing adjacent land use by percentage?

Adjacent lands were typically private residential or agricultural properties which, with one exception, granted easements to the canal companies.

- **Ogden-Brigham Canal**
  - 25-30% Residential
  - 70-75% Agriculture
  - --- Business

- **North Ogden Irrigation Canal**
  - 60-65% Residential
  - 35-40% Agricultural
  - 2% Business

- **Davis and Weber Counties Canal Company**
  - 90-95% Residential along the section in question and 50-60% along the whole length
  - 10-15% Agricultural along the whole length
  - 10-15% Business along the whole length
  - the rest is open space used by Hill Airforce Base.

- **Provo Reservoir Canal (Murdock)**
  - 50% Residential
  - 50% Agricultural
  - 5% Business

- **Crockett Avenue Distribution System (Cache Valley)**
  - 60% Residential
  - 30% Agricultural
  - 10% Business

- **Logan And Northern Irrigation Canal**
  - 40% Residential
  - 60% Agricultural
13- What are the existing ownership standings along the length of the canal/canals? In terms of public vs. private.

- Ogden-Brigham Canal
  100% Public
  0% Private
  - Ogden-Brigham Canal, 100% is owned by the United States of America. The Ogden River Water Users bought it and deeded it to the U.S.A. as collateral for the project so it's in the name of the U.S.A.

- North Ogden Irrigation Canal
  0% Public
  100% Private
  - The North Ogden Canal is 100% easement the irrigation company does not own any of it. It's just an easement.

- Davis and Weber Counties Canal Company
  - 100% Privately owned by the company along the length in question.

- Provo Reservoir Canal (Murdock)
  - 5% Public
  95% Private
  Most of the private ownership is residential.

- Crockett Avenue Distribution System (Cache Valley)
  - 100% Private
  On the upper canal the Logan, Hyde Park and Smithfield Canal its BLM and Forest Service ground on the back side of that. But most of its private. The city has one side at a park, it might be municipal but a very small percentage.

- Logan and Northern Irrigation Canal
  - 100% Private

14- Does your company or WUA own land under any portion of the canal/canals?

The responses to this question regarding underlying ownership illustrates the variety of scenarios encountered by agencies interested in developing canal trails. Three were owned in fee title either by the U.S. of America or the canal company themselves and the easements corresponded to these types of ownership's.

- Ogden-Brigham Canal- Owned in fee title by the U.S.A. (Bureau of Reclamation) and the Water Users Association is operating entity which is contractually obligated to administer to and maintain the canal. The R.O.W ranges in width from 35-100 ft. in sections.

- North Ogden Irrigation Canal- As stated above the North Ogden Irrigation Comany does not own any of the canal, it is 100% easement.
Provo Reservoir Canal (Murdock)- Purchased in fee title by the U.S.A. in 1940. The R.O.W. is 100 ft. in width. 

-Most of our right-of-ways on both canals are fee title. There is some easement

Davis and Weber Counties Canal-

-We own all of the land where the canal presently sits and we have bought some small parcels along the canal where we felt like it was necessary for us to.

Crockett Canal Companies- According to the respondent the full length of the canal was deeded to them and they own the canal bed.

Logan Northern Canal-

-One little spot its about a 150 feet we pay taxes on. That's another reason we don't want to own is because we would have to pay taxes on that. I think that as stock holders they would own the water and the canal.

15- Does your company or WUA own easements for any portion of the canal/canals?

Ogden-Brigham Canal- Since the R.O.W. is owned by the federal government there is no easement necessary.

North Ogden Irrigation Canal- Since the length of this canal is owned by private property owners the canal company owns an easement for maintaining conveyance of water to the shareholders.

Provo Reservoir Canal (Murdock)- According to the Chief of operations with the B.O.R. this canal is 95-98% fee title with the rest being reserved right-of-way where the B.O.R. needed land to straighten out the canal. The assistant superintendent for the Provo River Water Users Assoc. expanded on this:

-There are some. Some of them represent or originated from land that was patented originally. They are reserved right-of-way. When the U.S. granted land to an individual they retained or reserved certain rights for canal rights-of-way and some of our easements are based on those original easements.

Davis and Weber Counties Canal-

-There is no easement, we have title to where the canal presently sits.

Crockett Canal Companies- According to the respondent there is an easement along the canal and they also own five-year prescriptive easements along some laterals.

Logan Northern Canal-

-We have an easement all the way along that was established way back in the 1800's. Its an easement for maintenance.

16- Does the respective city own land under any portion of the canal/canals?

Only a couple of the respondents mentioned sections that were owned by the city but were such a small percentage that it was not an issue. For example, there is a 700 ft. commercial strip the city owns along the Logan Northern Canal.
17- Are you familiar with general ownership standings along the canal/canals.
- How much of the canal corridor is owned in fee simple by adjacent landowners?
  (Own land and canal company has an easement.)
- Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?

- **Ogden-Brigham Canal** - Owned in fee title by the U.S.A. (Bureau of Reclamation) and the Water Users Association is operating entity which is contractually obligated to administer to and maintain the canal.
  - North Ogden adjacent landowners own 100%.
  - No one can adverse possess or develop a prescriptive right against the United States.
- **North Ogden Irrigation Canal** - As stated above the Water Users Association does not own any of the canal, it is 100% easement.
  - On the North Ogden it really doesn’t matter to the irrigation company (adverse possession) because they just have an easement.
- **Provo Reservoir Canal (Murdock)** - Purchased in fee title by the U.S.A. in 1940.
  - Because the title of our facilities are held in the name of the U.S. government no one can adverse possess against a federal government. So, we don’t have to worry about adverse possession. If I were too guess I would say it is about 70-80% fee title, owned by the government and the rest is easement.
- **Davis and Weber Counties Canal** - Owned in fee title by the canal company.
- **Crockett Canal Companies** - According to the respondent the full length of the canal is owned by adjacent property owners up to the edge of and in some cases to a section of land along the other side of the canal.
- **Logan Northern Canal** - The ownership standing along the length of this canal is similar to the Crocket Canal Companies.

18- Please explain your relationship with the BOR regarding ownership of underlying land.

As stated above the Logan Northern, Crocket and the North Ogden Canals are owned by adjacent landowners and the Davis Weber Counties Canal is owned in fee title by the canal company. Therefore, they have no relationship to the BOR.

In regards to the Ogden Brigham and the Provo Reservoir Canal, they are owned in title by the BOR and this relationship between the operating agency (BOR) and the operating entity (the respective W.U.A) is one in which the W.U.A requested the construction of the project which was funded and constructed by Federal money through the Federal Reclamation Act of 1902. A contractual agreement is signed by the
respective W.U.A. in which they are obligated with day to day operation, maintenance and administration of all the facilities and have to coordinate and follow through on safety and construction federal regulations. The BOR does annual inspections of the facilities in addition to the obligatory duties of the respective W.U.A.

- **Regarding the ownership**...the Federal government goes in and builds the facility and then we sign a contract with the water users association. They will operate and maintain it and over a period of time they also pay back to the Federal government the original construction costs. So, its basically a zero interest loan type of thing. The interesting thing is that when they have repaid the entire construction amount it still remains in the name of the United States. Within the state laws they have to maintain themselves as a non-profit organization or they would be taxed. So, their assessments while they are repaying the cost of the facility might be a little higher... it takes so long to pay back...we have such long contracts to repay that they keep their assessment up because by then the facility is run down. They are collecting more money to update it and rehabilitate it.

19- **Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?**

The responses to this question were enthusiastic. It is clear that encroachment is a prevalent problem. The BOR has six full time people that deal with this problem alone, all the time, so one can imagine the magnitude of the problem especially for smaller canal companies who cannot afford to hire even one individual to deal with it full time. The crux of the problem has to do with adjacent homeowners unknowingly or knowingly building on the established easement thereby obstructing the canal company from access to the canal. These unauthorized encroachments mentioned in the interviews dealt with everything from vegetation to sheds and fences to house construction.

- They fence right up to the canal and some own property on both sides so they fence right across it.
- ...there is actually a house or two that has encroached on a small part of the R.O.W.

With the rapid urbanization in areas traversed by canals, these problems will likely increase. One respondent claimed 50% encroachment along the length of the canal.
Generally, the respondents' answers indicate a fair amount of patience and fairness when dealing with encroachments and will only take a forceful approach (such as manually clearing the R.O.W. themselves, forcing the city to have the board of adjustments make them come into compliance or taking legal action such as filing cease-and-desist orders against them) after giving ample fair warning.

- **We try to work with the property owner.** We actually pay for improvements along the canal, we will buy the cement. If they put in a retaining wall we will buy shrubs. We want them to understand that they have to come and ask us for permission first. I was just out last night where someone built within ten feet of the canal bank, we cut a deal with them and said if they put in a retaining wall and don’t get any closer we will allow it and if not we will put a cease and disorder on it. I don’t want to get into law enforcement or zoning or code enforcement so we go to the city. They have been getting better over the last year or so about involving us in their process.

- **We deal with it on a case by case basis and you try to head it off before it gets too far along.** A lot of times we don’t find out about it until after the fact. We have taken legal action against some and others have pulled back and others you try to go ahead and license them by having an encroachment agreement, license their activities for whatever they are doing.

Encroachment agreements or license agreements authorize someone interested in extending their property onto or building on or across the R.O.W. The homeowner is usually charged a one time fee for an engineering survey and license processing. While this usually entails municipal improvements, it has proven to work well with adjacent homeowners. In some cases where the homeowners have already encroached onto the R.O.W. they are allowed to keep the fences, trees, shrubs, etc. as long as maintenance activities are not interfered with. In addition to the initial fees they are also offered an annual lease which is on a sliding scale, based on the magnitude of the infringement.

- **We have a process that we go through when someone requests an encroachment on the canal R.O.W. and we call it a license agreement process.** There is a fee schedule involved and an application. We evaluate their requests to see if it's compatible with our project purposes and if so we license and permit to encroach.
According to Utah Statute, U.C.A. 1953, 73-1-15, it is “unlawful for any person...to place or maintain in place any obstruction...along or across or in such canal or watercourse...without first receiving written permission for the change”.

A couple of the solutions the respondents offered included the following:

- **What we are doing now is getting Logan city to contact us whenever anybody applies for a fence permit or building permit if it has the word canal anywhere near it, and we are willing to work with them**
- **By state law [homeowners] cannot keep the personnel from the irrigation company out from maintaining and so we do require that if they fence it they have to put in access gates along the canal for our operating personnel to get through. We put one of our locks on it and they can lock it if they want a lock on it. It has worked out well.**

20- **Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.**

The Crockett Canals, Logan Northern Canal, North Ogden Irrigation Canal and 20-30% of the Provo Reservoir Canal are easements over land owned by the adjacent homeowners, which means legally speaking the individual homeowner needs to be in agreement before the canal company can authorize access.

A majority of the R.O.W.’s on the Ogden-Brigham Canal and the Provo Reservoir Canal (Murdock Canal) are owned by the BOR and the Davis and Weber Counties Canal is owned by the canal company which means they do have the legal authority to provide recreation.

- **Whoever petitions for that use has to get a license agreement that is signed by the [WUA] and the B.O.R. for that use and basically a hold harmless agreement and it states what can and cannot be done but it is a formal license agreement for a fifty year period.**
- **Yes. We [BOR] have the authority to contract with cities or whoever, to go to other agencies and basically license them to encroach on the federal property to undertake whatever activity it is they want to do.**
- **We are a private stockholder company. So, we can make agreements with whoever we want.**

(See Conclusion for additional information on permission issues.)
21- Conversely, would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?

This question is not applicable to Davis and Weber Counties Canal since it has no easements and is owned in 100% fee title. (see #15)

With the exception of the small percentage of easement along the Provo Reservoir Canal, this question also does not apply to the BOR. According to the Chief of O and M for the B.O.R. the Provo Reservoir Canal is 95-98% fee title (see #15) and according to a “guess” by the Assistant Superintendent of Provo River Water Users Assoc. it is 70-80% fee title (see #17) with the rest being easement)

- Absolutely, it won’t go forward without it. It has to be written permission not verbal.
- In those sections of our canal that are easements...I would say it would be because that has the potential to impact our rights of easement in terms of our ability to operate and maintain the facility.

As far as the Crockett Canals, Logan Northern Canal and the North Ogden Irrigation Canal are concerned, these canals are strictly easements and because there is a lot of gray in terms of whether there consent is legally required, there is no defined answer to this question.

- I would think yes. But that is something we asked them about and there is no legal opinion. We keep hearing that the attorney general is going to come up with a statement.... As far as I know there is no answer yet. A precedent setting case is needed. So, I would say yes because by law they technically own the property to the canal bank and so its not really ours. Our easement is for conveying water and some cleaning, not for selling or allowing someone else to trespass for other purposes. We have the right to trespass for maintenance and cleaning but I don’t think we can convey that to anyone without getting some kind of a legal opinion.
- I don’t know for sure. In my opinion I don’t think it would have to be but then I might be wrong. I think that it’s strictly the landowner that would have to agree to it.

(For a brief and superficial explanation of easement designations see this chapters conclusion entitled Legal Information.)
22- Are there different answers for different sections of the canal?

The Davis and Weber Counties Canal is the only canal that does not have any easements, therefore it is the only one in which their consent would be legally required for the whole length of the canal. (see #15) North Ogden Irrigation, Crocket Canals and Logan Northern are all easement so the same answer given in #21 applies to the whole length of the canal. The Ogden-Brigham Canal and the Provo Reservoir Canal (Murdock Canal) are mostly owned in fee title so there would be discrepancy in answers for the length of the canals. This is best summed up by the following response:

- Yes, it would just depend on the underlying ownership of the canal, whether it’s fee or easement. If its fee obviously it would be legally required, if it’s easement I still think it would be. We would have to consult our attorneys for sure but that’s my take.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?

Since Crockett Canals, Logan Northern Canal and Davis and Weber Counties Canal are not owned by the B.O.R., this question is not applicable to them. (see #18) According to the pertinent respondents, if the B.O.R. gives consent to recreational use of their R.O.W. then yes, it would be legally binding.

- Yes, if they signed an agreement. The B.O.R. is favorable to doing trails on reclamation projects. So, it would be legally binding.
- I don’t think that would probably happen, [acquisition of Murdock Canal] but I think it would be.

Potential Trail/ Recreational Development

24- Do you foresee any obstacles in developing a canal as a recreational trail?
(GENERALLY ALLOWED FOR VOLUNTEERING OF ISSUES BEFORE PRESENTING LIST BELOW)

A. Liability – Why?
   - Attractive nuisance
   - Liability should cover entire corridor not just path.
B. **Safety – Why?**

C. **Crime – Why?**

   - Law enforcement: Time of response
   - Changing emergency procedures/protocol
   - Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.

D. **Operation and Maintenance – Why?**

   - Increased O+M costs
   - Canal company rights: it's a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
   - Vegetation management for visual inspection.
   - People need to honor the ditchriders need to pass!
     (Have headphones on, dogs running loose, dogs in canal, horses get spooked, bicyclist not paying attention.)
   - O and M of dirt canal will not allow surfaced trails along side on canal bank.

E. **Funding – Why?**

   - Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

F. **Lack of Management entity – Why?**

G. **Other – Please explain:**

   - Public perception that the canal is public land.
   - All uses should be subordinate to agricultural use.
   - Private property owner’s rights: taking without compensation, multi-purpose easements.

The following is a list of the main obstacles mentioned in response to this question, followed by the number of times they were mentioned. While the following list summarizes some of the major concerns, it certainly does not encompass them all.

Simply because the category entitled crime has a lower numerical value than O and M, this does not mean it is more or less of a concern. (See Appendix B for a detailed description of each response.)

Liability – 6 times; O and M – 3 times; Funding – 3 times; N.I.M.B.Y. – 3 times; Water Quality – 2 times; Lack of Management Agency –2 times; Vandalism –2 times; Crime –2 times.
Liability and O and M are the two obstacles the respondents had the most difficulty with. Not only are these issues mentioned by all the respondents here but they are woven throughout the rest of the interview as well.

- Yes I do. The three or four I mentioned in the beginning, liability, operation and maintenance, public safety, water quality are all very sizable obstacles.
- Major concerns would be just liability concerns, water quality concerns, operation and maintenance concerns so that we have the ability to maintain it.

The concerns that follow are numbered for ease of explanation:

1. There can be a high degree of danger regarding serious injury and death along some sections of the respondents' canals. This is especially true along open, concrete lined canals where the water can be fairly swift (400 second feet), difficult to get out of, and where there are low structures, bridges, culverts and siphons (see #10). Due to this potential danger, it is understandable why the respondents are concerned about the safety of that one trail user who accidentally falls in and seriously injures themselves, or the one trail user who decides to file a lengthy and costly lawsuit because they fell in and cut their foot on glass thrown in the canal by other trail users. It is then also understandable as to why they demand assurance of some degree of indemnification from liability.

- I would think that if someone is going to accept liability on development of a trail it should be the whole corridor, because the corridors really aren't that large. Our canals are anywhere from 40 ft. to 100 ft., not very wide. We would probably require that liability cover the whole corridor.
- No, as long as we can get over the hurdle of the liability, I don't see a problem.
- There are a lot of different issues. Open canals....I think the general understanding of the public is that they don't understand canals and how dangerous they can be. I guess they can be educated but I'm sure you are going to find that one curious individual that doesn't believe that they are dangerous.
- Yes. I would say liability comes to mind right away. That is the first thing someone asks, who's responsible for maintenance, someone getting hurt, are we allowed to even let other people on that trail. Those are the biggest ones.
(2) Generally speaking, canal companies operate on very tight budgets and are, in some cases, in dire financial straits, so it is understandable when they express a concern for increased operation and maintenance costs derived from opening the canal easement to recreational uses. In some cases where there is not enough room for separation of uses along the maintenance road the officials are concerned with having to share the road with recreationists and the likelihood of conflict that would arise.

- We know there would be an increase in O and M...whoever we granted the license to have the recreational corridor to pick up the additional cost. But that is one of the reasons we don't allow recreational uses. We don't really see a need right now at this time to undergo that additional expense to o and m a canal. And we are taking a lot of strong pressure from the share holders that treat the water to keep the corridor usage down as much as possible.
- If we had to up the ante to help maintain the trail, then no. We deal in a very low budget in other words, we try to get by with as low a cost as we can. We don't have a lot of money to spend on a lot of things. If we start raising the taxes on the shareholders then they have to ask what is going on here.
- The other problem you have with a canal of this nature is that the o+ m road itself is not very large. The water master is almost to the point where he refuses to use the canal because the use is so high and because the people have become so belligerent to him they won't let him by to do his job that he will actually turn the head gates by driving on the canal as little as possible, and that defeats our number one purpose in that somebody's got to have their eyes on the canal to make sure that its functioning properly, its not developing any leaks or anything of that nature, its not overtopping, its performing well. So, it all leans toward...granted its not the thing you want to do, but you have got to keep the people off.

(3) Crime and vandalism were big concerns for some of the respondents and were not so much of a concern for others given proper preventative measures such as regular bike patrols.

- There probably would be a need for some visible law enforcement in the area, a policeman riding a bike along there at different intervals. As far as protection of facilities in our corridors everything is under ground except pump stations and we fence them off separately from the corridors. I don't think vandalism would increase in those areas.
- In terms of vandalism, if somebody was going along and busting the locks off the gates and opening and closing the gates then we would have to have something in the agreement with the city that says that if this happens either that has to be addressed or we terminate the agreement.
(4) Another important concern brought out by the interviews was the issue of decreased water quality due to increased usage by recreationists and their animals. As the landscape continues to fragment and agriculture/open space retreats further and further away from our cities, canals that once primarily conveyed water to agricultural fields are now slowly being converted to culinary usage. This means that, especially near open canals/ditches, water quality becomes a concern, just as it is along riparian corridors. As explained in Chapter II, "Improving Water Systems", this conversion has become a common practice over time and therefore creates a concern for water quality in open canals near public recreation. (See this chapter's conclusion for full explanation)

- Part of the issue you have with the canal for recreational uses, a lot of people want to ride horses down the canal. When you are talking about culinary water, any type of animal feces is the biggest threat to culinary water supply there is. The goal for recreational purposes has got to be to get rid of all the animals. People want to walk with their dogs, jog with their dogs, ride their horses.

(5) One possible obstacle that was listed in the questionnaire was a lack of management entity. A lot of times, when a trail passes through multiple municipalities, there will be differences in quality of maintenance and design throughout the length of the trail. So, it makes sense for either one management entity to hold responsibility for the whole length of the trail or for the formation of a coalition which oversees the whole length of the trail.

- One of the concerns we have is once the canal is developed, who is responsible for maintaining that trail? We are not in the trail business and we don't have the resources to maintain that. On the other hand we don't want it done in a piecemeal fashion, we don't want to have to deal with Orem city for the section that is in their city, Lindon city for their section, Pleasant Grove and so forth. And there is several reasons for that. We would like, number one, for a trail that is developed to be well maintained and well developed in a consistent fashion so that you are a recreationists jogging down the path and you go through Lindon and it's a nice park and landscaped well and then you come to Pleasant Grove and its just a dump. That wouldn't be good for anybody, but we would bear the brunt of that because the underlying land is ours. So we would just assume have some consistency and
turn the management over to another entity and we are not sure who that entity is. So that’s an obstacle.

- Another concern is not knowing if its going to be maintained like it should years down the road.

The respondents who expressed an interest in trail development on their canals provided a couple obstacles they are aware of. One of the major initial obstacles is securing consensus among the landowners whose property the easements cross. A couple of the respondents eloquently touched on this issue. (See Chapter V for a review of adjacent landowner concerns)

- The problem of putting a trail along the North Ogden Canal, which is basically easements, is you would have to get consensus from all the private landowners to do it. A lot of people think that its wonderful that there is a walking trail, others don’t like it they think its invading their privacy. So, there is mixed reaction. I’ve found that as people think about it more, we have been able to get more agreement that it’s ok. But there is always that small group that thinks that crime will increase with trails and reports I have read prove that it actually does not.

- And the other thing is the Not-In-My-Back-Yard (NIMBY) issue. You will find a lot of people who think that it’s a great idea and are really, really supportive, but when we tell them its going to be in their backyard they say sorry we didn’t mean that, not in my back yard and it amazes me because a lot of those people are educated. They belong to environmental organizations which makes them think they are an environmental person, but when you ask them to do something in their own back yard about it they are not willing to do that. A lot of people say that we bought along the canal because of the privacy and the water and not the lack of trails. So they see it as a negative and I think that is where we have to educate. If you want to live in a community, and people are the community, I think you have to give something back to the community. And if you want to be a recluse and not want to have anything to do with anybody then buy 500 acres up on the bench and keep everybody out. That’s part of living in town...getting the amenities of the town.

Lack of funding was also expressed as an obstacle to trail development.

- Funding is also a major obstacle, everyone is interested in trails but no one seems to have money for trails. That seems to be changing a little bit as development occurs and people are interested in preserving open space and having an amenity like a trail.
25- If a trail were developed along one of your canals what implementation measures would you like to see?

- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)

Two of the respondents touched on the subject of incorporating intensive education efforts which could be considered one of the most important implementation measures.

- I don't know that we would be looking at any restrictions. We would probably need the cities or whoever to go through an intensive educational program so that people would basically police themselves. A little kinder understanding of the red truck that drives up and down the canal, what he is there for, basically allowing him the right to get by and do his job. I guess just have a little more of an ownership attitude in the fact that it is culinary water for someone else...you don’t have to go and let your dog in the canal. Protect the facility, understand what its about, what it is for and use it accordingly.

- All those. Signage and education. I think we have to educate the public that this isn’t a right, that it’s a privilege, to have respect for other people’s properties. Who is going to be picking up the garbage along there? And maybe it should be set up so that people don’t go through there at midnight and get rowdy or whatever. So, set some times of use. But again, I think that its something where everybody needs to be involved and it shouldn’t fall to one entity or the other to do it all. Maybe we could have a community patrol, sponsors along the canal that spend some time checking on things.

Other responses range from restricting time of use to daylight hours to keeping the trail separate from the maintenance road where possible to keeping dogs off the trails to preserving the right to “close down the trail as we need to accomplish our maintenance tasks”.

- I think that if we allow a little more use of it I think that people would end up policing themselves. You would have that one element, that 2-5% element, it would be just some place new for them to go and destruct and destroy. So, you put up with that. I think you would want a trail patrol strictly for public protection because there are some areas of the canal that are remote.

See #34 for additional comments pertaining to this question.
26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?

- Ogden-Brigham Canal and North Ogden Irrigation Canal-
  Ogden city has contacted us and we have licensee agreements with them. North Ogden and Pleasantview has contacted us and we have done preliminary conceptual plans with them. Right now there hasn’t been much done other than informal use, but they are looking at sometime in the next year, starting to formalize some of those agreements.

- Provo Reservoir Canal (Murdock)-
  We have been contacted by Lindon City and also by Mountainland Association of Governments concerning the Murdock Canal. We had several meetings and discussions where we presented our concerns and they attempted to alleviate them unsuccessfully and right now we stand with our policy that until its piped it’s a no go. They said that they had conversations with their risk management provider and felt that they could relieve us of liability. But we are still uncomfortable about it because I wonder about a small cities ability to shield the federal government. Since they are a underlying land owner with a very deep pocket guess anybody could sue anybody.

- Davis and Weber Counties Canal-
  Yes, Clearfield. We have a draft agreement and I’m got to be brought to our board of directors for approval. Our board has not signed an agreement with the city. I’ve been visiting with the director of Clearfield parks and rec. and we have come up with some preliminary draft plans. We will bring it to the board and they will look at it and decide what else they want in there. I think we would like to see some of the public access as long as we can be held harmless for anything that might happen. We’re ok with that.

- Crocket Canal Companies-
  The city and adjacent property owners and actually the irrigators as well have all contacted me. We are in limbo right now, we are waiting for an opinion that is supposedly coming and we haven’t gotten that yet and the city has made the first step to quantify where they are because they aren’t even mapped correctly on city maps. But that is all in the planning stages right now. They are trying to get their numbers together and we are trying to get our group together. I am starting to put out lists like this where people can contact other members and hopefully there will be some exchange of information. So, its all pending. The city has always been bad about including us and adjacent property owners in the process.

- Logan Northern Canal-
  Hyde Park came to us when they were really pushing it about two years ago. But when we had that meeting that night that pretty well threw it out. Of the majority of the landowners that were there, there was only one that was in favor out of over a hundred people. So, it was shot down.
27- Are you aware of any other trails built next to irrigation canals in Utah?

Of the six respondents only three knew of other projects. The Steinaker Service Canal in Vernal came up a couple times.

- Just the Steinaker Service Canal but they didn’t build anything. People just use the existing canal.
- I know there!tributes Canal. I noticed has a trail that is fairly new alongside of it for a ways. That’s just off of Camp Williams and runs north and south.
- I know along the Jordan River. I know in Vernal along the Ashley Creek system. They did do some down by the Jordanelle dam outside of Midway, but that was Bureau of Reclamation Federal funds and Federal project. It's not a local effort...they involved the canal companies but it was a Federal project.

28- What forms of recreational use permission are you aware of?

- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?

The majority of the respondents had no in depth knowledge of these types or any types of recreational use permission.

- I don’t know of any fee title or anything like that, it usually just permission is granted like a donation. As far donation of easement we just grant a right of use. We allowed Ogden City to put a parking lot for their Mt. Ogden trail system on our canal. And we dealt with some grading, etc.

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?

This is an argument that is used time and time again by proponents of developing trails along canals. So, it is interesting to get insight into how these officials really felt about the reasoning behind weighing the positives and negatives of opening their canals to the public. The responses ranged from skepticism to agreement. At first some of the respondents misunderstood the question as a proposal to open up the canal themselves
without the help of an agency or city, so, these people initially responded with trepidation and fear of opening themselves up to liability and claiming that there “needs to be some control”.

- That’s why right now we have kind of taken the middle of the road...we also understand that the iron fist isn’t going to work either. So, we feel the best option right now is to play it where we are at. We don’t allow it, we don’t want it and we don’t condone it but we realize its going to occur. We will exert some energy as far as education as best we can. We will pursue law enforcement if necessary but we also kind of see the turn the other cheek, you know what you don’t see you don’t worry about.

Once the question was further defined there was still some skepticism on the part of a couple of the respondents. The point was made that once the canal is opened to the public there is no question that things will change overnight from illegal trespassing to law abiding, conscientious use.

- One of the city’s points when they came to us with the proposal to open the canal for recreation was that it would actually be a benefit to us to have more eyes and ears on the canal to report problems to us and to keep the canal right-of-way clean of litter, etc. etc. I guess we really struggled with that because if we were to buy that we would have to expect that the same people who are willfully and knowingly disobeying the law now by trespassing would overnight change into people who are law abiding, consciences, anxious to assist us, type of people. I guess it was just too hard for us to swallow. But the argument was made and we do struggle a lot with whether or not we incur greater problems to an extent by keeping the canal closed.

It was pointed out by one of the respondents that once their canal is piped they will be strongly encouraging opening it to the public. The reasoning behind this is that what is left after piping and covering is a wide (sometimes up to 100 ft. or more) corridor that will be very costly to maintain and with the major liability issue solved, it would make for a symbiotic relationship between the city and the canal company to open it up for recreational use.

- I very much think that opening the canal will help manage some of the uses. If left undeveloped there is going to be a lot of maintenance on that [piped canal] for noxious weeds, dust control, the looters, you are going to still get that one element that is going to try...
to ride a motto-cross bike up and down there. Our plan is to encourage the cities to develop the corridor so that it doesn't get into the wrong element.

There were a couple of respondents who agreed with the reasoning behind this question and felt that it would actually be a better situation than it is now once opened for recreational use. The point was made also that by closing off the canals, a “forbidden fruit” situation develops which actually attracts more crime than not.

- By increasing the awareness and increasing usage I think people will help manage it better. We may get a paved trail so it won't be dirt. We may get better shrubs, better stability on the banks. More people watching so incase there is a problem, and I have seen that now where I have eyes and ears out where we can't watch the whole canal all the time. So, I think it will work. It becomes your own back yard and you take care of it.
- If someone was managing it there and it was open for use and managed properly it would be better than the way it is now. I'm my opinion it wouldn't be any worse if it was managed properly. And my feeling is that it would be of tremendous amount of value for a lot of people that like to hike, walk, etc.

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?

The overall position that each of the respondents took was positive and open to listening to what the “public entities” have to say just as long as their interests and concerns are addressed.

- We want to be good neighbors with the cities and say yes the canal is running right through the middle of your town and lets make use of it, and yet the city has to look at our point of view... and say yes we can see where you would be concerned about the liability. So, I think that as long as they are concerned about our concerns there then we as a company are willing to do whatever we can to be good neighbors with the city and hopefully work something out with them. That may turn out to be a real asset.
- From Reclamation's perspective, we encourage recreational use of a lot of our facilities. That's something that we do. I think it would benefit reclamation, it would benefit the water users, it would benefit everybody to have this government property as another form of recreational use but its got to be done the right way. You want to make it a win-win for everyone not a win-lose-lose, you don't get anywhere. People might get the recreation but we are going to lose along with the water users. In the end the cities are going to use. Its just got to be done right.
Canal Operation And Maintenance

31- From what month to what month does the operation season last?
When are the canals generally filled and drained?
What typical O+M tasks are performed during this period?
- Type of equipment used? -Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.

Except for Crockett Canal Companies and Logan Northern Canal, which begin their water season on the first of May and end on the first of October, the others put water in on April 15 and take it out on October 15. Operation and Maintenance tasks are performed year round and depending upon whether the canal is drained every year (generally, concrete lined canals are drained) or perennial (generally, ditches) there are different levels of maintenance. The seasons are broken up into the irrigation or operation season and the off-season.

Most of the heavy maintenance is done in the off-season when the canal is drained and it’s easy to get in the canal and repair cracks, clean out and trim trees and other vegetation near the canal and spraying of weeds. In the fall, when the water is turned off, the siphons are cleaned out, this takes up to six weeks of work to accomplish. One respondent claimed that most of the work is concentrated in two successive weekends in the spring before filling the canal. The type of equipment that is used consists mainly of back-hoes with front loaders, compressors, pick up trucks, dump trucks, track-hoes, and draglines.

- Off season there is definitely a lot of heavy equipment on the canal because that is when we can get down inside the canal prism with grading, cleaning, burning weeds and all the major things.

During the irrigation/operation season maintenance is concentrated along the road and where possible in and around the canal. During this season, the water master and
ditch riders will perform routine daily inspections and generally look for any problems along the canal. Maybe somebody left a gate open, or broke a fence down or a leak in the canal has to be fixed. They will check grates, pull and clean debris out of trash racks (large “strainers”), cut trees and shrubs along the maintenance road, check head gates once or twice a day, pick up trash, make sure gauges and measuring devices are unobstructed (have no leaks) and change gates for different second-feet-per-second changes. While the maintenance in the irrigation season is minimal compared to the off-season, occasionally there is a need to take heavy equipment up to haul clay, etc. The equipment used during this season consists of tractors with mowers, large half ton and small four wheel drive pick-up trucks, rotary mowers, etc. Usually, there are areas that are known to have problems, such as areas where people are known to throw trash, where special attention is given.

- [Canal riders] are in a half ton four-by-four pick up truck. They regulate the turnouts of the water from the canals into reservoirs in the pump stations, they check all the reservoirs along the way, they monitor all the pump stations. On the Ogden Brigham Canal we have four pump stations along the canal, there are seven or eight reservoirs. They check the trash racks, keep them clean, where there is open canal we have a trash rack. They keep them clean. They check the pump house and make sure they are working properly and lubricate the pumps on a regular basis.

In the case of the Murdock Canal which is owned by the Bureau of Reclamation, the operating company (usually the water users association) will perform the general routine maintenance and the B.O.R. will perform “general operation oversight” which means their staff engineers will go down the canal about three to four times a year to make sure their maintenance activities are going smoothly and focus on the issues the Water Users have directed them to. They will go in on a yearly, three year or six year
basis with varying intensities. The type of equipment they use ranges from maintenance trailers, ATV’s, and ORV’s to half-ton trucks.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?
   - How many ditchriders do you have?

The majority of the respondents have water masters (a.k.a. ditchriders) that go up and down their canals daily at varying times during irrigation season. There are also maintenance crews that will be spending time on the canal, but at less consistent intervals. There was only one respondent who mentioned having a ditchrider on call 24 hours a day throughout the operating season. While the ditchrider doesn’t ride the canal daily he does check various sections weekly.

The number of ditchriders depends on the length of the canal and the number of shifts each day. So, they can range from one to four or five for each canal. Even though each canal company has different shifts and times of day the ditchriders are on the canal, there is no doubt that during the operating season (approx. April thru October) there will be ditchriders along the canal daily at some time between 6:30 A.M to 10 P.M. The daily shifts generally range from one to three and there are about one to three runs per shift. The ditchriders are also on twenty four hour call above and beyond the shift hours during each day. Since each canal has differing and unique operating systems, it would be important for the city or agency to coordinate the times of maintenance with their respective canal company and take the necessary steps to minimize conflict as much as possible.
- We have three full time ditch riders that take turns on their shift on the Ogden Brigham Canal in Weber Co. and then we have one canal rider that operates the canal from the end of Pleasantview to Brigham City and he works six days a week on a shorter hour day and has one day off a week when another canal rider runs his canal for him during the irrigation season.

33- What typical complaints do they have concerning ease of O+M?  
- What uses have they reported conflicts with during routine maintenance?

The complaint that surfaced through all of the respondent's answers had to do with the impact on operations due to the, now, illegal recreational use of the canal maintenance roads. Complaints included kids riding motorcycles, too many people walking/riding bikes and refusing to get out of the way of the ditch rider, people becoming "belligerent" and verbally abusing the ditch riders because they believe they have a "right" to use the property for one reason or another or because the ditch rider has kicked up some dust, to people driving vehicles on the maintenance road, and vandalizing of the structures. One of the respondents mentioned that in some cases these uses get so out of hand that operation and maintenance becomes impossible. The ditch riders will refuse to check certain sections because of the high use and the difficulty of getting through.

- Our water master operations are greatly impacted by the illegal use we already have. There are certain times of the day when he simply refuses to go on certain stretches because of the number of joggers and walkers. Its just impossible to get anywhere, you are constantly waiting for people to get out of your way or sometimes they don't get out of your way or they complain about the dust. So he just does his best to avoid those parts of the canal during those times of the day. This is frustrating to us because its our facility and we have a responsibility to maintain it. Then in the off season its a different concern, a public safety, can we move the equipment up and down the canal without risk or concern of hurting someone. Anytime anyone is on the canal our concern is the canal, our focus is on the canal, we are paying attention to the canal. We are not always thinking necessarily is there going to be a jogger around the next bend because that's not what we are there for.
Another problem mentioned is dumping of garbage which consists of tree limbs, grass cuttings, trimmings and other miscellaneous objects along the canals which obstructs the ditchriders from getting through. Legally this use of the canal corridor as a dumping ground is a punishable offence, but for the most part the officials had an interest in education rather than constantly putting Band-Aids on the problems and never really solving them. In some cases, the response of the canal company is to fence off the property.

- If a tree falls across the ditch from their property, technically it is their problem, but we have always gone out and helped them out. I'm trying to get everyone to cooperate, the adjacent property owner, the canal company and Logan city and between the three of us we should be able to resolve most of these problems.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.

Aside from the existing complaints mentioned above which could easily be seen as, and for the most part is, a preview of what is to come for each of these officials, there were other concerns such as obstruction of maintenance activities including mowing along the canal or vandalism of headgates, obstructed access to canal and people throwing debris in the canal which could need to be cleaned out.

- But with increased use we do have malicious vandalism. That's the one thing I am worried about that because there is more use people would go in there and mess with it more and there would be increased costs. What they could do to the head gate is they are cast metal, they could break them, bend the stem, they could obstruct them. During use a lot of times they are not locked, so people mess with them pulling them up and down. One time the city disconnected the pump down in the park for a while to do some routine maintenance and kids threw debris down the pump and lodged it so that the canal company had to go in and rebore it out.
For the most part, the responses to this question seemed to be more focused on the less obvious impacts. These concerns had to do with such things as the type of landscaping and materials (gravel, asphalt) used for the walkway/pathway and whether these would solve some of the conflicts such as dust clouds from the ditchriders trucks or compound the concerns, such as a tree that obstructs their vehicles because it was planted to close to the road. There was also a concern for the increased sediment loads from increased runoff.

A majority of the respondents offered suggestions for implementation measures that would help solve some of the problems. One respondent suggested coordinating with the city to work out times for basic maintenance, such as mowing, where the trail would be closed. It was suggested to close the trail one day a month for this activity. It was also suggested by the same respondent to close the trail at dusk throughout the year to cut down on crime. Another respondent suggested putting in drainage fences to cut down on the sediment loads in the canal.

Four of the respondents made it clear that given proper planning and coordination with the city, the possibilities for interference would be minimal if at all.

- *I really don’t think that in the areas where we would allow recreation use, I don’t see that it would really conflict with our operation maintenance at all.*
- *In terms of people being on the trail though theres no problem because they can move in a hurry.*

**35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintain the canal? Why?**

Four out of the six respondents claimed that it would have no effect on their ability to maintain the canal.
- I think if it was done right I don't think it would interfere much in my opinion. I just think the benefits for the recreational use along there would be terrific for the recreationists if it was done right.

One respondent thought it would decrease their ability to maintain the canal due to the existing problems and conflicts that occur which he thought would only increase proportionately as you allow more and more people on.

One respondent thought the effects on their ability to maintain the canal would be positive because they would have "better access, more people watching which would offset some of the problems.

- I think the more people watching and helping would offset the increased traffic and garbage problems. I do know that dog manure has been a big point of contention, and I physically had farmers tell me they are just tired of it and I don't blame them because there is dog manure everywhere.

**General Concerns**

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.

The unanimous response was yes, there are solutions to the concerns mentioned. While no one offered lengthy descriptions of specific solutions to their concerns they generally were optimistic about the possibility to resolve their concerns. A couple respondents claimed that the only way to resolve their concerns was to pipe the canal. All respondents repeated claims heard throughout this interview that as long as the problems of liability, O and M interference, water quality, public safety, etc. were all addressed and taken care of, they are in favor of recreational trails.

- I'm of the opinion that trails along canals and corridors that are used as water conveyance are a good thing, because they generally benefit the public at large. I am certainly in favor of it. I have talked with my boards about it and they seem to be pretty much in favor of it as long as liability problems are addressed and taken care of.
One respondent offered brief solutions to his concerns:

- Yes I think we went through that. Better information and better maps and a willingness of parties to sit down. And rather than asking who is liable, we admit partial responsibility with everyone else and let's work at it together.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?

Liability and impacts to O and M were the two most important issues mentioned in four out of the six responses. Water quality, public safety and limiting access to walkers, joggers and bicyclists were other concerns that were mentioned by the respondents.

- There is also a public safety concern. The public doesn't always know what a dangerous spot they can get themselves into and only now and then do they really get bit and really find out. Because usually when they do it costs a life.

One of the respondents mentioned the need, as a first step, to have all the players sit down, collaborate and "admit" responsibility for the issues, and, to continue this round table discussion on a regular basis.

One of the respondents answered this question by getting to the heart of an issue that should be drilled into each and every user who decides to take advantage of a canal corridor for recreational purposes, legally or illegally:

- The number one thing that we need to keep in mind is that there are a lot of farmers/stockholders that rely tremendously on this water for their livelihood to water and irrigate their fields with. So that is number one, that comes first. The recreational part of it is secondary but still I just feel it would be a good thing in my opinion.

38- Can your concerns be addressed with creative and proper design, construction and management of the trail.

One respondent's response was that they can't, given their physical facilities and constraints and therefore the situation has not "created a win-win for everyone."
other five respondents thought that their concerns can be addressed. This is apparent already from earlier responses. One of these five gave an ultimatum that the concerns can be addressed only if the canal is piped, in which case “steps [could be] taken to partially mitigate”.

- *I think our feeling is they couldn’t go far enough to totally mitigate to the point where we would feel comfortable allowing them short of piping the canal. [The] city proposed several things they thought they could do to help address some of our concerns, we just didn’t think it could help us get to where we wanted to be. They did try to address the risk management issues. They said they would lend some of their public works crews at various times during the year to assist in grading. They would undertake a public education campaign to educate people on proper canal behavior if you will, don’t litter, don’t take your dogs on, don’t get in the canal, I think those were the major things talked about.*

39- **Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?**

There was a range of answers for this question which can be summarized by breaking them into responses that are favorable towards recreational development of canals and ones that express concerns. Two of the respondents simply pointed out that most of their concerns were expressed earlier in the interview.

One of the respondents shared that his company had hired a consultant to do renderings of a portion of their canal after being piped. The renderings showed what it may look like with and without developed recreation trails. The interesting idea shown was to take some of the water which is saved from the piped canal underground and pipe it into a shallow brook built above the canal, creating a water feature along the trail which would be safer, and less liability laden. Once their canal is piped, the same respondent also shared a vision for a two to three acre “offline park” in areas where the R.O.W. is widest. This would include picnic facilities, etc. and “would really be a nice amenity to
have next to a recreational trail, and quite an opportunity". Another respondent mentioned a canal design he knows of which was done well and is well used:

- *I think it's a good idea. I'd like to see open water. I think it adds to the life of our communities. At the Applied Tech Center in town here there is an irrigation canal that runs through there, and one of the local landscape architects did a design through there and it's a wonderful treatment of the canal that people can use very safely. I think it can be done. I think it ought to be done.*

There were some concerns that were summarized by the respondents. One concern had to do with the way in which a signed agreement would be carried out by the city or agency responsible for the recreational trail development. The respondent expressed some concern that some of the key issues in the agreement may not be carried out as agreed upon, will be forgotten as time goes on and may not even be honest on the part of the city. Another respondent expressed the need for a “comprehensive watershed planning unit” in which all parties involved in the whole watershed unite their efforts to improve the systems and take the blinders off that cut off their vision at the political lines where their responsibilities end and another’s begin.

- *We are all in this together. The property owner benefits by having it right through their property because they own right up to the canal, the municipality because they put their storm drain water in there and the canal company because they distribute water in there. So, rather than spending money on lawyers to fight each other we could spend that same amount of money to make improvements in infrastructure to handle that.*

Another issue that was brought up had to do with the cost in time and money in concentrating on trying to turn some canals, which are full of hurdles such as property acquisition, into recreational amenities. The argument expressed had to do with leaving them alone and “go to where you are developing rapidly right now and put in place” the programs that you are trying to put in place in these difficult areas “and just make it part
of your development cost”. The point being that it is best to know when to fold the hand you have and concentrate your efforts on canals that have the most potential for development.

- *I'm all for it (a trail) they have always talked about connecting the parks so that people could bike and walk along it all the way back (to the mountains) and there is a trail to the high school. But the problem is there is no right-of-way there for the rest of the way and all these people say not in my backyard. And physically we have been encroached upon so much that I don't think we have any spare right-of-way to use. So that makes it real tough.*

**Conclusion**

Question #20 which involves permission for recreational use issues, should be expounded upon: In the case of a canal company owning an easement that crosses private property, the canal company is generally said to be the dominant estate owner and the private landowner is designated the servient estate owner. The canal company would have an easement designation that is either exclusive or non-exclusive. An exclusive easement means the canal company has all rights to the easement. A non-exclusive easement which is when “both holder of easement (canal company) and owner of land burdened by easement (adjacent landowner) have rights to use property” Lazy Dog Ranch v. Telluray Ranch Corp., 965 P.2d at 1229. (Colo. 1998). According to the ruling of this case, “Easement, regardless of manner of its creation, does not carry any title to land over which it is exercised, nor does it serve to dispossess landowner.” It goes on to say that this rule “is altered somewhat in case of easement that is clearly and expressly designated as exclusive, or for the sole enjoyment of easement holder. In a non-exclusive easement, the “owner of servient estate enjoys all right and benefits of proprietorship consistent with burden of easement, while rights of owner of dominant estate are limited
to those connected with use of easement.” So, where easements are involved, the consent of both the servient estate owner and the dominant estate owner is necessary for the right to provide recreational trail use.

Greg Hoskin, a Grand Junction Attorney representing four canal companies which are being petitioned for trail development, stated that “The city of Grand Junction right now is doing a study with four irrigation companies regarding demand for use but to my knowledge…most canal companies have a dominant easement on the right to use the property. Underlying uses by other landowners can grant additional uses as long as they don’t interfere” (Greg Hoskin, personal communication). This coincides with the case *Lazy Dog Ranch v. Telluray Ranch Corp.*, 965 P.2d at 122, which holds that “Unless intentions of parties are determined to require a different result, owner of servient estate may make any use of burdened property that does not unreasonably interfere with enjoyment of easement by its owner for its intended purpose.”

Underlying landowners can give valid permission to use the canal banks without the permission of the canal company or Water Users Association, only if such use (recreational trails) does not “unreasonably interfere” with the use of the easement. Therefore, it could be concluded that permission would be required since most canal companies and WUA’s are likely to take the position that the use of canal banks for recreational purposes will result in unreasonable interference with their operation of the canal and irrigation systems.

In addition, Utah has a statute that specifically calls for “written permission” from the “owner or owners” of a R.O.W. of “any established type or title” for any canal.
This could, of course include easement holders. Here again there could be a conflict that can exist in determining what the term “otherwise” entails and whether a recreational trail that shares the maintenance road or uses a separate path is legally considered an “obstruction”.

According to a Utah Statute, U.C.A. 1953, 73-1-15:

> “Whenever any person, partnership, company or corporation has a right of way of any established type or title for any canal or other watercourse it shall be unlawful for any person, persons, or governmental agencies to place or maintain in place any obstruction, or change of the water flow by fence or otherwise, along or across or in such canal or watercourse, except, as where said watercourse inflicts damage to private property, without first receiving written permission for the change and providing gates sufficient for the passage of the owner or owners of such canal or watercourse... Any person, partnership, company or corporation violating the provision of this section is guilty of a misdemeanor and is subject to damages and costs.”

The issue of water quality brought up in question #24 should be further explained. According to Jonathan Clegg, assistant superintendent of Provo River Water Users Association, conversion of canal water into domestic water is a common practice. For example, according to Mr. Clegg, capacity rights in the Provo Reservoir Canal were historically held by metropolitan water districts, but were often assigned to irrigation companies for agricultural purposes. As development encroached onto farmland these water rights have slowly been transferred to domestic or secondary purposes. (Jonathan Clegg, personal communication)

The degree to which there is a concern for water quality in open canals used for recreation purposes was not shared by all the respondents. According to Clegg, water quality in open canals which are used for recreation was a concern because “water treatment plant operators are under increasing regulations by EPA to improve the quality of their source water. Cleaner source waters are easier and less expensive to treat, the
generation of disaffection by-products is decreased and the risk of waterborne disease outbreak is decreased.” However, Terel Grimley, President of Utah Water Users Association, pointed out that “Most water sources, other than wells, have a recreational use prior to being diverted for treatment for domestic use” (personal communication). This would indicate that while water quality is a concern, the degree to which it is a concern varies depending on who you are talking with. Although, water quality is always of some concern along recreation corridors, especially in regards to dog and equine feces.

The general feeling expressed by canal managers throughout the interviews, regarding opening their corridors to the public and the resulting potential benefits to the overall community, was optimistic. As long as their particular interests are considered and their day to day activities are unencumbered, there were no serious objections to trail development. The need for a “win-win” solution came up many times throughout the interviews, which shows that each of the interviewees are, for the most part, amenable to working with the respective communities.
CHAPTER VI
CONCLUSION

"To find the right trail is the problem. And when found...from that moment until life’s end...there is constant growth."

Jens Jensen

As development encroaches on canals their informal and unmanaged recreational use will continue to grow, causing a corresponding increase in conflicts and concerns with the canal managers. It is clear that it is to the communities and canal companies benefit and best interests to address these issues and begin to come up with solutions that will benefit everyone. A crucial challenge for planners is to isolate, evaluate and address the concerns of the affected parties during the incipient stages. Therefore, researching and getting to know the general issues and concerns before approaching the affected parties will exponentially increase the potential for success. This process requires an unwavering dedication to creating a “win-win” solution to these issues and concerns.

It is only logical to include the affected groups throughout the planning process since it is they who will be living with it and looking after it for years to come. Involving canal companies, adjacent landowners and the community in the decision making process will help to develop appropriate policies and safety standards that address their specific concerns. Canal company officials and community representatives should have an established position at development hearings so that development agreements and other important decisions will have taken their concerns into consideration.
When asked if there was any resolution to their concerns, the respondents were unanimous optimistic about the possibilities. The key problems posed by recreational use are interference with ditch operation and maintenance, greatly increased exposure to law suits, increased crime, and water quality issues. All respondents repeated assertions that as long as these problems were addressed they would favor recreational trails.

The research on adjacent landowner concerns shows their main concerns to be increased liability, increased crime rates, decreased property values and maintenance and management issues.

This Chapter briefly summarizes the challenges brought out from the interviews and literature review and offers solutions to these issues and concerns. A quote that represents the overall sentiment throughout the interviews follows:

"We want to be good neighbors with the cities and say yes the canal is running right through the middle of your town and lets make use of it, and yet the city has to look at our point of view... and say yes we can see where you would be concerned about the liability. So, I think that as long as they are concerned about our concerns, then we as a company are willing to do whatever we can to be good neighbors with the city and hopefully work something out with them. That may turn out to be a real asset."

**Liability Issues**

**Fear of Litigation**

Liability issues connected to opening canal banks for recreational uses is one of the primary concerns for canal companies and adjacent landowners alike. Even though none of the respondents was aware of ever having to pay liability or injury claims and the cases that did come up were dismissed and settled out of court, there is still a fear that once open to the public, the likelihood of litigation will increase tremendously. Given their tight budgets, canal companies are worried about their ability to financially manage
a suit against their company. Also, a majority of the respondents felt that the risks associated with recreational use of canals is higher than the risks associated with other recreational facilities. This is one of the foremost challenges facing planners. In regards to the numerous dangers associated with canals, this fear on the part of canal officials, is not without justification. As mentioned in the interviews, there can be a high degree of danger regarding serious injury and death along some sections of the respondents canals. This is especially true along open, concrete lined canals where the water can be fairly swift and difficult to get out of, and low structures such as bridges, culverts and siphons exist. (see question #10) Due to these potential dangers, it is understandable why not only the respondents, but adjacent landowners are concerned about serious injures and the resulting increase in liability arising from recreational use of canals.

Risk Management Efforts

Concerns for the safety of individuals who use an open canal without awareness of the associated dangers, were very prevalent throughout the interviews. During the interviews with the canal company officials, there were a number of inferences to design and management suggestions that would ease their concerns. To positively impact the liability risks, agencies responsible for the design of the trail should ensure that they are properly and safely designed. While opening canals as parkways would increase canal company liability risk and would increase the likelihood that injuries may occur, a risk management program could actually reduce canal liability risk below its present level. Half of the respondents indicated that most if not all of their liability concerns can be addressed through proper design, construction, maintenance and education. The
following is a list of suggestions for inclusion in a risk management program derived from the interviews conducted.

- **Enhancing Existing Efforts:** Existing risk management practices that most canal companies already have in place should be continued and enhanced.

- **Intensive Education Program:** Educating trail users of the inherent dangers associated with open canals is critical to minimizing risks.

- **Signing:** Installing signs wherever there is a high degree of danger. Especially in canals where the water is moving at fast rates. These could read: “Certain Death if Entered; Restrain children and animals from canal at all times”, “Watch Your Children” or “Danger During High Flow”. Additional precautions could include signing at access roads and advising when water is high during peak operation season.

- **Public Safety Devices:** Installing public safety devices such as covering or screening dangerous structures including drop structures, spillways, siphons or culverts, and installing adequate lighting will significantly reduce risk.

- **Financial Responsibility:** Because cities have greater financial resources than canal companies, they could take on the responsibility of safety and maintenance of anything associated with the pathways themselves.

- **Safety Feature Standards:** Establishing safety feature standards will aid in keeping hazardous features such as drop structures, spillways, siphons or culverts from causing serious injuries or even death. These standards could advise where these safety features would best be located. They would ensure that racks (or body catchers) will have a low enough angle to lift people out of the water along with a safety platform for rescue. (College of Architecture and Planning, University of Colorado, Denver, 1994)

- **Piping:** When asked for their attitudes regarding piping, all of the respondents showed interest in the idea. According to half of the respondents water quality, water conservation, ease of maintenance, and improved conveyance are just as much if not more of a reason for their interest in piping than liability is. As mentioned in the interviews this process can be very cost-prohibitive, which makes it an exclusive venture only taken on by larger companies with the resources to do so.
The risk of personal injury and the resulting claims/lawsuits from trail use can be reduced through good trail design, construction and maintenance, but not completely eliminated. Each one of the respondents have risk management efforts in place which include signing and gating. An ongoing effort to educate the public of the dangers associated with open canals, especially concrete lined canals, is critical in creating a safe canal trail and in reducing liability claims. As Kennedy and Unhanand (1974) argue, problems of potential liability should not be a serious deterrent to development of canals as recreation parkways if these and other proper precautions are taken.

Utah’s Limitation of Landowner Liability

Given the fact that most of the respondents interviewed did not have an in-depth knowledge of Utah’s Recreational Use Statute (RUS) “Limitation of Landowner Liability” (Sections 57-14-1 thru 57-14-7), and since this is most likely also true for adjacent landowners, it is obviously an important task for the agencies responsible for trail development to inform both parties of all the existing state laws which will protect them. In order to ease their concerns, it is necessary to provide the canal companies/landowners with the pertinent information regarding the extent to which statutes such as Utah’s RUS limits their liability and the circumstances under which liability is a real concern for them. The same education efforts should be extended to adjacent landowners. While these statutes cannot prevent canal companies and adjacent landowners from being sued, it does grant them certain protections. The RUS does not grant immunity but it does offer limitations on landowner liability.

(See Appendix C for Utah’s RUS and Chapter III for a review of Utah’s RUS.)
Indemnification and Hold Harmless

While state law provides a measure of protection for property owners via the RUS, canal companies and adjacent landowners alike, are still going to be fearful of potential litigation. While the RUS has been strengthened by court rulings in favor of the landowner, it is the fact that it will be a hassle to hire an attorney and go to court to begin with that will be more of a concern for canal companies and adjacent landowners than any other concern. Given that it is difficult to predict how a court will interpret the RUS and despite the significant protection offered by Utah’s RUS, it is important for the canal companies to be additionally shielded by both the respective agencies insurance coverage and indemnification and hold harmless clauses within the recreational use agreements.

With the added protection of inclusion in the public entities insurance and “hold harmless” clauses in contractual agreements, this fear of litigation can be watered down. The adjacent landowner may want the additional liability protection of a commercial liability insurance policy due to the circumstances of the public use arrangement. This insurance can also be purchased by the public entity with the landowner as named as an “additional insured” or “additional named insured” (Carrier and Corbin, 1994). These liability fallbacks will hold more weight than the RUS will in court. Upon legal counsel, these releases of liability for canal companies should cover the entire canal corridor, not just the pathway, and if necessary, it should also disallow the “attractive nuisance” classification that may apply to irrigation canals once developed as recreation corridors. (See Appendix D for examples of Recreational Use Agreements)
Maintenance and Management Issues

"The number one thing that we need to keep in mind is that there are a lot of farmers/stockholders that rely tremendously on this water for their livelihood to water and irrigate their fields with. So that is number one, that comes first. The recreational part of it is secondary but still I just feel it would be a good thing in my opinion."

   Interviewee

Generally, canals are filled in mid April and drained in mid October. The seasons are broken up into the irrigation or operation season and the off-season. Most of the heavy maintenance is done in the off-season (approximately October through April) when the canal is drained and its easy to get in the canal and conduct repairs. Even though each canal company has different shifts and times of day the ditchriders are on the canal, there is no doubt that during the irrigation/operating season (approximately April through October), there will be ditchriders (a.k.a. water masters) along the maintenance road performing routine daily inspections. Because there is a lot of maintenance activity throughout the year, the introduction of a public trail will require active cooperation between the city agency and the canal company in order to minimize operation and maintenance impacts.

Operation and Maintenance Impacts

Generally speaking, canal companies operate on very tight budgets and are, in some cases, in dire financial straits, so it is understandable when they express a concern of increased operation and maintenance costs derived from opening their canal to recreational uses. While four out of the six respondents felt that a developed trail would have no effect on their ability to maintain the trail, there were still a number of concerns expressed by all the respondents. Some of the concerns included:
• **Conflicts with Trail Users:** kids riding motorcycles, too many people walking/riding bikes and refusing to get out of the way of the ditch rider, people becoming "belligerent" and verbally abusing the ditch riders to. In some cases operation and maintenance becomes impossible. In areas where there is not enough room for separation of uses along the maintenance road the officials are concerned with having to share the road with recreationists and the likelihood of conflicts.

• **Crime:** People driving vehicles on the maintenance road. Vandalism of structures such as headgates. People throwing debris in the canal which could need to be cleaned out. Dumping of garbage which consists of tree limbs, grass cuttings, trimmings and other miscellaneous objects along the canals which obstructs the ditchriders from getting through.

• **Water Quality:** A couple respondents indicated that water quality was a big concern in canals also used for domestic purposes. According to half of the respondents water quality, water conservation, ease of maintenance, and improved conveyance are just as much if not more of a reason for this interest in piping than liability is. Water quality is always a concern along riparian recreation corridors, whether it is a canal or a stream. This is especially true in regards to dog and equine feces and storm water runoff.

• **Landscape Design:** The type of landscaping and materials (gravel, asphalt) used for the walkway/pathway and whether these would solve some of the conflicts such as dust clouds from the ditchriders trucks or compound the concerns, such as a tree that obstructs there vehicles because it was planted to close to the road.

• **Encroachments:** Adjacent landowners encroaching or building on the established easement and thereby obstructing maintenance activities. This was a problem faced by all of the respondents.

• **Lack of Management Entity:** Another obstacle that was mentioned in the interview was a lack of management entity. A lot of times, when a trail passes through multiple municipalities, there will be differences in quality of maintenance and design throughout the length of the trail. One respondent expressed a concern that some of
the key issues will be sugar coated in the recreational use agreement and may not be carried out or will be forgotten as time goes on.

Implementation Measures

The respondents had suggestions for dealing with these and other concerns. Some of these suggestions include:

- **Coordination with Trail Agency**: One respondent suggested coordinating with the city to work out times for specific operation and maintenance needs in order to minimize conflicts as much as possible. Four of the respondents made it clear that given proper planning and coordination with the city, the possibilities for interference would be minimal if at all.

- **Cost Sharing**: Funding opportunities that ranged from utilizing state and federal monies to sharing the cost with utility companies (gas, power, telephone, etc.) who may be interested in utilizing the corridor to improve their system of delivery.

- **Separate Uses**: Keep the trail separate from the maintenance road where possible.

- **Maintenance as a Priority**: Preserving the right to “close down the trail as we need to accomplish our maintenance tasks” was suggested. It was also suggested to close the trail one day a month for this activity. It was also suggested to restrict time of use to daylight hours in order to cut down on crime.

- **Minimizing Water Quality Impacts**: Suggestions included putting in drainage fences to cut down on the sediment loads in the canal, not allowing dogs on the trail and piping or burying the canal. As mentioned in the interviews this process can be very cost-prohibitive, which makes it an exclusive venture only taken on by larger companies with the resources to do so.

- **Design Standards**: Design standards for path distances from ditches to allow for maintenance access and for storing debris should be developed.

- **Adequate Signing**: Signing near water works such as headgates that states that “Unauthorized tampering with water works is against the law” followed by a quote of the law. Signage, that describes the duties of the ditchriders so that trail users can
familiarize themselves with the ditchriders operation and maintenance activities and why he/she is there.

- **Intensive Education Programs**: Enlightening trail users as to why the ditchriders are there, their purpose through signing. It is important for trail users to know that they are sharing the trail with the canal company and that their maintenance activities take precedence over recreational uses.

- **Informal Patrols**: Open the canal to the public in order to increase the number of eyes and ears out there which will help manage it.

![Figure 8. Dredged debris overflowing onto pathway.](image)

There is no arguing that recreational use will interfere to some extent with the canal companies operation and maintenance access. However, potentials exists for:

- **Annual Operating Plan**: Cooperation in joint maintenance for both uses along with accompanying realization of the associated costs savings. An annual operating plan to which both the canal operators and the city agree would minimize potential conflict.
- **Decreased Maintenance Expenses.** If the developed trail occupies part of the canal bank operation and maintenance road, an opportunity exists for trail maintenance expenses to take the place of, or even eliminate some canal maintenance expenses. Potential savings might include surface grading, trash and other debris pick-up, weed and vegetation control, and sign repair and replacement.

- **Maintenance Reimbursement:** Through an identification of additional operation and maintenance costs resulting from recreational use, the city could reimburse the affected water users association.

- **Ease of Maintenance:** The right of the canal company to use the canal corridor for the movement of vehicles should take precedence in its development and use. Especially in cases involving narrow irrigation corridors, where access for operation and maintenance is a larger issue, this type of agreement would benefit the canal companies ability to access the corridor.

- **Management Agency:** it makes sense for either one management entity to hold responsibility for the whole length of the trail or for the formation of a coalition which oversees the whole length of the trail. A respondent expressed the need for a “comprehensive watershed planning unit” in which all parties involved in the whole watershed unite their efforts to improve the systems and take the blinders off that cut off their vision at the political lines where their responsibilities end and another’s begin.

- **Informal Trail Patrol:** During the irrigation season (April thru October), water masters/ditchriders usually have taken on the role of an informal trail patrol which educates the public by talking with users about being careful, not being on the spillway, not pulling diversion boards, etc. While this effort should be taken on by trail patrols, ditchriders could create a unique opportunity to give the canal company a face and as they become known along the trail, they could educate the public about the dangers of the canal.
Adjacent Landowner Concerns

Adjacent landowners are stakeholders in the overall quality and management of the proposed trail and will be concerned about careless maintenance and the visual quality of the open space. Inclusion of this group as an integral part of a regular maintenance and management plan for the proposed trail creates an ongoing relationship between them and the managers of the trail. This also helps to create a sense of ownership and a dedicated group of individuals who will have a more intimate feel for the trail and its management needs than anyone would.

Crime Issues

While crimes such as vandalism of structures and littering were a concern for the canal company officials, crimes such as trespass, burglary, privacy, safety are some of the major concerns for adjacent landowners and the community as a whole.

Fears of increased crime are very prevalent and should be addressed. Given preventative maintenance practices such as regular bike patrols, fears of crime will diminish. Other preventative maintenance practices mentioned by the interviewees, included:

- Restricting time of use to daylight hours by closing the trail at dusk throughout the year.
- Incorporate an intensive education program of things to look out for along a trail.
- Develop community patrol sponsors along the trail that spend time checking on things. This would also cut down on vandalism.
- Opening the canal to the public, which would increase the number of eyes and ears out there watching for problems
Preventative Measures

As shown in Chapter V, there are numerous studies that illustrate that the experiences of serious problems with crime associated with developed trails are negligible to none. Factual information and testimonials from police who patrol trail areas will go a long way to easing landowner concerns over increased crime. Other preventative measures which could be part of a management plan include:

1. Barriers such as Bollard’s or fences to prevent unauthorized motorized access which can be opened by maintenance personnel only. A commonly held belief is that crime is closely associated with motor vehicles access to the trail.
2. Emergency access points all along the trail via arrangements with adjacent property owners.
3. Some form of screening to shield the properties from the trail and from the sight of trail users and to prevent trespassing.
4. Where possible, elimination of overgrown vegetation and tall shrubs which not only maintains long sight lines for the users but also minimizes hiding places along the trail. Crime generally does not occur in places where there are few hiding places.
5. Placing security lighting and posting warnings or trail rules at trail heads, along the trail where possible and in parking lots.
6. Voluntary or professional trail patrols and established neighborhood watch groups. The presence of voluntary or professional trail patrols equipped to alert emergency services and neighborhood watch groups improves enjoyment of the trail. The main function of these patrols should be to educate users and provide assistance when necessary.
7. Locate public parking lots, emergency phones, call boxes, emergency vehicle access points, restrooms, and drinking fountains at regular intervals along the length of the trail. This will cut down on the cases where a user needs to use an adjacent property for these amenities.
8. Maintaining and keeping the trail clean reduces the incidence of minor crimes such as litter, graffiti and vandalism.

9. Implement a carry-in, carry-out program by supplying plastic bags at trailheads. This will encourage users to pick up after their dogs and avoid littering on the trail.

10. Restricting hours of use to daylight use.

11. Educate trail users about safety precautions.

12. Boost trail use for an increase in self-policing by dedicated and observant trail users who report suspicious activities. Crime generally does not occur where there are lots of people.

Mostly taken from: (Doherty, 1998; Ryan, et. al., 1993; Illinois Department of Conservation, et. al., 1990; Rails-to-Trails Conservancy and National Park Service, 1995)

The Public Process

Building a Broad Based Coalition

The successful development of a canal trail would be due primarily to the successful coordination and partnerships between a variety of parties with an interest in realizing their common goal. These supporters could include a diverse makeup of organizations which can offer advocacy, educational materials, technical support and fiscal assistance. These include, but are not limited to:

- **National Organizations**: American Discovery Trails; American Greenways; American Trails; Bicycle Federation of America (BFA); Blue Ribbon Coalition; Land Trust Alliance; Leave No Trace; National Wildlife Federation; Rail-to-Trails Conservancy; Rivers, Trails and Conservation Assistance (NPS); Tread Lightly, Inc.; and the Trust for Public Land (TPL).

- **Local Organizations**: environmental groups, trail user groups; neighborhood associations; historic societies such as the Canalway Trail Conservation Association; tourism councils; chamber of commerce; businesses that would benefit from a canal trail; canal societies; Mtn. Trails Foundation; lands trust such as the Virgin River
Land Trust or Grand Canyon Trust; The North View Trails Committee; Ogden Trails Network; Salt Lake Regional Trails Council; Utah County Trails Committee; Weber Co. Trails Coordination Council and Weber Co. Trails Trust; Great Western Trail Association; Utah Open Lands Conservation Association; Conservation Districts: Utah Water Users Association and managers and directors of existing trails.

- **Historic Organizations**: Heritage Trails Fund; Mormon Trails Association; and Utah Historic Trails Consortium.

- **Fiscal Assistance Groups**: Non-Motorized Trails Fiscal Assistance Program (as mentioned in this report, this program is interested in funding canal related projects); International Mountain Bicycling Association (IMBA); Recreation Equipment, Inc.; National Park Service Challenge Cost-Share Program (CCSP); Off-highway Vehicle Fiscal Assistance Program; Local History Grants; and Utah Department of Transportation Enhancement Program.

Organizations listed above are taken from: (Utah Trail Assessment, Utah Division of Parks and Recreation and National Park Service, Rivers, Trails and Conservation Assistance Program (RTCA), 1997) This resource is a valuable tool for anyone planning trail development within the state of Utah. It is available by contacting Utah Division of Parks and Recreation at (801) 538-7344.

Of course, there are also the affected parties which include the perspective canal company/water authority; adjacent landowners, regional, county and local communities and future trail users. Planning a canal trail therefore is very much contingent on the public process because it requires inclusion of the abundance of parties affected. This sentiment is mirrored in a response to a question about whether are any resolvable solutions to their concerns. The respondent mentioned the need, as a first step, to have all the players sit down, collaborate and “admit partial responsibility with everyone else” and to continue this round table discussion on a regular basis.

Every canal trail project has some level of citizen participation. Support is usually greatest at the grassroots level which encompasses local cities and outlying
counties. Because of the linear nature of canal trails and because they can span over large geographic areas crossing through numerous cities, public involvement is more effectively attained at local city-by-city or county-by-county scales. (Erickson, 1997)

Due to the broad reaching social, environmental and economic effects of these recreational trails, these individual communities with their groups, associations, councils, societies and organizations are intensely engaged in all stages of development. Because of this, these groups play a vital role in the trails master planning stages. Successful canal trails are the result of a cooperative effort between the shared visions of a responsive public agency, an involved canal company, an active citizen group and a supportive community. Building a coalition between these groups will lead to a safe, well-designed and valuable community asset. Once these groups come together in a shared vision, the development of an action plan will help define each group’s role in the trail development process. (Doherty, 1998)

The Opposition Challenge

As illustrated in the interviews, three of six canals are easements. In these cases, trail development is dependent on agreement from a majority of the adjacent landowners. Because adjacent landowners have a direct interest in what happens in their backyards, they represent a group with the highest probability of producing opposition to trail development. There will also be opposition coming from grass root citizen groups and the community as a whole, due to the perceived negative impacts trails have on communities.
Studies show that even though the degree of serious opposition to trail development in general is very small, disregarding this group can lead to bureaucratic dormancy and financial difficulties. Even if agreement is achieved from one hundred percent of the landowners and the community, this accomplishment must be accompanied by effective facilitation/communication from the beginning stages of planning. With the support of this group, they can be powerful allies along the road to completing and maintaining a trail project.

Opposition usually stems from fear and anxiety about the effects of a trail on the existing quality of life. Through active communication and education these fears can be deflated. The longer it is put off, the harder it will be to establish good communication and effective working relationships with grass root citizen groups and adjacent landowners. Never-the-less, no matter how far along the project is, it is never to late to reach out to opponents and build support throughout the community. It must not be forgotten that this process is purely democratic (especially in master planning stages) and these groups are just as an important part of the team as anyone can be. The following strategies will aid in directing a project in a positive directions. (Doherty, 1998)

- **Be the first to contact adjacent landowners:** When any type of development is going to affect someone’s property, home and quality of life, they are more likely to become opponents to a trail project if they hear about it late in the game.

- **Know your facts and prepare a management plan:** The affected landowners are going to have serious questions about crime, property values, liability, design costs, management, etc. Listen carefully to these concerns and be prepared to answer these questions.

- **Provide a designated contact person to respond quickly and accurately to suggestions and concerns:** List their names, addresses and phone numbers on all trail-related
information. Respond quickly to any inaccurate information before it becomes widely dispersed.

- **Invite existing trail patrol officers to speak at public meetings**: Factual information and testimonials from police who patrol trail areas will go a long way to easing landowner concerns over increased crime.

- **Create opportunities for one-on-one communication**: Organize a trail walk or a casual open house to allow undecided community members to voice an opinion or concern they are uncomfortable voicing in groups.

- **Give adjacent landowners a role in the development process**: Invite community members to sit on an advisory committee where they can have direct input in the process. Suggest an Adopt a Trail program where they can adopt section of the trail.

- **Seek out existing constituencies among adjacent landowners**: Examples of these are equestrian, running, bicycling and other trail user groups which would help broaden your base of support.

- **Invite former trail opponents to speak at trail meetings**: The concerns of future adjacent landowners can be alleviated by hearing the stories of how an opponent became a trail advocate.

- **Arrange a field trip to established trails and invite other communities to speak about their trails**: The concerns of adjacent landowners can be alleviated by hearing about other communities’ real trail experiences.

- **Hold a public meeting to answer lingering questions as support for your project begins to grow**: Provide index cards and pens for those attending to note concerns and issues. Near the end of the meeting gather the cards and read them aloud.

- **Construct a pilot, demonstration section of the trail**: This will allow concerned citizens to see for themselves how the trail will look and, most importantly, how it would be managed.

- **Bring in a third party to help build consensus**: Examples of this could be National Park Service’s Rivers, Trail, and Conservation Assistance Program. It is important to invite someone who is respected and trusted by both sides.
• Work with the media: Opposition is diffused and support is generated through favorable coverage of the trail project.

• Be positive and creative: An example of this is the Friends of the Weiser River Trail in western Idaho. They arranged a “Fly-the-Trail Day” in which five small planes took over 170 people on a free twenty minute flight along the 83-mile proposed trail corridor.

Techniques listed above are derived from: (Rails-to-Trails Conservancy and National Park Service, 1995; Doherty, 1998; Ryan and Winterich, 1993)

There is always going to be opposition to a proposed trail project from somewhere. While studies and testimonials afford a good starting point in developing support for a project, they are ineffective if not accompanied with broad-minded discussion of what is really important and valuable to the community as a whole. It is easier to change someone’s mind with sincere interest in and response to their concerns than throwing figures and tables at them. The challenge then becomes one of constant communication. When an open-door policy is coupled with an active outreach initiative, and the affected groups are given appropriate measures of respect, credit and attention, they will more likely to become advocates of the project and less likely to be swayed by the opposition. After all, the goal of any trail proposal ultimately should be to improve the quality of life of those communities, not to impose an unnecessary “amenity” on the community.

Value of Canal Trails

Utah’s irrigation canals are valuable open space assets with the potential to positively impact communities by helping to create humane cities and identifiable neighborhoods. It is the physical and ecological characteristics of flowing water, flora
and fauna, the availability of an existing, graded maintenance road and their close proximity to neighborhoods which make these linear open spaces so unique as potential recreation corridors. As noted in this report, there are some excellent and well-established examples of successful canal trail projects throughout the United States which have shown the economic, aesthetic and quality of life improvements in the communities they transect. These examples can serve as models for Utah. A brief summary of the positive impact created by canal trails follows:

- As an economic investment, they stimulate and strengthen the economic vitality of the local communities they bisect by enhancing property values and by revitalizing businesses, creating jobs and increasing public revenues.
- As linear parks, they would allow an increased number of people to enjoy greater access to recreational activities such as jogging, bicycling and walking. This in turn, increases the communities quality of life and vitality by creating a sense of community pride, strengthening community unity, increasing the physical and mental health of the users and by encouraging residents to get out and enjoy their immediate surroundings.

- They respond to habitat loss and isolation in an increasingly fragmented landscape by offering a haven for flora and fauna and filling a need for wildlife movement corridors. They also offer the opportunity for environmental education.
- Because they are so much of an intertwined part of our community, canals provide a unique opportunity for cities to link neighborhoods, communities and open spaces such as parks and other recreational and cultural resources. Because they are so available they offer insight into our local and regional ecology which surrounds us.
- Along the Wasatch front, canal trails would allow greater access into the nearby mountains by allowing residents to use the canal corridor as a conduit to the upper arteries along the drainage network of the mountains.
- Alternative, non-polluting transportation is also a benefit of these extensive pathways.
Because they are among the oldest man-made features remaining from the era of Utah’s settlement, irrigation canals in Utah are important cultural and historical landmarks. They embody the visual character and cultural, religious and political history of Utah. As developed recreation corridors, they would offer Utahn’s the opportunity to better understand their cultural past and present.

Due to the shared personal stake of the public agency responsible for maintaining the trail, the respective canal company may welcome the additional maintenance support along with the improved quality of the canal banks.

(See Chapter III: Canal Trail Benefits)

Canal trails are no different than any other type of trail in terms of the list of aforementioned benefits to the communities they pass through. Essentially, when these irrigation canal corridors are developed with the interests of the canal company, adjacent landowner and the entire community in mind they will provide an entire spectrum of benefits to the surrounding city and communities.

**Directions For Future Research**

1- It would be useful to take a temporal approach by studying the continued progress of the canal trail projects into the future. Follow-up interviews with the canal officials of the canals that are going to be developed in order to get a before and after pictures of perceived problems vs. realized problems would be effective.

2- What are the outcomes or impacts of these projects on the community in terms of ecological, social and economic integrity?

3- Follow the paper trail/planning history of a successfully established canal trail, and use finding to create a how-to manual.

4- Expand upon the legal aspects of this study.
5- Researching economic development and quality of life aspects/benefits of trail development. Quantify what it is people value about recreational trails.

6- Research on the unique aspects of trails and how they reflect a city's unique character.

7- Collect some contracts or memorandums of understanding with land managing agencies allowing trails to be placed on their property. Reviewing this information and obtaining the opinion of an attorney and our landowner liability law may be able to shed some light on offering some protection through contract. This would help pave the way for trail designation in the future.

8- Research examples where canal trails were developed without too many problems where it was done easily, coupled with legislation and design alternatives/suggestions could be very useful.

9- Evaluate conflicts of interest between cities, canal companies and adjacent landowners.
REFERENCES

INTERVIEWED CONTACTS:

Russ Akina, Director Parks and Recreation, City of Logan.
Di Allison, Executive Director, Weber County Pathways
Terel Grimley, President, Utah Water Users Association (UWUA)
Jennifer Herrington, Park City Municipal Corporation.
Mark Hermundstad, Williams, Turner and Holmes, P.C., Grand Junction.
Leo Hennesy, Trails Coordinator, Idaho Division of Parks and Recreation.
Greg Hoskin, Attorney, Grand Junction.
Lori M. Hunter, Assistant Professor, Department of Sociology, Utah State University.
James Kennedy, Professor, Dept. of Forest Resources
John Knudson, Trails Coordinator, Utah Division of Parks and Recreation.
Robert J. Lilieholm, Ph.D., Associate Professor, Natural Resources Management and Economics, USU.
Stuart Macdonald, State Trails Coordinator, Colorado State Parks.
Greg Montgomery, AICP, Current Planning Manager, City of Ogden, Community Development Dept..
Hugh Osborne, NPS, River Trails and Conservation Assistance Program, Rocky Mountain Region.
Rory Robinson, NPS, River Trails and Conservation Assistance Program, Ohio Field Office.
Kay Salizar, National Park Service, Challenge Cost Share Program, Colorado.
Shawn Seager, Mountain Land Association of Governments
Robert Searns, Urban Edges, Denver Colorado.
Ron Vance, Logan Ranger District, Forest Service.
Mike Voss, President of Ogden Trails Network
Dr. Garth Willey, North Ogden Trails Group

LITERATURE CITED:


APPENDIX A. QUESTIONNAIRE
Canal Trail Questionnaire

- The purpose of this open-ended *discussion* is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

**PRELIMINARY INFORMATION**

Date of interview:

Name:

Title/ Titles:

Address and Telephone #:

Administers to what canals?

Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)

Endpoints (cities, towns, river diverted from or any other landmarks)

The total length

Capacities and depths

Width of the canal R.O.W. and the canal itself

In what year did canal construction begin?

In what year did the canal open?
CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?

2- Do you allow public use/access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?

3- How aggressively are these efforts enforced?

4- Do you have any concerns regarding these existing uses?

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what claims?

6- What existing risk management do you have in place?

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?

8- Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance? Typical Maintenance agreement would state that: The city or agency “holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities.”
   Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
       2. Highline Canal (each respective city)

9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?

11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?
12- To the best of your knowledge, what is the existing adjacent land use along the canal/canals by percentage?

___ % Residential
___ % Agricultural
___ % Business

13- What are the existing ownership standings along the length of the canal/canals?
   In terms of:
   ___ % Public
   ___ % Private

14- Does your company or WUA own land under any portion of the canal/canals?

15- Does your company or WUA own easements for any portion of the canal/canals?

16- Does the respective city own land under any portion of the canal/canals?

17- Are you familiar with general ownership standings along the canal/canals.
   • How much of the canal corridor is owned in fee simple by adjacent landowners? (Own land and canal company has an easement.)
   • Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?

18- Please explain your relationship with the BOR regarding ownership of underlying land.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?

22- Are there different answers for different sections of the canal?

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?
POTENTIAL TRAIL/RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail? (ALLOW VOLUNTEERING OF ISSUES FIRST)

A. Liability – Why?
   - Attractive nuisance
   - Liability should cover entire corridor not just path.

C. Safety – Why?

D. Crime – Why?
   - Law enforcement: Time of response
   - Changing emergency procedures/protocol
   - Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.

E. Operation and Maintenance – Why?
   - Increased O+M costs
   - Canal company rights: it's a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
   - Vegetation management for visual inspection.
   - People need to honor the ditchriders need to pass! (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)
   - O+M of dirt canal will not allow surfaced trails along side on canal bank.

F. Funding – Why?
   - Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

G. Lack of Management entity – Why?

H. Other – Please explain:
   - Public perception that the canal is public land.
   - All uses should be subordinate to agricultural use.
   - Private property owner’s rights: taking without compensation, multi-purpose easements.

25- If a trail were developed along one of your canals what implementation measures would you like to see?
   - (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?

27- Are you aware of any other trails built next to irrigation canals in Utah?
28- What forms of recreational use permission are you aware of?
   - Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?

**CANAL OPERATION AND MAINTENANCE:**

31- From what month to what month does the operation season last?
   When are the canals generally filled and drained?
   What typical O+M tasks are performed during this period?
   - Type of equipment used? - Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?
   - How many ditch riders do you have.

33- What typical complaints do they have concerning ease of O+M?
   - What uses have they reported conflicts with during routine maintenance?

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintain the canal? Why?

**GENERAL:**

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
38- Can these concerns be addressed with creative and proper design, construction and management of the trail.

39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?

Notes:
APPENDIX B. INTERVIEWS
The following interviews are included in this appendix for the purpose of offering additional information that may not have been included in Chapter V. The responses are not edited in any way and are verbatim.

**Canal Trail Questionnaire**

- The purpose of this open-ended discussion is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

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**PRELIMINARY INFORMATION**

**Date of interview:** Friday, November 13, 1998

**Name:** Terel Grimley

**Title/ Titles:** President of Utah Water Users Association 
President of North Ogden Irrigation Company
General Manager of Pineview Water Systems (Ogden R. W. U. A., South Ogden Cons. Dist., and Weber/Box Elder Cons. Dist.)

**Address and Telephone #:**
471 West 2nd Street
Ogden UT 84404
801-621-6555-19

**Administers to what canals?**
Ogden-Brigham Canal
South Ogden Highline Canal
North Ogden Irrigation Canal.

**Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)**
Ogden-Brigham Canal, South Ogden Highline Canal and North Ogden Irrigation Canal

**Endpoints (cities, towns, river diverted from or any other landmarks)**
The Ogden-Brigham Canal begins at the mouth of Ogden Canyon and runs north to Brigham City, 24 miles of concrete lined and piped canal. The South Ogden Highline Canal begins at the mouth of Ogden Canyon and runs south to Washington Terrace, 7 miles of concrete piped canal. The North Ogden Irrigation Canal also begins at the mouth of Ogden Canyon and runs to Hot Springs area in Pleasant View, 14 miles of open dirt lined canal.

**The total length** See above
Capacities and depths
South Ogden Highline canal is 100% piped, its capacity is 35 cfs. The Ogden-Brigham Canal consists of both concrete pipe and open concrete lined canal with a depth varying from 3 ft. to 4 ft.

Width of the canal R.O.W. and the canal itself
The Ogden-Brigham Canal width varies with the concrete lining from about 8 ft to 12 ft depending on the type of section it is, there are regular V type sections and what we call vertical wall sections where the uphill wall is sloped and the downhill wall is vertical. The South Ogden Canal is 100% piped. The width of the canal property varies along the entire length of the Ogden-Brigham and the South Ogden Canal from a minimum of 35 feet to up to 100 ft. depending upon the terrain. The North Ogden Irrigation Canal is 10 ft. wide at the top, 8 ft wide at the bottom and 2 1/2 ft. deep generally. The R.O.W. width is generally assumed to be 15 feet uphill from centerline and 25 feet from centerline downhill for a maintenance road.

In what year did canal construction begin?
Construction began on the Ogden-Brigham and South Ogden Canals in 1936 and was opened in the summer of 1937. Construction began on the North Ogden Irrigation Canal in 1856 and the first portion was completed in 1938 and extended in later years.

In what year did the canal open? See above

CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
- The south ogden highline canal is being used as a walking trail. There is a good portion of it going through the ogden city golf course they have developed as a walking trail and that’s being used. There is a lot of informal use of the other parts of the south ogden highline canal by residents. The cross country and long distance running team from weber state use it.
- The ogden brigham canal is basically an informal use but there are a lot of people who use it to walk and jog on. We haven’t officially declared it as a trail but they do use it as that.
- As far as any other canal trails in our area there really aren’t any. The north ogden irrigation canal... there are some areas that children walk along the maintenance road going to and from school and parks but its an informal use in undeveloped areas, as homes develop against the canal then they don’t use it. We do have on the north ogden irrigation canal where there are some new developments going in they have incorporated the canal in their plan as an informal open space area and they are going to put a trail on it.

2- Do you allow public use/access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
- Officially we do not, but we don’t police it. In the areas that especially where its open canal and in some areas where it is piped we have no trespassing signs at all of the intersections where the roads are.

3- How aggressively are these efforts enforced?
- We don’t patrol it, but if we do see someone there we caution them and tell there is no trespassing signs.

4- Do you have any concerns regarding these existing uses?
- If its an open canal area I do because there is liability associated there and to cover ourselves on liability we have to tell them there not supposed to be there. But other than that if it’s a piped area
I'm not really concerned about it.

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what?

- Yes, in the Ogden-Brigham Canal we have had two drownings. One of them was accidental. We don't know how the lady got in and what happened. They think it was suicide.
- We did have one in Pleasantview in our Ogden-Brigham Canal and it was two 17 and 18 year old boys that were tubing down our canal down a drop chute and one of them flipped over and hit his head and he did drown. There was a lawsuit and the lawsuit was dismissed because he was trespassing. They had driven almost a mile on our canal to the place. The parents told them not to go over and do what they were doing and they did it anyway.

6- What existing risk management do you have in place?

- One thing we have been doing besides signage is we’ve started installing gates on access roads to our canal. In areas where we have this drop chute where these boys were tubing down we have gone in and covered it with the wood plank covering so we have removed that danger.

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canal your company administers too?

- Yes, we’ve done a lot of piping. When money is available or we were able to get some either state or federal money, low interest loans. We have piped a lot of canal. We just finished two years ago, piping about seven miles of canal through North Ogden and Pleasantview residential areas not only to protect from liability problems also as part of our conservation program, our water conservation plan that we have, anytime we pipe a canal then we gain that evaporation loss from the open canal. So we do from time to time if we have problems in an area and we have to go and do work then we will pipe it. The places where we do most of the piping is in the residential areas.
- The South Ogden Canal is 100% piped. Because the Ogden-Brigham Canal is a concrete lined canal the liability associated with people getting in that canal and not being able to get out, we are better off piping it, removing it from liability. The other canals around like the North Ogden Irrigation and a lot of the smaller ones are dirt lined canals, very slow moving and they add a lot to the atmosphere of the neighborhoods.
- Slow moving canals are shallower, you can drop a stick in and it would barely move werease in our concret lined canals there moving very swiftly because of the float characteristics.

8- Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?

- Typical Maintenance agreement would state that: The city or agency “holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities.”
- Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
  2. Highline Canal (each respective city)

- Typically and one of the reasons that court case was dismissed on that young fellow that drowned in our canal. Typically, canal and irrigation companies are released from liability because they are an attractive nuisance and the state courts have held that its too large of a burden to require irrigators to pipe and do all these other things. So, they have required any development that backs up to a canal to fence or to protect the residents from the irrigation canals. And there are access easements to other areas that if a private landowner, which we are, is released from liability by
9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?
   - Yes.

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?
   - It depends on the nature of the use and the location, if its more in a residential area, because there’s water and small children a lot of times aren’t supervised as well as they should be. Then there is somewhat higher of a risk. Whereas, in a rural setting and it’s a trail along a canal provided for horseback riding, mountain biking, jogging, things like that, I would think its about the same because your having more mature individuals use it rather than smaller children accessing it.

11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? Which concerns?
   - I think they can be addressed and handled with agreements between either ourselves and the cities or whoever wants to develop a trail on the canal.

Legal Information:

12- To the best of your knowledge, what is the existing adjacent land use by percentage?

<table>
<thead>
<tr>
<th>Ogden-Brigham Canal</th>
<th>North Ogden Irrigation Canal</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30%</td>
<td>60-65% Residential</td>
</tr>
<tr>
<td>70-75%</td>
<td>35-40% Agricultural</td>
</tr>
<tr>
<td>---</td>
<td>2% Business</td>
</tr>
</tbody>
</table>

13- What are the existing ownership standings along the length of the canal/canals?

In terms of:

<table>
<thead>
<tr>
<th>Ogden-Brigham Canal</th>
<th>North Ogden Irrigation Canal</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>% Public</td>
</tr>
<tr>
<td>100%</td>
<td>% Private</td>
</tr>
</tbody>
</table>

- Ogden-Brigham Canal, 100% is owned by the United States of America. The Ogden River Water Users bought it and deeded it to the U.S.A. as collateral for the project so it’s in the name of the U.S.A. The North Ogden Canal is 100% easement the irrigation company does not own any of it. Its just an easement. So, 100% private.

14- Does your company or WUA own land under any portion of the canal/canals?
   - See above.

15- Does your company or WUA own easements for any portion of the canal/canals?
   - See above.

16- Does the respective city own land under any portion of the canal/canals?
   - There is one parcel on the North Ogden Irrigation Canal that the city owns and they just purchased that for a redevelopment where they just built a store there and its only maybe 700 ft. long. The rest is all owned by private landowners.

17- Are you familiar with general ownership standings along the canal/canals.
   - How much of the canal corridor is owned in fee simple by adjacent landowners? (Own land and canal company has an easement.)
Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?

- North Ogden adjacent landowners own 100%. On the Ogden Brigham Canal there's no adverse possession of federal property. On the North Ogden it really doesn't matter to the irrigation company because they just have an easement.

18- Please explain your relationship with the BOR regarding ownership of underlying land.

- The Bureau of Reclamation is the operating agency for the United States on the reclamation projects and the Ogden River Water Users Association is the operating entity that requested the construction of the project and so they are charged with operation and maintenance of all the facilities and day to day administration. However we do have to coordinate and follow through on federal regulations as far as safety and construction etc. They do come through once a year and do an annual inspection of the facilities.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?

- On the North Ogden Irrigation Canal there are areas that are fenced. Some people like to fence there properties, but by state law they can not keep the personnel from the irrigation company out from maintaining and so we do require that if they fence it they have to put in access gates along the canal for our operating personnel to get through. They fence right up to the canal and some own property on both sides so they fence right across it, but we require them to put a gate on our maintenance road so we can get through and we put one of our locks on it and they can lock it if they want a lock on it. It has worked out well.

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.

- On the Ogden- Brigham Canal if we allow for that we have to be in agreement. Whoever petitions for that use has to get a licensee agreement that is signed by the ORWUA and the B.O.R. for that use and basically a hold harmless agreement and it states what can and cannot be done but it is a formal licence agreement for a fifty year period.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?

- On the Ogden Brigham Canal since we own it we would have to give permission and on the North Ogden Irrigation Canal...when they do that there are a few areas like I said a couple of subdivisions that have done that we just have requirements of roadway and etc. that we have as far as recreational use we really don't care as long as the canal is still able to be operated and maintained and the water flows through there unchecked.

22- Are there different answers for different sections of the canal?

- See above.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be binding?

- Yes, if they signed an agreement. The B.O.R. is favorable to doing trails on reclamation projects. So, it would be legally binding.

POTENTIAL TRAIL/ RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail?

(ALLOW FOR VOLUNTEERING OF ISSUES FIRST)
A. Liability – Why?
   - Attractive nuisance
   - Liability should cover entire corridor not just path.

B. Safety – Why?

C. Crime – Why?
   - Law enforcement: Time of response
   - Changing emergency procedures/protocol
   - Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.

D. Operation and Maintenance – Why?
   - Increased O+M costs
   - Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
   - Vegetation management for visual inspection.
   - People need to honor the ditchriders need to pass!
     (Have headphones on, dogs running loose, dogs in canal, horses get spooked, bicyclist not paying attention.)
   - and M of dirt canal will not allow surfaced trails along side on canal bank.

E. Funding – Why?
   - Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

F. Lack of Management entity – Why?

G. Other – Please explain:
   - Public perception that the canal is public land.
   - All uses should be subordinate to agricultural use.
   - Private property owner’s rights: taking without compensation, multi-purpose easements.

- The only problem I see in doing that, in where we would be agreeable to it where its piped and our liability is lessened are the residences that back up to the canal. A lot of people think that its wonderful that there is a walking trail, others don’t like it they think its invading their privacy. We have gone through that in North Ogden. So, there is mixed reaction. I’ve found that as people think about it more we have been able to get more agreement that is ok. But there is always that small group that thinks that crime will increase with trails and it actually does not.

OFFERED PROBLEMS:
- Liability: I would think that if someone is going to accept liability on development of a trail it should be the whole corridor, because the corridors really aren’t that large. Are canals are anywhere from 40 ft. to 100 ft., not very wide. We would probably require that liability cover the whole corridor.
- Crime: I don’t see a big…there probably would be a need for some visible law enforcement in the area, that’s been talked about in North Ogden, a policeman riding a bike along there at different intervals. As far as protection of facilities in our corridors everything is under ground except pump stations and we fence them off separately from the corridors. I don’t think vandalism would increase in those areas.
- Maintenance Road: The problem of putting a trail along the North Ogden Canal is you would have to get consensus from all the private landowners to do it, basically easements. I don’t see too much a problem with all of that there are some that might not like that. Generally, along the North Ogden Canal the places a trails will be put are in developments that are developed with that in mind, using the canal as an open space as part of the development.

25- If a trail were developed along one of your canals what implementation measures would you like to see?
- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)
- I would think that time of use would have to be during day light hours. As far as setbacks I don’t see any problem there, the trail would have to be separate from our maintenance road. Sometimes they coincide, but we...in operating our systems we are updating our systems, you know computer control of turn outs and data collection so our canal riders are not as frequently on those roads. I don’t perceive that there would be that much of an interference with our operation and maintenance, our personnel and people using the trail.

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?
- Ogden city has contacted us and we have licensee agreements with them. North Ogden and Pleasantview has contacted us and we have done preliminary conceptual plans with them. Right now there hasn’t been much done other than informal use, but they are looking at sometime in the next year, starting to formalize some of those agreements.

27- Are you aware of any other trails built next to irrigation canals in Utah?
- As far as irrigation canals around our area I don’t know of any.

28- What forms of recreational use permission are you aware of?
- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?
- I don’t know of any fee title or anything like that, it usually just permission is granted like a donation. As far donation of easement we just grant a right of use. But we have donated time and equipment hours to helping develop the trail systems along our canals. We allowed Ogden City to put a parking lot for their Mt. Ogden trail system on our canal. And we dealt with some grading, etc.

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?
- I don’t think that just opening it up is the answer I think there needs to be some control. I think that cities were wise that passed ordinances that if development occurs up against and open canal or a canal that the developers require a fence along the canal, and that covers some liability questions. I don’t think that there is any way that you could just open it up and let people have free access that increases your liability and maintenance. I think it does need to be controlled.

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?
- See above.

**CANAL OPERATION AND MAINTENANCE:**

31- From what month to what month does the operation season last?
When are the canals generally filled and drained?
What typical O+M tasks are performed during this period?
- Type of equipment used? - Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
- Our water season begins April 15th and goes through October 15th. We do operation and maintenance year round depending on what needs to be done in the different areas as soon as the
water is out on the 15th is when we go through and drain the system. That’s on the Ogden Brigham Canal. On the North Ogden Canal there is always water in it, that canal is also for stock water and there are springs that flow into it. During irrigation season we do a lot of road maintenance, cutting of trees and shrubs, we try to get spraying of weeds before the irrigation season, but that’s not always successful, so a lot of times we do spraying, etc. during the irrigation season and it really hasn’t been a problem. Of course operating the system during the irrigation season occurs on a daily basis, and in the open parts we are always pulling trash out of the trash racks. During the off season is generally when we go through and do maintenance on the concrete canals, any cracks and things like that, and cleaning it. We go through and clean it in the spring before the irrigation season. We usually hire a bunch of kids and they go through by hand and clean all the rocks and the dirt out, trim trees or any sage brush and shrubbery that hangs over the canal. Just general maintenance like that. The type of equipment we use is mainly backhoes with front loaders on them, compressors, pick up trucks, dump trucks. We go and clean all the siphons which takes four to six weeks to do. This is done in the fall when the water is turned. We use backhoes, pick up trucks and dump trucks to do that.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?
   - How many ditch riders do you have?
     - We have two shift every day. The canal riders begin at six-thirty in the morning and end about nine to ten o’clock in the evening, and there is two shifts per day. They generally make over our whole system, two to three runs per day, per shift. They are in a half ton four by four pick up truck. They regulate the turnouts of the water from the canals into reservoirs in the pump stations, they check all the reservoirs along the way, they monitor all the pump stations. On the Ogden Brigham Canal we have four pump stations along the canal, there are seven or eight reservoirs. They check the trash racks, keep them clean, where there’s open canal we have a trash rack. They keep them clean. They check the pump house and make sure they are working properly and lubricate the pumps on a regular basis. They don’t drive the whole canal, where its in town they will just drive surface streets from pump house to pump house or turnout to reservoir, they don’t stay on the canal the whole distance. There are a lot of section they never even drive. On the North Ogden Canal if there is a trail put along there it would have to be put on the maintenance road because its not that wide, there’s not enough room there for a separation of uses its all open canal.
     - We have three full time ditch riders that take turns on their shift on the Ogden Brigham Canal in Weber Co. and then we have one canal rider that operates the canal from the end of Pleasantview to Brigham City and he works six days a week on a shorter hour day and has one day off a week when another canal rider runs his canal for him during the irrigation season.

33- What typical complaints do they have concerning ease of O+M?
   - What uses have they reported conflicts with during routine maintenance?
     - Well we have always had trouble off and on with kids riding motorcycles on the canal and people walking, generally people are very good about it, they see our trucks coming and they will step off to the side and wait for them to pass. I have had complaints that they will not get out of the way and have to honk the horn at them. We do get calls from residents when there are kids riding motorcycles. We have had to put a gate on our Ogden Brigham Canal because the city has changed it dumping ordinances for people dumping limbs and that. They used to have recycling places for you to take trimming to be chipped and now they send them out to Weber co. and charge for them. We have had a lot of people drive our canal and dump their garbage along the canal. So we had to put a gate up cutting off vehicles.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.
   - I really don’t think that in the areas where we would allow recreation use, I don’t see that there
would be much of a conflict. I think the maintenance, depending on the type of landscaping or development of a trail, if it’s through say North Ogden City or Pleasantview, the design there was to use more or less natural type vegetation with a gravel or even an asphalt trail. I don’t see that it would really conflict with our operation maintenance at all.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintain the canal? Why?
   • I don’t think it would have any effect.

GENERAL:

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.
   • I'm of the opinion that trails along canals and corridors that are used as water conveyance are a good thing, because they generally benefit the public at large, I am certainly in favor of it. I have talked with my boards about it and they seem to be pretty much in favor of it as long as liability problems are addressed and taken care of, which they can be done.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
   • I think access. Limiting access to joggers, walkers, maybe bicycles, but not allowing motorized vehicles such as motorcycles because they do a lot of damage.

38- Can concerns be addressed with creative and proper design, construction and management of the trail?
   • Easily

39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?
   • I think it’s a good idea. I liked to see open water. I think it adds to the life of our communities. At the Applied Tech Center in town here there is an irrigation canal that runs through there, and one of the local landscape architects did a design through there and it’s a wonderful treatment of the canal that people can use very safely. I think it can be done. I think it ought to be done.
Canal Trail Questionnaire

- The purpose of this open-ended discussion is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

PRELIMINARY INFORMATION

Date of interview: 11/18/98 9 A.M.

Name: Floyd Baham

Title/ Titles: General Manager of Davis-Weber Counties Canal Company

Address and Telephone #: 138 W. 1300 N.
Sunset UT 84105
774-6373

Administers to what canals?
- Manages the Davis and Weber Counties Canal Company
- We maintain the main canal. From our canal we have stockholders that take water at different ditches along the canal. We have 20-25 ditch companies that take water off our canal and they tell us at the beginning of the water season which ditch their going to take it out of and how many shares they are going to take off of that ditch. We measure the water at the canal and how that’s distributed amongst their users along that ditch is up to the water master on each one of those ditches. We wont deliver water out any of those gates unless we have a water master to contact. There may be a couple hundred people on some of the bigger ditches and we don’t want to have to be talking with 200 people on one ditch so what we do is have one water master for each ditch. So the water master speaks for all the shareholders along each one of the 20-25 ditches.

Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)
- A section through Clearfield and Layton which is about 6 miles long.

Endpoints (cities, towns, river diverted from or any other landmarks)
- From the Mouth of Weber Canyon to Layton.

The total length
- 15 miles long

Capacities and depths
- We have a one to one slope. 31 ft. from bank to bank and about 20 ft. on the bottom. The capacity was built to hold about 300 S.F. But we have been running 250-270 S.F. of water.

Width of the canal R.O.W. and the canal itself
- In some places we have a 100 foot right-of-way. The way they define that right of way is from the center of the canal. If you look at the deeds it says we deed to the canal company 50 ft. from the center to both sides. Some places we only have a 37 ft right-of-way.
In what year did canal construction begin?
- Started digging in 1881 and was incorporated in 1884 and have been delivering since then. Originally it was a dirt canal where they divert water up at the mouth of Weber canyon.

In what year did the canal open?
- See above

**CURRENT USE BY THE PUBLIC:**

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
   - No.

2- Do you allow public use/access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
   - We don’t allow any public access on the canal and we have put up no trespassing signs along the canal. That doesn’t mean everybody obeys that but that’s what we’ve got there.

3- How aggressively are these efforts enforced?
   - If we catch anybody on there we’ll run them off. If we catch anybody on there more than once we will call the police. They could be issued citations.
   - One thing about the canal, it has been there for over a hundred years and its not the responsibility of the canal company to fence it but its actually the responsibility as the cities give building permits for people to build along the canal one of the requirements is that the cities require people to put fences along the canal. There are some older homes along there that have been there for fifty years or better. Some people think we are responsible for repairing the fences. We don’t own the fences. I think the canal companies have a certain amount of immunity as far as not have to put fences up in areas. Its been there for hundreds of years and someone wants to fence it, it belong to them. We have put gates up along the canal where it comes off the road, but we have done that for our own benefit to keep people from traveling along the canal with a vehicle. So, if we catch them we’ll run them off, but we are not going to have the police there twenty four hours a day to keep them from jumping the fences.

4- Do you have any concerns regarding these existing uses?
   - If we catch somebody walking along there. In South Weber we’ve got people that ride there horses, I see horse prints all over there. They do it probably in the evenings, but I’m not about to send somebody up there after working hours to try to catch somebody riding on their horse. Generally what happens is the minute you give anybody any legal right to walk or run along side of a canal its difficult to say yes we’ll let some of the older people walk along there but we don’t want any kids there and so the best thing to do is just say no trespassing that means everybody. That kind of eliminates the liability on your behalf.

**LIABILITY AND INJURY:**

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what claims?
   - I’ve been here for eleven and a half years and we haven’t had any in that time. The only time that I can remember is in the South Weber area where somebody’s horse got in the canal and the horse died and the owner of the horse wanted us to pay him for the horse and it was his horse that broke through the fence and wanted us to pay. We said no we are not about to pay that. We haven’t heard anything about it since. But other than that, we had a couple of kids up in the South Weber
area that got on the canal road with a four wheeler, riding along there fast and lost control and went crashing into the canal. They were ok, and we never heard anything about it legally.

6- What existing risk management do you have in place?
- We carry a certain amount of liability insurance just in case somebody does sue you. Just because somebody sues you and you got a feeling that they are not going to win anyway because they shouldn’t of been on that property it costs you money just to defend yourself even though you know your right. Other than the signs and the gates along the road and the liability insurance, that’s about as far as we go.

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?
- We’ve talked about it dozens of times. The problem we have is we are a non-profit stockholder owned company and the expense is too….you take a canal that’s 20 feet across the bottom and 33 feet across the top, if you were to put that in box culverts you would be looking at about a couple hundred dollars a foot. We had a study done a few years ago about piping the entire canal and they figured it would cost somewhere, if we did all the work ourselves, it would cost about ten million dollars. The thing we’ve looked at as maybe what we should do, and that’s what I talked about with the director of Clearfield parks and rec. about. We would love to be able to pipe the canal, but financially as a company we can’t do it. Now if somebody wants to use it and maybe….we’ve done in areas where we had some subdivisions that have come through and we said if you want to go across that canal then you are going to have to pipe that section. When North Ridge High School was being built that open canal was going to run through the high school and we knew that was going to be nothing but problems. So we went to the school district and they furnished the pipe, fifty four inch reinforced concrete pipe, and we put it in with our own labor. But even when you get that donated it still costs you a certain amount. We’ve done a section where the pipe was paid for by a developer but it still cost us for our labor and the bedding material for the pipe cost about eight-ten thousand dollars which is not even including the labor. With labor figured in it would probably cost about twenty five thousand dollars.
- One thing I told the city is if they could use the canal right-of-way and maybe get the gas company, the power company, AT&T. The idea there would be to contact these people and say you know what you could get from one street to another by just going down the canal road. There’s nothing on that canal road there’s no gas lines, water lines….some of them go underneath the canal but if they were to go along the canal they wouldn’t go deep enough to be concerned about that. And then if we could get them to pay a certain amount of money for those power lines, gas lines, power optics, cable TV, whatever it might be. Maybe if we could get a certain amount of money, not as a lump sum but maybe as an annual payment, you may get enough money coming in that you could actually pipe that canal at somebody else’s expense. And if we put that trail in there, and it was covered up, other than us going in for maintenance they (the city) can have the whole canal as far as I’m concerned. I’d just give it to them.
- The problem with an open canal is you get people complaining about weeds and rats getting in their yards. Used to be they would just burn the edges of the canal to clear it out but now as development encroaches you get people with trees and shrubs along there so now we can’t burn. It gets to be a burden trying to get in there to maintain.

8- Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?
Typical Maintenance agreement would state that: The city or agency “holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities.”
Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
2. Highline Canal (each respective city)
   - We would not even sign an agreement unless we had some kind of indemnification clause in there. We do have one in the one drawn up from Clearfield city but if we didn’t have that we are not about to let anybody on that canal. We’ve drawn up a draft agreement and that has to be run by our board, and they are going to have to say yes it sounds ok and then we are alright with it. Unless the board says we don’t want to do it under any condition, but I thing the board has looked at it and said we want to work with the city and do whatever we can, but we don’t want to cause ourselves a problem. If someone wants to cross our canal they do it at their own expense. We are not going to do it if it costs our stockholders money. If our engineers have to look at it (the canal) then they have to pay for it.

9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?
   - The city has talked about it with us, but I’m no attorney so I don’t know all the legal ramifications.

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?
   - (No information due to technical problems)

11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?
   - We don’t want them to come along and say that we are going to have our trail along your canal so now we want you to come in and mow that more often now and make sure we don’t get any big weed along the canal. If they start putting demands on us just because the trail is there then the trail won’t be there. We just won’t let them use it, period.

**LEGAL INFORMATION:**

12- To the best of your knowledge, what is the existing adjacent land use along the canal/ canals by percentage?
   - 90-95% Residential along the section in question and 50-60% along the whole length.
   - 10-15% Agricultural along the whole length
   - 10-15% Business along the whole length
   - the rest is open space used by Hill Airforce Base.

13- What are the existing ownership standings along the length of the canal/ canals?
    **In terms of:**
    - % Public
    - 100% Private along the length in question.

14- Does your company or WUA own land under any portion of the canal/canals?
   - We own all of the land where the canal presently sits and we have bought some small parcels along the canal where we felt like it was necessary for us to.

15- Does your company or WUA own easements for any portion of the canal/ canals?
   - There is no easement, we have title to where the canal presently sits.

16- Does the respective city own land under any portion of the canal/ canals?
   - No

17- Are you familiar with general ownership standings along the canal/ canals.
   - How much of the canal corridor is owned in fee simple by adjacent landowners?
     (Own land and canal company has an easement.)
- Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?
  - See Above.

18- Please explain your relationship with the BOR regarding ownership of underlying land.
  - We don’t have a relationship in regards to the canal.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?
  - As people build up to the canal we can’t spray. So its increased our maintenance to maintain the canal because of the encroachment of the building that’s going on as new homes are being built next to the canal. It actually increased our costs to maintain them.

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.
  - We are a private stockholder company. So, we can make agreements with whoever we want.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?
  - N/A. See above.

22- Are there different answers for different sections of the canal?
  - N/A. See above.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?
  - N/A. See above.

POTENTIAL TRAIL/ RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail?
   (ALLOW FOR VOLUNTEERING OF ISSUES FIRST)
   A. Liability – Why?
      - Attractive nuisance
      - Liability should cover entire corridor not just path.
   C. Safety – Why?
   D. Crime – Why?
      - Law enforcement: Time of response
      - Changing emergency procedures/ protocol
      - Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.
   E. Operation and Maintenance – Why?
      - Increased O+M costs
      - Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
      - Vegetation management for visual inspection.
      - People need to honor the ditchriders need to pass! (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)
- and M of dirt canal will not allow surfaced trails along side on canal bank.

F. **Funding** – Why?
- Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

G. **Lack of Management entity** – Why?
H. **Other** – Please explain:
- Public perception that the canal is public land.
- All uses should be subordinate to agricultural use.
- Private property owner’s rights: taking without compensation, multi-purpose easements.

- No, as long as we can get over the hurdle of the liability, I don’t see a problem. In terms of vandalism, if somebody was going along and busting the locks off the gates and opening and closing the gates then we would have to have something in the agreement with the city that says that if this happens either that has to be addressed or we terminate the agreement.

25- If a trail were developed along one of your canals what implementation measures would you like to see?
- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)
- Mainly, what I would like to see is some kind of revenue generated as I’ve stated from utility companies. The ideal situation would be to pipe the canal and we wouldn’t have to worry about the danger of someone falling in and drowning. If it was covered there would be just a flat trail there. That would be the ideal situation, and I think somewhere down the road that will happen. Most likely on the lower end as opposed to the upper end of the canal where there is a larger cost because of the larger capacity of canal. Its still costly but not as costly, we would need that fifty four inch reinforced concrete pipe on the lower end of the canal for about $60 to $62 a foot. On the upper end you would be looking at least $250 a foot.

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?
- Yes, Clearfield. We have a draft agreement and its got to be brought to our board of directors for approval.
- What we are trying to do now with the city and we’ve met with the county, is trying to come up with an agreement that will say: yes we’ll let you use the canal to walk along or something but you give us something in writing that says you take full liability for anything that might happen. Somebody trips or falls in the canal and drowns or even when there’s not water in the canal they trip on the bank and fall in a break there back…we want some indemnification for that.
- Our board has not signed an agreement with the city. I’ve been visiting with the director of Clearfield parks and rec. and we have come up with some preliminary draft plans. We will bring it to the board and they will look at it and decide what else they want in there. I think we would like to see some of the public access as long as we can be held harmless for anything that might happen. We’re ok with that.

27- Are you aware of any other trails built next to irrigation canals in Utah?
- No.

28- **What forms of recreational use permission are you aware of?**
- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?
- None of them.
29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?
   • That’s kind of a catch twenty-two. You’ve got more people in there. I think you are actually opening yourself up for more liability in a way and I think our boards going to look at that and say I don’t think it’s a good idea. We wouldn’t open up ourselves we’re working with parks and rec. so that’s the only way we would do it. What you got there….lets take Clearfield City. Clearfield’s got their own police dept. and I’m sure parks and rec. could easily go to the police and say we have a problem along this section and now all of the sudden you have the police policing your canal. So there are some benefits.

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?
   • I feel alright. I am interested obviously. There are a couple of things, we want to be good neighbors with the cities and say yes the canal is running right through the middle of your town and lets make use of it, and yet the city has to look at our point of view being concerned about the liability and the city’s got to look at that and say yes we can see where you would be concerned about the liability. So, I think that as long as they are concerned about our concerns there then we as a company are willing to do whatever we can to be good neighbors with the city and hopefully work something out with them. That may turn out to be a real asset.

### CANAL OPERATION AND MAINTENANCE:

31- From what month to what month does the operation season last?
   When are the canals generally filled and drained?
   What typical O+M tasks are performed during this period?
   - Type of equipment used? -Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
   • We put water in the canal on the 15th of April and take it out on the 15th of October. It runs for six months. We’ve got a tractor with a mower on the back and it cuts a 10 ft. swath.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?
   - How many ditchriders do you have.
   • We’ve got some guys that ride the canal everyday at least once looking for any problems that we may have. We have four ditch riders right now. We generally start at seven in the morning to about five in the afternoon. But they are on call 24 hours a day during the operation season. They go along and change the gates for different second feet per second changes. They also look for any problems along the canal….maybe somebody left a gate open, or broke a fence down, or a leak on the canal that has to be maintained. They are driving a half ton pick up truck.

33- What typical complaints do they have concerning ease of O+M?
   - What uses have they reported conflicts with during routine maintenance?
   • There are not a lot of problems because we have a lot of our gates locked so we control the flows. We’ve had some windows busted out and stuff like that. If we catch anyone on the trail we ask them to leave, if they don’t leave we call the police.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.
   • The only thing I can think of is…..we would have to coordinate that with the city, but we run our tractor for mowing and we couldn’t have people walking there so maybe it might be that the second Monday of every month we could close it for mowing. That’s just a figure….it could be
every eight weeks...that’s something we could negotiate. In terms of hours I think at dusk...during summer hours the trail could be used till 8:30 to 9 p.m. during the winter maybe at five. Once it gets dark...if I owned property there I wouldn’t want people walking along there and running along after it gets dark. We are not going to be in there every day so its no big deal.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintenance the canal? Why?
- I don’t think it would have any effect whatsoever.

GENERAL:

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.
- Oh yes, I think they are all resolvable. As long as it doesn’t interfere with the O and M of our canal we are ok with it, and the liability issues.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
- Liability and operation and maintenance, that would be our main concern. Past that point I don’t see any....

38- Can these concerns be addressed with creative and proper design, construction and management of the trail.
- See above.

39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?
- As a manager of the company, I think what you got to be careful about is you don’t do something that the stockholders of the company don’t agree with. If I make a presentation to the board hopefully it’s a presentation that is going to be truthful so that I’m not telling them something that isn’t fact. Hopefully after we make the agreement we won’t find out its something that actually doesn’t happen.
Canal Trail Questionnaire

- The purpose of this open-ended discussion is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

Because this interview deals with the thoughts of an individual with the governmental office of the Bureau of Reclamation and not with a canal company official, this questionnaire has been altered for relevance purposes. “Canal Company” has been replaced with “Bureau of Reclamation” in key spots. And certain questions were not asked (they follow with a “N/A”).

PRELIMINARY INFORMATION

Date of interview: Wednesday, November 18, 1998 1p.m.

Name: Ed Vidmare

Title/ Titles: Chief facilities management group (Chief of O and M), Bureau of Reclamation

Address and Telephone #: Bureau of Reclamation

1816 S. 302 E.
801-379-1182

Administers to what canals?
See List.

Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)

Provo Reservoir Canal (Murdock Canal) – Provo River
Ogden- Brigham Canal (Highline) – Ogden River
Steinaker Service Canal – Vernal – Uintah County (Existing Trail)

Endpoints (cities, towns, river diverted from or any other landmarks)

Provo Reservoir Canal- See Jonathan Clegg interview
Ogden-Brigham Canal- See Terel Grimely interview

The total length
Provo- 23.0
Ogden- 24.2

Capacities and depths
Provo- 550.9, 5.7
Ogden- 120.1, 3.1

Width of the canal R.O.W. and the canal itself
Provo- Canal- 18.0
In what year did canal construction begin?
Provo- 1940-1950
Ogden- 1935-1937

In what year did the canal open?
See above.

CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
- We have a memorandum of agreement with Vernal city, so they have a right to use the operation and maintenance road on the Steinaker Service Canal as a recreation corridor. That is the only one we have in our jurisdiction. There is no such thing as informal use. They either use or they don’t and if they use it, its illegal.
- I haven’t heard of a lot of actual use in the water. People talk about a long time ago where people used to surf a canal behind a pickup or whatever they would use. It was popular about 10 years ago.

2- Do you allow public use/access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
- No, we don’t allow it.

3- How aggressively are these efforts enforced?
- Legally we have the right to issue tickets for trespass which we do enforce every now and then. Between us and the water users we drive up and down the canal a fair bit. We mainly try to educate the people that they are trespassing, that it is government property. They don’t understand that there are different forms of government property that are open to the public and others that are closed to the public. Mainly through education in order to maintain the legal liability you have to issue a few trespass tickets now and then.

4- Do you have any concerns regarding these existing uses?
- N/A. See above.

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against the Bureau of Reclamation or other entities or individuals associated with the canal? If so, what claims?
- With just about every drowning the United States and the water users into suit, and the United States is quickly removed from the suit, the judge will always remove the United States from the suit. The water users sometimes, sometimes they don’t have the luxury being left out of the suit but usually they will settle out of court.

6- What existing risk management do you have in place?
- We do the signing. Signing is hard because signs are shot or removed just about as fast as we can put them up. Theres the education, there is the minimal enforcement if you will. We also go through and in specific identified areas we will install public safety devices because you know they are going to get there just do the best you can to try to keep them out of the really harmful places.
7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?

- The water users do. I'm on a technical committee, as a matter of fact the draft report is at my supervisor right now, I reviewed it yesterday. The water users are looking at a master plan to pipe the canal (Murdock). It's not for liability issues...I can't say it's not for liability, but that's going to be a secondary benefit we get from piping the canal is that it will open up the corridor for recreational use if the communities want to pursue it, we are not going to pay to create a recreation corridor. If the communities want to come together and prove it establish it and maintain it then that will be allowed. The primary reason is water quality. This particular canal I think they are saying about 60-70% of the water is culinary, with just a small portion being secondary irrigation water. So, there is a water quality issue and a water quality problem and controlling this for the entire canal will eventually become a complete culinary water supply system. So, having an open water system for culinary water is just not the best thing in the world to do. The main issue is to increase water quality and also to increase conveyance capacity. Right now at the head of the Murdock canal we have 400 second foot capability with 325 at the end, and if we put it in a box culvert we could get 700 at the head and push a little over 400 out the tail.
- Its all a matter of securing the funding and establishing a construction schedule. Funding is going to be the biggest issue. You are talking 80 million dollars. So 26 miles and 80 million dollars is a big project. The water users are going to have to do it the government is not going to go in and pipe the canal. The water users are going to have to go in and prove that they are seeking sources of government funding to help do that but it will be a project accomplished by the water users. They have the means to create the funding. They can create an assessment. There is a bunch of things they can do, the state's got money, central Utah's got a lot of money through our conservation incentive programs. So, the money is out there its just a matter of locating it.
- Used to be the canals were strictly for agricultural use. As you take the farms and turn them into subdivision you don't have a need for secondary. They say in the future a very very small percentage of the system will be irrigation.

8- Are you aware of a city's or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?

Typical Maintenance agreement would state that: The city or agency “holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities.”

Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
2. Highline Canal (each respective city)

- We are aware of that but from a legal standpoint you will literally never be able to take them out of the picture. You can write indemnification clauses and all that kind of stuff but when push comes to shove and somebody gets a really good lawyer...they are out the window. They are going to come after the owner they are going to come after the operator.

9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?

- Yes.

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?

- I think the liability risks are greater along an open canal in that in an open canal especially concrete lined structure. You don't have to do a lot to mess up and get in the canal and then if its concrete lined you are not coming back out because its fairly swift, you have low structures, bridges, culverts, siphons. You are not getting out of a concrete lined canal without a ladder structure you are not coming out on your own. The murdock canal is a pretty good sized canal, 400 second feet.
11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?
  * No.

LEGAL INFORMATION:

12- To the best of your knowledge, what is the existing adjacent land use along the canal/ canals by percentage?

  ___% Residential
  ___% Agricultural
  ___% Business

N/A- Provo Reservoir Canal (Murdock Canal) - See Johathan Clegg interview
     Ogden-Brigham Canal- See Terel Grimely interview

13- What are the existing ownership standings along the length of the canal/ canals?
  
  In terms of:
  ___% Public
  ___% Private

N/A- Provo Reservoir Canal (Murdock Canal) - See Johathan Clegg interview
     Ogden-Brigham Canal- See Terel Grimely interview

14- Does your company or WUA own land under any portion of the canal/canals?
  * Murdock is owned by us in almost 95% fee title.

15- Does your company or WUA own easements for any portion of the canal/ canals?
  * We do get the reserved right-of-way. When we bought the Murdock canal in 1940 we enlarged it, in a few places we straightened it out and built siphons, and when we did that we turned back the land we were not using anymore and in a couple instances we just purchased a reserve right-of-way to take care of what we needed at the time. Its not a big portion of the canal at all. So, the Murdock is 95-98% fee title and the rest would be reserved right-of-way. My guess on the Ogden-Brigham Canal is right about the same percentages.

16- Does the respective city own land under any portion of the canal/ canals?
  * N/A- All are nearly 100% owned in fee title by the Bureau of Reclamation.

17- Are you familiar with general ownership standings along the canal/ canals.
  * How much of the canal corridor is owned in fee simple by adjacent landowners? (Own land and canal company has an easement.)
  * Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?
  * N/A- No one can adverse possess or develop a prescriptive right against the United States.

18- Please explain your relationship with the Canal Companies regarding ownership of underlying land.
  * Regarding the ownership...the federal government goes in and builds the facility and then we sign a contract with the water users association. They will operate and maintain it and over a period of time they also pay back to the federal government the original construction costs. So, its basically a zero interest loan type of thing. The interesting thing is that when they get done paying it back, when they have repaid the entire construction amount it still remains in the name of the United States. Its always United States Property. So, they have signed an agreement with us to operate and maintain the facility. Within the state laws they have to maintain themselves as a non-profit organization. So, they have to remain a non-profit organization or they would be taxed. So, their assessments while they are repaying the cost of the facility their assessments might be a little
higher. After they have repaid the facility, most likely it takes so long to pay back, we have such long contracts to repay that they keep their assessment up because by then the facility is run down. They are collecting more money to update it and rehabilitate it.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?
- We have six people in our offices here that deal with that problem everyday. Six full time people that deal with the encroachment issues all the time. We deal with it on a case by case basis and you try to head it off before it gets too far along. A lot of times we don’t find out about it until after the fact. We have taken legal action against some and others have pulled back and others you try to go ahead and license them by having an encroachment agreement, license their activities for whatever they are doing. Its usually not a practice....if somebody comes to us before hand to request an encroachment we usually license them...if somebody comes in after the fact or if they go in on their own trying not to get licensed after the fact then it becomes a lot tougher for them to get licensed.

20- Does the BOR have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.
- Yes. We have the authority to contract with cities or whoever, to go to other agencies and basically license them to encroach on the federal property to undertake whatever activity it is they want to do.

21- Conversely, Would consent from the BOR be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?
- Absolutely, it won’t go forward without it. It has to be written permission not verbal.

22- Are there different answers for different sections of the canal?
- No.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?
- N/A- See question # 21.

POTENTIAL TRAIL/RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail? (ALLOW FOR VOLUNTEERING OF ISSUES FIRST)
A. Liability – Why?
   - Attractive nuisance
   - Liability should cover entire corridor not just path.
B. Safety – Why?
C. Crime – Why?
   - Law enforcement: Time of response
   - Changing emergency procedures/ protocol
   - Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.
D. Operation and Maintenance – Why?
   - Increased O+M costs
   - Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates,
ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
- Vegetation management for visual inspection.
- People need to honor the ditchriders need to pass!
  (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)
- and M of dirt canal will not allow surfaced trails along side on canal bank.

E. **Funding** – Why?
- Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

E. **Lack of Management entity** – Why?

F. **Other** – Please explain:
- Public perception that the canal is public land.
- All uses should be subordinate to agricultural use.
- Private property owner’s rights: taking without compensation, multi-purpose easements.

- Major concerns would be just liability concerns, water quality concerns, operation and maintenance concerns so that we have the ability to maintain it. We had a canal failure in the Murdock canal a while back and fortunately at that time that area of Lindon wasn’t to developed there were four homes that got flooded but had that been a recreation corridor and half dozen people been swept away with that flood I’m sure we would have seen a lot higher legal bills than we did. Although in retrospect it was actually spotted by a trespasser, the failure, was spotted by a trespasser. Had he got killed who knows. There are a lot of different issues. Open canals….i think the general understanding of the public is that they don’t understand canals and how dangerous they can be. I guess they can be educated but I’m sure you are going to find that one curious individual that doesn’t believe that they are dangerous.

- We know there would be an increase in o and m…whoever we granted the license to have the recreational corridor to pick up the additional cost. But that is one of the reasons we don’t do it we don’t allow recreational uses. We don’t really see a need right now at this time to undergo that additional expense to o and m a canal. And we are taking a lot of strong pressure from the share holders that treat the water to keep the corridor usage down as much as possible.

- Part of the issue you have with the canal for recreational uses, a lot of people want to ride horses down the canal. When you are talking about culinary water, any type of animal feces is the biggest threat to culinary water supply there is. The goal is for recreational purposes you have got to get rid of all the animals. People want to walk with their dogs, jog with their dogs, ride their horses, so its really hard to say its ok for you and you to use it but not you and you. You either use it or you don’t and you can’t be real selective about who you allow to use it. The other problem you have with a canal of this nature is that the o and m road itself is not very large. The water master is almost to the point where he refuses to use the canal because the use is so high and because the people have become so belligerent to him they won’t let him by to do his job that he will actually turn the head gates by driving on the canal as little as possible and that defeats our number one purpose in that somebody’s got to have their eyes on the canal to make sure that its functioning properly, its not developing any leaks or anything of that nature, its not overtopping, its performing well. The only way you are going to do that is drive up and down the canal, and it’s the guys that are operating the canal don’t want to drive up and down the canal because of the few individuals on the canal that make it difficult for them to do that. Its just as easy for them to get off the canal and then they have defeated our purpose of trying to make it a safe facility. So, it all leans toward…granted its not the thing you want to do but you have got to keep the people off.

25- **If a trail were developed along one of your canals what implementation measures would you like to see?**
- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)
I don't know that we would be looking at any restrictions. We would probably need the cities or whoever to go through an intensive educational program so that people would basically police themselves. If someone comes and breaks the law someone else will turn them in. A little kinder understanding of the red truck that drives up and down the canal, what he is there for, basically allowing him the right to get by and do his job. I guess just have a little more of an ownership attitude in the fact that it is culinary water for someone else...you don't have to go and let your dog in the canal. Protect the facility, understand what its about, what it is for and use it accordingly.

One of the problems we have in the summer is that a lot of the people who have back yards to the canal....its really easy for them to dump their grass clippings because thirty seconds later they are someone else's problem. So, if somebody would just take pride in it and take pride in the fact that they were allowed to have a corridor and take a little personal ownership of the facility.

I don't know if a trail patrol would be necessary. I think that if we allow a little more use of it I think that people would end up policing themselves. You would have that one element, that 2-5% element, it would be just some place new for them to go and destruct and destroy. So, you put up with that. I think you would want a trail patrol strictly for public protection because there are some areas of the canal that are remote.

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?

- Mountainland Association of Governments is trying to see this through (Murdock Canal). And where we are at with the Murdock Canal is basically we have said is that nothing will happen until after its piped because what we don't want to do is allow the use now because when construction comes along (box culvert, piping) it will be hard for people to understand that they can't use it during the construction phase. Then also we don't want a lot of facilities constructed for recreational use and then have to tear them out and have to replace them later. We could possibly be talking two five years down the line. We told them once the canal is piped then you will have the opportunity to enter into an agreements. There are no drafts written up at this point.

27- Are you aware of any other trails built next to irrigation canals in Utah?

- Just the Steinaker Service Canal but they didn't build anything. People just use the existing canal.

28- What forms of recreational use permission are you aware of?

- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?

- That's why right now we have kind of taken the middle of the road. We don't believe it would be true that since it already happens lets just go ahead and allow it. I don't believe that will help anything or solve anything but we also understand that the iron fist isn't going to work either. So, we feel the best option right now is to play it where we are at. We don't allow it, we don't want it and we don't condone it but we realize its going to occur. We will exert some energy as far as education as best we can. We will pursue law enforcement if necessary but we also kind of see the turn the other cheek, you know what you don't see you don't worry about.

- I very much think that opening the canal will help manage some of the uses. After piping the canal we are really strongly encouraging the cities to come in. Because basically what we are going to leave is a 100 foot wide barren bare dirt corridor. There is going to be maintenance on that in itself. If left undeveloped there is going to be a lot of maintenance on that for noxious weeds, dust control, the looters, you are going to still get that one element that is going to try to rid a motocross bike up and down there. Our plan is to encourage the cities to develop the corridor so that it doesn't get into the wrong element.
30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?

- From Reclamation’s perspective, we encourage recreational use of a lot of our facilities. Every one of our dams has a recreation as a benefit. A lot of them have recreation as an authorized benefit. Authorized by congress to have recreation. That’s something that we do. I think it would benefit Reclamation, it would benefit the water users, it would benefit everybody to have this government property as another form of recreational use but its got to be done the right way. You want to make it a win-win for everyone not a win-loose-loose, you don’t get anywhere. People might get the recreation but we are going to loose along with the water users. In the end the cities are going to use. Its just got to be done right.

31- From what month to what month does the operation season last?

- When are the canals generally filled and drained?
- What typical O+M tasks are performed during this period?
  - Type of equipment used? -Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
  - Operation is usually April 15 to October 15. We perform kind of a general operation oversight and we mainly focus on maintenance activities. We go in on a scheduled basis we go in on a yearly basis, a three year basis and a six year basis with varying intensities. Then we got the things like I just did today. The siphons got pumped out and they are dry and I met with the users to inspect the siphons. In a week they are going to be too full to look at. So, you get what you can when you can. We have a maintenance trailer, we have ATV’s and rovs.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?

- No, the water users do. We don’t have ditch riders we just have staff engineers. We would go down the canal about three to four times a year. We will mainly focus on issues the water users have directed toward us.

33- What typical complaints do they have concerning ease of O+M?

- What uses have they reported conflicts with during routine maintenance?
  - Most of the conflicts are mostly just people verbally abusing you when you are out doing your job. There are people who get really belligerent. And you stop them and you tell them they are trespassing and they tell you its government property and I am a tax payer and I have a right to use this….no you don’t.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.

- See above.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintenance the canal? Why?

- No effect.
36- **Do you feel there are any resolvable solutions to any of your concerns? Explain.**
   - Yes, the biggest one on the murdock is to pipe it, I think that will resolve the water quality and the public safety issues.

37- **Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?**
   - On an open canal the biggest concern we have is water quality, public safety, liability is a concern because even though we can’t get hit from a liability standpoint the water users can and its never any benefit for us to have them hit with liability. There is also a public safety concern. The public doesn’t always know what a dangerous spot they can get themselves into and only now and then do they really get bit and really find out. Because usually when they do it costs a life.

38- **Can these concerns be addressed with creative and proper design, construction and management of the trail.**
   - I wouldn’t of said yes to that a while back but I think from the perspective of what are physical facilities are out there, what are physical constraint are I don’t think they can be addressed. They can be address and dealt with. But you still haven’t created a win-win for everyone.

39- **Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?**
   - Not that I haven’t already covered.
Canal Trail Questionnaire

- The purpose of this open-ended discussion is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

PRELIMINARY INFORMATION

Date of interview: Wednesday, November 18, 1998 3 p.m.

Name: Jonathan Clegg

Title/ Titles: Assistant superintendent of Provo River Water Users Assoc. (PRWUA)

Address and Telephone #: 1788 N. State St.
Orem, UT 84057
801-222-0710

Administrates to what canals?
Weber-Provo Diversion Canal (Conveyance from Weber to Provo R.)
Provo Reservoir Canal (Murdock Canal)

Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)
Murdock Canal

Endpoints (cities, towns, river diverted from or any other landmarks)
Weber and Provo Rivers

The total length?
23.0 Miles

Capacities and depths?
550.9, 5.7

Width of the canal R.O.W. and the canal itself?
100 ft. / 18.0 ft.

In what year did canal construction begin?
1940-1950

In what year did the canal open?
See above.
CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
   - I would suspect that any canal with a maintenance road is used for recreation. Are canals are definitely used for recreation and all of it is unauthorized. Covers a broad range of the spectrum. A lot of walkers, a lot of joggers, people with dogs, horseback, tubing, kayaking, fishing, motorized vehicles, four wheelers, motorcycles.

2- Do you allow public use/ access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
   - We obviously do not and we try to keep every possible point of public access posted. We struggle with that because those signs don’t often last very long, they tear them down.

3- How aggressively are these efforts enforced?
   - It’s a mixed bag, it’s really tough to get cooperation from law enforcement from the local cities because some of the police officers themselves are using the canal, or there neighbors so they are not to anxious to be the bad guys. We don’t have the law enforcement authority and we don’t have the resources to dedicate someone full time to enforcing that. We will quite often tell people who are out there on the canal that we have got a job to do and its not to keep people of the canal, its maintenance and operation and so we struggle with that. The only fencing we have is typically a six foot chain link fence and gate at three crossings We leave the gates open in the summer and close them in the winter because its when the water is in the canal that we are there daily.

4- Do you have any concerns regarding these existing uses?
   - Well we just feel that any kind of recreational use along one of our canals, as long as its an open canal is just incompatible with what we are doing. The three main concerns we have identified, and I think you have them covered pretty well in here, are liability, safety of the public, water quality and impact to our operation and maintenance procedures.

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what claims?
   - I believe there has been, it was before my time. I believe there have been some claims related to drownings which ended up being settled out of court.

6- What existing risk management do you have in place?
   - Obviously we have insurance and we do our best as I have just described to keep people off of the canal. We are contemplating doing some better education of the local community and citizens about the reasons why we want people off the canal. Sometimes people stop and we explain to them and you can see the light go on and hopefully they will be a lot more cooperative.

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?
   - Yes we are very anxious to pipe our canal, not to accommodate a trail, that could be an outcome but our main focus would be addressing the other issues. The reduction of liability, water quality issues and there are some advantages to saving water that occurs. We have been having some very serious discussions about doing that. Every one is in favor of it, the biggest obstacle is cost. Its an expensive proposition. For our twenty three miles of Provo river canal [Murdock] it would be roughly about 70-80 million dollars. We have been looking at various options for funding. It
would be a mixed back, some would be self funded, from people interested in purchasing to save the water.

8- Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?

Typical Maintenance agreement would state that: The city or agency " holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities."

Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
2. Highline Canal (each respective city)
   • I’ve been told by some people from one of the cities that they can do that but I have remained skeptical it was lindon city maybe its possible but I am a bit skeptical.

9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?
   • No, I don’t know anything about those. I haven’t heard it called that but I have heard about some of those statutes.

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?
   • I would say they are higher on the canal. On our canal there are some hydraulic structures that are extremely dangerous we have about four siphons. And once you get in the current of a siphon there is nothing you can do it just sucks you right in. Some areas of the Murdock are swift moving.

11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?
   • I would say no, the only thing that is going to placate our concerns is getting it in a pipe.

LEGAL INFORMATION:

12- To the best of your knowledge, what is the existing adjacent land use along the canal/ canals by percentage?
   50 % Residential
   50 % Agricultural
   5 % Business
   • Let me say that all of my answers have been given with the Provo Reservoir Canal in mind (Murdock) because there hasn’t been any pressure that we have seen so far for recreation trails along the Weber-Provo Diversion Canal, its just so rural there is not a lot of demand there for use.

13- What are the existing ownership standings along the length of the canal/ canals?
   In terms of:
   5 % Public
   95 % Private
   • Most of the private ownership is residential.

14- Does your company or WUA own land under any portion of the canal/canals?
   • Most of our right-of-ways on both canals are fee title. There is some easement.

15- Does your company or WUA own easements for any portion of the canal/ canals?
   • There are some. Some of them represent or originated from land that was patened originally. They are reserved right-of-way. When the U.S. granted land to an individual they retained or
reserved certain rights for canal rights-of-way and some of our easements are based on those original easements.

16- Does the respective city own land under any portion of the canal/canals?
• See above.

17- Are you familiar with general ownership standings along the canal/canals.
• How much of the canal corridor is owned in fee simple by adjacent landowners?
  (Own land and canal company has an easement.)
• Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?
  • Because the title of our facilities are held in the name of the U.S. government no one can adverse possess against a federal government. So, we don’t have to worry about adverse possession. If I were too guess I would say it is about 70-80% fee title, owned by the government and the rest is easement.

18- Please explain your relationship with the BOR regarding ownership of underlying land.
• The project we administer to, the Provo River Project is a federal water project dating back to the 1930’s. It was funded and constructed by federal money and the underlying title is in the name of the U.S. and we are contractually obligated to maintain the project.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?
• Yes there are. There are two types. There are encroachments that we have allowed or permitted and encroachments that we have not permitted. We have a process that we go through when someone requests an encroachment on the canal r.o.w. and we call it a license agreement process. There is a fee schedule involved and an applications. We evaluate their requests to see if its compatible with our project purposes and if so we license and permit to encroach and this is done in conjunction with the B.O.R. That typically encompasses utility crossings, bridge crossings, things that are for the public good. The second kind is unauthorized encroachments, the private property kind, such as sheds, fences, vegetation and there is actually a house or two that has encroached on a small part of the R.O.W. We recently in the past year and a half had a complete R.O.W. survey done on the complete 23 miles of the Provo Reservoir Canal. One of the purposes being to help us get a handle on how big of a problem it is and identify what some of those encroachments are so we can decide what to do with it.

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.
• The legal authority would come from the Bureau of Reclamation, but they are bound by the statutes to get our concurrence on certain types of encroachments that they allow. And even if they weren’t bound by statutes we would still cooperate so it would probably be a joint effort.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?
• In those sections of our canal that are easements...I would say it would be because that has the potential to impact our rights of easement in terms of our ability to operate and maintain the facility.

22- Are there different answers for different sections of the canal?
• Yes, it would just depend on the underlying ownership of the canal, whether its fee or easement. If its fee obviously it would be legally required, if its easement I still think it would be. We would have to consult our attorneys for sure but that’s my take.
23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?

- I don’t think that would probably happen, but I think it would be.

### POTENTIAL TRAIL/ RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail?

(ALLOW VOLUNTEERING OF ISSUES FIRST)

<table>
<thead>
<tr>
<th>A. Liability – Why?</th>
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<tr>
<td>- Attractive nuisance</td>
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<tr>
<td>- Liability should cover entire corridor not just path.</td>
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<th>C. Safety – Why?</th>
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<td>D. Crime – Why?</td>
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<tr>
<td>- Law enforcement: Time of response</td>
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<td>- Changing emergency procedures/ protocol</td>
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<td>- Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.</td>
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<th>E. Operation and Maintenance – Why?</th>
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<tr>
<td>- Increased O+M costs</td>
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<tr>
<td>- Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.</td>
</tr>
<tr>
<td>- Vegetation management for visual inspection.</td>
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<tr>
<td>- People need to honor the ditchriders need to pass! (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)</td>
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<tr>
<td>- and M of dirt canal will not allow surfaced trails along side on canal bank.</td>
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<th>F. E. Funding – Why?</th>
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<tr>
<td>- Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.</td>
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<th>G. Lack of Management entity – Why?</th>
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<tr>
<td>H. Other – Please explain:</td>
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<tr>
<td>- Public perception that the canal is public land.</td>
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<tr>
<td>- All uses should be subordinate to agricultural use.</td>
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<tr>
<td>- Private property owner’s rights: taking without compensation, multi-purpose easements.</td>
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- Yes I do. The three or four I mentioned in the beginning, liability, operation and maintenance, public safety, water quality are all very sizable obstacles. As far as other obstacles...anything can be overcome with money which is the other obstacle which is getting funding for the trail. As far as the obstacles you have listed here I think you have identified pretty well all the obstacles we see. One that I am impressed that you picked up on is the lack of a management entity. One of the concerns we have is once the canal is developed who is responsible for maintaining that trail. We are not in the trail business and we don’t have the resources to maintain that. On the other hand we don’t want it done in a piecemeal fashion, we don’t want to have to deal with Orem city for the section that is in their city, Lindon city for their section, Pleasant Grove and so forth. And there is several reasons for that. We would like, number one, for a trail that is developed to be well maintained and well developed in a consistent fashion so that you are a recreationalist jogging down the path and you go through Lindon it’s a nice park and landscaped well and then you come to Pleasant Grove and its just a dump. That wouldn’t be good for anybody, but we would bear the brunt of that because the underlying land is ours. So we would just assume have some consistency and turn the management over to another entity and we are not sure who that
entity is. So that's an obstacle. Funding is also a major obstacle, everyone is interested in trails but no one seems to have money for trails. That seems to be changing a little bit as development occurs and people are interested in preserving open space and having an amenity like a trail. There's a little more funding but probably not at the order of magnitude that would be necessary for the length of canal we are talking about.

25- If a trail were developed along one of your canals what implementation measures would you like to see?

- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)
- They would be oriented towards addressing the major concerns I mentioned already. In terms of water quality it would mean keeping the animals and their feces out of there. Even when they deposit on the road, the road is sloped toward the canal. In terms of design criteria, I haven't given it much thought because of our position that until it's piped... when it's piped a world of opportunities is wide open on what can be done. In terms of time of use we would let whatever managing entity takes over deal with that. We would certainly want the ability to close down sections of the trail as we need to to accomplish our maintenance. To pipe the canal. We would need to preserve our rights that are necessary to accomplish our maintenance. Obviously our maintenance would be less because now it's ground instead of open canal.

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?

- We have been contacted by Lindon City and also by Mountain Lands Association of Governments. We had several meetings and discussions where we presented our concerns and they attempted to alleviate them unsuccessfully and right now we stand with our policy that until it's piped it's a no go. They said that they had conversations with their risk management provider and felt that they could relieve us of liability. But we are still uncomfortable about it because I wonder about a small cities ability to shield the federal government. Since they are a underlying land owner with a very deep pocket guess anybody could sue anybody.

27- Are you aware of any other trails built next to irrigation canals in Utah?

- I know there is a canal out in Vernal area, there is a trail along side of it. The Utah Lake distributing Canal I noticed has a trail that is fairly new along side of it for a ways. That's just off of camp Williams and runs north and south.

28- What forms of recreational use permission are you aware of?

- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?
- I'm familiar with what they mean but not any specifics on them.

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?

- Its an excellent question. One of Lindon Cities points when they came to us with the proposal to open the canal for recreation was that it would actually be a benefit to us to have more eyes and ears on the canal to report problems to us and to keep the canal right-of-way clean of litter, etc. etc. I guess we really struggled with that because if we were to buy that we would have to expect that the same people who are willfully and knowingly disobeying the law now by trespassing would overnight change into people who are law abiding, consciences, anxious to assist us, type of people. I guess it was just too hard for us to swallow. But the argument was made and we do struggle a lot with weather or not we incur greater problems to an extent by keeping the canal closed. There is always the revenge factor. There is always people who are going to think that,
well if they are going to do that then I will show them and I am sure some of the vandalism we have is a result of that.

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?
- Again we don’t see it as possible or feasible as long as the canal remains an open channel. Once it is piped, there is a lot of opportunity and we support the concept of and encourage the development of a recreational trail.

### CANAL OPERATION AND MAINTENANCE:

31- From what month to what month does the operation season last?
When are the canals generally filled and drained?
What typical O+M tasks are performed during this period?
- Type of equipment used? -Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
- The canal season is from April 15 to October 15 so it’s a six month period and it does correspond to when we fill the drain, we generally fill it a day or two in advance and deliver through the last day that there is water in the canal. We haven’t gone to automation yet but are in the process of implementing a supervising control and data acquisition (SCADA) system which is a non-invasive type system that allows for remote monitoring and control. There is a fairly distinct difference in what we do on the canal when there is water in the canal as opposed to when there is not. Most of our O+M tasks take place during the off season when the canal is drained. During the irrigation season most of the maintenance is limited to cleaning debris, and we also treat for aquatic weeds late in the season as they begin to grow. We do have a water master that rides up and down the canal in a Ford Explorer type vehicle. Some of our other maintenance personnel are also on the canal periodically with small trucks. But most of the maintenance during the irrigation season is minor. Occasionally we take some heavy equipment up there to haul clay, so, there will be times when there will be heavy equipment up there during the season. Off season there is definitely a lot of heavy equipment on the canal because that is when we can get down inside the canal prism with grading, cleaning, burning weeds and all the major things. Our water master operations are greatly impacted by the illegal use we already have. There are certain times of the day when he simply refuses to go on certain stretches because of the number of joggers and walkers. Its just impossible to get anywhere, you are constantly waiting for people to get out of your way or sometimes they don’t get out of your way or they complain about the dust. So he just does his best to avoid those parts of the canal during those times of the day. This is frustrating to us because its our facility and we have a responsibility to maintain it. Then in the off season it’s a different concern, a public safety, can we move the equipment up and down the canal without risk or concern of hurting someone. Anytime anyone is on the canal our concern is the canal, our focus is on the canal, we are paying attention to the canal. We are not always thinking necessarily is there going to be a jogger around the next bend because that’s not what we are there for.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?
- How many ditch riders do you have.
- We have a water master that is going up and down the canal at least two times daily checking structures and pulling moss and weeds off of piers. We have a maintenance crew that will spend a lot of time on the canal maybe once a day. Its on a less consistent basis than our water master. We just have one water master (ditch rider).
33- What typical complaints do they have concerning ease of O+M?
- What uses have they reported conflicts with during routine maintenance?
  • See question 31. There are certain times of day certain locations on the canal where recreational use makes it impossible to operate. We have had some conflicts between our recreationists and our personnel. They don't like the dust clouds caused by the vehicle which has caused some competition.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.
- See above.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintain the canal? Why?
- I think it would decrease our ability to maintain our canal. We have a problem now in spite of our efforts to keep people off and to open up the gates so to speak and permit people on I think conflicts would go way up.

GENERAL:

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.
- Pipe the canal. That is the approach Lindon City took, was to try to identify our concerns and address each one and we just never got to the point that we were comfortable that we could get there.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
- Water quality, public safety, liability and impacts to our O+M operations.

38- Can these concerns be addressed with creative and proper design, construction and management of the trail.
- Definitely if it were piped. If it were piped I'm sure there could be steps taken to partially mitigate. I think our feeling is they couldn't go far enough to totally mitigate to the point where we would feel comfortable allowing them short of piping the canal. Lindon city proposed several things they thought they could do to help address some of our concerns, we just didn't think it could help us get to where we wanted to be. They did try to address the risk management issues. They said they would lend some of their public works crews at various times during the year to assist in grading. They would undertake a public education campaign to educate people on proper canal behavior if you will, don't litter, don't take your dogs on, don't get in the canal, I think those were the major things talked about.

39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?
- Well, it's a frustrating issue for both sides. As a private citizen if I live next to a canal I would want to use it that way because it's a great opportunity for recreation. Your not fighting traffic, you could jog, bike, it's a great corridor for doing that. The other side of the issue; the concerns that we have addressed that the canal company and water users have to deal with, at least from our perspective seem insurmountable short of piping the canal. It seems to be the win-win situation. We get it in the ground, we can address our issues and that allows for the development of a recreational trail and surface.
Notes:

- We had one of our consultants develop a rendering. They took the canal and how it looks right now and through computer graphics what it could look like if it were simply piped and left undeveloped. And then to take it to the next step what it could look like if it were developed into a recreational trail. And we think it would be nice to have a water feature going down this corridor. It wouldn’t have to be a lot of water. There might be enough water that is saved through piping. You could do it in very small portions to a babbling brook kind of a concept, because it is a very attractive.

- Along the Provo Reservoir canal there are a couple places where we actually own right-of-way that is a little wider than just the canal right-of-way itself. We even envision that those could be developed as an offline park where your on the recreation corridor and you get to this section and it’s 2-3 acres and so you develop a little park off to the side, picnic facilities, etc. and that would really be a nice amenity to have next to a recreational trail. And quite an opportunity.
Canal Trail Questionnaire

- The purpose of this open-ended *discussion* is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

**PRELIMINARY INFORMATION**

**Date of interview:** Tuesday, December 1st 1998, 9:30 A.M.

**Name:** Peter Kung

**Title/ Titles:**
- President of Crockett Avenue Distribution System
- Secretary Treasure of Logan River Water Users Association (LRWUA)
- On board of directors for Logan N.W. Field Canal

**Address and Telephone #:**
- 346 N. 400 W.
- Logan, UT 84321
- 752-6025

**Administers to what canals?**
All seventeen canals in the Logan River Water Users Association
Ten of which are members of Crocket Avenue and my canal, Logan N.W. Field Irrigation Company.

**Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)**
Logan city has been pushing it. Right now they are just talking about connecting the parks going from Cache County Fair Grounds to Central Park. The Logan, Hyde Park and Smithfield Canal, people have proposed a bike trail along that. That is not my group other than they are LRWU's. And then the Logan Northern Canal has been proposed, but that is not under my jurisdiction.

**Endpoints (cities, towns, river diverted from or any other landmarks)**
Logan River – Bear River.

**The total length**
About 5 miles.

**Capacities and depths**
It varies as you go through. Its just like a tree. It starts with a big branch and then it gets smaller and smaller. Normally it runs at about 200 cfs.

**Width of the canal R.O.W. and the canal itself**
In the section its about 15 ft. across and about 2 ft. deep. And we have a rod and a quarter which comes out to 20.6 ft. that was given to us since pioneer days. It was given by the city for the right to dispose of their storm drain water and we are in the process of trying to renegotiate with the city because its not only the quantity of the water it’s the quality we are worried about because we are starting to get run off that has garbage in it, oil in it, what if a pesticide truck breaks open at say Wal-Mart parking lot, its going to come
right in our ditch. And we are responsible when it kills farm crops. So, we are trying to tie liability to point sources.

In what year did canal construction begin?
1860

In what year did the canal open?
1861. And we didn’t incorporate until 1905.

We get 38% of the water that comes off of Logan river. It was set up as a gravity feed. Corneal Ricks the surveyor that Brigham enlisted in 1860 laid out the system. So we have water rights that are very strong and hard from 1860. Not only do we have irrigation rights we also have industrial rights because of the old mills ran on water power. Non-consumptive rights. It dumps back into the Bear River.

When I talk to you here today its my own personal opinion.

CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
   - Yes they are all used. All seventeen. Swimming, fishing, tubing...you name it. Every one overlooks that it is a swamp cooler. These canals act like one. So, people sit and dangle their feet in the water or they seek the benefit of opening the window at night and getting the cool breeze.

2- Do you allow public use/access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
   - We do. We don’t encourage it. Where ever we think its dangerous we have a sign that says: be careful, danger. And that is to cover us. The biggest fear we have is people messing with the water works. So, we put signs up saying: messing with the works or turning it on or off unauthorized is against the law and we quote the law and those are on all the head gates through town.

3- How aggressively are these efforts enforced?
   - During the irrigation seasonal, fearly well because we have a water master that goes through and will talk to children about being careful, not being on the spillway, not pulling diversion boards. The other thing we do is we lock things in place. We lock canals open or lock them closed just to keep out tampering. Ive gone to Logan city a couple times to have things enforced when people were dumping chemicals, pesticides, printer cartridges. Caught them doing and brought the police in to read them the law. So we are into enforcement. Most people try to get along. If you listen to us and pay attention to the signs and listen to verbal instructions, fine. If you start fighting back and say we can do whatever we want then we will bust them.

4- Do you have any concerns regarding these existing uses?
   - No, if they are in reason. If they don’t tamper with or erode the banks or throw garbage in, no. I spent many an hour myself hanging around recreating.

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what claims?
   - We have never had a liability ease brought against any of these canals because people who grew up here know that it’s a danger. Most of these canals don’t even have liability or injury policy. They think its cost prohibited so they essentially wait till it happens and then just pay up rather than pay so much a year. There is that law that says that unless we do something willfully negligent or draw people in then we can’t be held responsible. But that is changing we have been
talking about buying some thinking that buying insurance is a lot cheaper than finding out that we don't have enough money to cover a big claim because big claims are in the millions now.

6- **What existing risk management do you have in place?**
- My canal company the Logan N.W. Field Company specifically bought insurance in the last two years. We have signage in other places that say danger canal, stay away or open water...that kind of thing. We have fenced it off. And also during the spring during high run off we have taken snow fence material and put it along where it runs through parks to keep children from inadvertently falling in because it is cold and deep. That is just a courtesy. I've seen kids there and I know how easily they can fall in. I almost lost my dog in the canal.

7- **How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?**
- Yes we have. The problems there is that it has just been identified the water resource people in the state, the recharge value of having canals not lined. So they say a substantial proportion of water leaks through the bottom of our canal and recharges the aquifer in the center of the valley. The other problem with piping is access, we would have to put in new head gates, new arrangements for cleaning it out. Its cost prohibitive. But we have talked about it in the last few years to maybe separate our irrigation water from the storm drain water, but right now its cost prohibitive so we are not going to do it. It will be down the line in certain sections by putting up retaining walls but leaving the top open. Less than one percent of our canal is lined. The other thing is we are worried about loosing the tree cover. At first they thought the trees were essentially suckers taking on water, now they realize that the evapotranspiration probably lowers the temperature in town by so many degrees and provides refuge for wildlife. So we don't want to loose the associated riparian benefits.

8- **Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?**
- Typical Maintenance agreement would state that: The city or agency " holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities."
  - Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
  - 2. Highline Canal (each respective city)
- No but I wish they would. They never have offered us that but we always thought that if we bought insurance together as a group it would be cheaper but again even within my ten members of my Crockett Irrigation Company, we can't get along. Everyone has their own board of directors their own agenda.

9- **Are you aware of Utah's Recreational Use Statutes? If so, how much do you know about it?**
- No, but I wouldn't mind getting a copy of them if there is one.

10- **Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?**
- I would think the same. There is only part of the year that we use it so its during the summer. Kids are out of school so we get heavy visitation when the kids are there and the rest of the year we don't see anything. When I do maintenance I can barely get anyone out there to help, boy scouts, etc.
11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?

- Yes, I think so. I think a part of that would be an educational part to educate people to proper conduct and essentially tell people how to be socially nice. You know you don’t urinate in the peoples back yard and just stay on the trail. I think that in combination with the proper design and construction and also the proper attitude, and I see that around Boulder, they have signs that tell you what to do with your dog and be considerate. Some people don’t like that, they don’t like to see dogs running at them at all.

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**LEGAL INFORMATION:**

12- To the best of your knowledge, what is the existing adjacent land use along the canal/ canals by percentage?

- 60% Residential
- 30% Agricultural
- 10% Business

13- What are the existing ownership standings along the length of the canal/ canals?

**In terms of:**

- 0% Public
- 100% Private

- On the upper canal the Logan, Hyde Park and Smithfield Canal its BLM and Forest Service ground on the back side of that. But most of its private. The city has one side at a park, it might be municipal but a very small percentage.

14- Does your company or WUA own land under any portion of the canal/ canals?

- Yes, we own it all. The full length of the canal was deeded to us.

15- Does your company or WUA own easements for any portion of the canal/ canals?

- Because we have used a certain section for so long we have what is called a prescriptive easement, but that is generally just the canal bed itself where the water runs, and is more on the laterals. If someone comes in and tries to do something to these laterals that come off of our main stem, the ones we have by easement, we have a right to use it and they have a five year non-use. If it goes for five years without being used then we have to either file again to reuse it or we could be denied.

16- Does the respective city own land under any portion of the canal/ canals?

- Wherever the parks are and the County might own the County Fair Grounds where it goes through on either side. But it would be very small percentage wise.

17- Are you familiar with general ownership standings along the canal/ canals.

- How much of the canal corridor is owned in fee simple by adjacent landowners? (Own land and canal company has an easement.)
- Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?

- See #13 and #21.

18- Please explain your relationship with the BOR regarding ownership of underlying land.

- No, not really. We have talked to them about methods of lining the canal with an impervious clay lining, best methods, best management kind of practices. But, we really don’t have any agreements with them.
19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?
- Tons. Generally what we do is we have had to force the city to go out there and have the board of adjustments make them come into compliance. In a few cases we have actually gone out and taken the fence down. We try to work with the property owner. We warn them once. And what we are doing now is getting Logan city to... whenever anybody applies for a fence permit or building permit if it has the word canal anywhere near it, contact us and we are willing to work with them. We actually pay for improvements along the canal, we will buy the cement. If they put in a retaining wall we will buy shrubs. We want them to understand that they have to come and ask us for permission first. About fifty percent is encroached upon right now. The town is growing so fast especially out near the airport and that is where we are having our problems. I was just out last night where someone built within ten feet of the canal bank, we cut a deal with them and said if they put in a retaining wall and don’t get any closer we will allow it and if not we will put a cease and disorder on it. I don’t want to get into law enforcement or zoning or code enforcement so we go to Logan city. They have been getting better over the last year or so about involving us in their process.

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.
- No. its all privately owned.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?
- I would think yes. But that is something we asked them about and there is no legal opinion. We keep hearing that the attorney general is going to come up with a statement. We have been approached by property owners and canal company representatives asking who actually owns this and what rights do we have and more importantly who is liable. There is no answer the city doesn’t want to commit themselves. And there is only three water attorneys in the whole state and we don’t have the funds to pay them. As far as I know there is no answer yet. A precedent setting case is needed. Until someone pays for a legal opinion you don’t get one. So, I would say yes because by law they technically own the property to the canal bank and so its not really ours. Our easement is for conveying water and some cleaning. Not for selling or allowing someone else to trespass for other purposes. We have the right to trespass for maintenance and cleaning but I don’t think we can convey that to anyone without getting some kind of a legal opinion.

22- Are there different answers for different sections of the canal?
- Yes.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?
- N/A. See #18.

### POTENTIAL TRAIL/RECREATIONAL DEVELOPMENT:

24- Do you foresee any obstacles in developing a canal as a recreational trail?
(ALLOW VOLUNTEERING OF ISSUES FIRST)
A. Liability - Why?
   - Attractive nuisance
   - Liability should cover entire corridor not just path.
B. Safety - Why?
C. Crime - Why?
- Law enforcement: Time of response
- Changing emergency procedures/protocol
- Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.

E. **Operation and Maintenance** – Why?
- Increased O+M costs
- Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
- Vegetation management for visual inspection.
- People need to honor the ditchriders need to pass! (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)
- and M of dirt canal will not allow surfaced trails along side on canal bank.

F. **E. Funding** – Why?
- Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

G. **Lack of Management entity** – Why?

H. **Other** – Please explain:
- Public perception that the canal is public land.
- All uses should be subordinate to agricultural use.
- Private property owner’s rights: taking without compensation, multi-purpose easements.

- Yes. I would say liability comes to mind right away. That is the first thing someone asks, who’s responsible for maintenance, someone getting hurt, are we allowed to even let other people on that trail. Those are the biggest ones. And the other thing is the Not-In-My-Back-Yard issue. You will find a lot of people who think that it’s a great idea and are really, really supportive but when we tell them its going to be in their backyard they say sorry we didn’t mean that, not in my back yard and it amazes me because a lot of those people are educated. Especially on my section of the canal because they work up here at the college. They belong to environmental organizations which makes them think they are an environmental person, but when you ask them to do something in their own back yard about it they are not willing to do that. A lot of people say that we bought along the canal because of the privacy and the water and not the lack of trails. So they see it as a negative and I think that is where we have to educate. If you want to live in a community, and people are the community, I think you have to give something back to the community. And if you want to be a recluse and not want to have anything to do with anybody then buy 500 acres up on the bench and keep everybody out. That’s part of living in town. Getting the amenities of the town. But looking through your list here I can say that everything you got listed here is a concern.

25- If a trail were developed along one of your canals what implementation measures would you like to see?

- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)

- All those. Signage and education. I think we have to educate the public that this isn’t a right, that it’s a privilege, to have respect for other people’s properties. Who is going to be picking up the garbage along there? And maybe it should be set up so that people don’t go through there at midnight and get rowdy or whatever. So, set some times of use. But again, I think that its something where everybody needs to be involved and it shouldn’t fall to one entity or the other to do it all. Maybe we could have a community patrol, sponsors along the canal that spend some time checking on things.
26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?
- The city and adjacent property owners and actually the irrigators as well have all contacted me. We are in limbo right now, we are waiting for an opinion that is supposedly coming and we haven’t gotten that yet and Logan city has made the first step to quantify where they are because they aren’t even mapped correctly on city maps. How deep?, how wide?, what is the capacity? And then what we might do to improve by digging deeper or lining. Maybe by setting alternate routes. But that is all in the planning stages right now. They are trying to get their numbers together and we are trying to get our group together. I am starting to put out lists like this where people can contact other members and hopefully there will be some exchange of information. I am trying to get all the member companies to help me identify where there ditches are and mark it out on this map with all the headgates. I’ve done it on mine and I am trying to get all the member companies to supply me with a list and that is something they have to do by law. A current list of contact lists of who the water masters are, who the users are, how many shares are involved and come back into compliance again. That’s where we have to be prepared because when other people start looking at our water we have to prove that we are using it beneficially and according to law. So, its all pending. We do have a meeting with the public works director that we will go out this year and inspect the whole canal and identify areas that need repair or maintenance because they pay for half of the maintenance costs right now on our for the privilege of dumping their storm water in. Logan city has always been bad about including us and adjacent property owners in the process.

27- Are you aware of any other trails built next to irrigation canals in Utah?
- I know along the Jordan River. I know in Vernal along the Ashley Creek system. They had some floods and big release of water that changed the bank and took some adjacent property. So now they are talking about a buffer zone I don’t know if it will be for recreational use, I think they are talking about that, but right now its just a green riparian buffer zone so that they are not in peoples yards right of way with the overflow of water. They did do some down by the Jordanelle dam outside of midway, but that was Bureau of Reclamation federal funds and federal project. It not a local effort…they involved the canal companies but it was a federal project.

28- What forms of recreational use permission are you aware of?
- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?
- There has been some wetland mitigation done along one of our canals. Someone has developed the sight for a business and because they took out so many acres of wetland they had to supply twice the amount that they took out. And they have used there water rights to let it run into a field to sustain a marsh to make up for some marshes that they impacted.

29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?
- If everybody is in charge I think we can do it. I think we can satisfy the property owners, we can still get our irrigation water. That’s a lot better than saying no because the minute you say no that draws my attention and makes me want to go there and the few sections where I have seen them closed off…it just makes it forbidden fruit and makes people attracted to it. So, I think we need to work together on it and can. By increasing the awareness and increasing usage I think people will help manage it better. We may get a paved trail so it won’t be dirt. We may get better shrubs, better stability on the banks. More people watching so incase there is a problem, and I have seen that now where I have eyes and ears out where we can’t watch the whole canal all the time. Now that we have a contact list I have been contacted by people that say do you know that you have a leak at such and such a place and have actually gotten us to go there before it would have blown
out because the big problem they have identified is the small problem. So, I think it will work. It becomes your own back yard and you take care of it.

30- **What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?**
   - We have tried that just for maintenance because the way the law reads now is that if you alter an existing ditch by for example putting it under ground you are forever responsible for maintenance for that section including the grates. And as much as Logan city agrees to that, I haven’t got it in writing. So it comes back to liability where I would like to have something in writing saying that that grate is their responsibility. So, the bottom line, if we can’t get along by word of mouth and by handshake we do have an agreement that says that is the bottom line, you are responsible. We have tried to get a list of contacts to the city as well and they have been real good about it. Just as I was telling you this guy reported to the city that he saw a leak called the city the city had my name, called me said I think its your canal, go check on it. And they were real helpful when I said I do have a leak and need sandbags. So it can work.

**CANAL OPERATION AND MAINTENANCE:**

31- **From what month to what month does the operation season last?**
   **When are the canals generally filled and drained?**
   **What typical O+M tasks are performed during this period?**
   - Type of equipment used? -Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
   - Generally the water goes in first of May and comes out the first of October. During the operational season there are daily checks. The water master goes and checks grates, head gates, at least once a day if not more. During times of restrictions more. We will go out at night and check compliance make sure people aren’t stealing water out of turn. But generally its by hand. During the flood season which is during May-June when we have peak run off, Logan city has been real good about leaving some of their equipment in place by some of the points of diversion in places where we have a problem so that if we do have a problem we can pull out trees and other large trees that need to be pulled out. In the spring before we fill in April is when we generally do most of our maintenance. Most of its by hand, but occasionally we do need to get some heavy equipment in. We contract that out. They will be sometimes as large as Track Ho’s, draglines. Usually it consists of a couple of guys on a four wheeler would have to go through and pick up trash. So, we are only talking about two successive weekends in the spring and then on an on call basis when we do have a problem. Chances are if there is a problem, you are not going to be on that trail anyway. The guy that goes on a daily basis drives by, gets out of his car and walks in to make sure the gauges and measuring devises are unobstructed meaning there are no leaks. We know where the problem spots are. There are always certain areas that always jam, usually behind apartments where people throw their trash. So, on a daily basis there is just a an old guy who just walks along and eyeballs it who might have a hoe with him or a chainsaw.

32- **Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?**
   - How many ditch riders do you have.
   - For the entire ten systems we mutually pay this one guys salary. So he is the only one. And every other canal usually only has one or two of these guys.

33- **What typical complaints do they have concerning ease of O+M?**
   - What uses have they reported conflicts with during routine maintenance?
   - One thing that is misinformation on our part is we tend to go in and do maintenance without warning. They like that shrub cover and so sometimes we will go in and we will decide that a tree
is about to fall or its too big or obstructing or we don’t have access. And without saying anything to the property owner we will take that out and that tends to piss people off. In the past we have had the attitude that its our canal we can do whatever we want and I have tried to get common courtesy out again where we inform the people what we are doing and why we are doing it. If they maintain their own property like they should and the state statute says that people adjacent to canals are responsible for maintaining an unobstructed, debris free area even if they don’t have rights to the canal. So if a tree falls across the ditch from their property, technically it is there problem, but we have always gone out and helped them out. I’m trying to get everyone to cooperate, the adjacent property owner, the canal company and Logan city and between the three of us we should be able to resolve most of these problems.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.
- People messing with the headgates, putting debris in the canal. I think people walking by the ditch doesn’t hurt anything. If there was increased traffic to the point where there was an increased sediment load or runoff, that might be a problem. If it was well planned, I would think they would address all those things and put in drainage fences or whatever it would take to keep that from happening. But with increased use we do have malicious vandalism. That’s the one thing I am worried about that because there is more use people would go in there and mess with it more and there would be increased costs. What they could do to the head gate is they are cast metal, they could break them, bend the stem, they could obstruct them. During use a lot of times they are not locked, so people mess with them pulling them up and down. One time the city disconnected the pump down in the park for a while to do some routine maintenance and kids threw debris down the pump and lodged it so that the canal company had to go in and re-bore it out.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintenance the canal? Why?
- I would think increase our ability because we would have better access. More people watching, more people concerned. I think the more people watching and helping would offset the increased traffic and garbage problems. I do know that dog manure has been a big point of contention, and I physically had farmers tell me they are just tired of it and I don’t blame them because there is dog manure everywhere.

GENERAL:

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.
- Yes I think we went through that. Better information and better maps and a willingness of parties to sit down. And rather than asking who is liable but we admit partial responsibility with everyone else and lets work at it together. Co-op, I always tell people I am trying to put the co-op back into the system because no one person ran it before that’s why there are so many systems.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
- Again, getting all the players to sit down and admitting responsibly. I think that is the first step. Lets sit down and admit it and lets have yearly meeting so we do sit down and talk about it and that is starting to happen, we should have some meeting coming up with logan city this fall to try and plan next years irrigation season.

38- Can these concerns be addressed with creative and proper design, construction and management of the trail.
- Yes you bet. They always can.
39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?
- I think we cover it all somewhere in there.

Notes:
- One of the problems we have is that Logan doesn’t really have storm drains, so all the water that falls in Logan comes into our ditches. So when we get a storm event at the capacity of a half inch in an hour we get overflow, so we open as many ditches as we can. Years ago we used to blow it all into the fields but its all developed now. So we are talking to the cities and they figure that once it crosses the city lines its someone else’s problem, and to me that is where I would like to see a comprehensive watershed planning unit where the water doesn’t stop when it gets to that line. We are all in this together. The property owner benefits by having it right through their property because they owns right up to the canal, the municipality because they put their storm drain water in there and the canal company because they distribute water in there. So, rather than spending money on lawyers to fight each other we could spend that same amount of money to make improvements in infrastructure to handle that. Identification of these things should be done instead of just spending money without identifying them and then base the plan on reality. So, its backwards the way it is now. I’m all for it (a trail) they have always talked about connecting the parks so that people could bike and walk along it all the way back (to the mountains) and there is a trail to the highschool. But the problem is there is no right-of-way there for the rest of the way and all these people say not in my backyard. And physically we have been encroached upon so much that I don’t think we have any spare right-of-way to use. So that makes it real tough. Property acquisition, buy that right-of-way easement from those people and use the money to put a wall of shrubs in that will keep people from looking right into your yard and we will limit the hours to accommodate those people. So, they are staying with their same program that if I don’t use it I am going to loose it. The other thing would be to go to where you are developing rapidly right now and put it in place right now and lets not go back and deal with these old problems that are very difficult to put in place. Just make it part of your development costs. With Logan city I have actually had problems. They talk the talk but when you actually go ok are you going to put some finances toward this and take a legal responsibility when we go over the ditch. So, I can handle my water, it’s the extra water, the storm water that is putting me over and I think your liable and I am willing to admit that it is a three way deal between the property owner the canal company and the city. So it’s a third of the cost.
Canal Trail Questionnaire

- The purpose of this open-ended discussion is to obtain as naturalistic a response as possible. The goal is to gauge general sentiments and put a finger on the pulse of the major concerns and issues revolving around the development of recreational canal trails.
- Based on research to date a few of the biggest concerns and issues include:
  A. Liability of canal companies and landowners.
  B. Increased O+M costs.
  C. Law enforcement protection for company, landowner and trail user.
  D. Private property owner rights.
  E. Canal company operator’s rights.

PRELIMINARY INFORMATION

Date of interview: Thursday, December 03, 1998 4 P.M.

Name: Jess Harris

Title/ Titles: President of Logan Northern Irrigation Company

Address and Telephone #: 175 N. 400 W.
Smithfield, UT 84335
563-6990

Administers to what canals?
Logan And Northern Irrigation Canal

Which of these are being considered for trail development by others? (Questions specific to these canals are italicized)
Logan And Northern Irrigation Canal

Endpoints (cities, towns, river diverted from or any other landmarks)
Logan River – Richmond

The total length
About 13 miles

 Capacities and depths
65 c.f.’s. max and varies.

 Widith of the canal R.O.W. and the canal itself
4-5 ft or more.

In what year did canal construction begin?
Mid 1800’s

In what year did the canal open?
See above.
CURRENT USE BY THE PUBLIC:

1- Do you know if any canals are currently being used for recreation? If so, what are the existing uses you know of?
   - Very little with ours. It would be a great potential though for hiking along this in my opinion and my feeling is I would like to see it. But there is a lot of static from adjacent homeowners. All we have is a right-of-way along the canal. If the canal is running north and south then we have it on the west bank and south side if its running east and west. We have an easement which is about 12-16 feet something like that. Another words big enough so that we can get back ho’s in if we need to. But the people who have houses along there actually own right up to the canal. So there is a lot of them that object. There is a lot of walking and hiking and that sort of thing along a section of the canal between canyon and 4th north. And we haven’t discouraged it. There is a section about 5 miles in North Logan that Hyde Park was pushing to get developed about 3 years ago but there was a lot of static in fact we had our annual meeting and the place was filled with property owners who came to object to it. They were concerned about littering and a small child falling in and filling a suit.

2- Do you allow public use/ access? If not, what signing and notice efforts do you have in place to warn recreation users not to use the canal banks?
   - We as a company and board of directors haven’t really said yea or ney. We have just left it up to the property owners. We don’t have the right…I guess we could put signs up and say don’t do it and if someone comes along and say’s how are you going to stop me, we would have a hard time stopping them where we are not the owner of the land. We as a board have just left it open. If they hike we don’t have any objection to that. We have signs that say enter at your own risk for our own protection. As long as they understand that you hike or whatever at your own risk but we don’t want vehicles driven up on there so we have a gate.

3- How aggressively are these efforts enforced?
   - If we had someone riding up and down it with a jeep we would be right there. But as long as its used with respect and mainly for biking or walking, to me that is great.

4- Do you have any concerns regarding these existing uses?
   - No, I don’t.

LIABILITY AND INJURY:

5- To the best of your knowledge, have there ever been any liability or injury claims lodged against your canal company or other entities or individuals associated with the canal? If so, what claims?
   - Not while I have been in the directorship. But there could have been years before. We have had quite a bit of trouble maintaining that canal along the university hill with slides and it has cost us as much for maintenance along that mile there as it does the rest of the 12 – 13 miles of the canal together on the rest of it. And two years ago we had a major slide and one of the houses flooded. We had liability insurance that covered it.

6- What existing risk management do you have in place?
   - We have the liability insurance but if someone was injured real bad I’m not sure just how good our insurance would be to cover that. You would have to talk to our insurance provider.

7- How do you feel about piping or covering canals as a solution to liability or to increase efficiency of water conveyance? Have such discussions taken place concerning the canals your company administers too?
When I became president a few years ago one of the first things I looked into was piping along that mile, but the astronomical cost soon discouraged me. Unless you can get a grant or something to do it its just too much. It would take about a 5-6 foot diameter pipe to do it to carry that and that gets expensive. It was up at about several hundred thousand dollars just for that one mile. About $2-300,000.

8- Are you aware of a cities or counties ability to shield canal companies from liability by way of indemnification or inclusion under their respective insurance?
   Typical Maintenance agreement would state that: The city or agency " holds harmless company from any and all liability arising out of the construction, maintenance and operation of such landscaping, walkways and parking facilities."
   Colorado: 1. Audubon section of the Colorado River Trail which parallels the Redlands Canal. (Mesa Co. indemnified)
   2. Highline Canal (each respective city)
   Logan city has been real good to work with. I think Hyde Park was ready to do that but it was the landowners that said no your not going to do it...so until you convert them the majority...

9- Are you aware of Utah’s Recreational Use Statutes? If so, how much do you know about it?
   I don’t know a lot about them.

10- Do you feel the liability risks associated with recreational use of canals are higher or lower or equal to the risks associated with other recreational facilities?
   I think it might be a little bit higher because of the water there where small kids can drown.

11- Do you think some of your liability concerns can be addressed given proper design, construction and maintenance of a trail along any of your canals? If so, which concerns?
   Yes, in my feeling it can be worked out but there are some members on the board that don’t feel that way. On the concerns are that we don’t want to be liable if an accident happens. We also need to have to get our equipment on there also.

LEGAL INFORMATION:

12- To the best of your knowledge, what is the existing adjacent land use along the canal/ canals by percentage?
   40 % Residential
   60 % Agricultural
   % Business

13- What are the existing ownership standings along the length of the canal/ canals?
   In terms of:
   0 % Public
   100 % Private

14- Does your company or WUA own land under any portion of the canal/canals?
   One little spot its about a 150 feet we pay taxes on. That’s another reason we don’t want to own is because we would have to pay taxes on that. I think that as stock holders they would own the water and the canal.

15- Does your company or WUA own easements for any portion of the canal/ canals?
   We have an easement all the way along that was established way back in the 1800’s. Its an old enough easement that if someone comes along and builds a house and says hey I’m going to shut you down your not going to travel along this right of way, I’m going to put my fence up and you
stay out. Then if they were that ignorant then we would have to take them to court and there is no question that they would loose. Its an easement for maintenance.

16- Does the respective city own land under any portion of the canal/canals?
   • Not that I know of.

17- Are you familiar with general ownership standings along the canal/canals.
   - How much of the canal corridor is owned in fee simple by adjacent landowners? (Own land and canal company has an easement.)
   - Have adjacent landowners or the city adversely possessed any sections of the canal R.O.W.?
   • See above.

18- Please explain your relationship with the BOR regarding ownership of underlying land.
   • We don’t have one to the best of my knowledge.

19- Are there any existing encroachments such as fencing or vegetation? If so, how have you dealt with the problem?
   • We had some trouble here in Hyde Park. There was two or three people who built a home on the west side of the canal. They started to put up a fence right up against the canal. They called me and I said that I can’t stop you as long as you have a gate for us to get through with back ho’s and whatever, otherwise if we needed to get in there we would just come tearing through and push it down. I think the city tried to discourage it. I’m not sure what the outcome is yet. I think they were doing it to stop this trail.

20- Does your company or WUA have the legal authority to provide (if you wish to) the right for recreation trail use for all parties or some parties? Please explain.
   • No, not unless the landowners agree.

21- Conversely, Would consent from your canal company be legally required if easements for recreational trail use on your canals were acquired from the underlying landowner by a recreational entity or agency?
   • I don’t know for sure. In my opinion I don’t think it would have to be but then I might be wrong. I think strictly think that the landowner that would have to agree to it.

22- Are there different answers for different sections of the canal?
   • N/A see above.

23- If easements for a recreation trail were acquired from the underlying landowners by a public entity such as the respective city would Bureau of Reclamation consent to this use be legally binding?
   • N/A. See #18.

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**POTENTIAL TRAIL/RECREATIONAL DEVELOPMENT:**

24- Do you foresee any obstacles in developing a canal as a recreational trail?
   (ALLOW VOLUNTEERING OF ISSUES FIRST)
   A. Liability - Why?
      - Attractive nuisance
      - Liability should cover entire corridor not just path.
   C. Safety - Why?
   D. Crime - Why?
      - Law enforcement: Time of response
- Changing emergency procedures/protocol
- Protection of facilities and appurtenant structures. Such as flow measurement gauges and spillway structures.

E. Operation and Maintenance – Why?
- Increased O+M costs
- Canal company rights: it’s a work space, headgates get daily attention during irrigation season, need availability of frequent daily access to headgates, ditchriders use heavy equipment, need to access both sides of canal, inspection of canal daily.
- Vegetation management for visual inspection.
- People need to honor the ditchriders need to pass! (Have headphones on, dogs running loose, dogs in canal, horses and get spooked, bicyclist not paying attention.)
- M of dirt canal will not allow surfaced trails along side on canal bank.

F. E. Funding – Why?
- Lack of resources (funding) to cope with the increased costs that may or may not be associated with trail development.

G. Lack of Management entity – Why?
H. Other – Please explain:
- Public perception that the canal is public land.
- All uses should be subordinate to agricultural use.
- Private property owner’s rights: taking without compensation, multi-purpose easements.

- You have got to convince the majority of the landowners. We would just have to be free of liability and make sure there was plenty of room for heavy equipment to get in there if need be along he trail. Because we have headgates we are concerned about that being vandalized. If we had to up the Anne to help maintain the trail then no. We deal in a very low budget another words we try to get by with as low a cost as we can. We don’t have a lot of money to spend on a lot of things. If we start raising the taxes on the shareholders then hey what is going on here. Another concern is not knowing if its going to be maintained like it should years down the road.

25- If a trail were developed along one of your canals what implementation measures would you like to see?
- (Risk management, set backs from maintenance road, fencing, restrictions on time of use, etc.)
  - We wouldn’t want partying at all times of the night.

26- Have you ever been contacted by anyone concerning trail development on any of your canals? If so, who is it and where do negotiations stand?
- Hyde Park came to us when they were really pushing it about two years ago. But when we had that meeting that night that pretty well through it out. The majority of the landowners that was there...there was only one that was in favor out of over a hundred people. So, it was shot down.

27- Are you aware of any other trails built next to irrigation canals in Utah?
- Not that I am aware of.

28- What forms of recreational use permission are you aware of?
- Donation of easements, sale of recreational use easement, sales of fee title to the land under the canal easement?
  - No.
29- Given that there is no easy way to keep the public off the canals, how do you feel about the idea that opening the canal for recreational use might actually help manage existing uses, as opposed to complete closure, which could be expensive, difficult to enforce and difficult to defend regarding public relations?

- This is one thing that I felt would be good. This is one of the things that the city of Hyde Park brought out, the city council, this very thing. If someone was managing it there and it was open for use and managed properly it would be better than the way it is now. I'm my opinion it wouldn't be any worse if it was managed properly. And my feeling is that it would be of tremendous amount of value it would be for a lot of people that like to hike, walk whatever. Especially as the population of the valley grows. More and more pressure for those kinds of places.

30- What is your position regarding controlling use through Cooperative Recreational Use Agreements with public entities in order to get help managing the recreational use without interfering with the water works?

- In my opinion I would be all for it, another words if we had an agreement with any of the cities. We talked about a few uses we wouldn't like such as vehicles and horses with the city.

### CANAL OPERATION AND MAINTENANCE:

31- From what month to what month does the operation season last?
When are the canals generally filled and drained?
What typical O+M tasks are performed during this period?

- Type of equipment used? - Grade all. Skid Loaders, Track Ho (Hydro Unit), Road Graders, and Draglines.
- Officially its from May first until October first, but that is just the official months that we pay our water master or ditch rider. If we have a dry spring we will put water in as early as early April. Usually we are through irrigation by the end of September. There is a small stream of water that goes on until November, usually for stock watering. The labor was all done by hand at one point but now you can’t find the labor to do that so its all done by back ho’s. We contract out for that type of work. We also have a rotary mower that we go along with out as close to the edge of the water as we can.

32- Do your ditch riders perform O+M checks on a daily basis during operation seasons and if so at what times of the day?

- How many ditchriders do you have.
- We also have our ditch rider that is on duty twenty four hours a day right from May first until September thirtieth. He is on call. He won’t get along the whole canal everyday but he will check parts throughout each week and continue the same routine the next week. It used to be that you could ride all the way along it with a horse or bike but its getting harder and harder to do that with development. But what he will usually do is drive with his pick up as far as he can then he will park and walk the rest.

33- What typical complaints do they have concerning ease of O+M?

- What uses have they reported conflicts with during routine maintenance?
- We still have people taking water when they are not supposed to.

34- Briefly discuss the operation and maintenance tasks you feel would most likely be interfered with due to increased recreation.

- The biggest concern I would have is that we could still get along there to maintain what we have to do. That we sill have access to do what we need to do when we need to do it. As long as they didn't put trees in our way so we couldn't get through there. In terms of people being on the trail
though there's no problem because they can move in a hurry. Along with vandalism if there was a recreation trail along there.

35- Do you feel a developed trail would increase, decrease, or have no effect on your ability to maintain the canal? Why?
   - I think if it was done right I don't think it would interfere much in my opinion. I just think the benefits for the recreational use along there would be terrific for them substantially if it was done right. And that is just my opinion.

GENERAL:

36- Do you feel there are any resolvable solutions to any of your concerns? Explain.
   - I think they can all be worked out without much difficulty.

37- Could you summarize what it is you feel are the most important issues involving public recreational use of your canal R.O.W.?
   - The number one thing that we need to keep in mind is that there are a lot of farmers/stockholders that rely tremendously on this water for their livelihood to water and irrigate their fields with. So that is number one, that comes first. The recreational part of it is secondary but still I just feel it would be a good thing in my opinion.

38- Can these concerns be addressed with creative and proper design, construction and management of the trail.
   - I think it could from my viewpoint.

39- Do you have any final thoughts, feelings, or general concerns regarding recreational use of canals?
   - I think we covered everything.
APPENDIX C. UTAH'S RECREATIONAL USE STATUTE/AMENDMENTS
space, or the place and times of day
sunlight is prohibited or limited;
(c) any terms or conditions under which the solar easement is granted
or may be terminated;
(d) any provisions for compensation of the owner of the real property
benefiting from the solar easement in the event of interference with the
enjoyment of the solar easement, or compensation of the owner of the real
property subject to the solar easement, or compensation of the owner of the
real property subject to the solar easement for maintaining the solar
easement; and
(e) any other provisions necessary or desirable to execute the instru-
ment.

(3) A solar easement may be enforced by injunction or proceedings in
injunction or other civil action.

History: L. 1979, ch. 82, § 2.

CHAPTER 14
LIMITATION OF LANDOWNER LIABILITY
— PUBLIC RECREATION

Section 57-14-1. Legislative purpose.
The purpose of this act is to encourage public and private owners of land to
make land and water areas available to the public for recreational purposes by
limiting their liability toward persons entering thereon for those purposes.

History: L. 1979, ch. 123, § 1; 1987, ch. 162, § 43.

NOTES TO DECISIONS

Analysis
Applicability.
Defense to negligence.
Owners not allowing public use.

Applicability.
Immunity was not intended by the legisla-
ture to extend to a road on a county road
system, maintained by a county, which can be
used for recreational or nonrecreational pur-
poses. Jerz v. Salt Lake County, 822 P.2d 770
(Utah 1991).

Defense to negligence.
This chapter provides an "affirmative de-
fense" or an "avoidance" in a wrongful death
action alleging negligence; to preserve the de-
fense, it must be raised in the defendant's
answer. Golding v. Ashley Cent. Irrigation Co.,
793 P.2d 897 (Utah 1990).
Owners not allowing public use.
Landowners who have not made their property available to at least some members of the general public for recreational purposes may not invoke the protection of this chapter. Crawford v. Tilley, 780 P.2d 1248 (Utah 1989); Golding v. Ashley Cent. Irrigation Co., 793 P.2d 897 (Utah 1990).

COLLATERAL REFERENCES
Strict liability of landlord for injury or death of tenant or third person caused by defect in premises leased for residential use, 48 A.L.R.4th 638.
Parking facility proprietor's liability for criminal attack on patron, 49 A.L.R.4th 1257.
Tennis club's liability for tennis player's injuries, 52 A.L.R.4th 1253.
Liability to one struck by golf ball, 53 A.L.R.4th 282.
Tree or limb falls onto adjoining private property: personal injury and property damage liability, 54 A.L.R.4th 530.
Baseball player's right to recover for baseball-related personal injuries from nonplayer, 55 A.L.R.4th 664.

57-14-2. Definitions.
As used in this act:
(1) "Land" means any land within the territorial limits of the state of Utah and includes roads, water, water courses, private ways and buildings, structures, and machinery or equipment when attached to the realty.
(2) "Owner" includes the possessor of any interest in the land, whether public or private land, a tenant, a lessee, and an occupant or person in control of the premises.
(3) "Recreational purpose" includes, but is not limited to, any of the following or any combination thereof: hunting, fishing, swimming, skiing, snowshoeing, camping, picnicking, hiking, studying nature, waterskiing, engaging in water sports, using boats, using off-highway vehicles or recreational vehicles, and viewing or enjoying historical, archaeological, scenic, or scientific sites.
(4) "Charge" means the admission price or fee asked in return for permission to enter or go upon the land.
(5) "Person" includes any person, regardless of age, maturity, or experience, who enters upon or uses land for recreational purposes.

History: L. 1979, ch. 129, § 2; 1987, ch. 162, § 44.

Meaning of "this act." — See note under same catchline following § 57-14-1.

NOTES TO DECISIONS

57-14-3. Owner owes no duty of care or to give warning — Exceptions.
Except as specifically provided in Subsections (1) and (2) of Section 57-14-6, an owner of land owes no duty of care to keep the premises safe for entry or use by any person using the premises for any recreational purpose, or to give any
warning of a dangerous condition, use, structure, or activity on those premises to those persons.

History: L. 1979, ch. 129, § 3.

NOTES TO DECISIONS

ANALYSIS

Federal government.
Cited.

Federal government.
This section applies to immunize the federal government from liability for injuries sustained by a plaintiff engaged in recreational use of federal property unless the plaintiff can come within one of the exceptions provided in § 57-14-6. Ewell ex rel. Ewell v. United States, 579 F. Supp. 1291 (D. Utah 1984). When sued under the Federal Torts Claim Act (FTCA), immunities created by state law that are available to private persons will immunize the federal government, because it is liable only so far as a private individual would be under like circumstances. Thus, whether or not this section is applicable to land publicly controlled, the immunity afforded by it to private landowners was applicable to the United States when it was sued under the FTCA arising out of a motorcycle accident on federal land. Ewell v. United States, 776 F.2d 246 (10th Cir. 1985).


57-14-4. Owner’s permitting another to use land without charge — Effect.

Except as specifically provided in Subsection (1) of Section 57-14-6, an owner of land who either directly or indirectly invites or permits without charge any person to use the land for any recreational purpose does not thereby:

(1) make any representation or extend any assurance that the premises are safe for any purpose;
(2) confer upon the person the legal status of an invitee or licensee to whom a duty of care is owed;
(3) assume responsibility for or incur liability for any injury to persons or property caused by an act or omission of the person or any other person who enters upon the land; or
(4) owe any duty to curtail his use of his land during its use for recreational purposes.


NOTES TO DECISIONS


57-14-5. Land leased to state or political subdivision for recreational purposes.

Unless otherwise agreed in writing, the provisions of Sections 57-14-3 and 57-14-4 of this act are applicable to the duties and liability of an owner of land leased to the state or any subdivision thereof for recreational purposes.
57-14-6. Liability not limited where willful or malicious conduct involved or admission fee charged.

(1) Nothing in this act shall limit any liability which otherwise exists for:
   (a) willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity;
   (b) deliberate, willful, or malicious injury to persons or property; or
   (c) an injury suffered where the owner of land charges a person to enter or go on the land or use the land for any recreational purpose, except that where land is leased to the state or a subdivision of the state, any consideration received by the owner for the lease is not a charge within the meaning of this section.

(2) Any person who hunts upon a posted hunting unit, as authorized by Title 23, Chapter 23, is not considered to have paid a fee within the meaning of this section.


NOTES TO DECISIONS

Analysis

Willful or malicious acts.
—Federal government.
Cited.

Willful or malicious acts.

The term "willful or malicious" in this section incorporates the elements of knowledge of the dangerous condition and of the fact that serious injury is a probable result, and inaction in the face of such knowledge. Golding v. Ashley Cent. Irrigation Co., 793 P.2d 897 (Utah 1990).

Summary judgment was proper because plaintiff failed to present evidence sufficient to create a genuine issue of material fact as to defendant corporation's knowledge of preexisting dangerous conditions on property it had leased to the state so as to make its behavior willful or malicious under this section. Loosli v. Kennecott Copper Corp., 849 P.2d 624 (Utah Ct. App. 1993).

—Federal government.

There was no evidence that would support an inference of willful or malicious acts or omissions on the part of the United States, arising out of a motorcycle accident occurring at a gravel pit on federal land, no federal employee being aware of the operation of the pit. Ewell v. United States, 776 F.2d 246 (10th Cir. 1985).


57-14-7. Person using land of another not relieved from duty to exercise care.

Nothing in this act shall be construed to relieve any person using the land of another for recreational purposes from any obligation which he may have in the absence of this act to exercise care in his use of the land and in his activities thereon, or from the legal consequences of failure to employ such care.


Meaning of "this act." — See note under same catchline following § 57-14-1.
H.B. 11 Enrolled

LIMITATION OF LANDOWNER LIABILITY AMENDMENTS

1997 GENERAL SESSION

STATE OF UTAH

Sponsor: Daniel H. Tuttle

AN ACT RELATING TO LANDOWNER LIABILITY; AMENDING PROVISIONS ON DEFINITIONS AND LIMITED LIABILITY; AND MAKING TECHNICAL CORRECTIONS.

This act affects sections of Utah Code Annotated 1953 as follows:

AMENDS:

57-14-1, as last amended by Chapter 162, Laws of Utah 1987
57-14-2, as last amended by Chapter 162, Laws of Utah 1987
57-14-3, as enacted by Chapter 129, Laws of Utah 1979
57-14-4, as enacted by Chapter 129, Laws of Utah 1979
57-14-5, as enacted by Chapter 129, Laws of Utah 1979
57-14-6, as last amended by Chapter 158, Laws of Utah 1988
57-14-7, as enacted by Chapter 129, Laws of Utah 1979

Be it enacted by the Legislature of the state of Utah:

Section 1. Section 57-14-1 is amended to read:

57-14-1. Legislative purpose.

The purpose of this act is to encourage public and private owners of land to make land and water areas available to the public for recreational purposes by limiting [their] the owner's liability toward persons entering [thereon] the land and water areas for those purposes.

Section 2. Section 57-14-2 is amended to read:

57-14-2. Definitions.

As used in this chapter:

(1) "Land" means any land within the territorial limits of the state of Utah and includes roads, water, water courses, private ways and buildings, structures, and machinery or equipment when attached to the realty.

(2) "Owner" includes the possessor of any interest in the land, whether public or private

land, a tenant, a lessor, a lessee, and an occupant or person in control of the premises.

(3) "Recreational purpose" includes, but is not limited to, any of the following or any combination thereof: hunting, fishing, swimming, skiing, snowshoeing, camping, picnicking, hiking, studying nature, waterskiing, engaging in water sports, using boats, mountain biking, using off-highway vehicles or recreational vehicles, and viewing or enjoying historical, archaeological, scenic, or scientific sites.

(4) "Charge" means the admission price or fee asked in return for permission to enter or go upon the land.

(5) "Person" includes any person, regardless of age, maturity, or experience, who enters upon or uses land for recreational purposes.

Section 3. Section 57-14-3 is amended to read:

57-14-3. Owner owes no duty of care or duty to give warning – Exceptions.

Except as specifically provided in Subsections 57-14-6(1) and (2) of Section 57-14-6, an
owner of land owes no duty of care to keep the premises safe for entry or use by any person entering or using the premises for any recreational purpose(s) or to give any warning of a dangerous condition, use, structure, or activity on those premises to those persons that person.

Section 4. Section 57-14-4 is amended to read:

57-14-4. Owner's permitting another to use land without charge -- Effect. Except as specifically provided in Subsection 57-14-6(1) of Section 57-14-6, an owner of land who either directly or indirectly invites or permits without charge or for a nominal fee of not more than $1 per year any person to use the land for any recreational purpose does not thereby:
(1) make any representation or extend any assurance that the premises are safe for any purpose;
(2) confer upon the person the legal status of an invitee or licensee to whom a duty of care is owed;
(3) assume responsibility for or incur liability for any injury to persons or property caused by an act or omission of the person or any other person who enters upon the land; or
(4) owe any duty to curtail [his] the owner's use of his land during its use for recreational

purposes.

Section 5. Section 57-14-5 is amended to read:

57-14-5. Land leased to state or political subdivision for recreational purposes. Unless otherwise agreed in writing, [the provisions of Sections 57-14-3 and 57-14-4 of this act] are applicable to the duties and liability of an owner of land leased to the state or any subdivision thereof of the state for recreational purposes.

Section 6. Section 57-14-6 is amended to read:

57-14-6. Liability not limited where willful or malicious conduct involved.

(1) Nothing in this act shall limit any liability which otherwise exists for:
(a) willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity;
(b) deliberate, willful, or malicious injury to persons or property; or
(c) an injury suffered where the owner of land charges a person to enter or go on the land or use the land for any recreational purpose, except [that where if the land is leased to the state or a subdivision of the state, any consideration received by the owner for the lease is not a charge within the meaning of this section.]
(2) Any person who hunts upon a posted hunting unit, as authorized by Title 23, Chapter 23, is not considered to have paid a fee within the meaning of this section.

Section 7. Section 57-14-7 is amended to read:

57-14-7. Person using land of another not relieved from duty to exercise care. [Nothing in this act shall] This chapter may not be construed to relieve any person, using the land of another for recreational purposes, from any obligation which [he] the person may have in the absence of this act to exercise care in [his] use of the land and in [his] activities thereon, or from the legal consequences of failure to employ [such] care.

- 3 -
APPENDIX D. EXAMPLE OF RECREATIONAL USE AGREEMENT
MANAGEMENT AGREEMENT AMONG THE DAVIS AND WEBER COUNTIES CANAL COMPANY, CLEARFIELD CITY CORPORATION, AND LAYTON CITY CORPORATION FOR THE DEVELOPMENT, ADMINISTRATION, OPERATION AND MAINTENANCE OF RECREATION ON THE DAVIS AND WEBER COUNTIES CANAL COMPANY CANAL

THIS AGREEMENT, made and granted this 11th day of May, 1999, the Davis and Weber Counties Canal Company, a Utah non-profit corporation, acting by and through its Board of Directors, hereinafter styled Davis and Weber Counties Canal Company, and the Clearfield City Corporation and the Layton City Corporation acting through the Mayor or his duly authorized representatives, hereinafter referred to as “Parks”.

WITNESSETH THAT:

The parties hereto agree as follows:

DEFINITIONS

1. When used herein unless otherwise distinctly expressed or manifestly incompatible with the intent hereof, the terms

(A) “Licensed Area” means those portions of the right of way of the Davis and Weber Counties Canal System in Davis County, Utah, between milepost  and milepost  as shown on the drawings attached hereto and incorporated herein, each of which is marked Exhibit A, Drawing No. 1, Clearfield City Parks and Layton City Parks Licensed Area, together with any additions thereto or deletions therefrom as the parties may from time to time agree upon in writing.

(B) “Recreational Trail” means a reasonably safe public trail suitable for pedestrian and non-motorized vehicle use, such as cyclists, and rollerbladers, and the staging areas, rest areas, and landscaped areas and other appurtenances thereto.

GRANT OF RIGHTS

2. The Davis and Weber Counties Canal Company hereby grants to Parks, on the terms and conditions herein set forth, an exclusive right to develop, administer, operate and maintain a continuous Recreational Trail within the Licensed Area.

TERM AND EXTENSIONS OF TERM
3. The term of this agreement shall commence on the date first above written and shall extend for 25 years thereafter. This agreement may be further extended for successive periods of time on such terms and conditions as shall be agreed upon in writing by the parties not later than one year prior to its expiration.

**RECREATION USE SUBORDINATE TO PRIMARY USE RIGHT-OF-WAY--SUSPENSION**

4. The parties acknowledge that the primary use of the right-of-way of the Davis and Weber Counties Canal Company is for the purposes of transporting and distributing a public water supply. The use of the licensed area pursuant to this agreement is secondary and subordinate to said primary use. The Davis and Weber Counties Canal Company shall have the right, without liability to Parks, to temporarily suspend or to limit the use of the licensed area by Parks and the general public during such periods of time the Davis and Weber Counties Canal Company determines that such suspension or limitation is necessary in the interest of public safety, national security, or the operation or maintenance of the Davis and Weber Canal System. Provided, however that the Davis and Weber Counties Canal Company shall give Parks notice prior to such suspension or limitation or if an emergency arises, to give notice as soon as possible to Parks. Parks shall not at any time use, or permit to use, the licensed area in any manner that will materially interfere with or impair said primary use or the operation and maintenance of the Davis and Weber Canal System by the Davis & Weber Counties Canal Company.

**OBJECTIVE OF THE PARTIES--COOPERATION--CONDITION PRECEDENT**

5. It is the objective of each of the parties hereto to enlarge the use of the right-of-way of the Davis and Weber Counties Canal Company System in the public interest by creating at the earliest date practical a continuous recreation trail within and connected to the licensed area. The parties will cooperate with each other to achieve that objective. The parties recognize that Parks' ability to establish said recreational trail is dependent upon the availability to Parks of sufficient funds. Upon receipt of said financial commitment Parks will immediately give written notice thereof to the Davis and Weber Counties Canal Company.

**INSTALLATION OF ADDITIONAL SAFETY FACILITIES--PAYMENT THEREFOR**

6. (A) The parks area shall not be opened for public use until such additional safety facilities as the parties hereto determine, in writing, to be reasonably necessary for the safety of persons using Parks area have been installed at Parks’ expense and accepted by the Davis and Weber Counties Canal Company and written notice
thereof has been given by the Davis and Weber Counties Canal Company to Parks.

(B) Promptly upon receipt of notice from Parks that the condition precedent referred to in Section 5 hereof has been met, the Parks will prepare preliminary plans, specifications and estimates of the total costs of all said additional safety facilities and will transmit copies thereof to the Davis and Weber Counties Canal Company for their review and comment.

(C) Upon receipt of the Davis and Weber Counties Canal Company’s written preliminary approval, Parks will prepare final plans, specifications and contract documents for said additional safety facilities and, upon receiving the Davis and Weber Counties Canal Company’s written final approval, in writing, will cause the same to be constructed and installed. Said final approval may not be withdrawn unless the agreement is terminated as provided herein in paragraph 14.

(D) If, during the review and approval phases, the Davis and Weber Counties Canal Company desires additional facilities to be constructed and those additional facilities are for the sole benefit of the Davis and Weber Counties Canal Company, do not enhance the objectives of the Parks and, in Parks discretion, can be reasonably added to the proposed Parks construction, the Parks will facilitate that construction with the understanding that the Davis and Weber Counties Canal Company will reimburse to the Parks all costs associated with the added construction of the additional facilities and pay its proportionate share of the costs pursuant to the construction contract related to the added construction.

(E) The additional facilities shall become part of the Davis and Weber Counties Canal Company upon the acceptance thereof by the Davis and Weber Counties Canal Company.

Construction and installation of facilities pursuant to the approved specifications, shall constitute acceptance if no written objection is received within 30 days of completion of said installation. This shall be limited to fences, barricades, etc. Other facilities, such as picnic tables, shelters, benches, signs, etc. may be relocated or removed at Parks discretion.

(F) Parks shall have the right to perform any or all of the above work.

MAINTENANCE OF SAFETY FACILITIES

7. (A) From and after the date that the public is permitted access to Licensed Area and continuing
throughout the term of this agreement and any extensions or renewals hereof, Parks will at its expense maintain in good order and condition, and will promptly repair and replace as necessary, all safety facilities installed by Parks pursuant to section 6(A) hereof, or adjacent to Parks areas.

(B) The Davis and Weber Counties Canal Company will reimburse Parks for its costs in repairing or replacing any safety facility damaged or lost by the act of negligence of the Davis and Weber Counties Canal Company or its employees or contractors.

(E) The Davis and Weber Counties Canal Company will notify Parks of any needed repairs it may discover.

OPERATION AND MAINTENANCE OF RECREATIONAL TRAIL

8. (A) Throughout the term of this agreement and any renewal or extension hereof, Parks will develop, administer, operate and maintain a Recreational Trail in the Licensed Area without cost to the Davis and Weber Counties Canal Company. Said operation and maintenance shall apply only to the Recreational Trail and not to the Davis and Weber Counties Canal Company’s canal and will include, without limitation, the following:

(1) removal and disposal of debris and rubbish

(2) control and abatement of weeds, vectors and fire hazards

(3) prevention of erosion

(4) posting and maintenance of signs warning against trespass on portions of the Licensed Area where public access is prohibited.

(B) No grading, excavating, paving, planting of trees or erection of substantial structures shall be done in the Licensed Area except in accordance with plans and specifications previously approved in writing by the Davis and Weber Counties Canal Company.

(C) Subject to the express limitations, restrictions and conditions herein set forth, small removable structures and recreational equipment may be installed and moved within, and may be removed from, the Licensed Area as Parks may from time to time determine, provided that no damage is thereby caused to property of the Davis and Weber Counties Canal Company and provided further that no fence or gate shall be removed without the prior approval of the Davis and Weber Counties Canal Company.
MAINTENANCE OF SERVICE ROADS

9. The Davis and Weber Counties Canal Company will maintain and repair as necessary all service roads in the Licensed Area and will keep records of its costs thereby incurred, which records shall be available for inspection and copying by Parks. The Davis and Weber Counties Canal Company and Parks will bear the cost of repairs of damage to the service roads (as distinguished from ordinary wear and tear) resulting from activities of each party respectively. For example, if Davis and Weber Counties Canal Company installs, replaces or repairs its facilities, and in doing so cuts the roadway, then the Davis and Weber Counties Canal Company would solely be responsible for those repairs. Similarly, if Parks performs work that requires asphalt removal, Parks would solely be responsible for the repairs thereof. After assessing the current condition of the roadways, the maintenance history thereof, and after establishing an amortization schedule for the roads, the initial maintenance and repair costs due to normal wear of the service roads shall be borne by the parties proportionately. Thereafter, maintenance and repair costs due to normal wear of the service roads will be borne by Parks and the Davis and Weber Counties Canal Company equitably. The Davis and Weber Counties Canal Company and Parks from time to time will determine the respective portions of the maintenance and repair costs fairly allocable respectively to the use of the service roads by the Davis and Weber Counties Canal Company on the one hand and by Parks and the public on the other hand and they will in good faith negotiate and agree upon the portion of said costs to be borne by each party as may be fair and equitable. If any portion of a roadway or trail is used exclusively by one party, said party shall bear all maintenance and repair costs thereof.

RESERVATIONS AND LIMITATIONS

10. (A) This agreement and the use of Licensed Area by Parks and the public is subject to, and Parks shall not interfere with the following:

(1) Any and all easements, encroachment permits, rights prescriptive or otherwise, privileges or interests in the right-of-way of the Davis and Weber Counties Canal System which have been or may hereafter be granted or issued by the Davis and Weber Counties Canal Company for canal crossing, for water, sewer, drainage, gas, electric and other utility facilities. Reasonable notice of the granting of such easements shall be
given to Parks by the Davis and Weber Counties Canal Company.

(2) The right of properly authorized officers, assignees, agents, employees, licensees, permittees, and lessees of the Davis and Weber Counties Canal Company to enter upon the Licensed Area without condition for the purpose of enforcing, protecting, and exercising the rights reserved to the Davis and Weber Counties Canal Company and protecting the rights vested in those not party to this agreement. However, when such person or entity or easement holder is to perform work within the Licensed Area, the Davis and Weber Counties Canal Company shall provide immediate notice thereof to Parks.

(B) The use of the Licensed Area by Parks and the public is subject to each of the following prohibitions:

(1) The waters of the Canal shall not be polluted or contaminated, nor shall any foreign matter be placed therein.

(2) No herbicide shall be used within the Licensed Area the use of which is prohibited by law or contrary to the recommendations of the Secretary of the Interior, The Utah Department of Agriculture, or the Health Officer of the County of Davis.

(C) The Davis and Weber Counties Canal Company will have cleanout grates installed wherever the canal goes underground.

DAVIS AND WEBER COUNTIES CANAL COMPANY TO BE HELD HARMLESS: LIABILITY INSURANCE

11. (A) To the extent it is legally able to do so each party shall indemnify and save harmless the other from any and all liability for injuries to or death of persons or damage to property caused or resulting in any manner from the liable party(s)' exercise of the rights and privileges granted hereunder, or from the use of Licensed Area or from such party's performance of its obligations hereunder.

(B) Throughout the term of this agreement, Parks shall maintain in effect policies of comprehensive public liability insurance providing limits of not less than (N/A) each person, $2,000,000 each occurrence for bodily injury and $2,000,000 for property damage. Said policies shall include Davis and Weber
Counties Canal Company as additional insureds, but only as respects the possession, maintenance and use of the Licensed Area. Said policies shall provide that they will not be canceled or reduced in coverage without 30 days prior written notice mailed to Davis and Weber Counties Canal Company at 138 W. 1300 N., Sunset, UT 84015. Parks will furnish Davis and Weber Counties Canal Company with certificates evidencing said policies and all endorsements or changes thereof. Layton City is a member of a risk management association (URMMA) and shall not be required to furnish the liability insurance above, but will provide documentation to the Davis and Weber Counties Canal Company regarding the City’s self insurance program in compliance with the limits of coverage described herein above.

(C) The Davis and Weber Counties Canal Company shall be liable for any damage caused to Parks, its employees, agents or contractors, or to the property of any of them within the Licensed Area by reason of any act or failure to act on the part of the Davis and Weber Counties Canal Company in the operation and maintenance of the Davis and Weber Counties Canal System, provided, however, that nothing herein shall be deemed to be a waiver of any rights under the Utah or Federal tort claims acts.

(D) If it is determined by the parties that the activities of one of the parties hereto have damaged facilities, structures or other property within the Licensed Area of another of the parties hereto as a result of or incident to the rights herein given, notice shall be given to the liable party to repair the damage. The liable party shall have not to exceed ninety (90) days to correct the damage to the satisfaction of the damaged party. If the repairs cannot be completed within the 90 day period, the parties shall, in good faith, negotiate a time period within which the repairs can reasonably be completed. If the liable party fails to do so, the party who has suffered the damage, at their option, may correct the damage and the liable party agrees to reimburse the party for all costs and expenses incurred in connection therewith.

REVIEW OF ADMINISTRATION

12. The Davis and Weber Counties Canal Company and Parks, upon the request of any of them, will consult with one another and review the development, administration, maintenance and operation of the Recreational Trail under this agreement.

BOOKS, RECORDS, AND REPORTS
Weber Counties Canal Company for not less than 4 years inclusive of the term following termination of the agreement or any extension thereof.

(B) Each year, not later than January 20, Parks shall furnish the Davis and Weber Counties Canal Company and all other parties to this Agreement, an estimation of visitation and use by the public and expenditures of funds for capital improvements for the previous calendar year.

TERMINATION

14. (A) In the event a party, directly or indirectly, defaults in the performance of any of the undertakings of herein or violates any provision, term or condition of this agreement, the other party shall give written notice to the defaulting party of the default or violation. Unless defaulting party, within ninety (90) days after receipt of said notice, corrects, or takes positive action satisfactory to the other party to correct such default or violation, this agreement may be terminated. If it is terminated, the defaulting party shall be so notified in writing.

(B) This agreement may be terminated by Parks at any time prior to Park’s completion of the installation of the additional safety facilities under Paragraph 6(B) above, upon written notice, or thereafter by giving written notice to the Davis and Weber Counties Canal Company at least one year prior to the effective date of termination. Termination hereof, other than for cause, requires a written notice at least one year prior to the effective date of termination.

(C) This agreement may be terminated at any time by written accord among all the parties hereto.

MISCELLANEOUS PROVISIONS

(A) The attached statement marked Exhibit B, entitled Non-discrimination in Employment, wherein Parks is referred to as “contractor”, is by reference incorporated herein and made a part herein.

(B) All work done by Parks within the Licensed Area shall be subject to the Environmental Requirements set forth in Exhibit C attached hereto and incorporated herein.

(C) The rights and obligations of each of the parties hereto shall inure to the benefit of and be binding upon its respective successors or assigns; however, this agreement may not be assigned in whole or in part by any party without the consent of the remaining party(s).

(E) The waiver of a breach of any of the provisions of this agreement shall not be deemed to be a
waiver of any other provision hereunder, or a subsequent breach of the same provision.

(F) Each party warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee.

(G) No member of or delegate to Congress, or resident commissioner, or officer of the Parks or Davis and Weber Counties Canal Company, shall be admitted to any share or part of this agreement or to any benefit other than as a member or the general public that may arise herefrom.

(H) The following statement, Nondiscrimination in Public Accommodations, applies to this agreement. Parks agrees that it and its employees will not be discriminatory because of race, color, religion, sex, or national origin, against any person by refusing to furnish such person any accommodation, facility, service, or privilege offered to or enjoyed by the general public. Nor shall Parks or its employees publicize the accommodations, facilities, services, or privileges in any manner that would directly or inferentially reflect upon or question the acceptability of the patronage of any person because of race, color, religion, sex, or national origin. Parks agrees to include and require compliance with a provision similar to the foregoing provision in any contract made with respect to the operations to be carried out hereunder.

(I) Nothing herein shall impose liability on either party for the conduct of third parties.

(J) The purpose of this agreement is as stated and it is not for the benefit of any third party, and no rights or interests are created for any third party.
IN WITNESS WHEREOF, the parties have executed this agreement on the date first above written.

Davis and Weber Counties Canal Company

By

Clearfield City Corporation

By

Mayor

Layton City Corporation

By

Mayor

City Recorder

City Recorder
APPENDIX E. EXAMPLES OF SIGNAGE
GENERAL TRAIL SAFETY RULES

- Trail open daily 6:00 A.M. to 11:00 P.M.
- The maximum trail speed is 15 mph.
- Alcoholic beverages are prohibited.
- Pets must be on a leash no more than 6 feet long.
- Littering is prohibited.
- Swimming, tubing, rafting, etc. is strictly prohibited.
- Weapons, archery equipment, sling shots or similar items are prohibited.

TO REPORT ACCIDENTS OR SUSPICIOUS ACTIVITIES CALL 911 AND GIVE LOCATION.

Trail Provider through the Grand Valley Parks and Recreation District, the City of Grand Junction, and the City of Grand Junction.

For more information call South Suburban Park and Recreation District at 719-245-