

STEAMBOAT SPRINGS, COLORADO

2023



YAMPA RIVER
MANAGEMENT PLAN



ACKNOWLEDGEMENTS

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CHAPTER I THE VISION





I. Plan Purpose

The Yampa River is a vital element of the Steamboat Springs community. Its presence in the heart of the City is one of the prominent characteristics that distinguishes Steamboat from other mountain resort communities, and the river greatly contributes to the community’s year-round appeal. Few other communities enjoy such proximity to a major river with a high quality trout fishery, broad range of recreational opportunities and high level of scenic quality.

Increasing recreational demands upon the Yampa River over the last decade have created the need to develop a management framework for the river to protect the health of this priceless resource. The Yampa River Management Plan (YRMP) is intended to help ensure protection of the biological integrity of the river and manage recreational uses at sustainable levels. As shown in Figure 1, the project study area includes a 0.25-mile wide corridor along the 6.5-mile stretch of the Yampa River within the Steamboat Springs vicinity. The YRMP was developed in conjunction with the residents of Steamboat Springs, a Citizens Advisory Committee (CAC), City staff and consultants. Near the beginning of an 8-month planning process, a single vision statement emerged to guide the management of the river. . .

The Yampa River will always be a flourishing, vibrant, bio-diverse natural river corridor that is enjoyed, respected, protected, and supported by its community with commitment, education, and sensible regulation.

The following plan provides a framework to implement this vision. The plan provides direction for management of the Yampa River, including the types, amount and location of recreation activities. The plan also focuses on the preservation and enhancement of the natural environment.

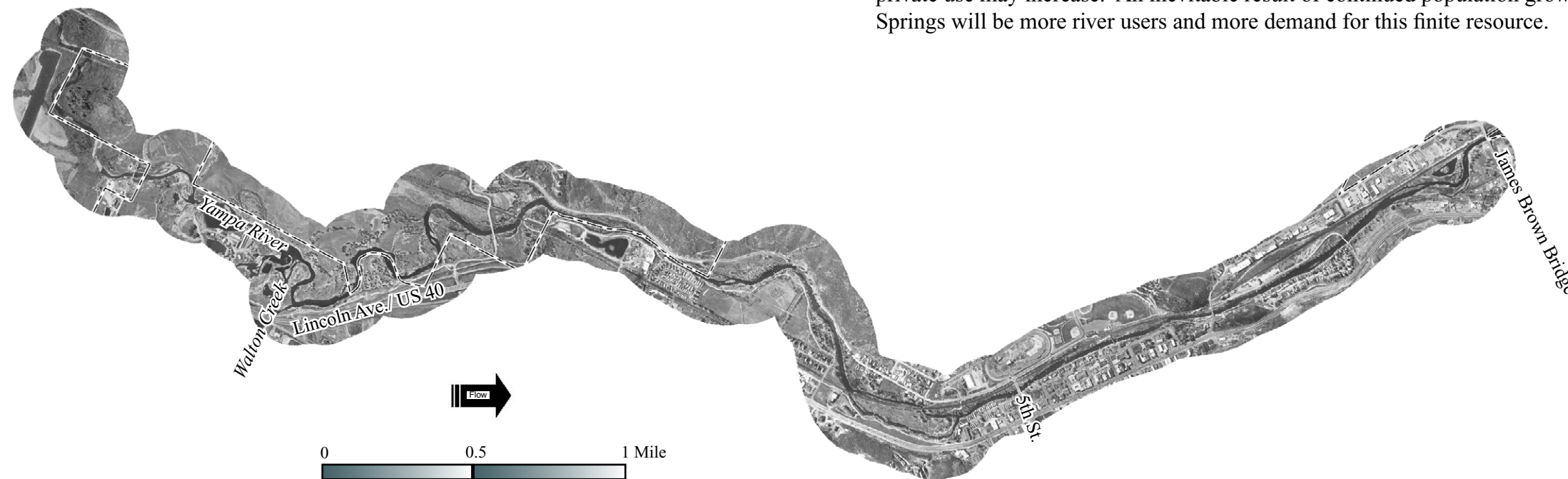


Figure 1. Study Area

II. Issues

In order to focus the planning effort, the CAC, key stakeholders and the public were asked to describe the key issues related to management of the Yampa River within the study area. A summary of these issues is provided below. The plan will address these issues in subsequent chapters.

Recreation Use



Recreation demand on the river periodically exceeds the river’s capacity to accommodate the demand. Even with regulations in place, user conflicts and other problems related to recreation management continue to increase. For example, certain types of uses continue to increase such as more private tubers on the river. Also, new water features concentrate kayakers at a few locations.



Canoers below Snake Island Bridge

The quality of the recreation experience for all users of the river is affected by a number of factors. To allow ever-increasing use levels will eventually result in a diminishment of the quality of the experience and users who are less satisfied with their experience. Recreational use along the Yampa River is an important component of the local economy. Commercial tubing, kayaking, rafting and fishing attract a large number of visitors to the area. An important component in any management decision relating to the river is economic impact. For example, it’s important for commercial tubing operations to provide an experience that results in high visitor satisfaction while also providing sufficient economical return. If commercial operations are not viable, private use may increase. An inevitable result of continued population growth in and around Steamboat Springs will be more river users and more demand for this finite resource.



As discussed elsewhere in this chapter, land use suitability, natural resource sensitivity and recreational amenities must be considered in determining appropriate locations for access points, facility development and other actions that influence the level of recreational use.

Land Use 

The YRMP should be compatible with other City plans and land use goals, and should address new development occurring adjacent to the river. Achieving this compatibility is complicated by the variety of land uses located along the river. In many places, existing land use is compatible with current recreational uses. In other areas, such as residential areas, conflicts from noise and trespassing occur during peak use periods. Land use conflicts also result from heavy use around highly popular areas, such as some of the “play holes” where crowding and parking problems have emerged.



View toward Tree Haus Subdivision

Other issues have resulted from the continuation of development along the river. In some areas, adjacent land uses have resulted in the channelization of the Yampa River and a reduction of the adjacent floodplain, wetland and riparian areas. Though federal regulations prohibit the destruction of wetlands, current City regulations do not limit development in riparian and floodplain areas, provided the building is elevated above the base flood level and the required 50-foot setback is maintained.

Aquatic Habitat 

In much of the study area, the natural condition of the Yampa River has been dramatically altered from its natural state. Channelization, riprap, diversions, dams and other man-made features have altered the hydrological regime of the river and its floodplain, affecting both aquatic and terrestrial habitat.



City-owned open space on far bank

As development in the study area continues, threats to water quality increase. Non-point sources, such as stormwater, presently enter directly into the river. Floodplain areas that act as a filtering system for the river continue to be lost. In addition, a number of tributary drainages converge within the study area. Upstream uses along these drainages influence water quality in the Yampa. Finally, natural and accelerated erosion continues along the banks of the Yampa, adding sediment and further reducing water quality.

Terrestrial Habitat 

The protection and enhancement of the natural environment along the river is a primary planning objective. The impact of increasing recreation levels on the river’s natural environment is slowly becoming apparent. Informal trails, invasive weeds, trash, dog feces and human activity, including residential and recreational development, affect the habitat of the river. The level and extent of human activity may also affect sensitive wildlife habitats that support a wide variety of species, including big game and small game species, as well as numerous non-game amphibian, mammal and bird species, including critical raptor nesting and roosting sites.



High water in spring time above City

III. Planning Objectives

To guide development of the plan, the following planning objectives were defined:

1. Provide an enjoyable and safe experience for all river users

- Establish appropriate levels and distribution of public and commercial use.
- Improve access points along the river.
- Educate river users about appropriate use and safety.
- Provide opportunities for a variety of recreational experiences.

2. Conserve and enhance the natural habitat along the river

- Improve water quality in the river.
- Conserve and restore important aquatic and terrestrial habitats.
- Manage fish populations and control undesirable fish species in the river as per Colorado Division of Wildlife (CDOW) guidance.
- Preserve, promote and improve the diversity of native vegetation, and encourage the re-establishment of native plant communities through the control of exotic plant species, particularly invasive weeds.
- Preserve and enhance the water quality and quantity of tributaries and other flows into the Yampa River.
- Promote the education of public and users about the values of conservation and enhancement of natural habitat along the river.

3. Establish a monitoring program to continuously evaluate the health of the river corridor

- Establish indicators and standards to monitor the condition and quality of terrestrial and aquatic habitats.



- Maintain water quality testing of the river on a regular basis.
 - Monitor levels and types of recreational use to protect against overutilization.
 - Encourage public stewardship through inclusion of volunteers, students and non-profits in the monitoring program.
4. **Ensure that all development and improvements are constructed in an environmentally sensitive manner, consistent with a long-term plan for the river**
- Review and revise existing guidelines for trail design, construction, and management as necessary.
 - Prepare guidelines for construction of habitat and recreational improvements to the river.
 - Support implementation of land use guidelines for appropriate recreational and residential/commercial development along the river.
5. **Establish sustainable, long-term management strategies for the river**
- Establish regulations for management of the river corridor.
 - Establish zones (reaches) for management of the river.
 - Support economic activities that are compatible with protection of environmental resources.
 - Promote public involvement and stewardship in long-term management strategies for the river.

IV. Planning Process

The foundation, vision and planning objectives included in this plan were defined by working cooperatively with the Yampa River CAC, the City of Steamboat Springs, stakeholders and local citizens through an extensive public participation process. Efforts to involve the Steamboat Springs community included a recreational use survey completed in 2001, a website and two public meetings.

The plan is divided into four Chapters that include:

- **Chapter I. The Vision**, describes the plan's vision, planning objectives and issues.
- **Chapter II. The Planning Context**, describes the overall study area and key conditions that influence development of the plan.
- **Chapter III. The Framework**, describes land use, recreation, terrestrial and aquatic habitat conditions for each of the five river management areas (RMA's) defined by the CAC. Opportunities, constraints and action items for each RMA are also addressed.
- **Chapter IV. Management**, addresses the future management of the river, including recommendations for the type, amount and location of recreation use on the river and protection of the natural environment.



YRMP Public Open House, July 2003





CHAPTER I | PLANNING CONTEXT



Introduction

The following chapter provides information on baseline conditions for the entire study area. Information contained in this chapter is divided into four sections; recreation, land use, terrestrial habitat and aquatic habitat. Additional information can be found in a prior study (Yampa River Studies, 2001), including a description and graphical representation of river geomorphology, analysis of streambed material and water quality. This plan also builds upon a number of other planning studies and reports. These are described below, starting with the most recent.



2001 Summary Report, Yampa River Studies

This report presents the results of extensive field studies of the Yampa and its main tributaries within the City limits, completed during the spring, summer and fall of 2001 by Aquatic and Wetland Company. Significant conclusions of the study include:

- No major health-related concerns associated with the Yampa or its tributaries;
- No obvious detrimental impacts related to water quality were observed as a result of any form of recreational use at the use levels observed in 2001;
- Riverbank degradation and resulting siltation were observed as a significant issue in certain areas; and,
- The majority of some 1,300 recreational users surveyed rated their experience as satisfactory or very satisfactory.

Steamboat Springs Area Community Plan, 1995

The 1995 plan describes several relevant statements regarding the management of the river, including:

- The Yampa River (and its associated waterways) is one of the main features that define the scenic and natural environment within the valley. By minimizing the environmental impacts to riparian areas and limiting development within the floodplain or in wetlands, these resources can be preserved.
- Commercial development along the river corridor should maintain the existing scale and character of the area.

- The Yampa River and its banks, as well as the area adjacent to the river, provide a unique scenic and natural resource within the community. Corridor planning along the river should be encouraged to enhance the Yampa River as a linear park and expand on the recommendations found in the Yampa River Corridor Plan.

An update of the 1995 plan is currently under way. The community plan update proposes a number of measures to provide greater protection of the river, including limiting development within the 100-year floodplain, increasing the width of the building setback from the river, and reducing non-point source pollution.

Yampa River System Legacy Project, 1995

In 1996, a diverse group of government agencies, private organizations and private individuals came together to propose the Yampa River System Legacy Project, a project aimed at conserving ranchland along the river and better coordinating recreational use of the river. The group formed in response to a new funding opportunity created by Great Outdoors Colorado Trust Fund (GOCO). In 1995, GOCO created a program to fund larger scale conservation projects, projects that would form a “legacy” for the communities that undertook them. The Yampa River System Legacy Project was successful and the group was awarded an initial grant of \$6 million. These funds, as well as funds from subsequent grant cycles and other sources such as the Colorado Division of Wildlife’s (CDOW) Fishing is Fun Program, have been used to protect a number of areas along the Yampa River corridor as well as provide fishing access in the Steamboat Springs vicinity.

South Steamboat Area Land Use Plan, 1991

In 1991, a land use plan was developed for the south Steamboat area. Key statements about the river included:

- To preserve, protect and improve riparian areas along the Yampa River and its tributaries.
- To preserve, promote and improve the diversity of vegetation, and to encourage the re-establishment of natural plant communities along the Yampa River and its tributaries.
- To maintain natural stream flows in the Yampa River and its tributaries, identify minimum stream flows and establish standards that promote the intent of this and other goals.
- To preserve, protect and improve riparian areas and aquatic habitat along the Yampa River and its tributaries.



Yampa River Corridor Master Plan, 1984

This plan was developed to help enhance both the recreational and commercial values associated with the Yampa River. The plan focused on the river's edge from 5th to 12th Street. Statements regarding the river included:

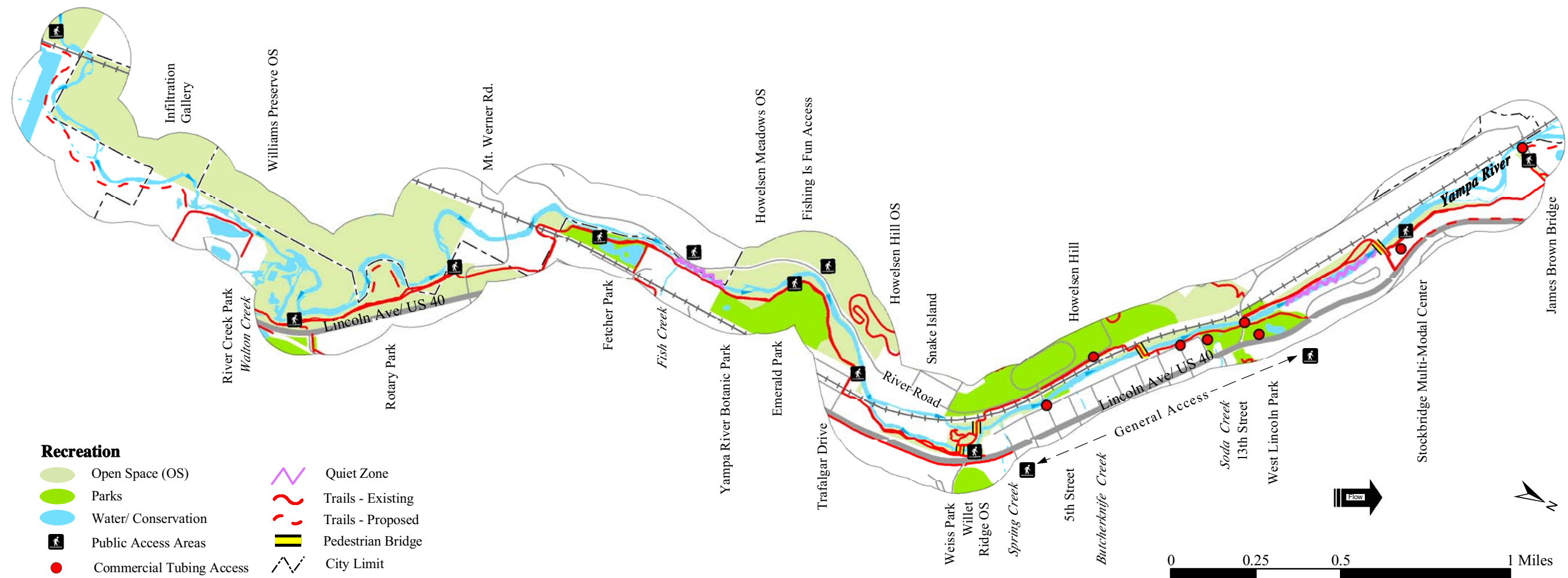
- To develop the river as an amenity by providing pedestrian links between the downtown commercial areas and Howelsen Hill Community Park.
- To develop a pedestrian corridor linking the park and open space areas along the river.
- To stimulate the economic success of commercial development on Yampa Street.
- To facilitate the use of City property in a way most beneficial to the community.

Existing conditions for the four sections are as follows:

1. Recreation
2. Land Use
3. Aquatic Habitat
4. Terrestrial Habitat

1. Recreation 

Steamboat Springs provides a variety of recreational opportunities. Much of the summer recreational use focuses on the water-based activities on the Yampa River. Visitors to the river are made up of three distinct user groups – tubers, paddlers (kayakers and rafters) and fishermen. As described below, these recreation user groups can be further divided into private users, i.e., those individuals who make their own arrangements, and customers of commercial outfitters.





Visitation

According to the 2000 US Census, Steamboat Springs had a population of 9,815. In addition to residents, it is estimated that 300,000 -350,000 people visit during the winter months and 200,000-250,000 people visit during the summer months. A large percentage of summer visitors participate in activities on the Yampa River. An estimate of total annual visitation on the river by each user group is not available. An examination of known use levels, (primarily tubers) suggests that total, water-based visitation levels range between 20,000 - 40,000 user days annually. This estimate does not account for non-water based recreational activities adjacent to the river, i.e., trail users. Based on permitted levels, annual user days could eventually exceed 80,000. According to the Yampa River Study visitor surveys (2001), three-quarters of these users are non-residents. Of these users, only half were recreating on the Yampa River for their first time, indicating a high level of repeat visitors. The survey also indicates that the largest single user group is tubers. This is followed by a category labeled “Other,” which consists of users who participated in multiple activities or other land-based activities such as biking. The remaining 20% of users consists of anglers (14%) and paddlers (6%). Of those surveyed, approximately 60% of users were customers of a commercial outfitter (Figure 2-1 and 2-2). It should be noted that surveying in 2001 did not begin until prime kayaking season was over so paddlers, most of whom are private users, may have been under-represented in the survey.

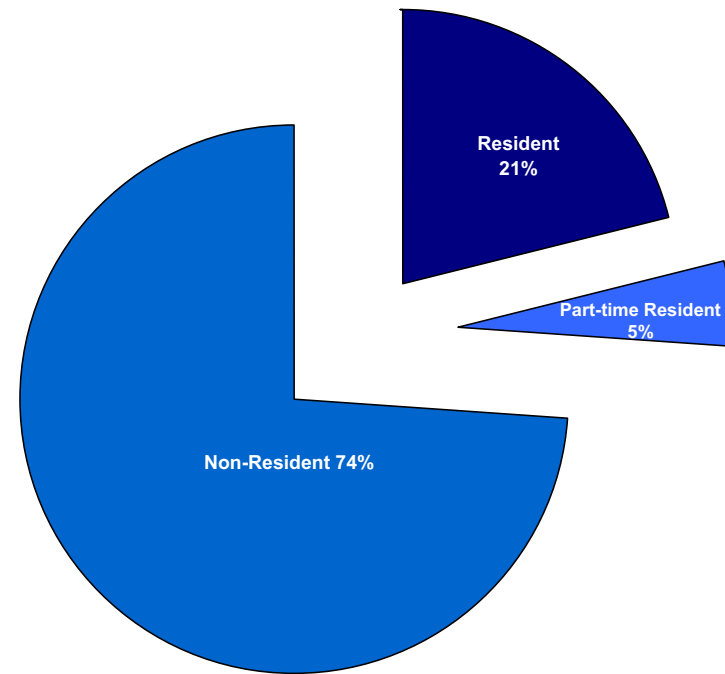


Figure 2-1 Resident vs. Nonresident Use

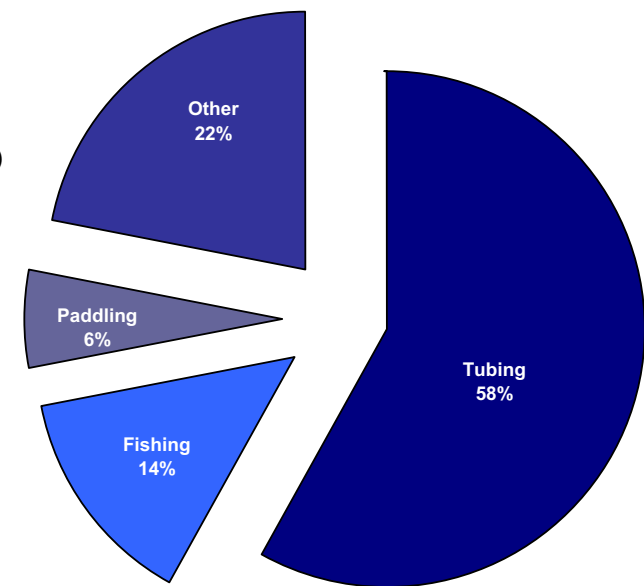


Figure 2-2 Use Levels

As described in Figure 2-3, recreational activity occurs year-round, with peak use occurring in July and August. These months provide the most suitable weather and flow for the greatest number of recreational activities. The seasonal distribution of visitation varies by type of user. In general, optimal use periods for most activities can be correlated directly to river flow. For example, large boat rafting occurs during peak flow periods in May and June. General kayaking (wave play) makes use of both high and moderate flows from April through July. Optimal conditions for tubing usually occur in July and August.

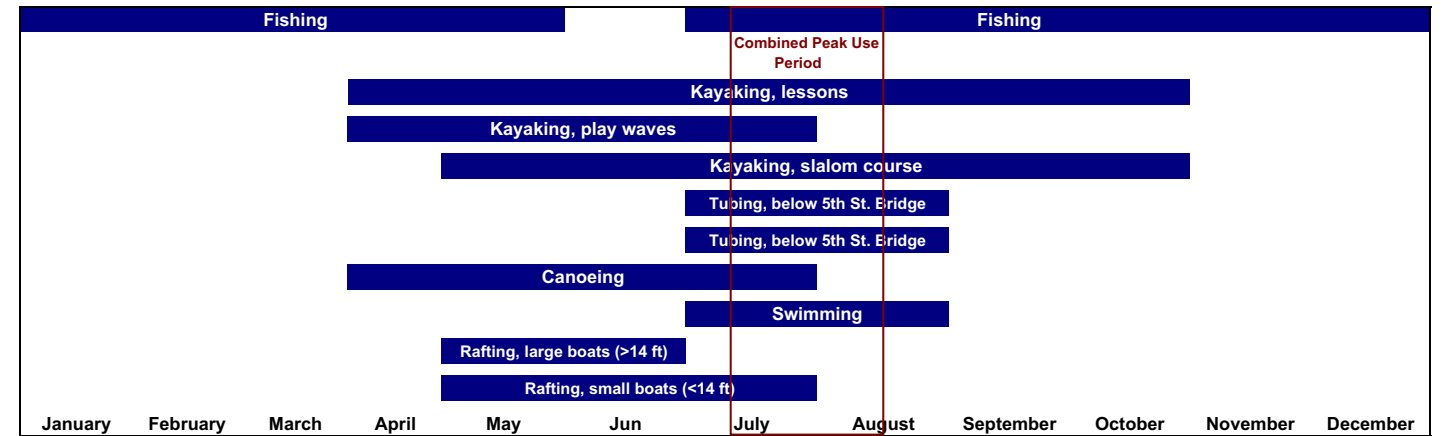


Figure 2-3 Optimal Use Periods by Recreation Activity

The natural seasonal distribution of uses helps to reduce conflicts. User conflict primarily occurs during overlapping periods, as one use ends and another begins. The exception to this pattern is fishing. Though optimum fishing conditions exist early in the year, this use occurs year-round, except during spring runoff when kayaking is most popular. Fishing, especially fly fishing, can be incompatible with other uses such as tubing during late afternoons and evenings.

Optimum flow levels for various recreational activities are shown in Table 2-1. In addition, the City’s Commercial River Operator Guidelines restrict commercial use under certain flow conditions. These guidelines are presented in Appendix B.

Activity	Optimal Flow
Fishing	200+
Kayaking, lessons	150 - 400
Kayaking, play waves	1,000 - 3,000
Kayaking, slalom course	500 -1,000
Tubing, below 5 th Street Bridge	115 -150
Tubing, above 5 th Street Bridge	200
Canoeing	1,300
Swimming	100
Rafting, large boats (>14 ft.)	1,200
Rafting, small boats (<14 ft.)	800

Table 2-1. Optimal Flows by Activity Type



User Groups

As previously discussed, there are three primary user groups – paddlers, fishermen and tubers. Commercial use by these groups is controlled by permits that include the guidelines presented in Appendix B. These guidelines are based on a City ordinance and were derived through lengthy discussions among local river outfitters, the Trails and River Advisory Committee, and City staff. These guidelines help ensure compliance with relevant ordinances, provide a quality recreational experience for all users, and help protect the rights of private landowners and residents who live along the river. The guidelines are also intended to minimize potential conflicts between the multiple recreational uses occurring on and around the river. Elements addressed in the guidelines include:

- Use Limits
- River Flow Restrictions
- Access Points
- Customer Education
- Identification
- Rules and Etiquette
- Safety
- Litter Control
- Use Log, Fees, and Reporting

Commercial use on the river is predominantly tubing, followed by kayaking, rafting, fishing and canoeing. Commercial operators are required to pay 5% of gross revenues received from rental of flotation devices or other river recreation equipment to the City.

Private users are not subject to all the guidelines outlined in Appendix B. However, private tubers are encouraged to follow the rules regarding etiquette, quiet zones, safety, litter control, etc.

1a. Fishermen

This section of the Yampa River includes a high quality trout fishery. People travel from all over Colorado, as well as the rest of the country, to fish this outstanding resource. Undoubtedly, other primary reasons for high angler use levels include the exceptional scenic quality of the area, easy accessibility and the availability of fishing guides. The primary method of fishing is fly fishing. Habitat improvement projects completed by the Yampa Valley Fly Fishers (YVFF) and Friends of the Yampa (FOY) over the last decade have contributed significantly to an improved fishery.



Fly fisher above 5th Street Bridge

Most fly fishermen are private users, however, others contract the services of commercial fishing guides. Guiding services are provided on the river and other areas outside the City. Fishermen tend to use the upper

portions of the river (from the 13th Street Bridge upstream) due to its scenic quality, isolation and high quality fishery. Concentrating in this area also avoids conflicts with other users concentrated downstream.

Fishing guides authorized to provide services on the Yampa River within City limits are presently limited to the five listed below:

- Straightline Sports
- Blue Sky West
- Bucking Rainbow/High Adventures
- Steamboat Fishing Company
- Elk River Outfitters

Each permitted fishing guide service is allowed four (4) clients per day on the downtown river corridor. There are no plans to increase the number of commercial guide outfitters.

1b. Paddlers

Paddling activities include rafting, kayaking and canoeing. The City of Steamboat is known for having some of the best kayaking in Colorado. New “playholes” for kayakers have increased the quality of this recreational resource. In the upstream areas, the flow is Class I, transitioning into greater than Class II in downstream areas. Several area outfitters rent kayaks and offer lessons. The City of Steamboat’s rafting outfitters also offer guided trips on the Yampa River. Trips range in difficulty, depending on water flow. Canoeing, especially whitewater paddling, also occurs on the river. Other canoeing activities are associated with lessons. Currently, the only restrictions on paddling activities apply to commercial canoeing and rafting, in the form of maximum boat length as a function of flow levels and use of designated access points.



Kayakers in slalom course

Several summer events center on paddling, including the Yampa River Festival and the Fat Eddy’s Fat City Showdown Kayak Rodeo. Interviews conducted in 2003 indicated no overall overcrowding conditions related to paddlers. However, key playholes are becoming increasingly popular, resulting in parking problems, a high concentration of users at these location, and related demand for services such as restrooms or changing facilities.

1c. Tubing

Tubers comprise the largest single user group on the Yampa River. The average annual number of tubers who made commercial trips was approximately 15,000 during the period 1997 - 2003. Use numbers peaked at more than 25,000 in 1998 and dropped sharply during the extreme dry year of 2002, when the river was closed to all forms of recreational use from early July through August,

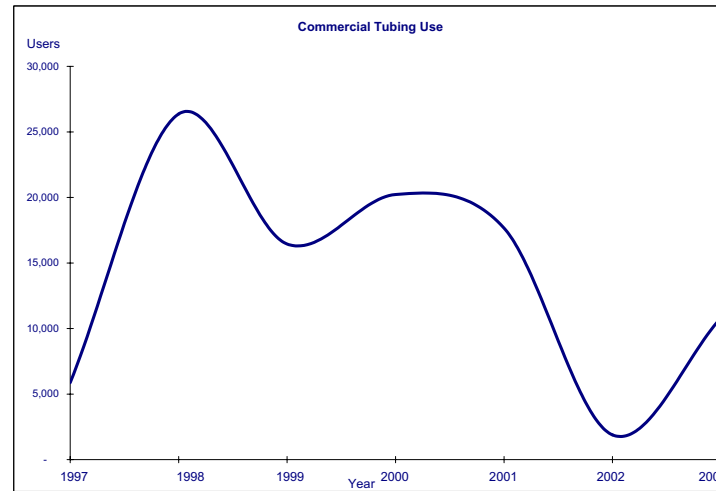


Private tubers at Weiss Park



normally the peak tubing season. Tubers can rent tubes and be dropped off and picked up from several outfitters. The commercial trips last approximately one hour, and start below the 5th Street Bridge and presently end at the James Brown Bridge.

Based on numerous tube counts over the last few years, Open Space and Trails Staff estimate that approximately 1/4 to 1/3 of all tubing use is by private tubers. The average annual number of private tubers would therefore be estimated at 7,000 users for the same period (1997-2002). Total tubing use may range from as little as 3,000 during a low water year (2002) to as much as 40,000 users during a peak year.



This use occurs from mid-June to September, with peak use in July and August as low flows occur and water temperatures warm up.

Following the peak use year of 1998, increasing public feedback emerged concerning overcrowding on the river by commercial tubing. The City of Steamboat Springs and several commercial outfitters recognized that, if left unchecked, increasing use would eventually result in a negative visitor experience and/or possible detrimental impacts to the health of the river. Several actions were taken to address these concerns, including limiting the level of use, time and location of commercial tubing activities.

Permitted commercial tubing numbers are shown in Table 2-2. Based on a three-month peak use period, the total number of tubing trips allowed under current regulations is approximately 50,000. Comparing this total permitted capacity with historic levels indicates that the average annual number of tubing trips is currently less than the maximum permitted use level. However, demand on peak weekdays, weekends and holidays can exceed daily permitted levels, forcing commercial operators to turn away some users. Again, it should be noted that very low flows in 2001 and 2002 resulted in fewer trips than previous “normal” water years.

Permitted Commercial Tubing Use			
Company	Weekday	Fridays	Weekend
Backdoor Sports	203	227	440
Bucking Rainbow	25	35	35
Blue Sky West	85	100	190
Lockhart's	85	100	190
One Stop Ski Shop	35	38	60
Totals	433	500	915

Table 2-2 Permitted Tubing Use

Commercial tubing activities can only occur below 5th Street Bridge between 10:30 a.m. and 4:00 p.m. Even though private tubing levels continue to increase, there are currently no limits on private trips.

1d. Other Activities

In addition to fishing, paddling and tubing, other uses occurring along the river include swimming, pedestrian uses, dog walking and swimming, and wildlife viewing. The Yampa River Core trail and its various access points are the focus points for these uses. This primarily concrete trail runs along the majority of the river within the study area and is planned to eventually extend through the entire reach. Periodic trail user counts performed by or for the Open Space and Trails staff suggest that well over a thousand people per day use the core trail on a busy summer day. During peak hours, more than 200 trail users per hour are not uncommon, with the majority being bicyclists. The core trail also provides residents with a year-round alternative to motorized transportation.



Core trail along Yampa

Access

User counts and casual observation indicate that use levels are not evenly distributed along the river and generally increase as you move downstream. Use levels are also highly correlated with the availability of developed public access points. Official access points include:

- River Creek Park (Polumbus)
- Rotary Park
- Fetcher Park
- Emerald Park
- Dr. Rich Weiss Park
- Downtown Areas (such as the library/community center, etc.)
- Multi-Modal Center
- James Brown Bridge



For several key access points, such as Fetcher, Rotary or the library/community center parking lots, parking restrictions are in place, including a two-hour limit on parking during summer months. These measures help ensure the appropriate turnover in parking and provide an opportunity for all recreationists. To help alleviate downtown congestion, exterior parking lots have been developed. The multi-modal center provides parking at the edge of the study area with bus transportation to other locations. Substantial parking capacity is also available at other locations, such as Howelsen Hill. Additional parking adjacent to the river will also soon be available at the River Creek Park though it is within a designated “low use” zone and intended to serve primarily core trail users.



Visitor Perceptions

A survey of Yampa River users was conducted June 18 through mid-September 2001. The two-page survey addressed user demographics, trip details and opinions. Surveys were conducted on random days of the week. A total of 1,136 usable surveys were collected.

Overall, the survey showed that visitors were “very satisfied” (78%) with their experience. Tubers tended to be slightly more satisfied than anglers. Most felt the quality of their experience was equivalent to their experience in previous years. Of those surveyed, most felt that recreational use has an adverse impact on vegetation, fish populations and water quality.

2. Land Use

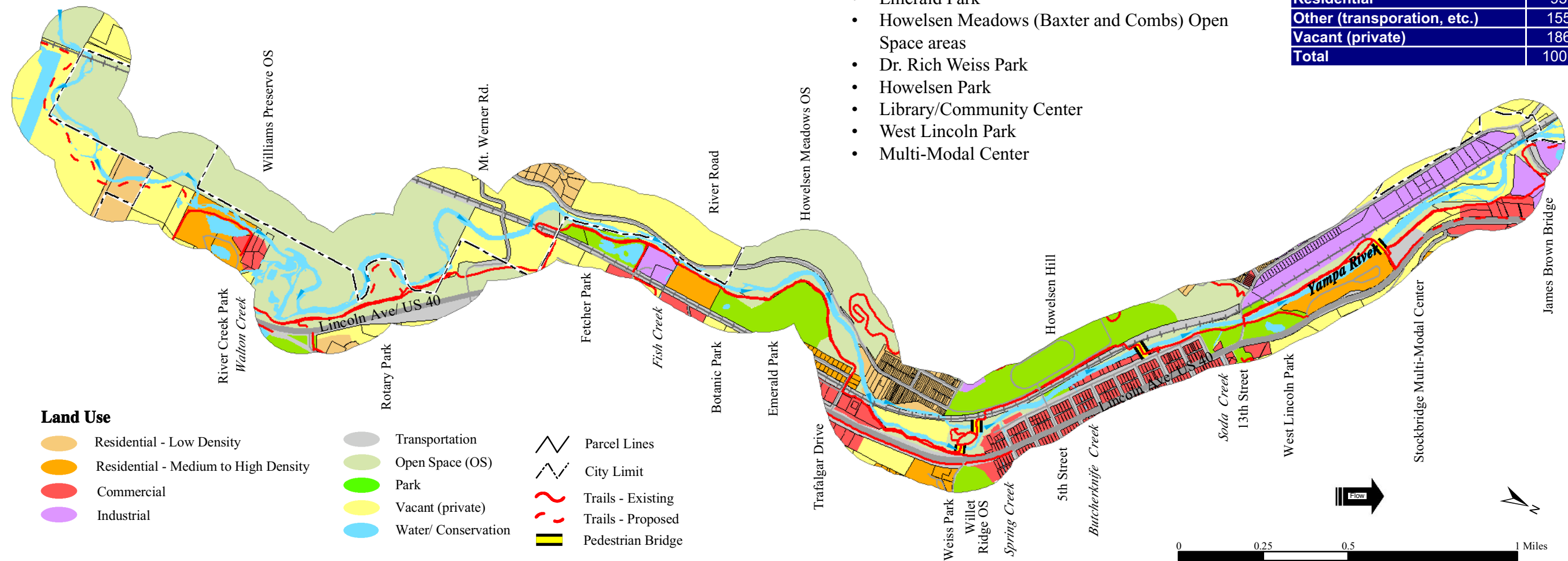
Open space and parks are the largest single land use within the 1/2-mile wide corridor study area, making up approximately 44% of the total acreage. An additional 19% of the corridor remains vacant, privately-owned land, but without any formal protection. The remaining 36% of the corridor is developed, most of which is either commercial/industrial or residential.



Public lands within the study area include:

- River Creek Park (Polumbus)
- Williams Preserve
- Rotary Park
- Fetcher Park
- Emerald Park
- Howelsen Meadows (Baxter and Combs) Open Space areas
- Dr. Rich Weiss Park
- Howelsen Park
- Library/Community Center
- West Lincoln Park
- Multi-Modal Center

Land Use	Acres	Percent
Open Space and Parks	445	44%
Commercial and Industrial	120	12%
Residential	95	9%
Other (transporation, etc.)	155	15%
Vacant (private)	186	19%
Total	1001	100%





Less than 200 acres of buildable land remain in the study area. Due to the high development pressure, it is likely that these areas will be developed within 10 years unless some type of conservation measure is put in place. The land is currently zoned for agricultural, residential and commercial uses. The City and other organizations are continually evaluating opportunities to directly acquire some of these properties or their development rights. Alternatively, the City will promote design guidelines that limit the impact of new development on the river, such as those being proposed in the Community Plan Update.

Land use conflicts between residential and recreational uses have emerged due to noise and trespass concerns. The City has implemented two quiet zones to help reduce the impact of recreational uses on adjacent residents. Other concerns result from the presence of commercial and industrial uses directly adjacent to the river without appropriate buffers or transition zones.

3. Aquatic Habitat

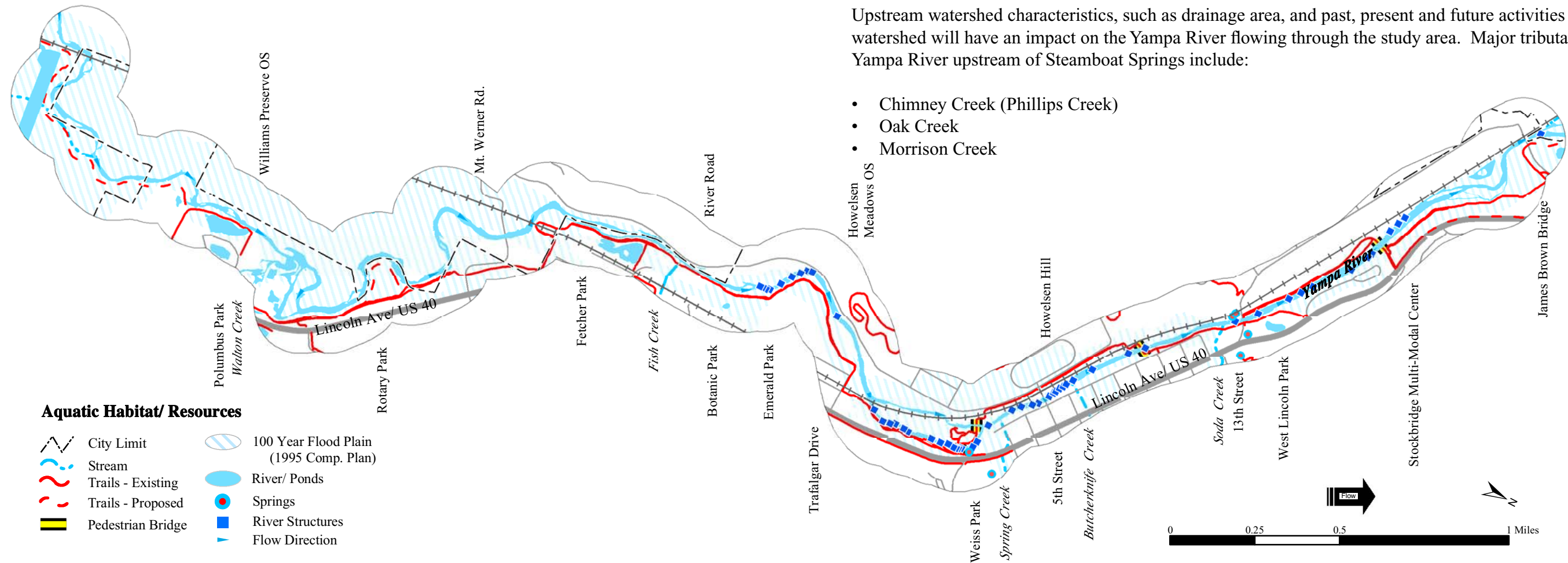
The Yampa River Basin has been divided into an upper and lower basin. The Upper Yampa River Basin extends from the headwaters downstream to the confluence with Elkhead Creek. The Lower Yampa River basin extends from immediately below the confluence of Elkhead Creek to the confluence with the Green River. Streams in the upper basin and the main Yampa above Steamboat Springs are classified by the Colorado Division of Water Resources as Class 1 cold water aquatic life and Class 1 recreation. These classifications mean that the waters “are currently capable of sustaining a wide variety of cold water biota, including sensitive species,” and that they “are suitable for recreation activities in or on the water when the ingestion of small quantities of water is likely to occur”.



Tubers and swimmers at “Charlie’s Hole”

Upstream watershed characteristics, such as drainage area, and past, present and future activities within the watershed will have an impact on the Yampa River flowing through the study area. Major tributaries to the Yampa River upstream of Steamboat Springs include:

- Chimney Creek (Phillips Creek)
- Oak Creek
- Morrison Creek





- Service Creek
- Green Creek
- Harrison Creek

Creeks flowing into the Yampa in the study area include:

- Walton Creek
- Burgess Creek (via Casey's Pond)
- Fish Creek
- Spring Creek
- Butcherknife Creek
- Soda Creek

Geomorphology

The Yampa River consists of both an active river channel and a surrounding floodplain. A natural erosion and deposition cycle associated with flooding is important to the health of fisheries and riparian ecosystems, including cottonwood regeneration. An examination of the floodplain and the location of cottonwoods within the study area indicate that the river has been altered, and much of the original floodplain has been lost to development.

The character of the river differs from upstream to downstream. Upper portions of the river are only slightly entrenched, have an intact and largely undeveloped floodplain, and contain meander patterns commonly found in a U-shaped glacial valley. These areas include point bars on the inside of the bends and deep pools along the outside, providing high quality fish habitat. The lower portion of the river, beginning in about the center of the study area, has a significantly different character. The channel in these areas is highly entrenched and less sinuous, with slopes about four times greater than upstream areas. Reaches of the river further downstream (below the Stockbridge) return to a more natural state, with river morphology characteristics similar to both the central and upstream portions of the study area.

A number of habitat improvements have been made to the river. Riparian enhancements and the addition of in-channel rock structures and v-dams have improved both the recreational environment and aquatic habitat.

Water Flow

The hydrologic regime (timing and amounts of flow over the year) of many rivers in the west has been modified. These changes are typically caused by damming and diversion projects. The Yampa River and its major tributaries have relatively few dams and diversions from the headwaters to its confluence with the Green River. Reservoirs upstream of Steamboat Springs along the Yampa River include Yamcolo Reservoir, Stagecoach Reservoir and Lake Catamount, none of which are major storage facilities.

Based on a review of historic flows of the Yampa River at the Steamboat Springs U.S. Geological Survey (USGS) gauge station, the flow regime seen in the early 1900's appears to be relatively similar to those seen in the present day. Therefore, many of the physical forces of the river that influence plant and animal communities in the past continue today. Figure 2-4 compares recent versus historic hydrographs, showing that the flow regimes are very similar. During both periods, peak spring flows tended to range from 2000 to 3000 cfs.

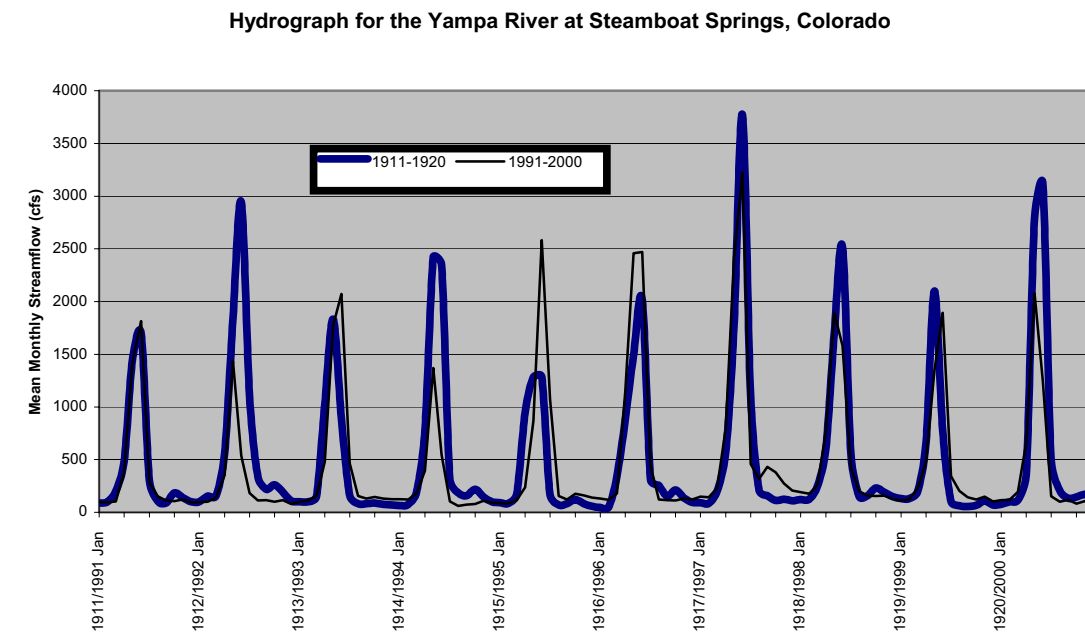


Figure 2-4. Comparisons of hydrographs for the Yampa River at Steamboat Springs, Colorado, for the period between January 1911 through December of 1920 and January 1991 through December 2000.



Additionally, a hydrograph (Figure 2-5) for the period from August 2001 through August 2003 is presented to show the effects of the drought year of 2002 on Yampa flows. Flows in July of 2002 were below 20 cfs for a short period and below 80 cfs for a good part of the summer and fall. Conversely, a wetter than normal winter resulted in 2003 spring runoff flows that exceeded 4,000 cfs.

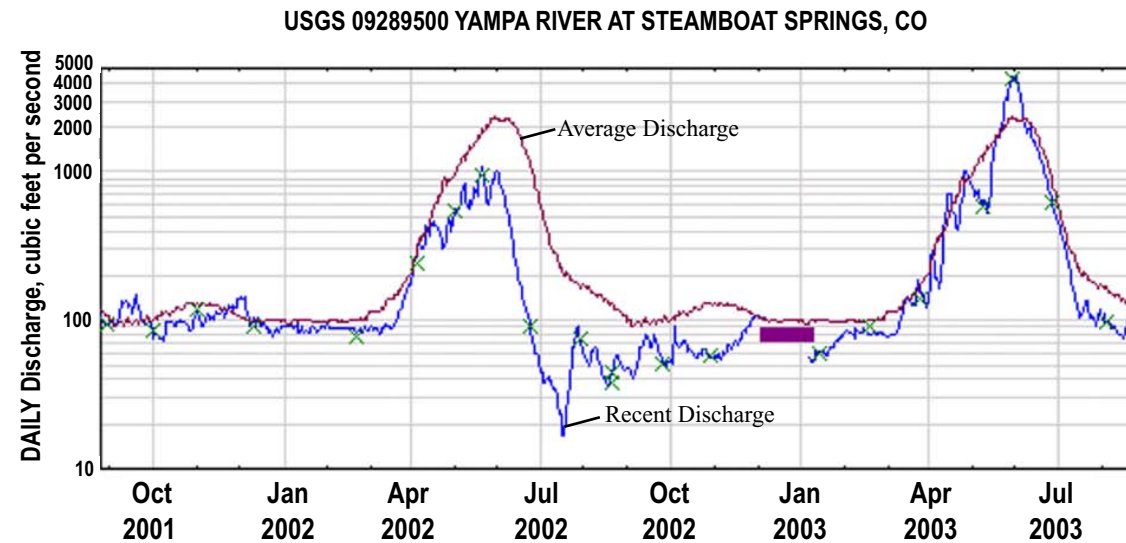


Figure 2-5. Hydrograph of the Yampa River at Steamboat Springs, Colorado; 92 year average discharge compared to recent years.

Water Rights

Presently, the City owns a variety of water rights on the Yampa River and some of its tributaries for drinking water supply, irrigation and snowmaking purposes. The City also owns stored water in Stagecoach Reservoir for municipal purposes. However, there are no water rights dedicated to preserving existing flows in the Yampa River as it passes through the City.

In many ways, the Yampa River is the life blood of the community, providing drinking water, first-class recreational opportunities, and a scenic corridor through the heart of the City. In recognition of the irreplaceable nature of this resource, the City is investigating the acquisition of water rights to protect flows in the Yampa River. The CAC recommends that the City pursue a Recreational In-Channel Diversion or Water Rights to protect against possible future diversions upstream of the City. In addition, consideration should be given to asking the Colorado Water Conservation Board (CWCB) to seek a minimum in-stream flow (MISF) to provide the minimum flows necessary to support the biological integrity of the Yampa River throughout its entire reach through the City.

Water Quality

Activities such as road construction, home construction, overgrazing, agricultural activities, recreation, mineral development, logging and wildfire can contribute to modifying water quality and quantity. Water quality effects resulting from these and other activities may include increases in runoff volumes from storm events and introduction of contaminants from non-point sources of pollution. Increased runoff volumes can also cause increased sedimentation from erosion and possible increases in nutrient and pollutant loading. Walton, Fish and Spring Creeks, which have a combined drainage area of over 70 square miles, have a great influence on water quality within the study area. Based on 2001 water quality studies, there are no major health related concerns associated with the river or its tributaries. This conclusion is based on laboratory analysis of water samples from 14 points along the river and five tributary drainages. However, several areas of possible concern were identified. One of these was low dissolved oxygen levels and high temperatures observed during the mid-summer low flow months in the Yampa River. These conditions can be detrimental to cold water fish populations, especially if fish are put under additional stress from disturbance during that period. Another area of concern was excessive algal growth in the river during the summer, which may be indicative of water quality problems. A third area of concern was elevated heavy metal concentrations within Butcherknife Creek, especially during storm runoff periods.

The Yampa Basin Watershed Plan (2002) identified several areas with elevated iron and manganese concentrations. These included the Yampa River upstream of Stagecoach Reservoir, Yampa River downstream of Stagecoach Reservoir, Oak Creek (just upstream of its confluence with the Yampa River), and the Yampa River at Steamboat Springs. The report attributes the potential causes of these elevated concentrations to natural mineralization or mining activities. An ongoing study being performed by the Colorado Water Quality Control Division suggests there could also be some concerns with nutrient loading in the Yampa.

Fisheries

Previous studies of the Yampa River within the study area identified past and ongoing negative impacts to the riparian habitat, streambank stability, and instream fish habitat. Some reaches of the river channel, streambanks, riparian and aquatic habitats, and wetlands have been degraded and continue to be degraded by encroachment of development, channel straightening, streets, riparian habitat losses, dikes to reduce flooding, and a host of lesser habitat modifications. The collective impact of these habitat modifications has reduced the capacity of the river to retain and maintain its historical productivity and resource values. Restoration of the river has begun with a number of recent projects completed by both the private and public sectors.

Overall, the river through the study area supports a healthy rainbow and brown trout fishery. Table 2-6 presents fish population estimates from various sample sites for the year 2000. Species identified during sampling included rainbow trout, mountain whitefish, brown trout, mottled sculpin, speckled dace, cutthroat trout, brook trout, white sucker, longnose sucker, creek chub and northern pike.



Over the last decade, the CDOW’s Wildlife Commission has been faced with adapting the management of the state’s fisheries resource in response to numerous challenges facing it. These challenges include but are not limited to whirling disease, changes in fish hatchery production, limited natural reproduction and reduced fish availability for stocking. To help better manage these valuable fisheries resources, the CDOW Wildlife Commission has reviewed and implemented a variety of regulations. The following regulations currently apply to the Yampa River in the Steamboat Springs vicinity:

- Downstream of Stagecoach Dam, 0.6 mile to Walton Creek (excluding Catamount Lake). Artificial flies and lures only and a bag and possession limit of two trout.
- Walton Creek, downstream 4.8 miles to the James Brown (Soul Center of Universe) Bridge in Steamboat Springs. Artificial flies and lures only, and all trout upon being caught must be immediately released into the water.

Another fishery concern, and the focus of the Upper Colorado River Endangered Fish Recovery Program, is the protection of endangered fish species, primarily downstream of the study area. The program proposes a reduction in the numbers of non-native predators, specifically northern pike and smallmouth bass, within the Yampa River. This reduction could result in a corresponding increase in the numbers of four threatened native species, which includes the Colorado pike minnow, razorback sucker, humpback chub and bonytail. Pilot projects will begin on the Yampa River between Hayden and Craig.

Yampa River Sample Locations	Pounds Per Surface Acre				Total
	Rainbow	Brown	Cutthroat	Brook	
Below Stagecoach Reservoir	591 (19.7")	(2 fish) (10")	0	14 (11")	605
Above Service Creek	39 (16.9")	6 (17.5")	0	(1 Fish) (7")	45
Chuck Lewis State Wildlife Area	26 (22.4")	(1 Fish) (8.9")	0	0	26
Steamboat Ballpark (Project Reach)	41 (19.7")	23 (17.7")	6 (13.1")	(3) (7.7")	70
Carpenter Ranch	24 (19.3")	4 (18.9")	0	0	28

(") Maximum size in inches
() Number of fish

Table 2-6. Comparison of pounds per surface acre of water for sport fish (Trout) electroshocked at the five Colorado Division of Wildlife sample sites during September 2000.

4. Terrestrial Habitat

Riparian habitats are critical to the life cycle of many species. In Routt County, riparian areas provide habitats to over 70% of the wildlife species that reside in the Yampa Valley for at least a portion of the year. General habitat types within the study area include:

- Water
- Wetlands
- Grassland
- Wetland/riparian shrub
- Upland shrub
- Wetland/riparian woodland
- Upland woodland
- Urban

Water habitats along the Yampa River are defined as those habitats comprised of open waters, which include a number of small ponds adjacent to the river as well as the river itself. These water areas provide important habitats for aquatic invertebrate species, fish, amphibians, reptiles, birds and mammals. A wide variety of bird species, particularly neotropical songbirds and waterfowl, rely heavily on the water habitats provided along the Yampa River. Many wildlife species utilizing these water habitats depend entirely on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization.

Wetlands are found in small areas along the river. Emergent vegetation, such as sedges and spikerush, are commonly found in these areas, as well as the invasive species reed canary-grass. Wetland areas provide important habitats for aquatic invertebrate species, fish, amphibians, reptiles, birds and mammals. Amphibians and a wide variety of bird species, particularly neotropical songbirds and waterfowl, rely heavily on the wetlands found along the Yampa River. Many wildlife species utilizing these wetland areas depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization. Wetlands also play an extremely important ecological function by providing flood attenuation, water storage, and nutrient/contamination filtering.

Grassland habitats are found dispersed within the other upland plant communities throughout the Yampa River corridor. These grassland habitats provide valuable food sources for grazing livestock and wildlife, particularly mammals. In addition to meeting forage needs, these grassland areas also provide important nesting habitats for a variety of bird species. Numerous wildlife species also rely on these grassland habitats to provide a necessary buffer zone from the human activities that often occur in close proximity to these areas.

Wetland/riparian shrub areas are found scattered along the Yampa River corridor. The dominant plant species in this habitat type is Geyers willow. This plant community has important wildlife values. Some mammals and birds, particularly neotropical songbirds, depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization. The shrubland-wetland/riparian habitats along the Yampa River also provide a number of wildlife species with valuable movement corridors and buffer zones from nearby human activities. Additionally, these habitats are critical in natural riverbank stabilization processes.



Upland shrub habitats are found on steeper slopes adjacent to the Yampa River. Dominant plant species include big sage, Gambel oak, chokecherry and serviceberry. These areas provide important habitats for reptiles, birds and mammals. Many bird and mammal species utilizing these upland shrub habitats depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization. Additionally, these habitats provide wildlife with important escape cover.

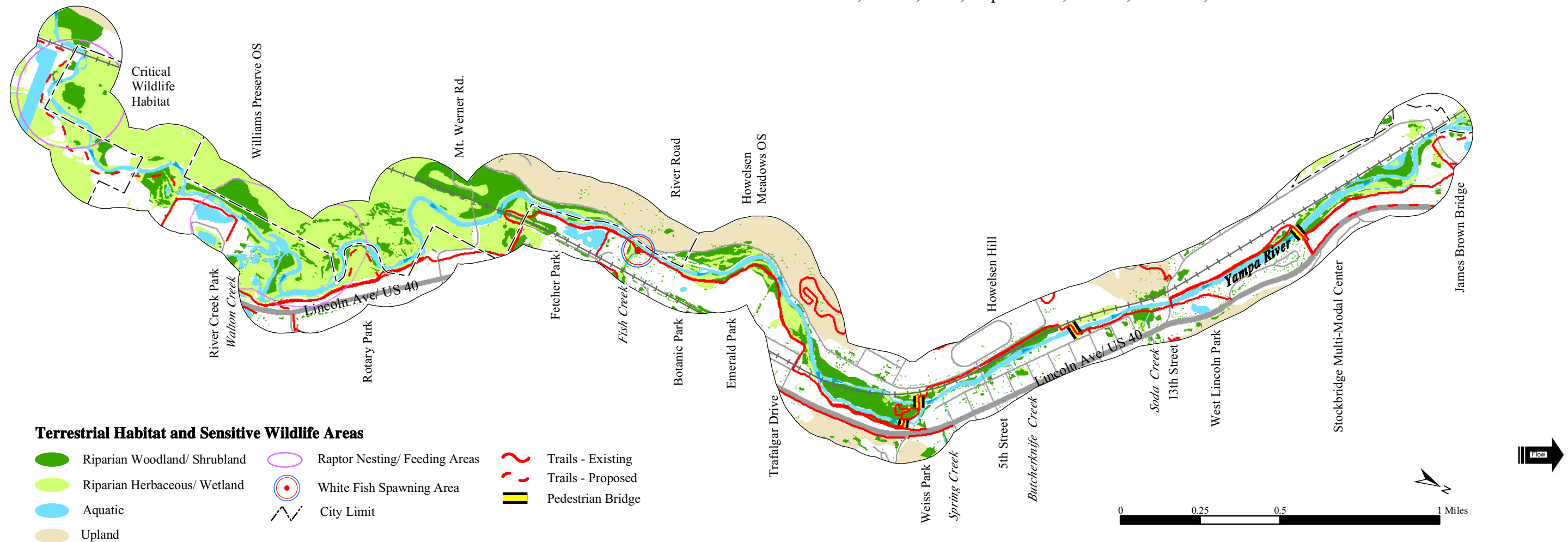
Wetland/riparian woodland habitats are found along the river. The dominant plant species of this community is narrowleaf cottonwood. These habitats are particularly important to a variety of bird species, and several species depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically reproductive specialization. Additionally, there is increasing concern regarding the limited amount of natural cottonwood recruitment that is occurring along stretches of the Yampa River. Measures are being taken to protect mature cottonwood stands, while also exploring opportunities and methods for facilitating cottonwood regeneration.

Upland woodland areas are intermittently dispersed throughout the upland shrub community on the slopes adjacent to the Yampa River corridor. Aspen, Englemann spruce, and subalpine fir dominate this plant community. These areas provide important habitats for reptiles, birds and mammals. Many bird and mammal species utilizing these upland woodland habitats depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization.



Yampa near flood stage above River Creek Park

Wildlife species that are commonly associated with the study area include, but are not limited to the following species: rainbow trout, brown trout, northern pike, mottled sculpin, tiger salamander, northern leopard frog, western terrestrial garter snake, great blue heron, Canada goose, mallard, blue-winged teal, bald eagle, red-tailed hawk, greater sandhill crane, western sandpiper, mourning dove, belted kingfisher, broad-tailed hummingbird, American robin, yellow warbler, white-crowned sparrow, red-winged blackbird, long-legged myotis, deer mouse, beaver, muskrat, red fox, mink, striped skunk, raccoon, mule deer, elk and black bear.





CHAPTER I I I THE FRAMEWORK



The Framework

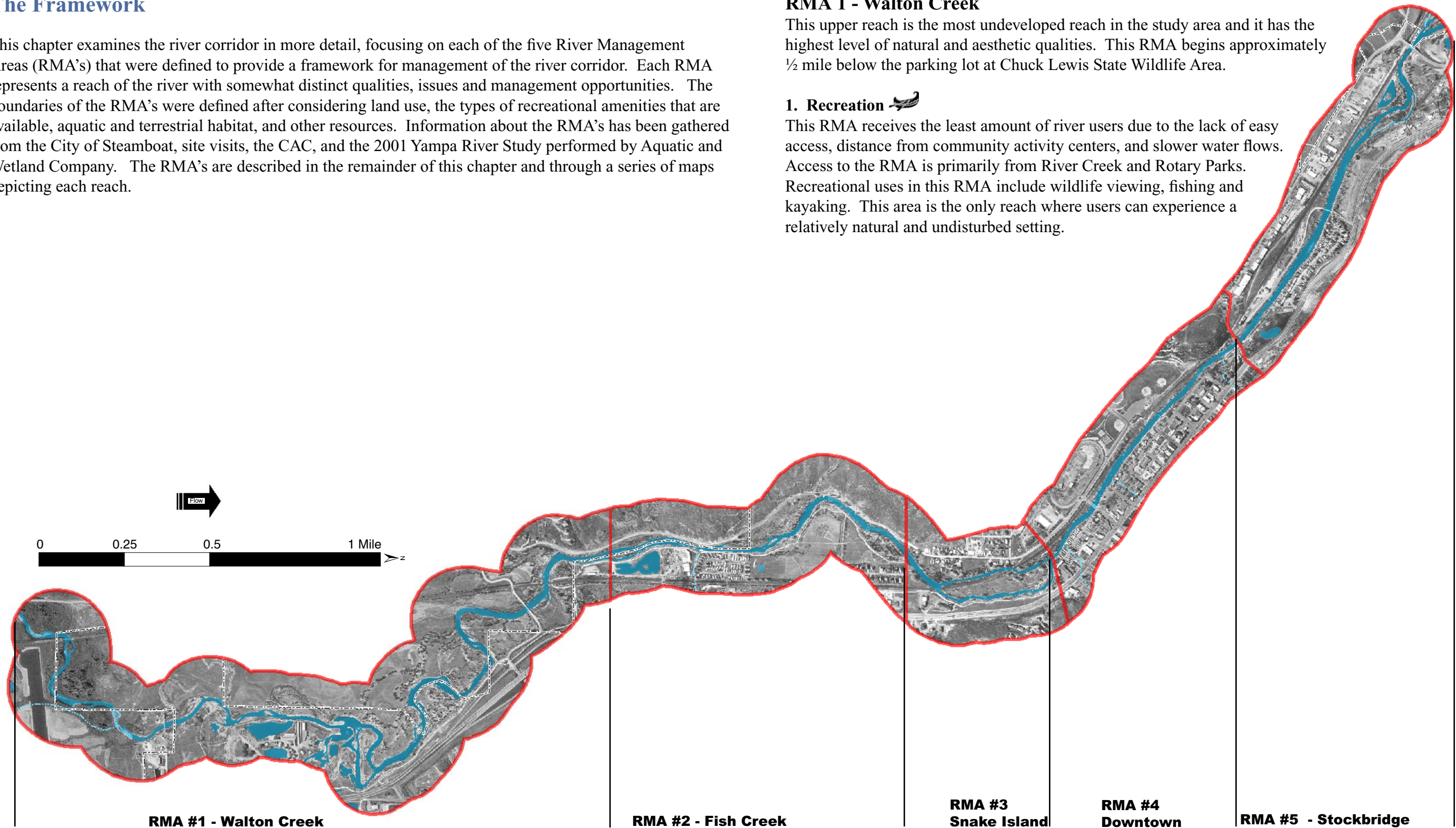
This chapter examines the river corridor in more detail, focusing on each of the five River Management Areas (RMA's) that were defined to provide a framework for management of the river corridor. Each RMA represents a reach of the river with somewhat distinct qualities, issues and management opportunities. The boundaries of the RMA's were defined after considering land use, the types of recreational amenities that are available, aquatic and terrestrial habitat, and other resources. Information about the RMA's has been gathered from the City of Steamboat, site visits, the CAC, and the 2001 Yampa River Study performed by Aquatic and Wetland Company. The RMA's are described in the remainder of this chapter and through a series of maps depicting each reach.

RMA 1 - Walton Creek

This upper reach is the most undeveloped reach in the study area and it has the highest level of natural and aesthetic qualities. This RMA begins approximately 1/2 mile below the parking lot at Chuck Lewis State Wildlife Area.

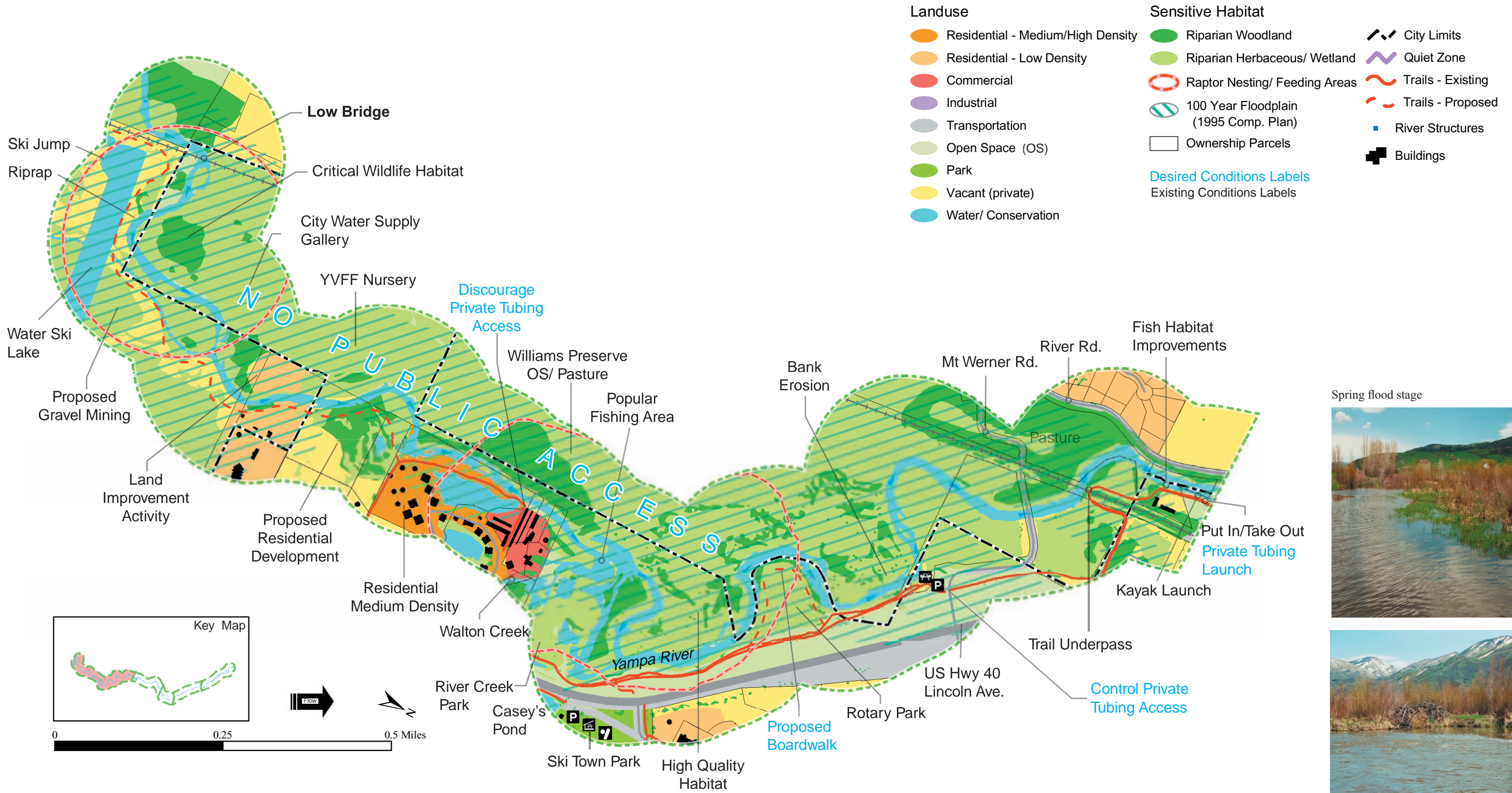
1. Recreation

This RMA receives the least amount of river users due to the lack of easy access, distance from community activity centers, and slower water flows. Access to the RMA is primarily from River Creek and Rotary Parks. Recreational uses in this RMA include wildlife viewing, fishing and kayaking. This area is the only reach where users can experience a relatively natural and undisturbed setting.





RMA 1





2. Land Use

The west side of the river corridor is relatively undeveloped and contains many of the most sensitive habitats within the entire study area. The eastern portion of the corridor is more developed and includes both residential and commercial uses. Other land uses include a water supply infiltration gallery, the Yampa Valley Fly Fishers nursery and a ski jump training facility. The Yampa River core trail and Highway 40 extend through the lower portion of this RMA. Additional development is planned or under way for portions of the RMA, primarily new residential development, some commercial uses (e.g., convenience store and gas station) and more formal recreational facilities.

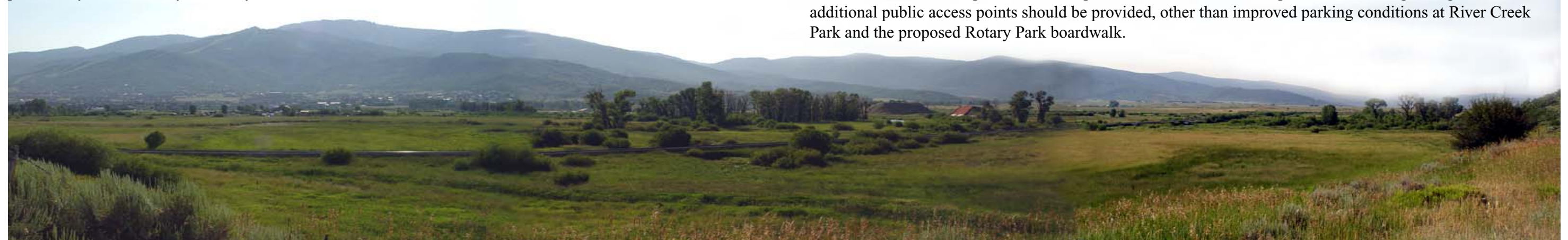
Hay and pasture lands comprising the Williams Preserve and infiltration gallery are found along the west side of the river at the lower portion of this reach. The area is presently being used for livestock grazing and has been used for hay production in the past. This area is also important for wildlife, particularly mammals.

RMA 1 is an important gateway into the community. Its scenic and natural qualities provide a positive and important first impression of the Steamboat community.

3. Aquatic Habitat

The RMA has a mostly natural floodplain with meander patterns characteristic of a broad and relatively flat valley setting. These meanders result in a river with a high sinuosity value and low gradient. The relatively unmodified channel contains frequent point bars on the inside of the meander bends and deep pools along the outside. The channel through this reach has a distinct riffle-pool sequence, with maximum pool depths between two and three times the mean riffle depth. The area near the confluence with Walton Creek provides some of the deeper pools along the river. As a result of these and other characteristics, this reach is a high quality fishery.

River enhancements in this RMA have focused primarily on bank stabilization, including the use of automobiles or “Detroit Rip Rap” just upstream of this RMA. These materials detract from the scenic quality of the area. Boulder clusters and tree plantings have been completed in the lower stretch of this RMA, particularly in the vicinity of Rotary Park.



View of RMA 1 looking from River Road toward Mt. Werner

4. Terrestrial Habitat

This RMA provides some of the few, larger contiguous areas of prime wildlife habitat that remain within the study area. The relatively low accessibility and use levels have maintained the conditions necessary for sensitive species to thrive. Habitat richness in this RMA is enhanced by several ponds and wetlands, which provide important habitats for aquatic invertebrate species, fish, amphibians, reptiles, birds and mammals.

Wetland/riparian shrub areas are found scattered along much of the lower half of this reach. The dominant species in this community is Geyers willow. The largest occurrence of this community is located on the west side of the river, extending from the Walton Creek confluence to Rotary Park. These habitats are particularly important to numerous bird and mammal species. Furthermore, the wetland/riparian shrub communities are critical in natural riverbank stabilization processes.

Wetland/riparian woodland habitats are found in small patches over the entire reach of this RMA. The dominant species of this community is narrowleaf cottonwood. Larger stands of this community are found along the east side of the river, just north of the Mt. Werner Road Bridge and northwest of the privately owned ski lake. These habitats are particularly important to a variety of bird species, and several species depend significantly on the availability and quality of these habitats for their necessary life cycles, specifically reproductive specialization. There is a bald eagle nest site located within this RMA. Bald eagles are currently listed as a threatened species on both the federal and state listings. Furthermore, the wetland/riparian woodland communities are valuable in maintaining channel stability.

Summary

Maintaining the RMA's highly natural condition requires that it be managed for lower levels of recreational use. These uses should be limited to fishing and kayaking/canoeing and the goal should be to provide a high quality experience with limited encounters with other visitors and a perceived lack of crowding.

In addition to managing the quality of the recreational experience, access and use levels should be strictly controlled to prevent impacts to sensitive wildlife areas. Where possible, additional lands or conservation easements should be acquired to further protect this area from development and clearing of vegetation. No additional public access points should be provided, other than improved parking conditions at River Creek Park and the proposed Rotary Park boardwalk.



RMA 2

RMA 2 - Fish Creek

This RMA is located between Fetcher and Weiss Park and contains a mix of land uses.

1. Recreation

Use levels within this RMA are moderate. This RMA is highly accessible, with primary access provided by Fetcher and Emerald Parks. Fetcher Park includes a pond that is used for kayak and canoe lessons, and is heavily used by dog owners as well. Groves of cottonwoods along the lower portion of this reach, called "Cottonwood Alley," screen users from adjacent development and activities, providing a more natural feel on the river. Uses suitable for this RMA include kayaking, fishing and private tubing.

2. Land Use

This RMA is more developed than RMA 1 and includes a mix of residential, commercial and developed parkland land uses along the eastern portion of the river corridor.

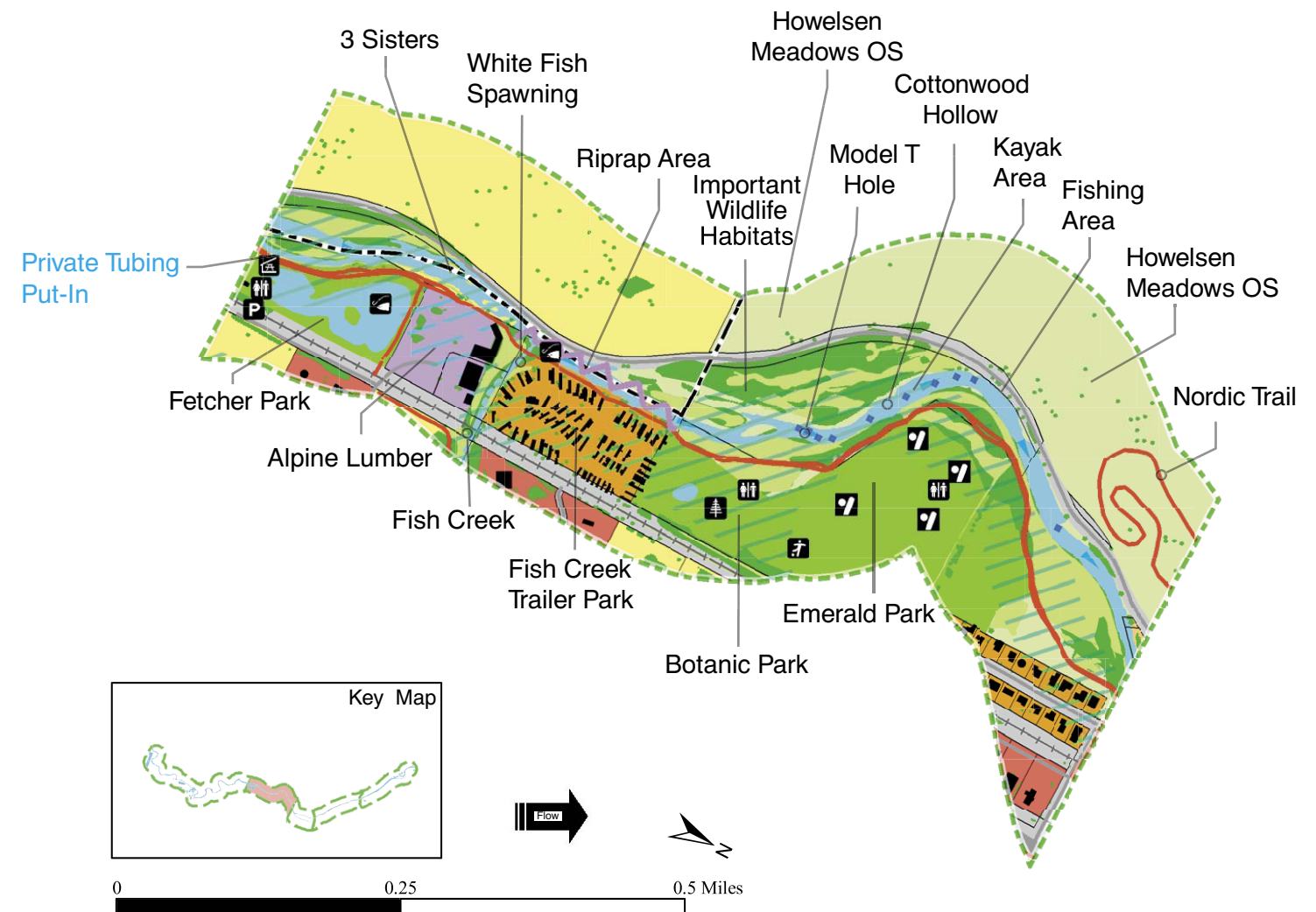
The western portion of the corridor is primarily agriculture and open space land that is protected from development through conservation easements.




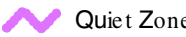


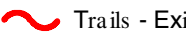


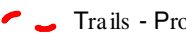









3. Aquatic Habitat

The channel in this area is relatively natural and contains a series of riffles and pools. Flows and water temperatures in this segment of the river are significantly augmented by tributary flows from Fish Creek. These conditions support a healthy fishery, including spawning grounds. Large boulders have been added to this reach of the river to provide habitat for fish.



High water near Cottonwood Hollow



Landuse	Sensitive Habitat	 City Limits
 Residential - Medium/High Density	 Riparian Woodland	 Quiet Zone
 Residential - Low Density	 Riparian Herbaceous/ Wetland	 Trails - Existing
 Commercial	 100 Year Floodplain (1995 Comp. Plan)	 Trails - Proposed
 Industrial	 Ownership Parcels	 River Structures
 Transportation	Desired Conditions Labels	 Buildings
 Open Space (OS)	Existing Conditions Labels	
 Park		
 Vacant (private)		
 Water/ Conservation		



4. Terrestrial Habitat 

This RMA provides a mix of upland and wetland habitats. Important habitats include open water areas at Fetcher Park, which provide habitat for aquatic invertebrate species, fish, amphibians, reptiles, birds and mammals. However, the pond at Fetcher Park is frequented by the public, which reduces the value of this habitat for most terrestrial wildlife. Areas where the public is allowed access to the river are highly disturbed and eroding at the bank. A small marsh area is located just east of River Road approximately 1/8 mile north of Mt. Werner Road. This wetland is dominated by cattail.



Wetland/riparian shrub habitats occur along both sides of the river in this reach, mostly as narrow fringe adjacent to the active channel. Larger stands of willows are found just north of Fetcher Park on the west side of the river. This plant community has important wildlife values, particularly for neotropical songbirds.

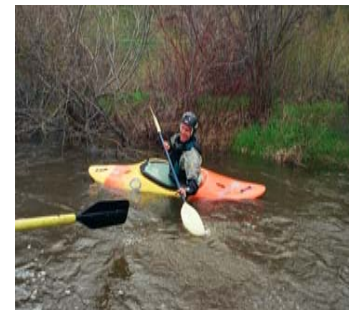
Wetland/riparian woodland habitats also occur in this reach. Larger stands of this community are found along both sides of the river in the Emerald Park area. The community in the Emerald Park area has a good understory of shrubs (willows), forbs and grasses, and provides quality habitats for a variety of wildlife. Furthermore, the wetland/riparian woodland communities are valuable in maintaining channel stability.

Upland shrub communities are found on steeper slopes along the west side of River Road. Dominant species are big sage, Gambel oak, chokecherry and serviceberry. These areas provide important habitats for reptiles, birds and mammals. This RMA provides some of the few large areas of upland habitats adjacent to the river. River Road separates these areas from the river.

Small areas of upland woodlands are located adjacent to the upland shrub community on the slopes west of River Road. Aspen, Englemann spruce, and subalpine fir dominate this plant community. These areas provide important habitats for reptiles, birds and mammals.

Summary

The RMA's semi-natural condition and accessibility make it suitable for moderate levels of recreational use. The most suitable uses include kayaking and fishing. These uses should be managed to minimize impacts to residential areas, especially within the designated quiet zone.



View of RMA 2 and Fetcher Pond from hill



RMA 3

RMA 3 - Snake Island

This RMA is a relatively short section approximately 0.5 miles long. The downstream limit of the reach is Weiss Park.

1. Recreation

This RMA receives moderate to high levels of use. Access to the RMA is from Trafalgar Drive, Weiss Park, adjacent commercial properties, and the core trail. As a result of the highly visible access provided by Weiss Park, this area attracts use by first time visitors to Steamboat Springs. This RMA is intensively used by kayakers, fishermen, swimmers and dog owners. Much of the swimming use is associated with the hot springs discharge and several deep pools. Conflicts are common in this reach, including conflicts between river users and private property owners. The high use levels may be exceeding the area's capacity. A side channel provides some relief from the crowds; however, low flows limit the viability of this channel for most activities.

2. Land Use

Adjacent land uses include commercial, residential and developed parkland. The railway tracks and Highway 40 parallel both sides of the river and the core trail extends through the entire reach. The area is highly developed; no changes in land uses are planned. Most uses adjacent to the area, including several lodging establishments, generate frequent trips to the area.

3. Aquatic Habitat

This reach has a higher number of riffles and pools than some of the other downstream reaches and includes Iron Horse Hole. Extensive modifications/enhancements have been made in this reach. These include a series of recreation improvements (boulder clusters, holes, and play waves) associated with the kayak slalom course as well as fish habitat enhancements. A high level of visitation concentrated within a small area is likely impacting aquatic habitat in this reach.



4. Terrestrial Habitat

This RMA is primarily developed parkland. A narrow wetland/riparian shrub community is found along the margins of the river, and a small stand of wetland/riparian woodland occurs near the north end of Snake Island. Most of the habitat at Snake Island, however, consists of grasslands. High use levels are causing riverbank erosion at several locations, resulting in the absence or loss of vegetation. The majority of the wildlife habitats associated with this RMA consist of urban habitats, and a variety of bird and mammal species thrive in these urban areas.

Summary

The RMA's easy access, high visibility to visitors, complimenting land uses, and recreational amenities make it suitable for moderate to high levels of use. Appropriate uses include kayaking, rafting, swimming and private tubing. The area needs intensive management to reduce visitor conflicts and resource damage.



Views upstream toward Snake Island foot bridge





RMA 4

RMA 4 - Downtown

The RMA is located in downtown Steamboat Springs and extends from the vicinity of the Howelsen Ice Arena downstream to the 13th Street Bridge.

1. Recreation

As would be expected, this RMA attracts high levels of use. The area can be accessed at numerous points and provides a different type of experience than the other RMA's, primarily due to the developed character of the reach and the excitement and energy of a river corridor through downtown. Fishing, tubing and kayaking are all very popular activities on this stretch. In general, the different periods of uses described in Chapter 2 eliminate most user conflicts. Areas such as the community center vicinity, however, receive such a high level of use that conflicts are inevitable. These conflicts usually occur as one season of use transitions into another. For example, rafting and kayakers may conflict during the early part of the season when both user groups are active. Later in the season, conflicts may emerge between kayakers and waders using the same pool.

2. Land Use

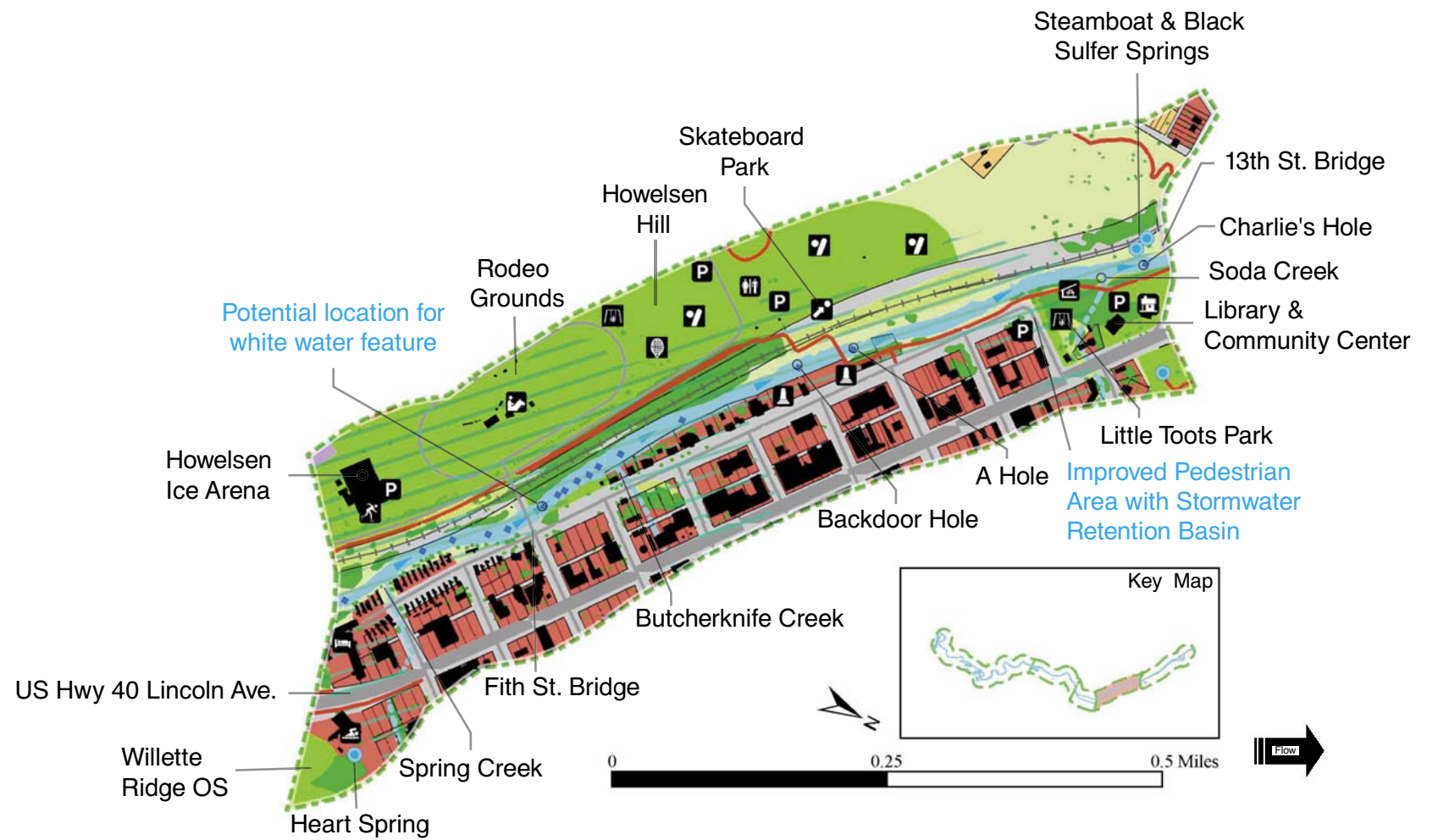
This RMA passes through and helps define the character of Steamboat's downtown. Commercial businesses line the river along one side of the corridor and the opposite side includes numerous public facilities such as the ice arena, rodeo grounds, Howelson Hill Ski area, skateboard park, and the Black Sulfur Springs. Other activity areas include the library and community center. The intensity of use in this area has increased since the installation of "Charlie's Hole," a prime kayaking play area and swimming hole when water levels are low enough. The Yampa River core trail extends through the length of this RMA.



Howelsen Hill foot bridge, looking downstream.

3. Aquatic Habitat

The river channel in this RMA has low sinuosity and is highly entrenched, restricted on one side by the railroad and on the other by development. Flows through this segment are augmented by a number of tributaries, including Butcherknife, Soda and Spring Creeks. Numerous channel modifications have been constructed, including several new playholes. Low dissolved oxygen levels and higher water temperatures have been observed. Water quality sampling also documented a nitrogen-loading spike in this reach. Elevated levels of some metals have been observed in Butcherknife Creek. (AWC 2001)



Landuse		Sensitive Habitat	
 Residential - Medium/High Density	 Riparian Woodland	 City Limits	 Quiet Zone
 Residential - Low Density	 Riparian Herbaceous/ Wetland	 Trails - Existing	 Trails - Proposed
 Commercial	 100 Year Floodplain (1995 Comp. Plan)	 River Structures	 Buildings
 Industrial	 Ownership Parcels	Desired Conditions Labels	
 Transportation	Existing Conditions Labels		
 Open Space (OS)			
 Park			
 Vacant (private)			
 Water/ Conservation			



4. Terrestrial Habitat

The banks of the river have been disturbed by human activity in several locations and some areas of accelerated erosion are present. However, some quality habitats occur in this RMA. The wetland/riparian shrub and wetland/riparian woodland habitats through this reach are relatively narrow and discontinuous due to encroachment by the railroad and other roads, but continue to provide wildlife habitat, particularly urban habitats where a variety of bird and mammal species thrive. A small, linear marsh area occurs along the west side (Howelsen Hill side) of the railroad and is dominated by broadleaf cattail. Small areas of upland woodlands are also located along the west side of the railroad in the northwest portion of the reach.

Summary

The RMA's easy access, recreational amenities, high profile, proximity to downtown and complimenting land uses makes it the most suitable RMA for high levels of recreational use. Appropriate uses include fishing, kayaking, rafting, swimming and tubing. However, maintaining these high use levels requires intensive management to ensure safety and avoid land use and transportation conflicts.

RMA 5

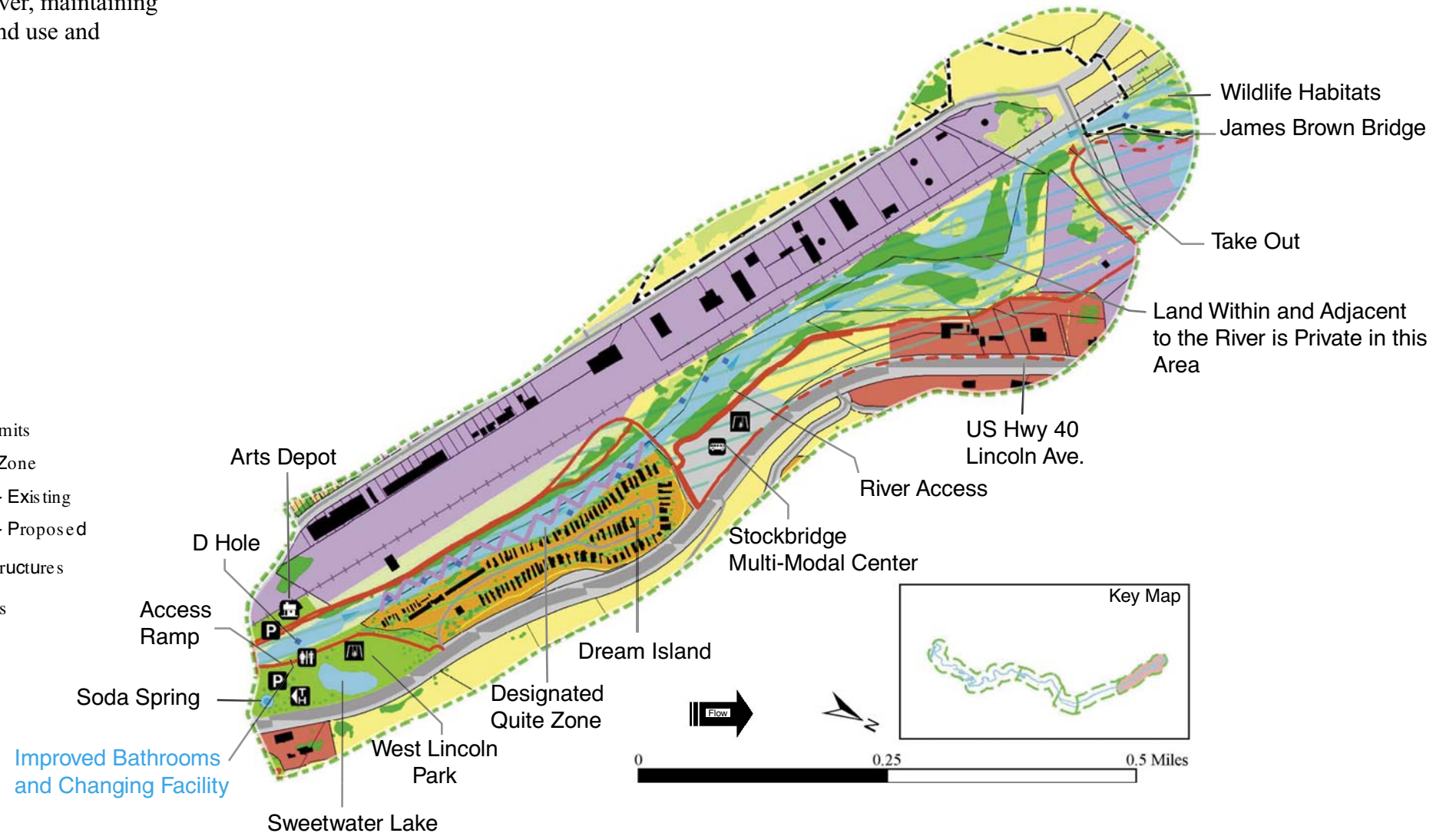
RMA 5 - Stockbridge

This RMA is located between 13th Street and the James Brown Bridge.

1. Recreation

This RMA receives high levels of use due its location and use by commercial tubing outfitters. Access is from 12th Street, both sides of the 13th Street Bridge, and the multi-modal center and James Brown Bridge. The multi-modal center provides ample parking for longer-term users, and a pick-up and drop-off facility, especially for kayakers. The area is heavily used by tubers and kayakers. Commercial tubing was moved to this stretch in 2001 to reduce potential conflicts and pressure on upstream reaches of the river. Fishing pressure is light in this area, but may increase due to recent habitat improvements and easy access.

- | | | |
|-----------------------------------|---------------------------------------|-------------------|
| Landuse | Sensitive Habitat | City Limits |
| Residential - Medium/High Density | Riparian Woodland | Quiet Zone |
| Residential - Low Density | Riparian Herbaceous/Wetland | Trails - Existing |
| Commercial | 100 Year Floodplain (1995 Comp. Plan) | Trails - Proposed |
| Industrial | Ownership Parcels | River Structures |
| Transportation | Desired Conditions Labels | Buildings |
| Open Space (OS) | Existing Conditions Labels | |
| Park | | |
| Vacant (private) | | |
| Water/ Conservation | | |





2. Land Use

Land use along the river corridor is primarily residential and light industrial. Other uses include West Lincoln Park, the Stockbridge multi-modal center, and some commercial uses. The Yampa River core trail extends through the length of the RMA. The largest residential development is Dream Island Mobile Home Park. The proximity of residents to the river's edge and the high number of users has resulted in some conflicts. The reach adjacent to the trailer park is designated as a "Quiet Zone."

3. Aquatic Resources

The river is characterized by low sinuosity until it approaches the James Brown Bridge. Riprap has been installed along the banks through much of the reach (in the form of concrete blocks, metal debris, etc.) to protect the railroad from flooding and to prevent lateral migration of the channel. Modifications within the RMA include hydrologic control structures in upstream portions to improve the experience for recreational users and improve habitat. These improvements have greatly added to the recreational experience since this stretch of river lacks much of the diversity and interest of the other RMA's.

Low dissolved oxygen levels and higher temperatures during the summer months have been observed, as well as increased levels of dissolved solids. (AWC 2001) In this RMA, this is compounded by the shallow river depth and lack of overhanging vegetation.

4. Terrestrial Habitat

The reach includes a few remaining quality habitats. A small, open water area occurs in a marsh just upstream of James Brown Bridge in between the river and railroad. The marsh is dominated by cattails. A small, spring-fed pond named Sweetwater Lake is located in Lincoln Park. Wetland areas provide important habitats for aquatic invertebrate species, fish, amphibians, reptiles, birds and mammals.

A narrow wetland/riparian shrub community and fringe of wetland/riparian woodland habitats are found along the margins of the river in this reach. A larger stand of cottonwoods is found just upstream of the James Brown Bridge on river right. Grasslands are also present in a small area to the west of the railroad right-of-way at the northern end of the reach. These areas primarily provide important habitats for reptiles, birds and mammals.

Summary

The RMA's easy access, recreational amenities, and land uses make it suitable for high levels of use. Appropriate uses include kayaking, rafting, fishing, swimming and tubing. However, quiet zone guidelines and other restrictions need to be maintained in order to avoid impacting residential areas. Additional efforts are needed to improve the health of the river, including water quality. These efforts should include better control of stormwater runoff, additional riparian plantings along the edge, larger trees to screen out residential and industrial uses, additional river structures, and acquisition of key wetland areas.



From top left: "D" Hole; rock vanes near Dream Island (looking downriver and upriver); Steamboat Spring

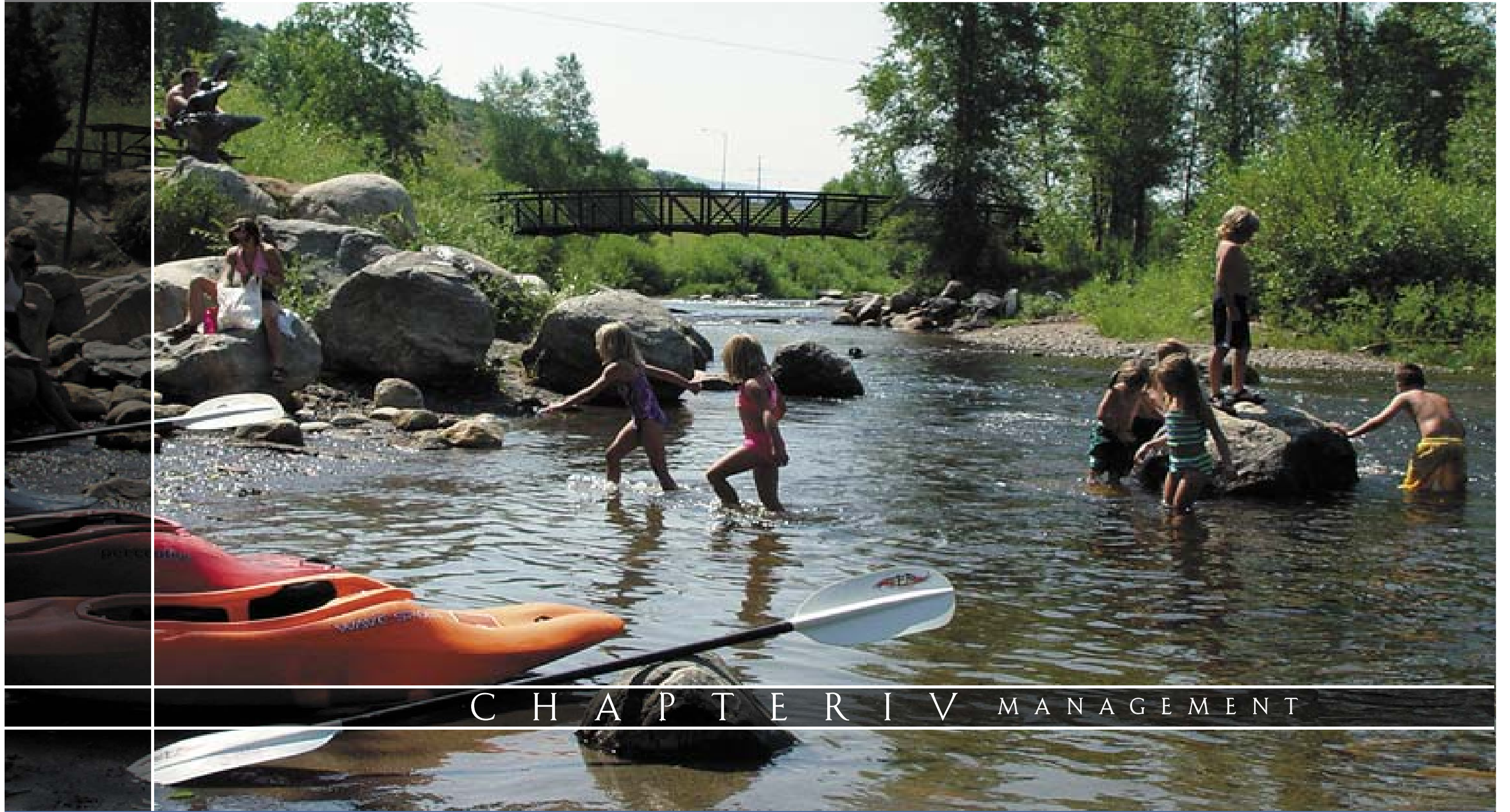


Implementation

The Action Plan is intended to provide a framework for implementation and management actions needed to attain the plan’s vision. It is also designed to give decision-makers a useful tool for establishing future work programs and budgets. The Action Plan addresses the question: “What do we need to do to make sure the plan is successful?” The intent of the Action Plan is to stay simple -- allowing users to obtain a “big picture” reference point and an indication of priority actions for the future. Since funding and other variables will change, this Action Plan will be periodically amended. Note that the existing Trails and River Committee would be the logical entity to assume the steering group role, but it has not been formally charged with this responsibility. This group could also develop and recommend priorities for implementing the action plan.

ACTION PLAN							
Action	RMA					Responsibility	Funding Source
	1	2	3	4	5		
Stabilize river banks where degraded or presently eroding	●	●	●	●	●	City, FOY	User fees
Acquire or purchase conservation easements on key properties bordering river	●	●	●	●	●	City	5-Year CIP
Acquire or purchase conservation easements on key properties on tributaries	●	●	●	●	●	City	5-Year CIP
Implement formal monitoring program	●	●	●	●	●	City Staff	General fund, Grants
Expand setback requirement	●	●	●	●	●	City Council	N.A.
Obtain more funding for river protection/improvements (grants)	●	●	●	●	●	City Staff	N.A.
Obtain in-stream flow and/or recreational use water rights	●	●	●	●	●	City Council	General fund, CIP
Provide educational signage at high-use locations	●	●	●	●	●	City Staff	User fees, general fund
Reduce dog waste along/near river and streams	●	●	●	●	●	All	N.A.
Coordinate actions with County	●	●	●	●	●	City Staff	N.A.
Designate river management steering group (Trails & Rivers Committee)	●	●	●	●	●	All	N.A.
Develop formal put-ins and take-outs; discourage access elsewhere	●	●	●	●	●	City Staff	5-yr CIP, Grants, FOY
Continue to refine carrying capacities for all recreational uses	●	●	●	●	●	Staff, T&R Comm.	N.A.
Move private tubing downstream of Fetcher Park	●	●	●	●	●	City Council	N.A.
Prepare guidelines for habitat improvements, land use, etc.	●	●	●	●	●	Staff, T&R Comm.	General fund
Reduce non-point runoff, pollution sources	●	●	●	●	●	City Council	CIP, Grants
Implement public education program	●	●	●	●	●	City, Yampatika	General Fund
Ban motorized use on river through City	●	●	●	●	●	City Council	N.A.
Survey and control weed species along river	●	●	●	●	●	City Staff	General fund, Grants
Plant more trees along river and improve habitat	●	●	●	●	●	City, FOY	FOY, User fees
Develop more parking areas near river	●	●	●	●	●	City Council	5-Year CIP
Build bathrooms/changing rooms at kayak use points	●	●	●	●	●	City Council	5-year CIP, Grants
Rebuild existing play features, rock structures	●	●	●	●	●	City, FOY	FOY, Grants
Support CDOW undesirable fish removal programs	●	●	●	●	●	All	N.A.
Provide longer commercial (downstream) tubing trips	●	●	●	●	●	Staff, City Council	N.A.
Identify and map key erosion areas.	●	●	●	●	●	Staff, City Council	N.A.
Screen industrial and residential areas with native plantings	●	●	●	●	●	Staff, City Council	N.A.
Remove cars or "Detroit Rip Rap" and replace with plantings	●	●	●	●	●	Staff, City Council	N.A.
Build more play features consistent with resource protection goals	●	●	●	●	●	FOY	FOY, User fees
Bear River Park improvements	●	●	●	●	●	City	General Fund

- Notes
1. Black dot means applicable to that RMA
 2. CIP = Capital Improvement Program
 3. FOY = Friends of Yampa



C H A P T E R I V M A N A G E M E N T



Introduction

This chapter describes a framework for management of the river corridor. It is intended to address the issues and respond to the vision described in Chapter 1. The overall direction for this management framework is based on the analysis described in the previous chapters and guidance provided by the public, City staff and the CAC.

In some instances, the management actions contained in the plan confirm existing practices, such as the requirements that apply to commercial outfitters. New initiatives are also proposed, including recommendations for improving resource protection regulations, adopting new financial tools, and other strategies for enhancing the river corridor.



Tuber and swimmer in the "A Hole"

The overall management framework is presented as a series of principles and policies, organized by the following categories:

- Recreation (RE)
- Land Use (LU)
- Aquatic Habitat (AH)
- Terrestrial Habitat (TH)

For each category, a broad-reaching principle is defined followed by increasingly specific policies and management recommendations.

Taken as a whole, the management direction described in this chapter is intended to ensure a quality recreational experience while protecting the natural environment. It is also designed to minimize potential conflicts between the multiple types of recreational use occurring along the river.

A key principle included in the management framework is adaptive management. Periodic monitoring of resource conditions and user satisfaction levels is essential, and the plan must retain sufficient flexibility to allow for adjustments that respond to changing river conditions, new information, challenges and opportunities. A recommended monitoring program is outlined in Appendix A. The formal monitoring plan should be funded to ensure continuity of data collection and address the following basic river characteristics:

- Water quality
- Aquatic diversity
- Terrestrial habitat
- Recreational experience
- Adjacent land use

Recreation (RE)

Principle RE. Manage resources for public use while protecting the natural values of the River.

Policy RE-1. The Yampa River should be managed in a manner that preserves a range of recreational opportunities.

A recommended Recreational Intensity Level (RIL) has been defined for each RMA. The RIL is based on the land use, recreation, terrestrial and aquatic resources present. As shown in Table 1, the classes that make up this spectrum are differentiated from each other by degree of naturalness, types of social experience, and other considerations. Three RIL classes have been determined to assist in river management -- Low, Medium and High.



Table 1. LEVEL OF INTENSITY			
Recreation Intensity Level	RMA	Length	Conditions
Low	RMA 1	2.9 miles	high degree of naturalness high quality habitat areas sensitive to human disturbance man-made development rare little on-the-ground evidence of other people high opportunity to experience solitude, closeness to nature, and wildlife education little interaction with other people small party size (1 to 2 persons) few developed access points
Medium	RMA 2 RMA 3	1.5 miles	moderate degree of naturalness moderate to high quality habitat some areas sensitive to human disturbance structures may be present and more highly developed some on-the-ground evidence of other people low to moderate opportunity to experience solitude, closeness to nature moderate to high interaction with other people low to moderate party size expected (<5) moderate level of developed access
High	RMA 4 RMA 5	1.9 miles	very low degree of naturalness low quality habitat few areas sensitive to human disturbance highly developed, numerous structures, urban development obvious on-the-ground evidence of other people very low opportunity to experience solitude, closeness to nature high interaction with other people moderate to large party size expected (greater than 5) numerous developed access points



Policy RE-2. Provide a range of recreational activities that are compatible with the natural environment. Allowable uses are:

- Trail Use
- Swimming
- Watchable Wildlife/Educational Features
- Tubing
- Fishing
- Kayaking
- Canoeing
- Rafting

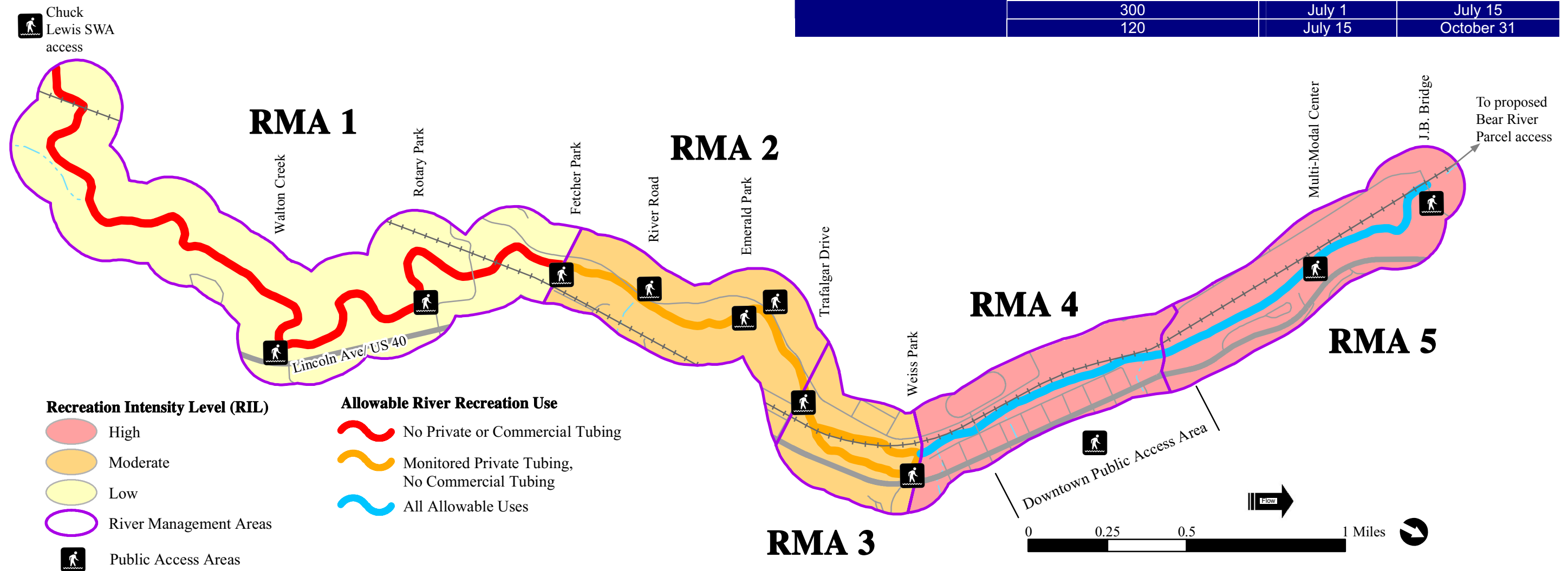
Swimming and fishing should not occur during periods when flows are below the minimum levels shown in Table 2A. Table 2B shows the minimum flows suggested for all floating activities at different time periods. Other uses, including motorized activities, are not allowed.

Table 2A. NON-BOATING YAMPA RIVER RECREATIONAL USES, FLOWS AND PEAK USE PERIODS

	Minimum Flow	Optimal Flow	Start	End
Fishing	70	200	July 1	April 30
Swimming	85	100	July 1	August 15

Table 2B. BOATING YAMPA RIVER RECREATIONAL USES, FLOWS AND PEAK USE PERIODS

	Minimum Flows for Reasonable Recreation Experience (cfs)	Start	End
Recreational boating (kayaking, tubing, canoeing and rafting)	500	April 15	April 30
	800	May 1	May 15
	1200	May 16	May 31
	1700	June 1	June 15
	800	June 16	June 30
	300	July 1	July 15
	120	July 15	October 31





Policy RE-3. Recreational uses should be distributed in a manner that ensures a high quality recreational experience and protects the natural environment.

The distribution of recreational uses should consider existing land use, recreation, terrestrial and aquatic conditions. Table 3 describes acceptable recreational uses by RMA. Activities identified as “allowed, monitor” will be formally monitored to evaluate compliance or specific impacts. In general, all recreational activities in all RMA’s will be monitored to some degree.



Stockbridge multi-modal center

Policy RE-4. Provide appropriate river access.

Recreational uses should use designated public river access points that support permitted recreational uses within each RMA. Acceptable recreational uses by access point are described in Table 4.

Table 3. RECREATION USE BY RMA

River Management Area (RMA)	Recreation Intensity Level	Commercial Tubing	Private Tubing	Swimming	Paddling	Fishing	Education/ Wildlife Viewing
RMA # 1 - Walton Creek	Low	Prohibited	Discouraged	Discouraged	Allowed	Allowed	Allowed
RMA # 2 - Fish Creek	Medium	Prohibited	Allowed Monitor	Discouraged	Allowed	Allowed	Allowed
RMA # 3 - Snake Island	Medium	Prohibited	Allowed Monitor	Allowed	Allowed	Allowed	Allowed
RMA # 4 - Downtown	High	Allowed Monitor	Allowed	Allowed	Allowed	Allowed	Allowed
RMA # 5 - Stock Bridge	High	Allowed Monitor	Allowed	Allowed	Allowed	Allowed	Allowed

Table 4. RECREATION USE BY ACCESS AREA

Access Areas	Recreation Intensity Level	Commercial Tubing	Private Tubing	Swimming	Paddling	Fishing	Education/ Wildlife Viewing
River Creek Park	Low	Prohibited	Discouraged	Prohibited	Allowed	Allowed	Allowed
Rotary Park	Low	Prohibited	Discouraged	Prohibited	Allowed	Allowed	Allowed
Fetcher Park	Medium	Prohibited	Allowed Monitor	Discouraged	Allowed	Allowed	Allowed
Emerald Park	Medium	Prohibited	Allowed Monitor	Discouraged	Allowed	Allowed	Allowed
Dr. Rich Weiss Park	Medium	Prohibited	Allowed Monitor	Allowed	Allowed	Allowed	Allowed
Downtown Areas	High	Allowed	Allowed Monitor	Allowed	Allowed	Allowed	Allowed
Multi-Modal Center	High	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
James Brown Bridge	High	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed



Policy RE-5. Recreational uses should be managed at sustainable levels that preserve a high quality recreational experience and protect the natural environment.

In the interest of maintaining the health of the river and providing an enjoyable recreational experience for all, commercial river companies will adhere to guidelines outlined in Appendix C. Users of the river should also follow best management practices on the river, including:

- No glass allowed
- No littering
- No Styrofoam coolers
- Respect other river users (i.e. fisherman, kayakers, waders, etc.)
- Respect private property
- Dogs allowed per leash laws
- No alcohol
- Avoid standing or walking on river bed (except fishermen)
- Life jackets, floatation devices and proper footwear recommended
- No bathing or diapers in river



Dr. Rich Weiss Park

Educational programs will serve to provide information to river users and landowners, with a goal of improved safety and environmental and social conditions through increased knowledge of various aspects of river use, requirements and rights.

Policy RE-6. Specific recreational uses on the Yampa River should be managed in a manner that supports the vision and planning objectives.

Tubing – Private tubing is a viable recreational use on the Yampa River, but should not occur in RMA 1. Private tubing use should be monitored to ensure use levels do not affect the recreation experience or natural environment. If private tubing levels exceed indicators, additional RMA’s should be closed to private tubing or numbers of tubers controlled (see Appendix A).



Along core trail in downtown area

Commercial Tubing – Commercial tubing is a viable recreational use on the Yampa River. It should adhere to the commercial operator guidelines presented in Appendix C and the restrictions outlined in Table 5. Restrictions include maximum allowable numbers (i.e. “caps”), timing, tubing colors and types, safety requirements, reporting methods and cleanup requirements. Commercial tubing should not occur in RMA 1, RMA 2 and RMA 3.

	Company	Weekdays	Fridays	Weekend
		Maximum # of Tubes Allowed		
Commercial Tubing/Floatation Device Rental	Backdoor Sports	203	227	440
	Bucking Rainbow	25	35	35
	Blue Sky West	85	100	190
	Lockhart’s	85	100	190
	One Stop Ski Shop	35	38	60
	Totals	433	500	915
Commercial Fishing Guide Services	Fishing guides authorized to provide services on the Yampa River within city limits are presently limited to five (5) as noted below: a. Straightline Sports b. Blue Sky West c. Bucking Rainbow/High Adventures d. Steamboat Fishing Company e. Elk River Outfitters Use limits: Four (4) clients per day on the downtown river corridor. Half-day guide trips will be counted as a full day of usage.			
Kayak Rentals	No limits			
Canoe Rentals	No limits			
Raft Rentals	No limits			
Private Recreation Use	No limits			

Paddling/Rafting – Paddling and rafting activities are viable recreational uses on the Yampa River and are allowed in all RMA’s. All companies offering boat rentals and/or guided float trips are required to obtain permits through the City that regulate boat sizes as a function of flow (see Appendix B). Use (private or commercial) should be monitored and adhere to best management practices, including:

- Use only designated put-ins and take-outs
- Observing minimum flow requirements for boat size
- “No trace” boating practices

Swimming – Swimming is a viable recreational activity in the Yampa River. No swimming should occur in RMA 1 or RMA 2. Overall use should be monitored and adhere to best management practices, such as not introducing sun block oils into the river and not swimming when water levels are low enough to stress fish populations.

Fishing – Fishing should be allowed in all RMA’s. Use should be monitored and adhere to best management practices to protect this blue ribbon fishery. All state fishing regulations should be followed. Fish should be played and released as quickly as possible. Catch and release BMP’s should be followed (e.g., play fish quickly, wet hand before touching, etc.) to minimize trauma to fish. All commercial fishing guides should adhere to requirements outlined in Appendix C. Applicable possession regulations within the study area are:



- Downstream of Stagecoach Dam 0.6 miles to Walton Creek (excluding Catamount Lake). Artificial flies and lures only and a bag and possession limit of two trout.
- Walton Creek downstream 4.8 miles to the James Brown (Soul Center of Universe) bridge in Steamboat springs. Artificial flies and lures only and all trout upon being caught must be immediately released into the water.

Policy RE-7. River access fees.

All commercial users of public access points for the Yampa River within the city limits are presently required by City ordinance to pay a permit fee and monthly use fee. These fees go into a dedicated account for river improvements, subject to direction from the Trails & River Committee and commercial operators. The monthly use fee is 5% of gross revenues derived from the rental of floatation devices or other river recreational equipment. This fee should be reviewed periodically and adjusted as necessary to ensure reasonable returns for use of public resources/facilities.

Calculation of the fee amount is straight forward for commercial businesses that simply rent floatation devices (e.g. tubes or kayaks) but less clear for those businesses that also provide guide or instruction services, such as for fishing, rafting, or kayak lessons. Each commercial operator assigns an assumed value for the equipment rental portion of the total guiding fee, or lesson, and then pays 5% of that amount, not of the total fee. This has led to considerable discrepancies among companies as to what portion of their fees accurately reflect the equipment rental cost (e.g. how much is the rental of a fly rod worth, or 1/6th of a raft?) and is very difficult to monitor. In order to level the playing field among commercial operators, make it simpler for permittees to calculate and City Staff to administer, and provide a reasonable amount of revenues for future river work, the fees should be based on 5% of a business' revenues derived from river recreation, whether it be tubing, rafting, canoe lessons, guided fishing, etc.

At present, there are no fees for private use of the river but it might be an appropriate tool for future management if recreation use levels continue to increase and adequate funds for river protection and improvement are not available elsewhere (e.g. City budget).

Land Use (LU)

Principle LU. Recreational uses should be managed in a manner compatible with adjacent land uses.

Policy LU-1. Recreational users should adhere to the two quiet zones and other regulations in order to reduce conflicts with adjacent property owners.

Users should be informed about the two quiet zones adjacent to the mobile home parks along the river. Attractive and clear signage should be posted to remind users of these areas and where private property is located.



Canoers below Snake Island foot bridge

Policy LU-2. Access points are a primary management tool for the river.

Access points should be used as a tool to control the types and levels of use on the river. Access point signage should be installed and/or modified to reflect current management restrictions. New facilities constructed at these access points should be in conformance with the recreation intensity level (RIL) previously described. Access points should provide signage and other exhibits to educate users on the best management practices on the river.

Aside from the Bear River Parcel and River Creek Park (aka 'Polumbus Property'), both of which are in the planning stages, no new river access points should be constructed. Parking should be limited to designated areas and users should adhere to parking restrictions. A viable shuttle system should be developed to encourage users to use exterior parking lots, such as Stockbridge multi-modal center. The shuttle system should be used to direct activities to suitable access points and RMA's.



Policy LU-3. A limited amount of on-river signage will be added to the river corridor to support management activities and goals.

A unified signage system and kiosks will be designed in an unobtrusive yet effective manner to identify legal put-ins and takeouts, toilets, and quiet zones. Interpretive signs will provide information on cultural and natural resources. Standardized information kiosks using existing designs will provide safety and orientation materials.



Signage Design

Kiosk Design

Policy LU-4. Remaining elements of the core river trail should be constructed in an environmentally friendly manner.

Where possible, existing trail segments should be relocated and future trail segments situated away from sensitive environmental resources, including the Yampa River, except where such access might be useful to support public education efforts and consultation with CDOW has occurred, such as the proposed boardwalk in Rotary Park.

Aquatic Habitat (AH) 

Principle AH. Aquatic habitat should be improved and enhanced.

Policy AH-1. Fish habitat management will be coordinated with the Colorado Division of Wildlife (CDOW).

CDOW efforts to improve the fisheries should be supported, including fish stocking or removal, habitat improvements and whirling disease control programs.

Policy AH-2. Aquatic habitat will be improved to enhance fisheries.

While the Yampa River supports a healthy fishery, aquatic habitat improvements to the river should continue, including riparian enhancements and new structures. These improvements should be targeted to improve the aquatic environment for trout without harming native fish or dynamic river functions. Improvements could address the following conditions:

- Water depth
- Water velocities
- Percent overhead cover, shading
- Pool/riffle composition
- Stream temperature
- Bed material composition



View of "D Hole" and West Lincoln Park

Where possible, aquatic habitat enhancements to the river should serve multiple goals, including improving the recreational experience of paddlers, tubers and fishermen. Improvements to the river should be natural in appearance and in character with the surrounding environment.

Policy AH-3. Protection of the aquatic habitat and trout fishery should be the highest priority. If one or more resource protection triggers are met, the Yampa River may be closed to certain recreational users, based on consultation with CDOW staff.

Triggers include:

- Water temperatures exceeding 75°F for two or more consecutive days
- Dissolved oxygen (D.O.) levels average less than 6.0 mg/l
- Flows less than 85 cfs.



Policy AH-4. Maintain or improve the existing water quality for fisheries, aesthetics and other ecological considerations.

Give priority to protection of water quality in cases of conflict with other resource uses. Prevent alteration of natural channels or stream banks that would negatively affect the free flow of water, overbank flows, the appearance of the stream, fish habitat or water quality.

The City will ensure that surface waters are protected from degradation and are of a high quality. State and federal regulations provide the primary framework for protecting water quality from further degradation. However, local governments can play an important role in controlling potential pollution sources, monitoring water quality and assuring that adopted regulations are adequately enforced. In addition, a number of natural springs occur throughout the community. These resources should be protected even though they may contribute to water quality degradation in the Yampa.

Policy AH-5: Preserve existing stream flows.

Efforts to maintain an adequate amount of water in the river are fundamental to the achievement of water quality, ecological health and other resource protection goals. Toward this end, the City should obtain a Recreational Channel Diversion (RICD) water right to protect against future appropriations that might diminish the river flows needed to provide a reasonable recreation experience at the location of the City's in-channel diversion structures. Funds should be allocated in the City's 5-Year Capital Improvement Program for this purpose. In addition, consideration should be given to asking the Colorado Water Conservation Board to seek a Minimum In-Stream Flow (MISF) to provide the minimum flows necessary to support the biological integrity of the Yampa River throughout its entire reach through the City.

Policy AH-6: Consider obtaining other water supplies.

The City presently owns about 350 acre-feet of water in Stagecoach Reservoir that is dedicated to municipal use. Additional water storage possibilities and the acquisition of more senior water rights from willing sellers should be pursued.

Policy AH-7: Provide greater protection of the River through more restrictive floodplain regulations.

Consistent with the update of the City of Steamboat Springs Community Plan and policies developed by the Planning Department, the City will discourage future development from occurring in identified floodplains through more restrictive floodplain regulations, in order to reduce hazards and protect water quality and riparian areas.

Policy AH-8: Enforce stormwater management regulations.

Actively enforce stormwater management regulations, including erosion from construction sites and from improperly located snow storage areas. Move quickly to implement the control and educational measures described in the City's Phase 2 Stormwater permit application, such as reducing sedimentation to the Yampa.

Terrestrial Habitat (TH) 

Principle TH. Terrestrial habitat should be improved and enhanced.

Policy TH-1. Provide large contiguous areas adjacent to the river, free of human disturbance.

Efforts should be made to control and discourage the presence of visitors to key parcels adjacent to the river. By reducing accessibility and closing key parcels to people, critical wildlife habitats will be protected.

Policy TH-2. Additional open lands and natural areas should be protected.

The city should purchase additional lands and/or pursue GOCO and other grant opportunities to acquire conservation easements or other agreements with interested landowners. Specific properties for potential acquisition in the near future have been identified by the CAC.

Policy TH-3. Manage vegetation to protect and enhance the natural habitat of the river, placing special emphasis on protecting native riparian and wetland vegetation.

Some of the most productive and diverse habitats are the cottonwood and willow-dominated riparian areas along the Yampa River. These riparian areas provide habitat for a large number and diversity of wildlife species, and many wildlife species depend either entirely or significantly on the availability and quality of these habitats for their necessary life cycles, specifically dietary and reproductive specialization. Many of these habitats include a mix of woodland, shrub and grassland riparian communities. They also absorb and filter runoff, attenuate overbank flows and maintain river channel stability. This mosaic should be preserved and enhanced through additional river restoration projects.

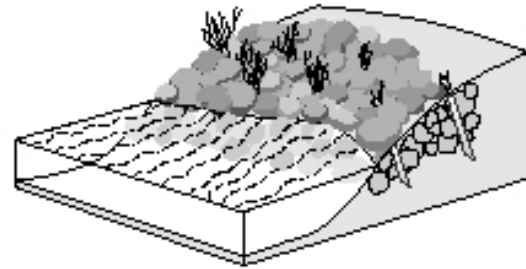
Cottonwood communities are some of the most important habitat. Recruitment among these stands should be carefully monitored. To ensure the future health of this natural system, there should be no net loss of riparian habitat (including wetlands) as a result of development in the study area.

Every effort should be made to ensure that riverbank restoration or stabilization projects use BMP's, such as those shown.



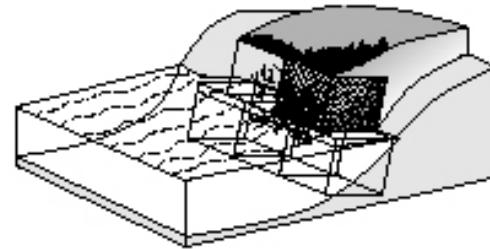
EXAMPLES OF BANK STABILIZATION BMP'S

Joint Plantings



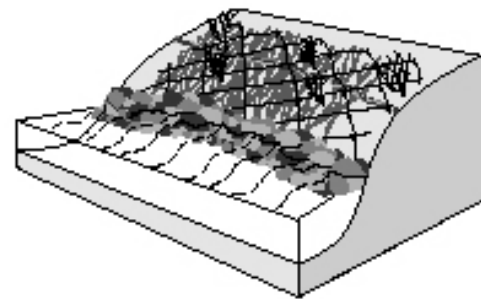
Live stakes tamped into joints or openings between rock which have previously been installed on a slope or while rock is being placed on the slope face.

Vegetated Gabions



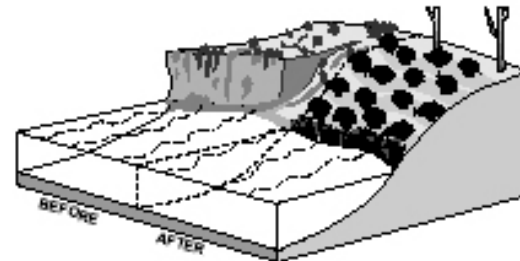
Wire-mesh, rectangular baskets filled with small to medium size rock and soil and laced together to form a structural toe or sidewall. Live branch cuttings are placed on each consecutive layer between the rock filled baskets to take root, consolidate the structure, and bind it to the slope.

Brush Mattresses



Combination of live stakes, live facines, and branch cuttings installed to cover and physically protect streambanks; eventually to sprout and establish numerous individual plants.

Bank Shaping and Planting



Regrading streambanks to a stable slope, placing topsoil and other materials needed for sustaining plant growth, and selecting, installing and establishing appropriate plant species.

Source: USDA, Natural Resources Conservation Service, Stream Corridor Restoration, NTIS Order no. PB98-502487

Policy TH-4. Provide buffers from development to protect terrestrial and aquatic resources.

Consistent with the update of the City of Steamboat Springs Comprehensive Plan and policies developed by the Planning Department, the minimum setback for any resource from the natural feature should be between 100-300 feet. A buffer distance of up to 1/4 mile should be used around sensitive wildlife resources, such as nesting areas. In order to provide an appropriate level of flexibility and recognition of situations where lot size or other considerations create special circumstances, the regulations should allow exceptions to these minimum setbacks. The exceptions would be performance based, i.e., in return for restoration of other important riparian habitat or other appropriate conservation efforts, the minimum setback could be adjusted on a case-by-case basis. The net result should be no loss of sensitive natural features, including but not limited to the following: floodplains, wetlands, riparian habitats, critical wildlife habitats and threatened and endangered species habitats.



Children playing in hot springs outflow at Dr. Rich Weiss Park

Policy TH-5. Encourage non-regulatory approaches.

In addition to enhanced regulatory tools, the community will undertake a series of efforts that promote conservation of riparian systems. Some of these efforts are ongoing, such as the promotion of voluntary efforts to conserve lands through donation of conservation easements or other means that can take advantage of tax credits or provide other incentives to landowners. Other strategies focus on educational programs that emphasize the importance of protecting riparian resources, programs that should be directed at river users as well as landowners.

Policy TH-6. Remove invasive vegetation.

Noxious weeds are found along the Yampa River within the City. Compounding the problem is the ease with which noxious weeds can be dispersed along the river. Recreational users, dogs, the use of a network of informal trails, livestock, wildlife, and normal water flow patterns disperse many weeds along the river.

Invasive vegetation in the riparian areas should be monitored and controlled. Given the scarcity of resources, it will be necessary to implement a phased, ongoing, integrated weed management program. To help slow dispersal of invasive weeds until the program can be implemented, a weed education program should be implemented immediately focusing on ways visitors and adjacent property owners can help manage weeds along the river.



A P P E N D I X A M O N I T O R I N G P L A N



Introduction

This monitoring plan and indicators will provide a means of evaluating the performance of the Yampa River Management Plan, which is intended to control recreational uses of the river at sustainable levels that protect the health of the river. Key indicators will be monitored to determine if recreation experiences and the condition of the natural environment are consistent with the vision and planning objectives outlined in this plan. If conditions are inconsistent with these objectives, additional studies, small amendments to the plan or a comprehensive update may be conducted. In order to promote more community involvement and stewardship of the river, appropriate groups, such as the Community Youth Corps (CYC) Colorado Mountain College (CMC), will be given responsibility for implementing some elements of the monitoring plan. In addition, specific goals will be developed for each element of the plan as data is collected and evaluated. In general, the goal of the monitoring program will be to prevent degradation of water quality, aquatic resources or recreational experiences within the study area. An annual report will be produced summarizing the indicators, and will include recommendations for improving the plan’s success.

The monitoring plan uses the four primary categories found in other chapters of the plan – aquatic habitat, terrestrial habitat, land use and recreation. Within each monitoring category, the following will be determined: why monitoring will be conducted, the responsible party for monitoring, the monitoring schedule, the location of monitoring, what the trigger threshold will be to initiate action, and what corrective actions should be taken. Data collected will be reviewed each year by City staff to determine if a trigger has occurred and what the appropriate remedial action, if any, will be. Triggers related to some aspects of water quality monitoring will need to be addressed on a daily basis (such as a low flow trigger initiating river use restrictions), or can be reviewed at an appropriate time of year to plan future actions. The monitoring program is intended to alert planners and resource managers of potential problems so they may be addressed while they are more easily managed and multiple options are still available. In some cases, monitoring will detect trends that may signal an upcoming potential need for a specific action, such as a plan amendment, or may initiate an immediate action such as river closure. The table below summarizes the components and estimated annual costs of implementing the monitoring program.

Table A-1. MONITORING PLAN SUMMARY			
Indicator	Review Period	Detection	Annual Cost
1. Aquatic Habitat (AH)			
AH-1. Physical and chemical water characteristics and river watch	Daily and Annually	Trends/Occurrence	\$2976
AH-2. Macro-invertebrate monitoring and river watch	Annually	Trends	\$3600 - \$4160
AH-3. Creel counts	Annually	Trends	No cost to City
AH-4. Fish census by electroshock	Annually	Trends	No cost to City
AH-5. River otter count	Annually	Trends	No cost to City
AH-6. Waterfowl survey	Annually	Trends	No cost to City
2. Terrestrial Habitat			
TH-1 Photo monitoring	Annually	Trends	\$170
TH-2 Weed inventory	Spring/fall	Occurrence	\$360*
TH-3 Wildlife	Annually	Impacts	None
TH-4 Bank erosion	Annually	Occurrence	\$240*
TH-5 Dog waste	Annually	Occurrence	\$240*
3. Land Use			
LU-1 Acres and percent by reach of natural areas	Annually	Percent Reduction	\$1520
4. Recreation			
RE-1 Annual user satisfaction survey	Annually	Percent Reduction	\$2070
RE-2 Annual counts of the number and types of users	Annually	Percent Reduction	\$1300
5. Data Review and Report			
	Ongoing	Annual Report	\$2000-\$3000
*does not include control costs			Total \$14,476-\$16,036

1. Recreation (RE)

Indicator RE-1. Annual user satisfaction survey

DESCRIPTION:

A survey will be conducted each year to identify trends in user satisfaction to ensure that all users of the river continue to enjoy a quality experience.

The following questions will be asked:

- Do you live in Steamboat Springs?
- What is the primary activity you are participating in during this trip on the river?
- Was your trip on the river private or commercial? (across all river user categories)
- How would you rate your satisfaction with your recreational experience?
- Is this your first time recreating on the Yampa River?
- How would you compare today’s experience on the river with experiences in previous years?
- What is your age?
- Any other comments about your experience?



Survey forms will also note the date, time and location of the survey.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Community Youth Corps, Community Service Officers.

MONITOR SCHEDULE: A 2-day monitor period would occur yearly at the peak of the kayak (late May), rafting (mid-June), tubers (mid to late July) and fishermen (September) seasons.

LOCATION: All RMA's.

TRIGGER: Low rating two years in a row.

ACTION: Actions could include one or more of the following: adjusting or limiting the numbers of a particular type of user, limiting the season of use of a particular group of users, modifying the facilities associated with a particular use, limiting the use area of a particular group.

COST: \$2070 per year (\$1920 labor, \$150 supplies)

Indicator RE-2. Annual counts of the number and types of users

DESCRIPTION:

Annual counts will help to identify trends in the number of users and evaluate outfitter compliance with permit conditions. This will help to identify increases or decreases in a particular user group, which will provide guidance for future recreational use decisions.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Community Youth Corps or youth organizations, Community Service Officers, commercial outfitters. Outfitters will continue to provide user counts at the end of each month as specified in their permits.

MONITOR SCHEDULE: Four to five counts each, consisting of a week day (Tuesday) and a "Triple Crown" (or high use) weekend (from 1,100 to 1,600 hours at Weiss Park or Fish Creek, Stockbridge and a central area).

LOCATION: All RMA's.

TRIGGER: Increases in the number of users or the duration of high use periods.

ACTION: Actions could include one or more of the following: adjustments to the number of users of a particular group; enhancements to attract additional users to a particular use.

COST: \$1300 per year (\$1200 labor, \$100 supplies).

2. Land Use (LU)

Indicator LU-1. Acres and percent by reach of natural areas (private, open space areas, easements, parks, etc.)

DESCRIPTION:

Preservation and acquisition of the natural and open areas along the Yampa River corridor is important for various reasons, including aesthetics, wildlife habitat and dispersion of users. Land use designation of parcels that were developed or preserved would be updated each year using GIS, with the results summarized into Table A-3 below. When new aerial photography becomes available, this data would be checked and updated.

RESPONSIBLE PARTY: City of Steamboat GIS personnel.

MONITOR SCHEDULE: Yearly.

LOCATION: All RMA's.

TRIGGER: Loss of total available natural acres.

ACTION: Active study of options and funding for acquisition/protection of lands by city.

COST: \$1520 per year (\$720 labor, \$500 materials).

Table A-3. Yampa River at Steamboat Springs Natural/Public/Protected Area (acres) Summary.

Year	RMA				
	1	2	3	4	5
Open Space (public)					
Conservation Easements					
Parks					
*Natural Areas (private)					
Total Available Acres					
Acres/Percent Protected					

*Natural areas = wetlands and riparian forests, shrubs and grasslands



3. Aquatic Habitat (AH)

Indicator AH-1. Physical and chemical water characteristics

DESCRIPTION:

Water quality will be to monitored for important indicators to detect and determine trends in water quality in the Yampa River within the city limits of Steamboat Springs. Water quality in the Yampa River and the tributaries that join it within the city limits will be monitored on a routine basis to detect possible changes in water quality over time. Monitoring of key water quality constituents, or “indicator parameters,” will be performed monthly during the spring, summer and fall, with at least one round of samples collected and analyzed for a more complete list of constituents once per year. These samples will provide an indication of possible water quality concerns, such as increased nutrient levels or heavy metals, which might not be detected from routine monitoring.

Parameters that will be monitored on a regular basis include: pH, temperature, conductivity and dissolved oxygen (DO). These parameters provide a quick indication of overall water quality and a means of detecting possible trends in water quality conditions or potentially dangerous conditions. For example, conductivity is an indirect measurement of the amount of dissolved solids in water, so a steady increase in conductivity levels at a particular site might suggest a source of contamination in the vicinity or nearest upstream tributary. DO levels are crucial to aquatic life, so regular monitoring will help protect populations of desirable aquatic species, such as trout. Temperature is also critical to many aquatic life-forms and can provide an indication of the degree of stress that species of concern, such as trout, might be under. pH measures the relative acidity of the water, which controls the solubility and type of chemical compounds that occur in water. Significant changes in pH levels might trigger more sampling to determine if other chemical changes were occurring.

ELEMENT	SCHEDULE	SOURCE
Physical		
Flow	daily	USGS/City Staff
Temperature	daily	USGS/ City Staff
General		
pH	monthly*/daily during critical periods	City Staff/CDOW
Dissolved Oxygen	monthly*/daily during critical periods	City Staff/CDOW
Conductivity	monthly*/daily during critical periods	City Staff/CDOW
Nutrients		
Total Nitrogen	summer at 100-200 cfs	City Staff
Nitrate	summer at 100-200 cfs	City Staff
Ammonia	summer at 100-200 cfs	City Staff
Total Phosphorous	summer at 100-200 cfs	City Staff
Organics		
Fecal Coliform	summer at 100-200 cfs	City Staff
Oil & Grease	summer at 100-200 cfs	City Staff
Total Organic Carbon	summer at 100-200 cfs	City Staff

Metals

Iron	summer at 100-200 cfs	City Staff
Manganese	summer at 100-200 cfs	City Staff
Zinc	summer at 100-200 cfs	City Staff
Chromium	summer at 100-200 cfs	City Staff

* monthly samples collected from March through November

LOCATION: “Routine” monitoring will be performed at the following locations:

- Yampa River – 50 ft. upstream of Walton Creek
- Walton Creek – 50 ft. above confluence
- Yampa River – 50 ft. upstream of Fish Creek
- Fish Creek – 50 ft. above confluence
- Yampa River – 50 ft. upstream of outflow from Health and Recreation (Weiss Park)
- Butcherknife Creek – 50 ft. above confluence
- Soda Creek – 50 ft. above confluence
- Yampa River at James Brown Bridge

RESPONSIBLE PARTY: City of Steamboat Springs.

MONITOR SCHEDULE: Variable.

TRIGGER: Temperature greater than 75° F. DO less than 6 mg/l. Water flows less than 85 cfs.

ACTION: Prohibit all instream river activities (tubing, fishing swimming, wading).

COST: \$2,976 per year (labor= \$1440, lab fees=\$1536).

Indicator AH-2. Macroinvertebrate monitoring

DESCRIPTION:

Aquatic macroinvertebrate (e.g., insects) sampling of rivers and streams is a valuable tool for understanding the health of the aquatic ecosystem system. Certain macroinvertebrates respond differently to physical, chemical and biological conditions within a stream. Because aquatic macroinvertebrates are relatively immobile, sampling of these organisms can provide an assessment of long-term pollution events within the stream.

Sampling methodology developed in the Yampa River Studies (AWC 2002) will be used to sample aquatic macroinvertebrates. A qualified consultant will perform the sampling and data analysis. Information provided from the analysis will include the following:

- EPT (Ephemeroptera, Plecoptera, Trichoptera)/Chironomidae
- EPT/Chironomidae+Oligochaeta Ratio



- Taxa Richness
- EPT Richness
- Hilsenhoff’s Biotic Index (HBI)
 - 0 to 4.5 are associated with nonimpacted sites
 - 4.51 to 6.50 are associated with slightly impacted sites
 - 6.51 to 8.50 are associated with moderately impacted sites
 - 8.51 to 10 are associated with severely impacted sites
- Percent Contribution of Dominant Taxon
- Percent Shredders
- Percent Scrapers
- Percent Filterers
- Percent EPT (EPT and each order percentage)
- Percent Chironomidae and Oligochaeta (and each order percentage)
- Density

RESPONSIBLE PARTY: Qualified consultant.

MONITOR SCHEDULE: Once a year, either late April to early May, or late September to early October (preferred).

LOCATION:

- Yampa River – 50 ft. upstream of Walton Creek
- Yampa River – 50 ft. upstream of outflow from Health and Recreation pools (Weiss Park)
- Yampa River at James Brown Bridge

TRIGGER: Hilsenhoff’s biotic index HBI increase of 1.0 or more.

ACTION: An analysis of water quality data to detect possible correlations to water quality deterioration and the increase in the HBI. A determination of which watershed(s) may have potential for contributing to deterioration will be made. Corrective actions in that watershed will be initiated and could include: reviewing and improving stormwater runoff controls in the drainage basin, enforcing sediment control measures at construction sites, reducing fertilizer applications to landscaped areas, monitoring of industrial sites for potential pollutants and review of fuel stations for potential loss of fuel.

COST:

\$240 per sample (3 replications recommended for each location).
 \$720 per site with 3 replications.
 \$1500-\$1200 for report and travel expenses.
 \$3600-\$4160 per year for 3 sample locations with report.

Indicator AH-3. Creel counts

DESCRIPTION:

Commercial guides fishing in reaches of the city limits will be required to submit weekly reports indicating time spent fishing the river, number of catches and size class of fish caught.

LOCATION: All RMA’s.

RESPONSIBLE PARTY: Commercial guides. Supplemental data may also be obtained from CDOW.

MONITOR SCHEDULE: Yearly, using existing CDOW monitoring programs if possible. Daily records with weekly submittals by licensed guides.

TRIGGER: Decline in catches per hour and certain size class.

ACTION: Increase stocking, decrease or increase fishing pressure, monitor water quality and improve habitat.

COST: No cost to City if CDOW performs census and outfitters collect/report data

Fish Catch Data Sheet: Data sheet is to be completed on a weekly basis. Provide data in appropriate column. For each date fished, provide the total hours fished during the day (2 guided clients fish 3 hours enter 6), the number of number of TROUT caught in each reach by size class.

Fish Catch Data Sheet: Data sheet is to be completed on a weekly basis. Provide data in appropriate column. For each date fished, provide the total hours fished during the day (2 guided clients fish 3 hours enter 6), the number of TROUT caught in each reach by size class.

ID. No.	Date MM/ DD/ YY	Hours Fished	RMA																						
			1				2				3			4			5								
			<12"	12-16"	>16"	Other Spp.	<12"	12-16"	>16"	Other Spp.	<12"	12-16"	>16"	Other Spp.	<12"	12-16"	>16"	Other Spp.	<12"	12-16"	>16"	Other Spp.			
Monday																									
Tuesday																									
Wednesday																									
Thursday																									
Friday																									
Saturday																									
Sunday																									

* s = sucker, p = pike, w = whitefish (example: 4 suckers and 2 pike caught would code as 4s, 2p)

Data sheets can be faxed, e-mailed, or mailed to the following address:

FAX: 870-0273
 E-mail: mneumann@steamboatsprings.net
 Mail: P.O. Box 775088, SS, 80477



In an effort to provide a quality fishing experience to anglers of the Yampa River in the Steamboat Springs area, a Fish Catch Data Sheet is being requested to be completed each week by commercial fishing guides using the river through Steamboat Springs. Data collected will be used to as part of an overall monitoring plan to help insure the good health of the river.

Indicator AH-4. Fish census by electroshock

DESCRIPTION:

CDOW conducts an annual fish census along reaches of the Yampa by electroshock, when time and budgets allow.

RESPONSIBLE PARTY: CDOW.

MONITOR SCHEDULE:

LOCATION:

TRIGGER:

ACTION:

COST: No cost to City.

Indicator AH-5. River otter count

DESCRIPTION:

Count river otter along RMA's for population estimate, when time and budgets allow.

RESPONSIBLE PARTY: CDOW.

MONITOR SCHEDULE: Annually.

TRIGGER: Undefined at this time.

ACTION: Consult with CDOW to determine potential causes and adjust monitoring schedule accordingly.

COST: No cost to City.

Indicator AH-6. Waterfowl survey

DESCRIPTION:

Survey of waterfowl to determine nesting populations, when time and budgets allow.

RESPONSIBLE PARTY: CDOW.

MONITOR SCHEDULE: Annually.

TRIGGER: Decrease in population for 3 consecutive years.

ACTION: Consult with CDOW to determine potential causes and adjust monitoring schedule accordingly.

COST: No cost to City.

4. Terrestrial Habitat (TH)

Indicator TH-1. Photo monitoring

DESCRIPTION:

Locations would be selected for determining changes in the larger landscape (bridges and overlooks) and point locations (directly across the river from put-ins/take-outs, parks and other selected areas). This would give indications to trends in vegetation (cottonwood and willow recruitment), encroachment by development, bank erosion, etc. Analysis of photos would be largely subjective, but would aid in determining changes to the river.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Community Youth Corps, Community Service Officers.

MONITOR SCHEDULE: Once a year, during the first week of July.

LOCATION: Panoramic photo monitoring will be conducted from the center of the following bridges:

- Stockbridge
- Tree Haus Bridge
- Snake Island Footbridge
- 5th Street Bridge
- Howelsen Footbridge
- 13th Street Bridge
- James Brown Bridge

Photos recorded at these locations will be a complete 180° panoramic view, both upstream and downstream from the center of the bridge.

Point location photos of public take-out/put-in areas will be taken at the following locations:

- River Creek Park
- Rotary Park
- Fetcher Park
- Weiss Park



- Lions Park
- A-Hole
- C-Hole
- D-Hole
- Stockbridge Multi-modal Center
- James Brown Bridge

A single photo will be taken of each of these locations, at a point on the bank directly across the river from the center of the primary access.

TRIGGER: Noticeable bank erosion, noticeable loss of vegetation along the bank.

ACTION: Implementation of corrective measures that could include erosion control, access control, planting, hardscape landscaping.

COST: \$170 per year (\$120 labor, \$50 materials)

Indicator TH-2. Weed inventory

DESCRIPTION:

Monitoring primarily public access areas from parking areas and access trails several times a year by a person trained in weed identification would likely locate most populations of weeds. Coordination with the county to aid in control and cooperation with the public through voluntary participation will be encouraged. Noxious weed locations will be mapped using GPS. Control and identification could occur at the same time. Weeds that are currently of highest priority are asterisked below.

Plants to be controlled include the following designated noxious weeds:

- | | |
|---------------------------|----------------------|
| • Tamarisk or salt cedar* | • Russian knapweed* |
| • Meadow knapweed* | • Dalmatian toadflax |
| • Whitetop/hoary cress | • Yellow toadflax |
| • Leafy spurge | • Purple loosestrife |
| • Diffuse knapweed* | • Houndstongue |
| • Spotted knapweed* | |

* Highest priority at present time.

Weed control will be based on methods described in the following document: Colorado Natural Areas Program. 2000. Creating an Integrated Weed Management Plan: A Handbook for Owners and Managers of Lands with Natural Values. Colorado Natural Areas Program, Colorado State Parks, Colorado Department of Natural Resources; and Division of Plant Industry, Colorado Department of Agriculture. Denver, Colorado. 349 pages. (Found on the Internet at: http://parks.state.co.us/cnap/IWM_handbook/IWM_index.htm)

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Rout County Weed Department, Community Youth Corps, Community Service Officers.

MONITOR SCHEDULE: Early summer and early fall.

LOCATION: All RMA's.

TRIGGER: Any weed population.

ACTION: Control of weed population using appropriate methods (hand pulling, mechanical, herbicide, biological, etc.) during weed monitoring period.

COST: \$360 per year, labor only.

Indicator TH-3a. Wildlife

DESCRIPTION:

The City of Steamboat Springs will work with local CDOW staff to explore, develop, and implement a venue (i.e.: yampavalley.info) for citizens to report and document wildlife sightings. Furthermore, CDOW will share appropriate wildlife data with the City when it is feasible based on resource availability. At this time, CDOW only formally keeps track of bear sightings. Efforts are under way to expand the sighting program through cooperation with the educational community and the community information system/website.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, CDOW, Community Youth Corps, Community Service Officers.

MONITOR SCHEDULE: Ongoing.

LOCATION: All RMA's.



TRIGGER: Significant decrease or elimination of particular species (eagles, dippers, wintering waterbirds, herons, otters, etc.).

ACTION: Consult with CDOW to determine potential causes, possible monitoring adjustments, and appropriate actions. The following actions could be implemented to address changes in wildlife occurrences: habitat creation, creation of wildlife corridors and closure of areas during critical periods for wildlife.

COST: Unknown

Indicator TH-3b. River Otter Survey

DESCRIPTION:

Conduct an annual river otter survey for population estimate when time and budget constraints allow. The City of Steamboat Springs will work with local CDOW staff to explore, develop, and implement a venue (i.e.: yampavalley.info) for citizens to report and document additional river otter sightings.

RESPONSIBLE PARTY: CDOW, City of Steamboat Springs personnel, Community Youth Corps, Community Service Officer.

MONITOR SCHEDULE: Annually.

LOCATION: All RMA's.

TRIGGER: Significant decrease or elimination of river otter populations or critical river otter habitats.

ACTION: Consult with CDOW to determine potential causes, possible monitoring adjustments, and appropriate actions. The following actions could be implemented to address changes in river otter occurrences: habitat creation and/or modification and closure of areas during critical periods for river otters.

COST: None

Indicator TH-3c. Nesting Waterfowl Survey

DESCRIPTION:

Conduct an annual nesting waterfowl survey for population estimate when time and budget constraints allow. The City of Steamboat Springs will work with local CDOW staff to explore, develop, and implement a venue (i.e.: yampavalley.info) for citizens to report and document additional nesting waterfowl sightings.

RESPONSIBLE PARTY: CDOW, City of Steamboat Springs personnel, Community Youth Corps, Community Service Officer.

MONITOR SCHEDULE: Annually.

LOCATION: All RMA's.

TRIGGER: Significant decrease or elimination of nesting waterfowl populations or critical nesting habitats.

ACTION: Consult with CDOW to determine potential causes, possible monitoring adjustments, and appropriate actions. The following actions could be implemented to address changes in wildlife occurrences: habitat creation and closure of areas during critical periods for wildlife.

COST: None

Indicator TH-4. Bank erosion

DESCRIPTION:

An estimation of the area of bare soil will be determined at areas along the bank of the river where there is high public use (put-in/take-out areas) from a known water level (the 200 cfs water line). This activity can be conducted during the fall weed inventory. A determination of the cause of erosion would be made at this time.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Community Youth Corps, Community Service Officers.

LOCATION:

- River Creek Park
- Rotary Park
- Fetcher Park
- Weiss Park
- Lions Park
- A-Hole
- C-Hole
- D-Hole
- Stockbridge Multi-modal Center
- James Brown Bridge

MONITOR SCHEDULE: Yearly, during July.



TRIGGER: Increased numbers of hydraulic or human cause impacts.

ACTION: Actions to mitigate bank erosion could include appropriate revegetation measures to protect banks from human impacts, application of erosion control structures (riprap), closure of areas to allow recovery, establishing fixed points of access.

COST: \$240 per year, labor only

Indicator TH-5. Dog waste

DESCRIPTION:

Non-point pollution sources include waste generated by animals. Dogs are significant hosts for giardia, salmonella and pseudomonas aureginosa, which can be passed on through feces and can potentially contaminate areas of open water. Dog feces are also unsightly, produce a stench, and can contribute to fly populations. Annual monitoring of animal waste along public trails will help determine how effective animal waste control is in public areas. Monitoring would work well with a community-based program designed to reduce animal waste in public use areas. Selected sample locations would be monitored for animal waste for a distance of 300 feet along the public access path, each direction from the central access point, trail access parking areas, the trail, and the area 3 feet from each edge of concrete will be monitored.

RESPONSIBLE PARTY: City of Steamboat Springs personnel, Community Youth Corps, Community Service Officers.

MONITOR SCHEDULE: Yearly, mid-July.

LOCATION:

- Rotary Park
- Fetcher Park
- Howelsen Footbridge
- Stockbridge

TRIGGER: Any count of feces.

ACTION: Yearly results would be presented to the public with comparisons to previous years. A public education program to reduce the amount of feces would be implemented during the first year and each subsequent year. An analysis of bag station locations would be conducted each year and additional stations installed if necessary. Continued maintenance of bag stations and installation of additional stations would be

the responsibility of the City.

COST: \$240 per year, labor only (note that control costs exceed \$8,000/year).





Yampa River Commercial Use Guidelines - 2003

These guidelines are based on City Ordinance requirements (No. 1763) with input from local river outfitters, the Trails and River Advisory Committee, and City staff. They should be followed to ensure compliance with relevant ordinances, to provide a quality recreational experience for customers, and to protect the rights of private landowners and residents who live along the river. Adherence to these guidelines will also minimize potential conflicts between the multiple recreational uses occurring on and around the river, and ensure that recreational uses do not exceed sustainable levels.

1. Use Limits

Companies that provide flotation device rentals or guide services that use City property for river access shall adhere to the following restrictions:

A. Tubing

- Customers may not put on the river before 10:30 am.
- Customers may not put on the river after 4:00 pm.
- No tubing upstream of 5th Street Bridge.

B. Guide Services

- No time restrictions.
- Each permitted fishing guide service will be allowed four (4) clients per day on the downtown river corridor. Half-day guide trips will be counted as a full day of usage.

C. Kayak/Canoe Rentals or Lessons

- No time restrictions.
- No trip caps.
- Use of ponds at Fetcher, River Creek (aka Polumbus), West Lincoln or Casey Parks counts as “trips”.

D. Number of Trips

- No outfitter shall outfit more trips than authorized by their Planning Department permit. Second trips on the same day will be counted against each operator’s cap.
- It shall not be a defense to a violation of trip limits if they were exceeded by reason of use of a flotation device for additional trips, even if no additional rental fee was charged or collected for such additional trips and no transportation was provided by the outfitter for such additional trip.

E. Parking

- Vehicles (commercial or private) in Fetcher, Rotary or Lion’s Park or the library/community center parking lots may not be left unattended for more than 2 hours between the hours of 10:30 and 4:00 pm. during the summer season. Companies and their customers are encouraged to use the parking lots at Howelsen Hill and at the Stockbridge multi-modal center.

2. Flow Conditions

Outfitters shall restrict the size of rafts and canoes provided to customers using any public river access according to the following:

- From peak runoff to 800 cfs – no rafts over 14’ in length and no canoes over 18’ in length.
- From 800 cfs to 400 cfs – no rafts over 12’ in length and no canoes over 17’ in length.
- Under 400 cfs – no rafts allowed on the river corridor.
- After July 6 in any year – no rafts allowed on the river corridor.
- Commercial tubing companies should consider suspending or reducing tubing operations when Yampa River flows drop to less than 100 cfs as measured at the 5th Street Bridge (and reported by the USGS), and discontinue tubing if flow levels drop below 85 cfs.
- If maximum water temperatures at the 5th Street Bridge exceed 75 degrees for two or more consecutive days, or if dissolved oxygen (D.O.) levels average less than 6.0 mg/l at the 5th Street Bridge for the preceding 48 hour period, the City may close the river to certain recreational uses.

3. Access Points

All commercial river users must comply with the operating plans approved in their respective Use with Criteria permits, including use of the following designated public river access points or ponds:

- Canoes, Kayaks, Rafts
 - River Creek Park (Polumbus)
 - Rotary Park
 - Fetcher Park
 - Emerald Park
 - Dr. Rich Weiss Park
 - West Lincoln Park
 - Stockbridge Park
 - James Brown Bridge
 - Ponds at Fetcher, River Creek, West Lincoln and Casey Parks



Boaters at Rich Weiss Park



- Tubing
 - Ski Town Lions Club Park
 - Yampa River Core Trail between 5th and 12th Streets
 - Stockbridge Park
 - James Brown

Outfitter use of City owned or controlled public river access points and associated parking areas shall not unreasonably interfere with other user’s access.

4. Customer Education

Outfitters will post a legible map in a prominent spot showing public put-in and take-out points, places where public restrooms are available, and designated Quiet Zones. The stretch of river from just above Dream Island Trailer Park to the downstream end of the trailer park is a designated No Trespass, Quiet Zone! This should be clearly marked on all maps and carefully explained to every tubing customer. In addition to a map, a list of the river etiquette rules (Item # 6) must be posted in a highly visible location at each business for customers to view. A reduced version of the map with a plastic laminated cover must be available for customers upon request, and a list of operating rules, safety tips and river etiquette rules will be printed on waivers/releases to be signed by customers. Outfitters will sponsor public service announcements (in newsprint and radio) to educate the public about etiquette and courtesy while on or along the river.

5. Identification

Each company will make their flotation devices easily identifiable by color codes and/or names of the company printed on the flotation device or client (vest, hat, arm bands, etc.). Currently, the following tube identification scheme is approved:

- Backdoor Sports/Rock and Roll – Black or white tubes with rainbow-striped straps.
- Lockharts – Yellow or red seats with red straps.
- Blue Sky West – Green seats with black straps.
- One Stop Ski Shop – Tubes with orange/yellow nylon covers.
- Bucking Rainbow – Black seats with gray or khaki straps.



Kayaker with proper safety gear

Any changes to these designated color schemes require prior approval of Parks, Open Space, and Recreational Services staff.

6. Rules and Etiquette

River Outfitters have the primary responsibility of informing their customers of the following rules that apply to all river users within the City limits:

- No glass allowed.
- No littering – pack out all trash.
- No Styrofoam coolers.
- Respect other river users (i.e. fisherman, kayakers, waders, etc.).
- Respect private property- obey QUIET ZONE signs!
- No dogs allowed.
- No nudity.
- No alcohol.
- Avoid standing or walking on river bed (except fishermen).



View downstream from Stockbridge

Community Service Officers will enforce these rules and may cite individuals or companies whose customers are found in violation. River outfitter’s permits may be revoked for repeated violations of these rules by their customers.

7. Safety

The safety of all customers should be a primary concern. Clear, concise descriptions of conditions and potential hazards that might be encountered should be relayed to all customers. All customers should be informed of the availability of life jackets and the potential dangers involved on the river. Flotation devices should not be tied together for the customer’s own safety, and proper clothing and footwear should be worn. Children 11 years old and under will be required to wear life jackets. Additionally, customers should not be allowed on the river during any periods when the Sheriff’s Office has a closure in effect, typically due to high water levels.

8. Litter Control

In the interest of maintaining the health of the river and providing an enjoyable recreational experience for all, commercial river companies will:

- Supply re-usable nylon or mesh trash bags that can be attached to each customer’s flotation device.
- Tubing companies are responsible for clean up of the river and its banks from the 5th Street Bridge down to the James Brown Bridge during tubing season. Float trips by company employees for this purpose will not count against tube caps.



- At the end of the season, all commercial use permittees and other organized river groups (Yampa Valley Fly Fishers, Friends of the Yampa, etc.) will plan and participate in a cleanup sweep of the stretch of river that they and their customers or members predominantly use. The cleanup will begin at River Creek (Polumbus) Park and continue downstream to the Riverbend Golf Course, or some other pre-determined point. Permission from all private landowners will be necessary to access their lands.

9. Use Log, Fees, and Reporting

All companies shall maintain all records required by their permit and make them available for review upon request of any City POSR, Public Safety, Legal or Planning Department staff. The use log will provide the basis for calculating and paying the 5% user fees specified by Ordinance No. 1843. Use reports with corresponding fees should be submitted no later than 10 days after the end of any month during which commercial services were provided.

10. Fishing Guides

Fishing guides authorized to provide services on the Yampa River within city limits are presently limited to five (5) as noted below:

- Straightline Sports
- Blue Sky West
- Bucking Rainbow/High Adventures
- Steamboat Fishing Company
- Elk River Outfitters

The addition of any other fishing guides is subject to review and approval by the Trails and River Committee and the Parks and Recreation Commission.



Fly fisherman in downtown area above 5th Street Bridge