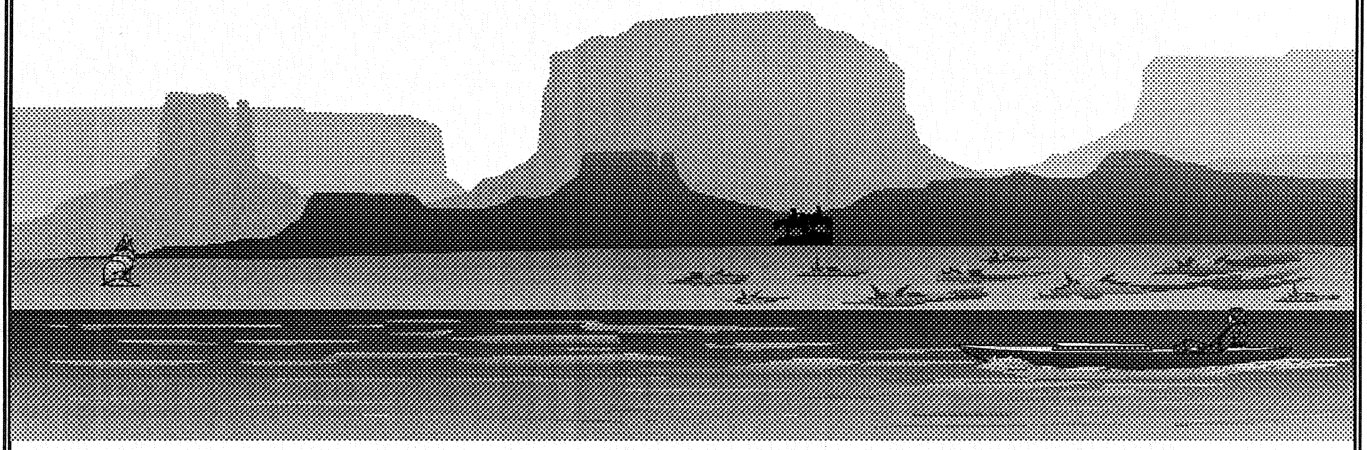
UTAH RIVER STUDY RESULTS REPORT: RECREATIONAL USE, VALUE, AND EXPERIENCE OF BOATERS ON RIVERS MANAGED BY THE BLM IN UTAH

VOLUME II: INTERCEPT SURVEY RESULTS



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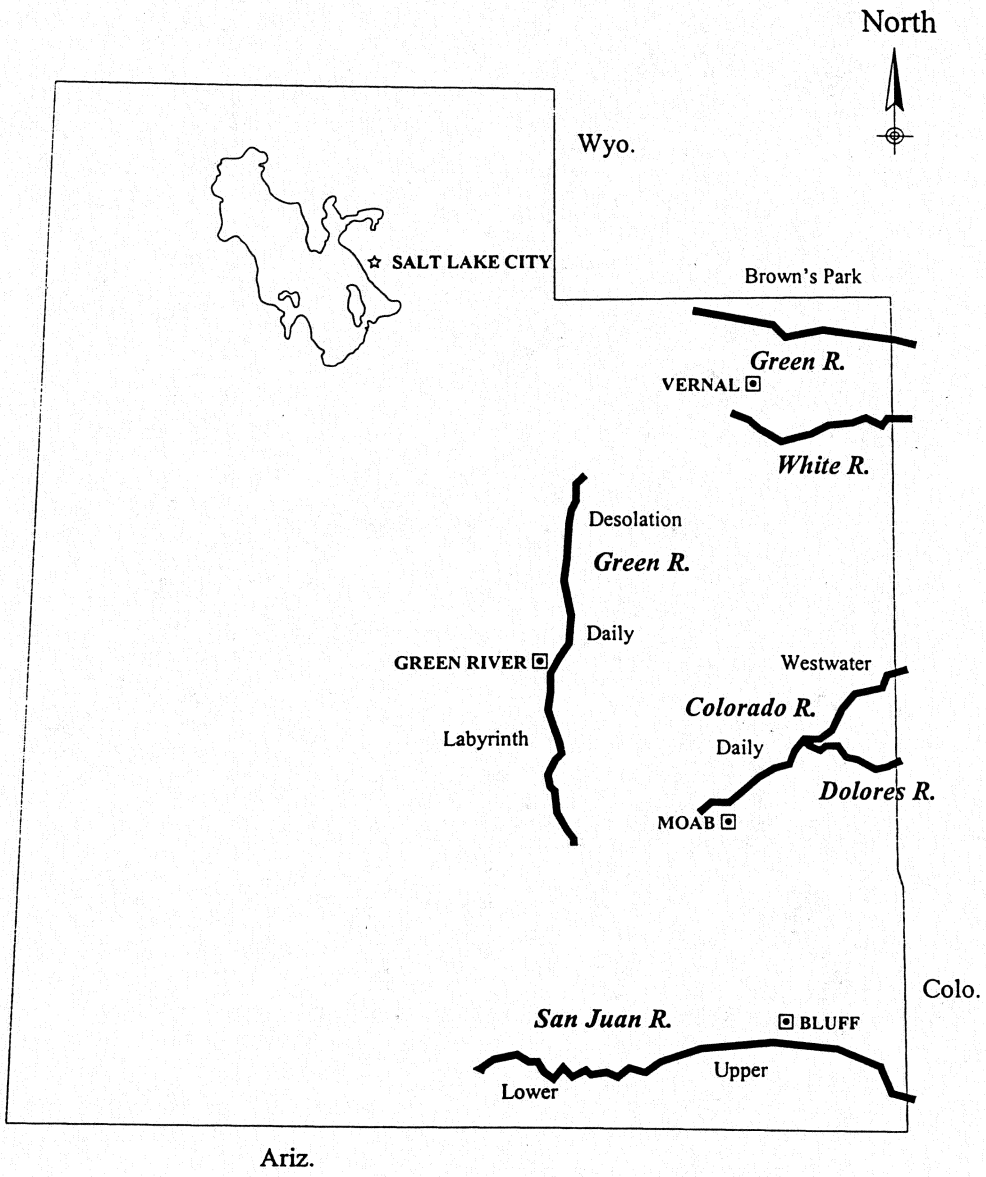

Figure 1. Major floatable Utah rivers administered by the Bureau of Land Management.

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VOLUME II: INTERCEPT SURVEY RESULTS

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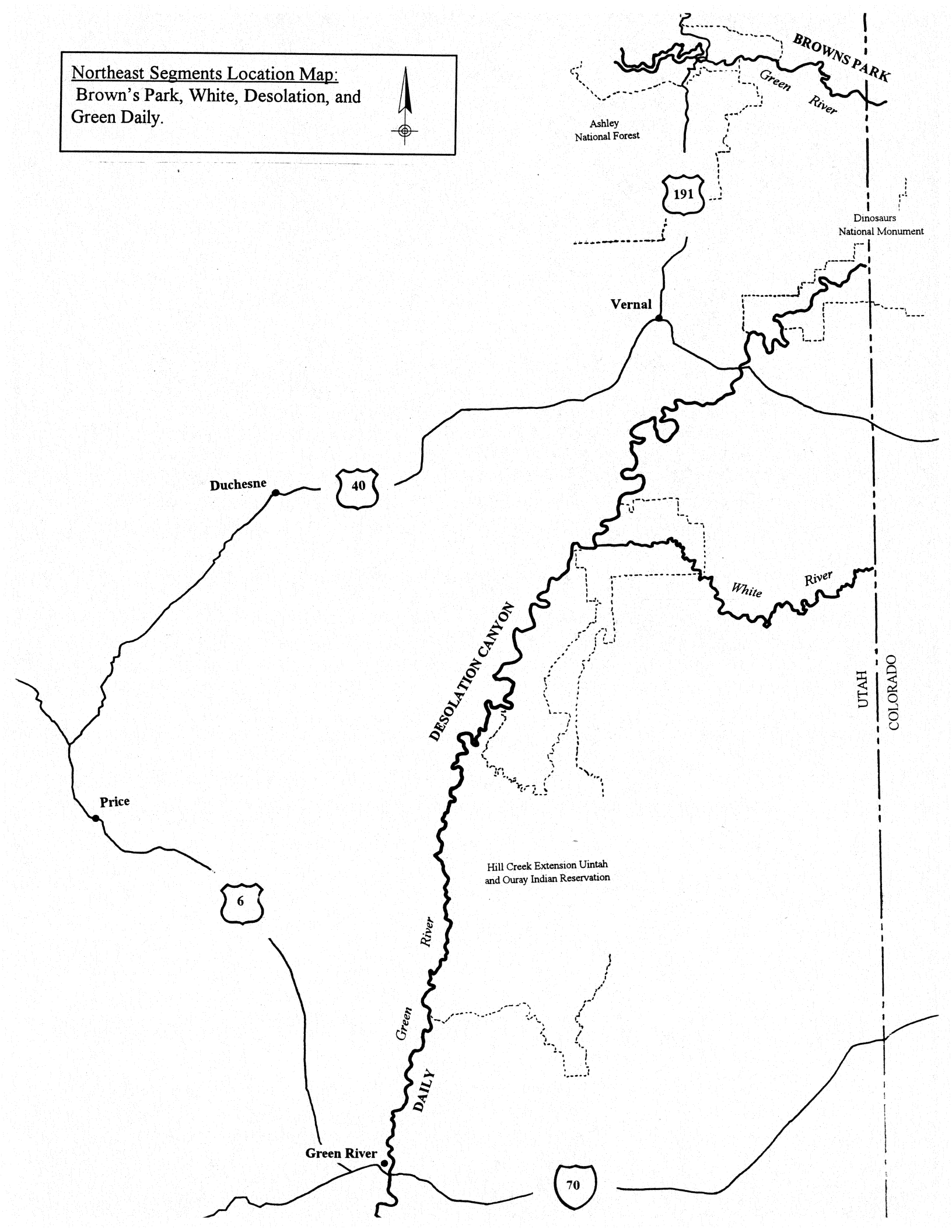
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Green River
DAILY
Green River
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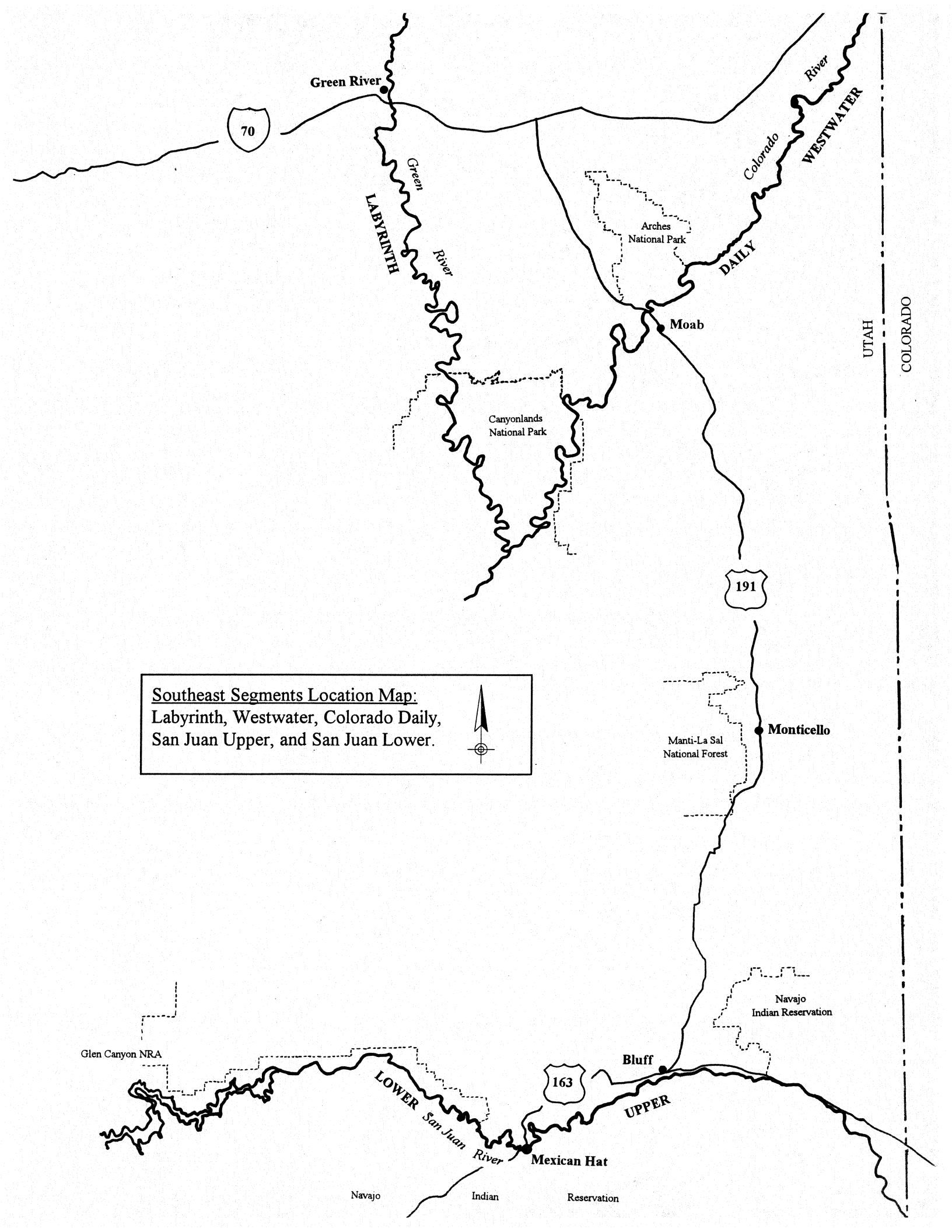
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II-PREFACE

The purpose of this project was to conduct a visitor study for selected river segments on or adjacent to Bureau of Land Management (BLM) administered land in Utah in order to provide river corridor managers with comparable and standardized river-use data. The study focused on both raftable white water and flat water segments of the Colorado, Green, San Juan, and White Rivers for one full visitor use season during the summer of 1999. The broad objectives of this study were to collect and analyze data concerning: demographic characteristics, river runner use characteristics, satisfaction with river trip, identify conflicts/problems, and trip expenditures.

The following volume contains a discussion of the results of the intercept survey phase of the study. The discussion is broken into five separate sections with supporting information contained in the Appendices. The tables referred to in the text are located on the last pages of each section. The first section, Introduction, discusses the need for more standardized and expansive data on Utah rivers by describing the data gathering process from the past. Also contained in this section is a detailed explanation of the objectives of this study as well as a description of the study rivers.

The next section, Survey Methods, discusses the strategy used to develop a randomized sampling scheme, as well as describing the sampling results. Demographic Characteristics describes river runners' place of residence, as well as detailing gender and age information. The fourth section describes the characteristics of the river runners including their past Utah river running experience, the type of group they were in (i.e. commercial or private), and the length of the trip.

The next section discusses how satisfied the floaters were with their Utah river running

experience. This section also describes data on the number of people and craft seen, the level of crowding perceived by river runners, and the degree of physical impact that floaters felt had resulted from recreation use. Also described in this section is information regarding river trip expenditures, along with specific non-resident trip expenditure data.

II-A. INTRODUCTION

Many river boating recreation experiences (rafting, canoeing, kayaking, and fishing) in Utah occur on river segments managed by the Bureau of Land Management (BLM). Visitor counts for boaters are based on permit data and observations. Those figures indicate an increased demand for river recreation over the past few decades. In 1999, researchers at Utah State University (USU) conducted a survey of river runners in order to provide the BLM with information about boaters' river management preferences in order to help guide management decisions.

The purpose of this research project was to conduct a visitor study for selected river segments on or adjacent of BLM administered land in Utah. The study focused on river segments that have commercial boat operators on raftable whitewater. For the initial phase of the study, intercept surveys were administered to a random sample of commercial and private boaters on nine segments of the Colorado, Green, San Juan, and White Rivers for one full visitor use season and were collected on site. The second phase involved mailing a more comprehensive questionnaire to boaters intercepted at the various take-outs who gave field technicians their names and addresses (see Volume III and IV). The data obtained from this research identified characteristics, behavior, motivation, managements opinions, and expenditures of the floaters. This volume presents the results from the intercept survey phase of the study.

Table II-A.1 presents summary descriptions of the study segments. Beginning at the north end of the state, the *Brown's Park* segment of Green River exits Flaming Gorge Dam and flows to the Brown's Park Bird Refuge near the Colorado/Utah boarder. It is a blue-ribbon trout fishery with many

of the boaters using drift boats and other craft as fly fishing platforms. The top half of the segment (from Spillway to Little Hole) is managed by the U.S. Forest Service as part of the Flaming Gorge National Recreation Area. The segment is usually run in a single day.

The *White River* headwaters are in the northern Colorado Rockies. While the Colorado portion contains whitewater opportunities, the Utah stretch, or Bonanza segment, is essentially flat-water and canoeists take about three days to run the river and take out before entering the Uintah-Ouray Indian Reservation.

Below the confluence with the White River, the Green River flows through *Desolation* and *Upper Gray Canyons* as the river cuts through one of the most remote areas of the state, the Tavaputs Plateau. A popular destination, rafters generally spend three or four days floating this segment, stopping along the way to take short hikes and visit archeological and historic sites. The Green River then flows through *Lower Grey Canyon* from Nefertiti Falls to Swasey's Rapids near Green River, Utah (which we refer to as the *Green Daily*). This segment typically takes four to six hours and, depending on flow rate, has seven or eight Class II to III rapids. Starting at Green River State Park, the Green flows through *Labyrinth Canyon*, a stretch that takes about four or five days to float. This stretch is also quite remote, as the river finds its way through the red rock canyon country of Southeastern Utah. Most boaters take out at Mineral Bottom, just before entering Stillwater Canyon at the northern boundary of Canyonlands National Park.

Westwater Canyon of the Colorado River offers the steepest gradients and most challenging rapids of the study segments. Most of the river runners take a full day to run this stretch, although quite a few enjoy turning this segment into an overnight trip. The *Colorado Daily* segment takes about four

hours, has minor rapids, and attracts many visitors visiting Moab, Utah. It is but one aspect of the "Moab Experience" which includes visiting state and national parks, mountain biking on "slickrock" trails, red rock four-wheeling, and rock climbing.

The San Juan River in the southeastern corner of the state is bounded by the Navajo Indian Reservation to the south. At certain points, its flow has cut enormous meanders through thousands of feet of sandstone, creating spectacular geologic features such as the Goosenecks of the San Juan. Some boaters take just a few days and float either the *Upper San Juan* or the *Lower San Juan* segments, and other may take longer and run both segments. Both stretches offer many opportunities for hiking up side canyons with waterfalls, hanging gardens, and ancient cliff dwellings.

Table II-A.1: Summary characteristics of study rivers.

Response	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Number of boaters -- 1998[1]	5,600	5,900	1,400	52,000[2]	11,000	8,000	6,000	59,000	14,000
Segment length (miles)	26	58	30	16	8	70	84	13	17
Rapid Classes	II-III	II-III	I-II	I-III	II-III	I	II-III	I-III	III-IV
Average trip length (days)[3]	2	6	3	2	1	5	6	1	2

[1] Based on 1998 BLM estimate.

[2] Based on estimates *in* "The Recreation Use Capacity of the Green River Corridor Below Flaming Gorge Dam" prepared by Institute for Human Ecology for Flaming Gorge Ranger District, Ashley National Forest, USDA Forest Service, Dutch John, UT, Contract No. 53-8499-0-002, April 1991. The report stated that the USFS estimated 52,000 people floated the Green River from the Flaming Gorge Dam spillway to the Colorado Border and that 96% of those 52,000 pulled out before floating the Browns Park section.

[3] Based on 1999 intercept survey.

II-B. SURVEY METHODS

The research study consisted of gathering data during two survey phases; a point of contact intercept survey and a subsequent mail-back survey. For the intercept survey, research technicians were divided into three teams of two. Between May and September, 1999, they rotated among the nine river segments, contacting river runners at the take-outs and asking them to fill out a short, two-page survey. The intercept survey contained key questions that were most dependent on recall such as the number of boaters and watercraft they saw during their trip, and crowding and conflict questions (Appendix III-1). The questionnaire also included a space for their name and address if they were willing to complete a more comprehensive mail-back questionnaire (see Volumes III and IV).

The two-page intercept survey instrument with approximately 20 questions was developed by USU researchers experienced with recreation survey design. BLM staff members reviewed drafts of the survey instrument and provided comments on its design. The questions in the survey were designed to measure five areas of interest: 1) Utah river running experience, 2) river trip satisfaction, 3) crowding perceptions, 4) perceptions of physical impacts, and 5) trip expenditures.

The questionnaires were distributed to a sample of river runners by field technicians at ten takeouts on nine river segments: San Juan River Upper and Lower segments; Westwater Canyon and the Daily section of the Colorado River; Labyrinth, Desolation, Brown's Park, and the Daily section of the Green River; and the Utah portion of the White River. The sampling days designated were based on a systematic sampling scheme with three teams of two field technicians each rotating among the different segments (Appendix II-1). This scheme attempted to take into account atypical conditions between the

different segments such as the interval and duration of river flows favorable to river running. The sampling period was between May 10 and September 30 in 1999. In order to avoid possible selection bias, all adult boaters (15 years and older) coming off the river were asked to fill out a survey.

An attempt was made to evenly sample all takeouts by the days of the week (weekend days vs. weekdays) and time of day (11:00 am to 2:00 pm, 2:00 pm to 5:00 pm, and 5:00 pm to 8:00 pm). Two of those three hour sampling blocks comprise one sampling day. As indicated on Table II-B.1, at Desolation, research technicians were sampling during 14 weekend days and 24 weekdays. The sampling days were similar at Westwater with 12 weekend days and 27 weekdays. Due to weather, dam releases, low water flows, below normal snowpack, etc., it was difficult to obtain a rigorous ratio sampling of the segments.

Of the 2360 river runners contacted, 2248 completed the intercept survey for a 95% overall response rate (Table II-B.1). The number of respondents varied greatly among the different segments with 47 at the White River and 638 at the Colorado Daily. It should be noted that the White River water flow was extremely low during the 1999 season and was floatable for only about three weeks. Table II-B.1 summarizes the week day periods that sampling took place, the number of respondents, and the response rate for each segment.

Table II-B.1: River survey sampling days and intercept and mail surveys response rate

		San Juan River		*White R.*	*Green River*				*Colorado River*		
		Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater	Total
Days in sampling period	weekend	4	5	2	5	14	8	14	10	12	74
	weekday	13	13	6	12	24	18	24	17	27	156
Number of contacts		137	185	50	157	173	158	265	667	568	2360
Completed intercept surveys	weekend	23	52	-	75	78	50	77	293	142	790
	weekday	103	124	47	69	74	99	183	345	414	1458
	total	126	176	47	144	152	149	260	638	556	2248
Intercept response rate		92.0%	95.1%	94.0%	91.7%	87.9%	94.3%	98.1%	95.7%	97.9%	95.3%
Number of addresses (%)		62 (49.2%)	136 (77.3%)	33 (70.2%)	106 (73.6%)	83 (54.6%)	92 (61.7%)	183 (70.4%)	378 (59.2%)	362 (65.1%)	1435 (63.8%)
Undeliverable addresses		3	1	0	3	1	2	4	7	19	40
Legitimate addresses		59	135	33	103	82	90	179	371	343	1395
Mail surveys returned		40	99	23	49	45	54	119	159	214	802
Mail survey response rate		67.8%	73.3%	69.7%	47.6%	56.0%	60.0%	66.5%	42.9%	62.4%	57.5%

II-C. DEMOGRAPHIC CHARACTERISTICS

The following section summarizes the demographic characteristics of boaters on the studied Utah river segments. Three questions on the intercept survey were designed to assess demographic characteristics and included questions asking place of residence, gender, and age.

Place of Residence

Place of residence distribution is shown on the U.S. and non-U.S. residence maps found in Appendix II-2. Floaters residing in the U.S. accounted for 94.2% of all surveyed boaters. Of the total number of U.S. boaters (n=2116), 80.6% came from western states (UT, CO, CA, AZ, NM, WA, OR, NV, ID, MT, WY) with Utah and Colorado having the highest response rates of 32.0% and 28.5% respectively. California accounted for 7.8% and 8.2% were from Arizona, New Mexico, and Texas. Other western states (Washington, Nevada, Idaho, Montana, Wyoming, and Oregon) accounted for 4.1%. The remainder of the U.S. boaters (19.3%) came from states outside this region, with no boaters coming from Hawaii, West Virginia, or Rhode Island.

Rafters residing outside of the U.S. accounted for 5.8% (n=130) of all river runners (see Appendix II-2). German representation was the largest, accounting for 1.2% (n=28) of all boaters surveyed, which is over one-fifth of all non-U.S. river runners. France, England, Scotland, and the Netherlands accounted for an additional 2.7% (n=47), while the rest of the non-U.S. countries comprised slightly over 1.9% of total surveyed boaters. Only 11 (0.5%) river runners came from Canada and 2 (0.1%) from Mexico.

Table II-C.1 displays the distribution of residency for each river segment studied. Residency is

fairly consistent across all river segments with a large majority (high ninetieth percentile) of river runners residing in the United States. The main exception to this is the Colorado River Daily section. Almost 13% of boaters surveyed on the Colorado Daily resided in a foreign country, suggesting that this portion of the Colorado River flowing through the Moab area is a preferred destination local for foreign tourists interested in a river running experience. Aside from the Colorado Daily, the San Juan River had the next highest non-U.S. residency percentiles at 3.2% for the Upper and 2.8% for the Lower. Almost a fourth (22.6%) of river runners surveyed on the Colorado Daily were from somewhere in the U.S. other than a western state, suggesting that the Moab area appears to be a destination local for not only foreign tourists, but U.S. tourists as well.

On almost all river segments studied, Utah and Colorado residents comprised at least 50% of the total number of boaters surveyed. River runners from Colorado comprised 53.5% of all floaters surveyed on Westwater. Arizona resident boaters were most likely to be found on the San Juan River than any other river, probably due to the close proximity of the San Juan to Arizona. Similarly, New Mexico residents were also more likely to be found on this river than on any other. Over 70% (n=108) of boaters on the Daily section of the Green River were Utah residents. Of these Utah boaters, 14.8% (n=16) were from the surrounding counties of Carbon, Emery, Grand, and San Juan. Almost 78% (n=84) were from Wasatch Front counties (Salt Lake, Weber, Davis, and Utah), which takes about four hours to drive to Green River, Utah. This is a strong indication that most boaters of the Green Daily are seeking a fairly close, weekend river running experience.

Gender

As shown in Table II-C.3, the male to female ratio on all river segments (except Brown's and

Westwater) was a fairly even mix. The Upper and Lower San Juan, Desolation on the Green, and the White had slightly more women than men, while the Green Daily and Colorado Daily had slightly more men. Brown's and Westwater were skewed (83.1% and 62.8% respectively) in the direction of male representation. It should be noted that the Brown's Park segment is a blue ribbon fishery attracting highly committed fly fishers, while Westwater Canyon produces Class III-IV rapids.

Age

River runners ages are shown on Table II-C.4. Teens and young adults (15-20) were most likely to be found on the Labyrinth (31.0%), Upper San Juan (29.1%), and the Green Daily (20.1%), and least likely to be found at Brown's (4.3%), Westwater (8.1%), and the Lower San Juan (9.8%). Boaters between the ages of 21-30 seem to have been interested in short trips that could be done in a day or two, and were found primarily on both of the Daily sections and Westwater. River runners between the ages of 51-60 were most likely to be found at Brown's Park (18.8%) than any other segment studied. Floaters of 61 years of age and older comprised a small amount of all boaters (n=69, 3.3%), but were more likely to float Brown's Park (7.3%) and the Lower San Juan (5.7%) than any other segment. No one over 60 years of age was surveyed on Labyrinth. Desolation, the Daily section of the Colorado, and Brown's Park had a more even distribution of all age categories (modal category was the 41-50 age range).

Table II-C.1: Residence of river runners.

Demographic Areas	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
United States	96.8%	97.2%	100.0%	98.6%	98.7%	99.3%	98.5%	87.1%	94.6%
Other Countries[1]	3.2%	2.8%	0.0%	1.4%	1.3%	0.7%	1.6%	12.9%	5.4%
Utah[2]	21.3%	13.5%	25.5%	33.8%	72.0%	25.0%	22.3%	51.4%	15.4%
Colorado	29.5%	24.6%	72.3%	20.4%	4.7%	18.9%	32.8%	11.2%	53.5%
California	7.4%	10.5%	0.0%	19.0%	6.7%	18.2%	8.6%	5.6%	4.2%
Arizona	9.0%	17.0%	0.0%	6.3%	2.0%	3.4%	3.1%	1.8%	1.3%
New Mexico	4.9%	10.5%	0.0%	0.0%	0.0%	2.0%	7.4%	0.2%	0.2%
Other Western States[3]	2.4%	16.4%	0.0%	11.2%	2.7%	3.5%	5.9%	7.4%	2.9%
Other States	24.8%	7.8%	2.1%	9.1%	12.2%	29.3%	20.1%	22.6%	22.8%

[1] Other countries represented include (in descending order of representation): Germany, France, England, Scotland, Canada, Belgium, Holland, Switzerland, Italy, Netherlands, Australia, Sweden, Mexico, Spain, New Zealand, and Ireland.

[2] State percentages are for only those river runners who reported residing in the U.S.

[3] Other Western States represented include (in descending order of representation): Texas, Washington, Idaho, Montana, Nevada, Wyoming, Oregon.

Table II-C.2: Place of residence by county of Utah resident river runners.

	San Juan River		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Wasatch Front[1]	1 (3.8%)	11 (47.8%)	10 (90.9%)	35 (72.9%)	84 (77.8%)	34 (91.9%)	36 (63.2%)	179 (63.5%)	43 (51.2%)
Northern Utah (other than Wasatch Front)[2]	1 (3.8%)	7 (30.4%)	1 (9.1%)	12 (25.0%)	3 (2.8%)	0 (0.0%)	10 (17.5%)	17 (6.0%)	6 (7.1%)
Central Utah[3]	0 (0.0%)	4 (17.4%)	0 (0.0%)	1 (2.1%)	18 (8.7%)	2 (5.4%)	10 (17.5%)	75 (26.6%)	34 (40.5%)
Southern Utah[4]	24 (92.3%)	1 (4.3%)	0 (0.0%)	0 (0.0%)	3 (2.8%)	1 (2.7%)	1 (1.8%)	11 (3.9%)	1 (1.2%)

[1] Wasatch Front counties include: Salt Lake County, Utah County, Weber County, Davis County.
[2] Other Northern Utah counties include: Box Elder, Cache, Rich, Morgan, Summit, Daggett, Wasatch, Duchesne, Tooele.
[3] Central Utah counties include: Juab, Sanpete, Carbon, Uintah, Emery, Grand, Sevier, Millard.
[4] Southern Utah counties include: Beaver, Iron, Washington, Piute, Wayne, Garfield, Kane, San Juan.

Table II-C.3: Gender of river runners.

Gender	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Male	43.8%	48.8%	47.7%	83.1%	53.8%	59.2%	47.4%	54.9%	62.8%
Female	56.3%	51.2%	52.3%	16.9%	46.2%	40.8%	52.6%	45.1%	37.2%

Table II-C.4: Age of river runners.

Age	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
15-20	29.1%	9.8%	4.9%	4.3%	20.1%	31.0%	16.0%	16.0%	8.1%
21-30	9.4%	8.6%	14.6%	11.6%	24.3%	16.6%	15.6%	26.6%	21.6%
31-40	23.9%	19.0%	24.4%	31.9%	20.8%	26.9%	23.4%	22.8%	30.8%
41-50	21.4%	43.1%	26.8%	26.1%	28.5%	14.5%	32.8%	22.1%	28.7%
51-60	12.0%	13.8%	24.4%	18.8%	2.8%	11.0%	7.4%	9.8%	9.2%
61-70	4.3%	4.6%	4.9%	5.1%	2.8%	0.0%	3.5%	2.2%	1.3%
over 70	0.0%	1.1%	0.0%	2.2%	0.7%	0.0%	1.2%	0.5%	0.4%

II-D. RIVER RUNNER CHARACTERISTICS

The following section describes certain characteristics of river runners on the studied Utah river segments. Six questions on the intercept survey were designed to assess floater's characteristics. These questions collected information regarding past Utah river running experiences, type of group (i.e., commercial or private), group size, and length of trip. This section also summarizes the campsites most frequently used by the overnight floaters.

Experience

The results of the three intercept survey questions that asked about floater's previous Utah river running experience are shown in Table II-D.1. The first question asked them if they had previously ran the particular segment they had just taken out of. Labryrinth had the highest response rate (84.6%) of boaters who said that they *had not* run through Labyrinth Canyon before. The Colorado Daily (78.1%) and the Upper San Juan (76.0%) also had a majority of 'first time on this segment' river runners. In comparison, less than half of the floaters at Brown's Park (44.4%), the Lower San Juan (48.3%), and Westwater (49.6%) were first time users

Another river running experience related question asked if this was the first time the respondent had run a *Utah* river. The same basic pattern mentioned above emerges with the majority of floaters on the Colorado Daily (63.5%), Labyrinth (59.7%), and the Upper San Juan (55.6%) with no previous Utah river running experience. Brown's Park, a Blue Ribbon fishery, had the lowest proportion of first time Utah floaters (27.8%). About one-third of boaters on the other 5 segments are new comers to the Utah river running scene (see Table II-D.1).

The final question to address experience asked the number of times those *with* Utah river running experience had previously run a Utah river. The lowest average number of times river runners who had floated a Utah river before was reported by boaters on the Upper San Juan (9.8 times) and Labyrinth (11.7 times). Westwater, Brown's Park, and the Colorado Daily floaters reported a higher average number of previous Utah river trips (52.6, 35.8, and 34.3 respectively) than did floaters on other river segments. However, it is important to note that all river segments but the White and Westwater showed a majority of floaters in the '1-3 previous Utah river trips' category. Labyrinth and The Upper San Juan had a much larger percentage in this category than any other segment (77.2% and 63.2% respectively), suggesting that river runners on these two segments have less experience on Utah rivers than boaters on the other segments studied. On all river segments, floaters with 1-10 previous trips on a Utah river accounted for over half of all Utah experienced river runners; however, it is important to note that experienced (11-20 trips) and very experienced (more than 20 trips) Utah river runners do exist on all river segments, as indicated by the ranges shown on Table II-D.1. All river segments but Desolation had floaters who reported 300 previous trips or more. Westwater had 21 floaters (6.4%) who reported 300 previous Utah river trips. The Lower San Juan had 16 boaters (13.6%) report 20 trips, while Desolation and the Colorado Daily had a number of boaters (10.7% and 7.2% respectively) report 10 previous Utah trips.

Westwater respondents reported the most Utah river trips, averaging 52.6 times. Over a third (34.8%) of Westwater respondents reported floating a Utah river more than 20 times, and 43 boaters (13.2%) reported between 20 and 30 trips. Only 23.9% (n= 78) of Westwater respondents with previous Utah river experience could be classified as being less experienced (i.e., 1-3 previous Utah

trips). This indicates that Westwater floaters are more experienced than boaters running the other segments.

Type of Group

The type of trip (i.e., commercial or private) and group size information is shown in Table II-D.2. Most segments had more private groups (68.9% for all segments) than they did commercial groups (31.1% for all segments). The Lower San Juan had the fewest percent commercial floaters (16.5%), while the White (53.2%), the Upper San Juan (49.5%), and the Colorado Daily (40.1%) had the greatest. The remainder of the river segments were in the mid-twentieth percentile for commercial trips. It should be noted that in some cases, the field research technicians had some difficulty contacting all commercial floaters coming off the Colorado Daily. Some of those difficulties included guides asking that their customers not be bothered and floaters being loaded into their shuttle vehicles before we had a chance to talk to them. Additionally, there was some confusion among river runners as to whether or not they were on "commercial" or "private" trips. Families on a commercially guided trip often would assume they were a "private" group, and therefore incorrectly identify themselves as private on the intercept survey. Because of the large numbers of groups coming off the river at the Colorado Daily at certain times, research technicians were unable to consistently correct the surveys.

Overall, the average group size for commercial trips was higher than it was for private trips, averaging 14.2 floaters on commercial trips and 10.1 floaters for private trips. On every segment but the Brown, the average group size for private trips was lower than that for commercial trips. The Brown had the lowest average group size for both commercial and private (3.8 and 5.8 respectively). This average was 7.9 floaters below the next closest average group size for commercial trips

(Westwater at 11.7), and 3 floaters below the next closest average group size for private trips (White at 8.8). It is interesting to note that the Colorado Daily had group sizes up to 300 people for both commercial and private trips, far above the maximum group size reported on any other segment. The maximum group size reported for most river segments fell between 20 and 40 people for both commercial and private trips.

Length of Trip

The longest average float time was reported on the Lower San Juan (6.1 days), Desolation (5.5 days), and Labyrinth (4.7 days), while the Colorado Daily (1.1 days) and the Green Daily (1.2 days) reported the shortest average float time (see table II-D.3). The modal category for five of the nine segments studied was 1 day. Of the boaters (N=2234) who answered this question, the majority (51.1%, n=1141) reported floating their segment in a day or less, suggesting that the majority of Utah river runners on the studied segments are seeking short trips.

It is important to note that most boaters who reported running a segment in a day or less came from the Colorado Daily (n=599), Westwater (n=268), and the Green Daily (n=129). Of the five studied segments that could be run as a daily, Brown's Park (7.7 hrs), the Upper San Juan (7.5 hrs), and Westwater (6.7 hrs) took the longest, while the Colorado Daily (4.5 hrs) and the Green Daily (3.8 hrs) took the shortest amount of time.

The Lower San Juan, Desolation, and Labyrinth had the longest average float time at 6 days, 5.5 days, and 4.7 days respectively. There were 4 river runners surveyed on Labyrinth who took 14 days to float this river segment, 5 days longer than the next closest of 9 days reported for the Lower San Juan, Desolation, and the Colorado Daily.

Campsites

The survey asked river runners how many hours or days and nights they had been on the river. If rafters responded with more than 1 day, they were also asked where they had camped. A complete list of the campsites indicated is presented in Appendix II-4, On the San Juan Upper, over half (51.6%) of respondents reported staying 2 or more days (thus at least 1 night) while on the river. The most popular site for those boaters on this segment who listed campsites was Lust, where 12 respondents (14.6%) stayed at least one night. Ten of the respondents (12.2%) stayed at Prospector Loop, 9 (11.0%) at Chinle, while the Comb Wash and Ledge Rapid campsites received 8 floaters each. All of the San Juan Lower respondents who answered this question (n=173) reported spending 2 or more days on this segment. The most frequented site by far was Slickhorn with 61 (16.4%) campers. River House Ruin and Mexican Hat were the next two most frequented campsites at 25 (6.7%) and 24 (6.4%) respectively.

As with the San Juan Lower, all White River rafters who answered this question (n=49) reported a river trip length of at least 2 days. Ten respondents (20.4%) reported camping at Goblin Valley. The next most frequented site was Mile 17 with 5 (10.2%) floaters.

Just over forty percent (n=60) of Brown's Park respondents reported a trip lasting at least 2 days. Thirteen (22.0%) floaters camped at Grasshopper, 10 (16.9%) at Big Pine, 9 (15.3%) at The Red Canyon Lodge, and 6 (10.2%) at The Flaming Gorge Lodge. Only 15.1% (n=23) of respondents floating the Green Daily reported camping while on the river. Of the floaters who listed a campsite(s), over 70% of them camped in just two sites; Nefertiti had 7 (38.9%) campers, while Swayseys had 6 (33.3%) campers. Converse to Green Daily floaters, all Labyrinth floaters who responded to this

question (n=148) spent at least 2 days on the river. The campsite frequented the most by those floaters who listed a campsite(s) was Trin Alcove with 14 (7.9%) campers. Mile 61 was the next most frequented site with 11 (6.2%) campers, followed by sites Mile 101 (n=9, 5.1%), Oak Bottom (n=9, 5.1%), Hey Joe Canyon (n=8, 4.5%), and Crystal Geyser (n=8, 4.5%). All Desolation floaters who responded to this question (n=258) took at least 2 days to float the river during their trip. The most frequented site listed was Rock Creek (n=57, 16.6%) by a large margin. The next most frequented campsites were Rock House (n=20, 5.8%), and Jack Creek (n=19, 5.5%).

Only 5.0% (n=32) of Colorado Daily floaters reported a trip length of at least 2 days. The most frequented site by these floaters who listed a campsite(s) was Big Bend (n=10, 26.3%). The next two most camped at sites were Onion Creek (n=8, 21.1%), and Hittle Bottoms (n=7, 13.2%). Just over fifty percent (n=288) of Westwater respondents reported a trip length of at least 2 days. The most frequented campsite with those floaters who listed a campsite(s) was Big Hole with 41 campers (15.0%). The next most frequented sites were the Upper Delores with 36 campers (13%), Black Rocks with 30 (10.9%), and Minors Cabin with 27 (9.9%).

Table II-D.1: Experience of river runners in respect to having previously run Utah rivers/segments.

Experience	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
First time on this segment	76.0%	48.3%	74.5%	44.4%	67.8%	84.6%	63.5%	78.1%	49.6%
First time on a Utah river	55.6%	31.8%	29.8%	27.8%	35.5%	59.7%	33.5%	63.5%	36.2%
Average number of times respondents ran a Utah river[1]	9.8	25.3	44.2	35.8	18.2	11.7	16.7	34.3	52.6
Range of times respondents ran a Utah river[1]	1-300	1-400	1-300	1-500	1-500	1-400	1-208	1-1000	1-501
1-3 previous trips on a Utah river[1]	63.2%	32.2%	35.5%	39.4%	46.2%	77.2%	37.1%	48.3%	23.9%
4-10 previous trips on a Utah river[1]	21.2%	23.6%	42.0%	29.3%	30.6%	8.9%	33.0%	26.0%	26.3%
11-20 previous trips on a Utah river[1]	14.1%	24.5%	6.4%	11.1%	8.8%	8.8%	13.6%	7.7%	14.7%
>20 previous trips on a Utah river[1]	1.8%	19.0%	16.1%	20.1%	14.3%	5.4%	16.6%	18.1%	34.8%

[1] Only those respondents who indicated that they had previously ran a Utah river.

Table II-D.2: Group size by type of trip.

Type of Trip and Group Size	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Commercial	49.6%	16.5%	53.2%	27.7%	25.8%	23.0%	27.0%	40.1%	26.0%
Average group size	15.8	15.6	20.1	3.8	14.2	15.7	14.5	16	11.7
Range of group sizes	2-40	2-27	6-22	2-10	4-80	4-21	2-30	2-300	2-25
Private	50.4%	83.5%	46.8%	72.3%	74.2%	77.0%	73.0%	59.9%	74.0%
Average group size	12.6	9.3	8.8	5.8	9.1	12	11.7	11	9.5
Range of group sizes	2-30	1-27	2-12	1-20	2-40	1-41	2-25	1-300	2-21

Table II-D.3: Number of days on segments.

Days	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average number of days	2.1	6.1	2.9	1.6	1.2	4.7	5.5	1.1	1.7
Modal category	1	6	3	1	1	4[1]	5	1	1
Range	1-6	2-9	2-3	1-6	1-6	2-14	2-9	1-9	1-5

[1] There were two modal categories at n=58, 4 days and 5 days.

II-E. RIVER TRIP CHARACTERISTICS

The following section describes certain river trip characteristics for each segment studied. The intercept survey contained questions about the floater's overall satisfaction with their river trip, their feelings about crowding (both number of people and watercraft seen), and the amount of physical impact observed. They were also asked several trip expenditure questions. Non-resident river runners specifically were asked how many nights they stayed in Utah while not on the river.

Satisfaction

We asked the respondents to indicate, in general, how satisfied they were with their trip. As shown in Table II-E.1, the majority of river runners were satisfied with their river running experience. Over 70% of floaters reported being very satisfied with their river trip on all but three segments (Labyrinth, Colorado Daily, Green Daily). While not above the seventieth percentile, the majority of river runners on Labyrinth (50.3%), the Colorado Daily (57.0%), and the Green Daily (56.8%) were still very satisfied with their river running experience. On Westwater, 83.5 % of floaters were very satisfied. On all river segments but Labyrinth (92.5%), over 95% of river runners reported being very satisfied or satisfied with their river trip. Out of 2238 respondents, only 41 (1.2%) reported being neutral about their river trip experience, and only 13 (0.6%) reported being dissatisfied or very dissatisfied with their trip.

River Trip Characteristics

The following discussion presents a qualitative assessment of the comments received for question 9 on the survey (see survey instrument in Appendix II-1), which asked what factors the rafters

felt added to or detracted from the quality of their river trip. During the coding process, up to three comments per respondent were recorded. Responses were first split into positive (i.e., added to) and negative (i.e., detracted from) comments, they were then grouped into the five generalized categories of: 1) Management, 2) Ecology, 3) Social, 4) Particular Segments, and 5) Scenery, weather, people, etc.... Within each of these general categories, the comments were grouped into more specific subject headings. For example, Management related comments fell under one of the following specific categories: in general, facilities, policies, actions to take/suggestions, and grazing/non-river issues. It is important to note that the percentages listed in the following discussion for all sub-categories are not computed using the total number of respondents, but the "added to" or "detracted from" totals. For example, on San Juan Upper there were 15 (10.7%) Management related positive comments, so 15 comments addressed how river Management *added* to their trip, and this 15 is 10.7% of the 140 *positive* response(s) received. Summary tables for each segment can be found in Appendix II-3.

San Juan Upper. On this segment there were 188 total comments, of which 140 (74.5%) were positive (i.e. added to trip) in nature. There were 15 Management related positive comments, of which 10 (7.1%) addressed facilities. Most of these responses referred to the cleanliness of the river while 2 rafters said they enjoyed the hiking opportunity. Eight (5.7%) of the positive comments were on Ecology. All of these comments addressed wildlife, especially the opportunity to enjoy viewing big horn sheep. Two rafters (1.4%) had positive comments categorized as Social. Over 82% (115) of the positive comments fell under the Scenery, weather, people, etc... category. Forty-one (29.3%) of these comments related to scenery, and many of those comments were "spectacular", "amazing", and "beautiful." Thirty-seven (26.4%) of responses were about people, particularly the quality of the guides

and having good companions to float the river with. Seventeen (12.1%) of the positive responses enjoyed the high water level. Only 48 (25.5%) of the total comments received on the San Juan Upper were negative (i.e., detracted from the trip) in nature. Seventeen (35.4%) were Management related. Of these comments, 8 (16.7%) were policy related (specifically overcrowding), 7 (14.6%) of these rafters had grazing/non-river issues comments and did not enjoy seeing cattle or signs of cattle while on their trip, and the other 2 (4.2%) comments were about the facilities. Six (12.5%) of negative comments were Ecology related. Three (6.3%) of these comments were about vegetation, specifically the exotics (e.g., Tamarisk). Nine (18.8%) of the negative comments recorded were Social issues related. Six (12.5%) of these comments addressed pollution/trash, specifically trash along the river and the defacing of cultural resources. Fifteen (31.3%) of the negative comments fell under the Scenery, weather, people, etc... category. Four (8.3%) of these comments were about the weather being too hot or too windy, while 3 (6.3%) wanted a higher water level or believed the flat water was too long.

San Juan Lower. On this segment there were 318 total comments, of which 165 (51.9%) where positive comments. There were 63 (38.2%) positive comments on Management. Twenty-six (15.8%) of these comments addressed facilities, specifically the cleanliness of campsites and river as well as enjoying the hiking opportunities. Thirty-one of these comments addressed policies and contained many comments on wilderness qualities such as "quiet", "pristine", and seeing few people. Only 2 (1.2%) of the positive comments were about the Ecology (specifically the wildlife). Eight (4.8%) of the positive comments received addressed Social aspects on the river. Seven (4.2%) of these responses were about the cleanliness of the river corridor. Ninety-one (55.2%) of the positive comments fell under the Scenery, weather, people, etc... category. Twenty-two (13.3%) of these

comments addressed people, particularly the good guides. Eighteen (10.9%) of these comments addressed the weather (mostly "perfect" or "great" weather), while scenery comments (mostly "beautiful", "great", "scenic") and water level comments each had 17 (10.3%) comments.

Of all comments received on this segment, 153 (48.1%) were negative comments. Sixty (39.2%) negative comments fell under the Management category. Thirty-one (20.3%) of these comments addressed facilities and mostly dealt with problems at campsites such as "too crowded", "not enough", "not well designated", and "need to enforce." Twenty-three (15.0%) of these comments addressed policies and were primarily remarks of seeing too many people or too many watercraft. Ecology related comments accounted for 10 (6.5%) of the negative responses, of which 6 (6.9%) were on the water, specifically how the water was dirty or muddy. Thirty-nine (25.5%) of the negative comments addressed Social aspects on the river trip. Twenty-nine (19.0%) of these remarks were about pollution/trash, specifically trash in the river, in the side streams, or on the shore. The other 10 (6.5%) of these comments were about conflicts and mentioned either motorized craft, commercial floaters, or both. Six (3.9%) of the negative comments recorded were specific to this segment, all of which expressed displeasure at the military aircraft that "buzzed" the river. Thirty-eight (24.8%) of the negative comments fell into the Scenery, weather, people, etc... category. The comments in this category were spread across 6 subcategories; however, 18 (11.8%) of the comments were weather related and addressed the windy conditions, while 11 (7.2%) of the comments fell into the silly/inane comments category, 9 of which addressed the drainage of Lake Powell and the restoration of Glen Canyon.

White River. On this segment there were 67 comments received, of which 34 (50.7%) were

positive responses. Nine (26.5%) of the positive comments were Management related. Of these comments, 8 (23.5%) were about policies, most pertained to the remoteness and solitude experienced, and 1 (2.9%) was about facilities. Ecology accounted for 2 (5.9%) of the positive comments, specifically wildlife. Seven (20.6%) of the positive comments received addressed Social aspects, of which 4 (11.8%) remarks mentioned the cleanliness, while 3 (8.8%) mentioned the location (specifically its remoteness). Sixteen (47.1%) of the positive comments fell into the Scenery, weather, people, etc... category. These comments varied across almost all subcategories; however, there were 7 (20.6%) comments on scenery, most of which were "beautiful" and "scenic."

On this segment, 33 (49.3%) of the comments received were negative in nature. Of these negative comments, 5 (15.2%) fell under the Management category. All of these comments were in the grazing/non-river issues category and addressed cows, sheep, or their signs. One (3.0%) Ecology related negative comment was received that addressed vegetation. Five (15.2%) of the negative comments addressed the Social aspects on the river. All 5 of these comments were in the pollution/trash subcategory and varied from trash on shore, to planes, to the presence of oil wells. Twenty-two (66.7%) of the negative comments received fell under the Scenery, weather, people, etc... category. Nineteen (57.6%) of these comments were about weather, almost all about the windy conditions.

Brown's Park. On this segment 184 total comments were received, of which 130 were positive comments. Of those positive comments, 27 (20.8%) were related to Management. Fifteen (11.5%) of these comments were about policies, mostly comprising of remarks such as "peaceful", "serene", and seeing few people. Eleven (8.5%) of these comments were about the facilities, especially

the campsites, while the remaining comment fell under the actions to take/suggestions category. Twenty-eight (21.5%) of the positive comments were Ecology related, 21 (16.2%) of which addressed the good quality of the fisheries. Twelve (9.2%) of the positive comments discussed the Social aspects of the river trip. Nine (6.9%) of these comments fell under the pollution/trash subcategory and included responses on cleanliness of the river and campsites, as well as the water quality. Sixty-three(48.5%) of the positive comments received fell under the Scenery, weather, people, etc... category. Twenty (15.4%) of these responses addressed the people, primarily mentioning how good the guides were. Seventeen (13.1%) comments were about the scenery and included comments such as "beautiful" and "great", while another 14 (10.8%) of comments were about the good weather.

There were 54 (29.3%) comments received on this segment that were negative in nature. Management issues accounted for 18 (33.3%) of the negative comments. Seventeen (31.5%) of these responses were about policies and were primarily composed of comments on seeing too many people. The other comment received about Management addressed the facilities. Ecology accounted for 6 (11.1%) of the negative comments received and varied across 4 of the 6 subcategories. Twelve (22.2%) of the negative comments were about Social aspects of the river trip, 9 (16.7%) of which concerned conflicts that took place and were primarily composed of comments on guides or fishermen who acted as if they "owned the river." Eighteen (33.3%) of the negative comments fell under the Scenery, weather, people, etc... category. Nine (16.7%) of these comments were about the water level and included remarks on the unnatural dam released flow, the water being too high for good fishing, and the water being too low for good fishing.

Green Daily. On this segment 197 total comments were received, of which 146 (74.1%) were

positive comments. Twenty-nine (19.9%) of these positive comments fell under the Management category, of which 16 (11.0%) addressed the facilities and included comments on both the bathrooms and the campsite availability. Thirteen (8.9%) of these comments concerned policies, primarily seeing few people and enjoying the no permit needed system for this segment. Only 2 (1.4%) of the positive comments were Ecology related. Eight (5.5%) of the positive comments addressed Social issues on the river, 6 (4.1%) of which addressed pollution/trash, specifically the lack of it on the river. The Scenery, weather, people, etc... category accounted for 107 (73.3%) of the positive comments received. Thirty-eight (26.0%) of these comments concerned people and included remarks on the quality of the guides and the good companions. Twenty-seven (18.5%) of the comments addressed the water level, specifically comments on enjoying the whitewater, while 19 (13.0%) commented on the good weather.

Of all the comments received for this segment, 51 (25.9%) were negative in nature. Seventeen (33.3%) of the negative comments were about Management. Fourteen (27.5%) of those comments fell under the facilities subcategory and were primarily about the unpaved road between Swazey's and Nefertiti. Three (5.9%) other comments concerned policies. Ecology accounted for 8 (15.7%) negative comments. Four (7.8%) mentioned dirty or muddy water and another 4 (7.8%) mentioned bugs being bad in general. An additional 4 (7.8%) of the negative comments received addressed Social aspects of the river trip, of which 2 (3.9%) mentioned conflicts and 2 (3.9%) mentioned pollution/trash. Twenty-two (43.1%) of the negative comments fell under the Scenery, weather, people, etc... category. Comments varied, but 9 (17.6%) expressed a desire for higher water and more/better whitewater.

Labyrinth. On this segment 260 total comments were received, of which 125 (48.1%) were positive comments. Twenty-nine (23.2%) of the positive comments were related to Management

issues. Nineteen (15.2%) of these comments addressed policies and included comments such as "wilderness", "peace", "quiet", and "saw few people." Five (4.0%) various positive comments on Ecology were received. Six (4.8%) various positive comments were received that addressed Social issues on the river. Eighty-five (68.0%) of the positive comments fell under the Scenery, weather, people, etc... category. Thirty-two (25.6%) of these comments addressed the scenery in general and included such remarks as "beautiful", "amazing", and "great." Thirteen (10.4%) comments were about people, mostly the good guides and good companions. Eleven (8.8%) comments described the good weather, while another 10 (8.0%) comments mentioned having a good trip in general.

Of all comments on this segment, 135 were negative in nature. Eight (5.9%) of the negative comments were about Management issues and included a wide variety of comments. Eighty-seven negative comments were about Ecology issues, most of which (63, 46.7%) concerned the bad bugs (particularly the mosquitos). Another 16 (11.9%) of these comments addressed the vegetation, particularly the Tamarisk. Social issues accounted for 9 (6.7%) various negative comments. Thirty-one (23.0%) negative comments were received that fell under the Scenery, weather, people, etc... category. Twenty (14.8%) of these comments addressed the weather, mostly complaints of too hot or windy.

Desolation. On this segment, 450 total comments were recorded, of which 283 (62.9%) comments were positive. Ninety-seven (34.3%) positive comments were related to Management issues, of which 47 (16.6%) addressed policies and included such remarks as "peace", "quiet", and "isolated" as well as several comments on appropriate permit levels and not seeing too many people. Forty-four (15.5%) of these comments discussed facilities, particularly the clean campsites, and several comments were received on the "nice" and "friendly" rangers. Twenty (7.1%) positive comments were

recorded that addressed Ecology. Eleven (3.9%) of these comments were on the wildlife in general. Twenty-five (8.8%) of the positive comments were about Social issues on the river. The pollution/trash subcategory accounted for 23 (8.1%) of these comments, most of which were "clean" or little garbage seen. The Scenery, weather, people, etc... category accounted for 141 (49.8%) of all positive comments. Forty-one (14.5%) of these comments addressed people, mostly the good guides and good companions, while 28 (9.9%) responses believed the water level to be good and/or enjoyed the whitewater. The Scenery subcategory had 25 (8.8%) comments, most of which were "beautiful", "great", and "scenic", while another 23 (8.1%) of responses described good weather conditions.

Of all comments received, 167 (37.1%) can be classified as negative comments. Twenty-five (15.0%) of the negative comments recorded addressed Management on the river. Thirteen (7.8%) of these comments discussed policies and primarily mentioned crowding of people and boats on the river. Ecology comments accounted for 73 (43.7%) of all negative responses, of which 64 (38.3%) were remarks about the particularly bad bugs on the trip. Fifteen (9.0%) of the negative responses addressed the Social aspects of the river trip. Eight (4.8%) of these comments fell under the conflicts subcategory and ranged from conflicts with commercials, to Boy Scouts, to ATV users. Another 7 (4.2%) comments were about pollution/trash on the river. Two (1.2%) of negative comments received were specific to Desolation. These comments mentioned the lack of access to the east bank of the river and that the river guide book was outdated. Fifty-two (31.3%) of the negative comments recorded fell under the Scenery, weather, people, etc... category. Most (30, 18.0%) were comments on the weather, particularly the windy conditions.

Colorado Daily. On this segment 772 comments were recorded, of which 564 (73.1%) were

positive. Of the positive comments received, 36 (6.4%) were about Management on the river. Twenty-five (4.4%) of these comments were about policies and were primarily composed of such remarks as "saw few people", "peace", and "quiet." Nine (1.6%) various positive comments about Ecology were recorded. There were 19 (3.4%) Social related positive comments. Most (11, 2.0%) of these comments were about pollution/trash and how "clean" the river was. The Scenery, weather, people, etc... category accounted for 499 (88.6%) of the positive comments received, of which 197 (34.9%) pertained to the people (primarily the good guides, companions, and friends), and 103 (18.3%) were comments about the scenery, particularly such remarks as "beautiful" or "great." Seventy-four (13.1%) of these comments fell under the water level category and pertained to the quality of the whitewater or the desire for more. Fifty-seven (10.1%) of these comments were about the weather, with most saying the weather was "perfect" or "good."

Of the comments received on this segment, 208 (27.0%) were negative in nature. Thirty (14.4%) of the negative comments were about Management. The policies subcategory accounted for 16 (17.7%) of these comments, most of which pertained to seeing too many people or watercraft. Facilities accounted for an additional 13 (6.3%) of these comments and primarily referred to crowded ramps or the lack of fresh drinking water at campsites and ramps. Ecology accounted for 7 (3.4%) of the negative comments recorded. Thirty-eight (18.3%) of the negative comments received were about Social issues on the river. Sixteen (7.7%) of these comments mentioned stream side issues such as houses on the riverside, the highway, and development issues, while 14 (6.7%) comments fell under the pollution/trash subcategory, many of which were remarks on the presence of trash in or near the river. There were 2 (1.0%) comments specifically pertaining to the Colorado Daily. One of these comments

said a commercial venture upstream would detract from the experience, while the other mentioned a B1 bomber "buzzing" the river. The Scenery, weather, people, etc... category accounted for 131 (63.0%) of the negative comments received. Of these comments, 68 (32.7%) were about the water level, particularly expressing a desire for more whitewater or that the current whitewater was "tame" or "mild." Another 33 (15.9%) of these responses mentioned weather, specifically the wind or the cold outdoor temperature.

Westwater. There were 706 comments received on this segment, of which 567 (80.3%) were positive in nature. Of the positive comments received, 96 (16.9%) were about Management. Of these comments, 59 (10.4%) fell into the policies subcategory and included such remarks as "wilderness", "remote", "saw few people", and "isolated"; while 32 (5.6%) various comments about the facilities (particularly ramps and campsites) were received. Seven (1.2%) of the positive comments were about the Ecology, all of which mentioned the wildlife. Thirty-one (5.5%) of the positive comments were about Social issues, 20 (3.5%) of which were various positive comments that fell under the pollution/trash subcategory. Most positive comments (432, 76.2%) fell under the Scenery, weather, people, etc... category. Remarks about people accounted for 160 (28.2%) of these comments and were primarily remarks about the good guides, good companions, and good food. Seventy-seven of these comments were about the weather, particularly "good weather" responses and several about the waterfalls from the canyon rim. Seventy (12.3%) of these comments fell under the water level subcategory (most commenting on the level in general and the whitewater), while 66 (11.6%) of the comments mentioned the scenery and included such remarks as "beautiful" and "great."

On this segment, 139 (19.7%) of the comments recorded were negative in nature. Forty-nine

(35.3%) negative comments were about Management issues on the river. Twenty-eight (20.1%) of these were various comments about the facilities and included comments on the campsites, bathrooms, and Rangers. Nineteen (13.7%) of these comments were about policies, primarily having to do with the difficulty of obtaining, transferring, or changing permits and the amount of people and commercials seen on the river. Ecology accounted for 5 (3.6%) of the various negative comments received. Forty-one (29.5%) of the negative comments were about Social issues, of which 26 (18.7%) remarks mentioned conflicts, including problems with crowding on the ramps and conflicts with motorboats and personal water craft. Five (3.6%) negative comments specific to Westwater were recorded and varied from a problem with the railroad, to getting their car stuck, to complaining of the lack of a shuttle service. The Scenery, weather, people, etc... category accounted for 39 (28.1%) of the negative comments recorded. Of these comments, 13 (9.4%) were various remarks about the water level, while 12 (8.6%) were various comments about the weather, mostly the wind and rainstorms.

Crowding

Crowding statistics are shown in Table II-E.2 and II-E.3. Table II-E.2 shows the average number of people seen by river runners over the course of the trip, number seen per day, and their feelings about the number of people they saw. The majority of river runners felt that there are not too many people on the river. Means for each segment were calculated based on a 5-point scale where 1= "Far Too Many", 2= "Somewhat Too Many", 3= "About the Right Number", 4= "Somewhat Too Few", and 5= "Far Too Few". Only the Green Daily had a mean higher than three. Means for the other segments fell between 2 and 3. The lowest means were on the Lower San Juan (2.63) and Desolation (2.67).

Between 75% and 80% of river runners on all but three segments felt that they had seen "About the Right Number" of people on their trip. Brown's (56.3%), the Lower San Juan (63.2%) and Desolation (66.5%) were the segments where the fewest number of river runners felt that they had seen "About the Right Number" of people. Floaters on the Colorado Daily and Brown's Park reported seeing more people per day (58 and 55 respectively) then did floaters on any other segment. Rafters on these two segments also reported the highest number of people seen per trip (62 and 80 respectively). It is important to note that while more people were seen on these segments in comparison to the other segments studied, the majority of river runners for the Colorado Daily and Brown's Park still felt that there were not too many people on the river. However, 27.8% of floaters on Brown's felt that there were "Somewhat Too Many People" and 6.3% believed that there were "Far Too Many People". In comparison, 12.9% of rafters on the Colorado Daily believed there to be "Somewhat Too Many People", and 4.3% felt that there were "Far Too Many People".

Table II-E.3 shows the average number of watercraft seen by river runners and their feelings about the number of watercraft they saw. The same basic 5-point scale as used for "feelings about people seen" was used to calculate the mean perception of numbers of watercraft seen (see Table II-E.3). The same general pattern as that described for Table II-E.2 emerges here as well. The Green Daily was once again the only segment where the mean was greater than 3 (i.e. between "About the Right Number" and "Somewhat Too Few Watercraft"). Mean scores on all other segments fell between 2 and 3.

Over 77% of river runners on all segments but three felt that they had seen "About the Right Number" of watercraft. Once again, the three segments with the smallest majority reporting "About the

Right Number" were Brown's Park (64.1%), the Lower San Juan (70.1%), and Desolation (70.2%). These three river segments also had the most boaters report "Somewhat Too Many Watercraft" (21.1%, 22.4%, and 22.0% respectively) and "Far Too Many Watercraft" (4.9%, 5.2%, and 4.7% respectively). So, while the majority of floaters on all segments feel that they are not crowded, the means show that rafters on the Lower San Juan, Brown's, and Desolation are more likely to feel crowded, due to the number of people and watercraft seen, than rafters on any of the other segments studied.

Impacts

Floaters responses concerning the amount of physical impacts observed from river running recreation are shown in Table II-E.4. A mean was calculated using a 5-point scale where 1= "Extremely Low", 2= "Moderately Low", 3= "Currently Acceptable", 4= "Moderately High", and 5= "Extremely High". Means for all segments studied fell between 2 and 3, although all but Brown's Park had means close to 2 or "Moderately Low". Brown's had a higher percentage of floaters (48.2%) report impacts as being "Currently Acceptable" than any other segment. Brown's higher mean is a result of this 48.2% combined with the 14.6% of floaters who reported either "Moderately High" or "Extremely High" impact. Brown's also had the lowest percentage of boaters report both "Moderately Low" (22.6%), and "Extremely Low" (14.6%) impact. All river segments studied but the Lower San Juan (49.1%) and Brown's (37.2%) had at least 50% of their boaters report seeing either "Moderately Low" or "Extremely Low" impact. Nearly fifteen percent of boaters on the Lower San Juan, the White, and Brown's reported "Moderately High" and "Extremely High" impact. In contrast, only 6.3% of Green Daily boaters reported some degree of high impact. Desolation, the Colorado Daily, and

Westwater also had low percentages of floaters who reported "Moderately High" and "Extremely High" impact (7.7%, 7.6%, and 8.8% respectively).

Expenditures

For this section, it is important to point out that the some of the data could be misleading, although all figures are representative of the sample. Figures reported for *all* river runners have sufficient sample sizes that it is reasonable to use these figures as being representative of the whole population. However, as we break down all river runners into subgroups, and then more subgroups (i.e. resident/non-resident and commercial/private trips) sample sizes often became too small to be able to accurately state, with a degree of certainty, that those data are representative of the whole subgroup population.

The expense incurred by river runners as a whole are shown on Table II-E.5. Table II-E.6 focuses on money spent by Utah resident boaters, while Tables II-E.7 and II-E.8 show expenditures and trip make-up for non-resident river runners. Floaters on Desolation, the Upper San Juan, and the Lower San Juan segments reported a higher overall trip cost (to date of survey completion) than boaters on any other segment studied ($981.60, $944.69, and $709.31 respectively). This could be due to the fact that Desolation and the Lower San Juan are the segments that take the longest to float (Table II-D.3). The Upper San Juan, a relatively short trip in comparison to Desolation and the Lower San Juan, reported the second highest average trip cost ($944.69), perhaps because this segment had the largest average group size of any segment (see Table II-D.2). The Green Daily ($126.57) and the Colorado Daily ($222.92) were the two segments that cost the least to run. Boaters on all segments but the White spent over 50% of the cost for their trip in Utah. River runners on the Green Daily (94.6%),

the Colorado Daily (90.9%), and Brown's Park (82.5%) spent a large majority of the cost of their river trip in Utah.

Desolation reported the highest amount spent per person ($392.60), although Brown's Park ($335.60), Upper San Juan ($316.68), Lower San Juan ($290.74), and Labyrinth ($287.90) floaters also reported a cost per person near $300. The least expensive (per person) segments were the Green Daily ($48.81), the Colorado Daily ($81.33), and Westwater ($146.11). All segments but the Colorado Daily cost more per person for commercial trips than private trips. Desolation reported the highest amount spent per person for commercial trips ($1,046.73), which averaged 6 times more money spent per person than for a private trip ($174.45). Westwater and Labyrinth trips also cost more per person (5 times more and 4.8 times more respectively) for a commercial vs. private trips than other segments. As mentioned above, Colorado Daily rafters on private trips spent more per person than those on commercial trips ($81.63 and $81.32 respectively), though a private trip was only slightly more than a commercial trip.

Utah resident river runners spent more per trip on the Lower San Juan ($411.14) than on any other segment studied (Table II-E.6). Utah resident floaters on Desolation ($330.21), Labyrinth ($328.48), and Brown's ($278.12) also spent a larger amount per trip than boaters on other segments. The least expensive segment to float for residents was the Upper San Juan at $43.58. The Green Daily ($96.06) and Westwater ($126.79) were the other two segments where Utah residents spent the least per trip. The Colorado Daily averaged nearly $200 dollars per trip for Utah residents. Utah Residents on all river segments spent at least 92% of the cost of their trip in Utah, though floaters on Desolation and Westwater spent the largest percentage of the money for their trip in Utah (99.1% and 97.8%

respectively).

Utah resident boaters spent more per person overall (i.e. both those on commercial and private trips) on Labyrinth ($129.30) than on any other segment. Brown's ($124.86), the Lower San Juan ($104.50), and Desolation ($89.80) were the next most expensive per person segments for Utah resident floaters. The least expensive segments for Utah resident boaters overall were the Upper San Juan ($36.29 per person), the Colorado Daily ($44.15 per person), and Westwater ($55.01 per person). There were no Utah resident boaters participating in a commercial trip surveyed on the Lower San Juan, the White, and Desolation. Also, commercial trips were not popular with Utah resident boaters on any of the other segments but the Colorado Daily, where 79 of the 221 respondents to this question (average amount spent per person on this trip) were on a commercial trip. No more than 10 commercial trip respondents were recorded on any other segment. Both Utah resident floaters on commercial and private trips spent approximately the same amount of money per person on the Colorado Daily ($46.82 and $42.86 respectively). Rafters on all other segments with Utah resident commercial trip boaters spent more for their trip, in the case of the Upper San Juan 8.7 times more, than those rafters on private trips.

Non-resident river runners spent more per trip on every segment but the White (Table II-E.7). The segments that cost the most for non-resident floaters were the Upper San Juan ($1117.50) and Desolation ($1,115.67). Desolation floaters spent nearly 50% of the cost of their trip in Utah, while Upper San Juan floaters spent 62.4% of the cost of their trip in Utah. The most inexpensive trips for non-residents were the Green Daily ($182.00) and the Colorado Daily ($246.07). Non-residents spent the large majority of the cost for these Daily river trips in Utah (94.4% and 84.9% respectively). Non-

residents floating the Brown also spent the large majority (nearly 78%) of the cost of their trip in Utah.

All segments cost much more per person overall for non-residents than for Utah resident river runners. Desolation and Brown's were the most expensive for non-residents ($413.43 and $402.10 respectively). Upper San Juan ($370.08), Labyrinth ($342.00), and Lower San Juan ($320.22) floaters also spent more per person in comparison to floaters on other segments. The Green Daily ($56.33) and the Colorado Daily ($99.27) were once again the least expensive segments to float. The Green Daily was the only segment studied to report an average cost per person for commercial trips as being lower than that reported for private trips. Commercial trips on all other segments cost more per person for non-residents than did private trips, especially on Desolation (4.3 times more), Labyrinth (4.5 times more), and Westwater (4.9 times more).

Utah resident boaters were in the minority on every segment but the Green Daily (Table II-E.8). On the San Juan Lower and Westwater, at least 84% of boaters were non-residents. Conversely, only 28.0% of floaters on the Green Daily were from outside Utah. The Colorado Daily had a nearly even mix of resident and non-resident boaters. Over 80% of non-resident river runners stayed over night in Utah when not on the river on the Colorado Daily (84.7%) and Labyrinth (81.3%). Desolation (60.0%), Westwater (47.6%), and the White (22.9%) were the segments where the fewest non-resident boaters reported staying overnight in Utah while not on the river. Non-residents stayed an average of at least 2.5 nights in Utah while not on the river on all segments. The segments reporting the smallest average number of nights were the White (1.0 nights), the Lower San Juan (2.6 nights), and Desolation (2.8 nights). The Green Daily and the Colorado Daily averaged the most nights spent in Utah by non-residents while not on the river (5.8 nights and 4.6 nights respectively).

A non-resident was more likely to be in a private group than a commercial group on all segments studied but the Upper San Juan, the Green Daily, and the White (Table II-E.8). The Lower San Juan had more non-residents in private groups (81.0%) than any other segment. Westwater (72.7%), Labyrinth (71.2%), and Brown's (70.2%) also had a large majority of non-resident river runners in private groups. The segments reporting the highest number of non-residents in commercial groups were the White (68.6%), the Green Daily (54.8%), the Upper San Juan (52.6%), and the Colorado Daily (44.8%).

Table II-E.1: Overall satisfaction with river trip.

Response	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Very satisfied	73.0% (*92*)	75.0% (*132*)	74.5% (*35*)	73.4% (*105*)	56.6% (*86*)	50.3% (*74*)	73.3% (*189*)	57.0% (*363*)	83.5% (*464*)
Satisfied	24.6% (*31*)	24.4% (*43*)	21.3% (*10*)	23.8% (*34*)	39.5% (*60*)	42.2% (*62*)	25.2% (*65*)	39.6% (*252*)	15.6% (*87*)
Neutral	1.6% (*2*)	0.6% (*1*)	4.3% (*1*)	0.7% (*1*)	3.9% (*6*)	4.8% (*7*)	1.2% (*3*)	2.8% (*18*)	0.4% (*2*)
Dissatisfied	0.8% (*1*)	0.0% (*0*)	0.0% (*0*)	0.7% (*1*)	0.0% (*0*)	2.0% (*3*)	0.4% (*1*)	0.6% (*4*)	0.0% (*0*)
Very dissatisfied	0.0% (*0*)	0.0% (*0*)	0.0% (*0*)	1.4% (*2*)	0.0% (*0*)	0.7% (*1*)	0.0% (*0*)	0.0% (*0*)	0.2% (*1*)
Mean satisfaction with the trip[1]	1.30	1.26	1.30	1.33	1.47	1.61	1.29	1.47	1.17

[1] Mean score calculated on a 5-point scale where: 1= "Very Satisfied", 2= "Satisfied", 3= "Neutral", 4= "Dissatisfied", and 5= "Very Dissatisfied".

Table II-E.2: Average number of people seen (other than respondent's own group) and which best describes respondent's feelings about the number of people seen.

Response	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average number seen/ trip[1]	29	43	25	80	37	27	47	62	33
Average number seen per day	15	7	9	55	28	6	9	58	23
Far too many people	3.2%	5.2%	0%	6.3%	3.4%	1.3%	5.1%	4.3%	2.2%
Somewhat too many people	12.0%	29.3%	12.8%	27.8%	5.4%	18.1%	26.1%	12.9%	15.0%
About the right number	77.6%	63.2%	78.7%	56.3%	79.2%	74.5%	66.5%	77.9%	75.1%
Somewhat too few people	5.6%	2.3%	8.5%	6.9%	9.4%	4.7%	1.6%	3.3%	5.3%
Far too few people	1.6%	0%	0%	2.8%	2.7%	1.3%	0.8%	1.6%	2.4%
Mean perception of number of people seen[2]	2.90	2.63	2.96	2.72	3.03	2.87	2.67	2.85	2.91

[1] River trips are various lengths and averages shown are not weighted to account for the different trip lengths.

[2] Mean score calculated on a 5-point scale where: 1= "Far Too Many", 2= "Somewhat Too Many", 3= "About the Right Number", 4= "Somewhat Too Few ", and 5= "Far Too Few".

Table II-E.3: Average number of watercraft seen (other than respondent's own party) and which best describes respondent's feelings about the number of watercraft seen.

Response	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average number seen on trip[1]	10	22	13	28	9	13	19	13	12
Average number seen per day	5	4	5	19	7	3	3	12	9
Far too many watercraft	2.4%	5.2%	0%	4.9%	2.0%	2.0%	4.7%	2.9%	1.5%
Somewhat too many watercraft	9.8%	22.4%	13.6%	21.1%	5.3%	12.8%	22.0%	10.9%	9.8%
About the right number	80.5%	70.1%	77.3%	64.1%	78.8%	77.9%	70.2%	81.0%	80.0%
Somewhat too few watercraft	5.7%	2.3%	6.8%	5.6%	10.6%	5.4%	2.7%	3.5%	5.8%
Far too few watercraft	1.6%	0%	2.3%	4.2%	3.3%	2.0%	0.4%	1.8%	2.9%
Mean perception of number of watercraft seen[2]	2.94	2.70	2.98	2.83	3.08	2.93	2.72	2.90	2.99

[1] River trips are various lengths and averages shown are not weighted to account for the different trip lengths.

[2] Mean score calculated on a 5-point scale where: 1= "Far Too Many", 2= "Somewhat Too Many", 3= "About the Right Number", 4= "Somewhat Too Few ", and 5= "Far Too Few".

Table II-E.4: Amount of physical impacts from river running recreation respondent saw.

Response	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Extremely low	21.0%	23.7%	38.3%	14.6%	26.8%	27.9%	36.3%	26.2%	32.7%
Moderately low	28.6%	25.4%	27.7%	22.6%	26.1%	29.3%	26.9%	34.9%	27.4%
Currently acceptable	41.2%	36.4%	19.1%	48.2%	40.8%	30.6%	29.0%	31.2%	31.2%
Moderately high	7.6%	12.7%	14.9%	11.7%	4.2%	9.5%	6.9%	6.6%	7.8%
Extremely high	1.7%	1.7%	0%	2.9%	2.1%	2.7%	0.8%	1.0%	1.0%
Mean perception of impact[1]	2.40	2.43	2.11	2.66	2.29	2.30	2.09	2.28	2.17

[1] Mean score calculated on a 5-point scale where: 1= "Extremely Low", 2= "Moderately Low", 3= "Currently Acceptable", 4= "Moderately High", and 5= "Extremely High".

Table II-E.5: Amount of expenditure incurred by all river runners.[1]

Expenditure	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average dollars spent for this trip (to present)	$944.69	$709.31	$222.29	$440.75	$126.57	$489.92	$981.60	$222.92	$339.73
Average percent spent in Utah	68.2%	58.7%	44.3%	82.5%	94.6%	72.8%	58.9%	90.9%	54.5%
Average percent spent outside Utah	31.8%	41.3%	53.5%	16.7%	2.5%	24.3%	40.2%	8.0%	43.7%
Average Amount Spent Per Person									
Overall	$316.68	$290.74	$148.85	$335.60	$48.81	$287.90	$392.60	$81.33	$146.11
Commercial	$448.47	$690.69	$241.32	$459.68	$84.67	$746.80	$1,046.73	$81.32	$389.39
Private	$175.04	$210.15	$51.99	$279.25	$28.82	$155.52	$174.45	$81.63	$77.35
Private to Commercial cost ratio[2]	1:2.6	1:3.3	1:4.6	1:1.6	1:2.9	1:4.8	1:6	1:1	1:5

[1] Mean values and percentages reported excludes those respondents who had no expenditures, or those who couldn't remember the percentage they had spent in or out of Utah.

[2] The ratio was calculated by dividing Private into Commercial. Thus a ratio of 1:3 can be read as "for every $1 spent on a private trip, $3 is spent on a commercial trip."

Table II-E.6: Amount of expenditure incurred by Utah resident river runners.[1, 2]

Expenditure	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average dollars spent for this trip (to present)	$43.58	$411.14	$276.90	$278.12	$96.06	$328.48	$330.21	$195.14	$126.79
Average percent spent in Utah	96.9%	94.3%	92.9%	93.2%	94.6%	93.1%	99.1%	96.7%	97.8%
Average percent spent outside Utah	3.1%	5.7%	7.1%	4.5%	1.3%	1.4%	0.9%	0.9%	2.2%
Average Amount Spent Per Person by Utah Residents									
Overall	$36.29	$104.50	$49.40	$124.86	$28.02	$129.30	$89.80	$44.15	$55.01
Commercial	$57.50	-	-	$320.00	$68.00	$300.00	-	$46.82	$194.36
Private	$6.60	$104.50	$49.40	$90.02	$22.62	$123.41	$89.80	$42.86	$44.76
Private to commercial cost ratio[3]	1:8.7	-	-	1:3.6	1:3	1:2.4	-	1:1.1	1:4.3

[1] Cells with a dash indicate no reported data for that selection. Also, please note that while all data are representative of the sample, they may not be representative of the whole population due to small subsample sizes.

[2] Mean values and percentages reported excludes those respondents who had no expenditures, or those who couldn't remember the percentage they had spent in or out of Utah.

[3] The ratio was calculated by dividing Private into Commercial. Thus, a ratio of 1:3 can be read as "for every $1 spent on a private trip, $3 is spent on a commercial trip."

Table II-E.7: Amount of expenditure incurred by non-resident river runners.[1]

Expenditure	*San Juan River*		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Average dollars spent for this trip (to present)	$1,117.50	$756.50	$206.69	$506.76	$182.00	$543.19	$1,115.67	$246.07	$381.26
Average percent spent in Utah[2]	62.4%	52.9%	26.6%	77.9%	94.4%	65.6%	48.8%	84.9%	44.6%
Average percent spent outside Utah[1]	37.6%	47.1%	70.3%	22.1%	5.6%	32.4%	50.1%	15.1%	53.1%
Average Amount Spent Per Person by Non-Residents									
Overall	$370.08	$320.22	$179.00	$402.10	$56.33	$342.00	$413.43	$99.27	$163.22
Commercial	$547.70	$690.69	$241.32	$486.54	$52.81	$763.35	$899.53	$113.91	$417.46
Private	$199.11	$230.90	$54.35	$366.12	$61.61	$169.63	$207.45	$87.14	$85.06
Private to Commercial cost ratio[3]	1:2.8	1:3	1:4.4	1:1.3	1:0.9	1:4.5	1:4.3	1:1.3	1:4.9

[1] Please note that while all data are representative for the sample, they may not be representative of the whole population due to small subsample size.

[2] Mean values and percentages reported excludes those respondents who had no expenditures or those who couldn't remember the percentage they had spent in or out of Utah.

[3] The ratio was calculated by dividing Private into Commercial. Thus a ration of 1:3 can be read as "for every $1 spent on a private trip, $3 is spent on a commercial trip."

Table II-E.8: General make-up of trips by non-residents.

	San Juan River		*White R.*	*Green River*				*Colorado River*	
	Upper	Lower		Brown's	Daily	Labyrinth	Desolation	Daily	Westwater
Utah boaters	21.0% *(26)*	13.1% *(23)*	25.5% *(12)*	33.6% *(48)*	72.0% *(108)*	24.8% *(37)*	22.2% *(57)*	49.7% *(285)*	15.7% *(84)*
Non-resident boaters	79.0% *(98)*	86.9% *(153)*	74.5% *(35)*	66.4% *(95)*	28.0% *(42)*	75.2% *(112)*	77.8% *(200)*	50.3% *(288)*	84.3% *(452)*
Non-residents staying over night in Utah[1]	64.3% *(63)*	69.3% *(106)*	22.9% *(8)*	77.9% *(74)*	73.8% *(31)*	81.3% *(91)*	60.0% *(120)*	84.7% *(244)*	47.6% *(215)*
Average number of nights in Utah[1, 2]	3.11	2.59	1.00	3.05	5.76[3]	3.44	2.77	4.61	3.80
Non-residents in commercial groups	52.6% *(51)*	19.0% *(29)*	68.6% *(24)*	29.8% *(28)*	54.8% *(23)*	28.8% *(32)*	33.2% *(66)*	44.8% *(128)*	27.3% *(123)*
Non-residents in private groups	47.4% *(46)*	81.0% *(124)*	31.4% *(11)*	70.2% *(66)*	45.2% *(19)*	71.2% *(79)*	66.8% *(133)*	55.2% *(158)*	72.7% *(328)*

[1] When not on the river.

[2] Mean number of nights are for non-residents only.

[3] One respondent answered 35 days and another answered 63 days on the Green Daily. The mean was calculated without using those values.

APPENDIX II-1

Survey Instrument/Calendar

OMB #0596-0108

No._____

Date: _____
Segment: _____
Gender: M F
Age: 15-20 21-30
31-40 41-50
51-60 61-70
Over 70

UTAH STATE UNIVERSITY ON-SITE RIVERS SURVEY

Thank you for agreeing to complete this survey. It should take about five minutes of your time. Your responses will provide valuable information for future river management.
Please complete both sides of the survey.

1. We would like to know where your permanent residence is.

   City: _____ State: ____ Country: _____

2. Is this the first time you have run this particular river segment? ___ Yes ___ No

3. Is this the first time you have run a Utah river? ___ Yes ___ No

4. If No to question 3, how many previous times have you run a Utah river? _____

5. Are you part of a commercial or private group? _____ commercial _____ private

6. How many people were in your group? _____

7. How long have you been on this river this trip? _____ hours **OR** _____ days _____ nights

   If more than one day, where did you camp _____

8. In general, how satisfied were you with the trip?

   □ Very Satisfied □ Satisfied □ Neutral □ Dissatisfied □ Very Dissatisfied

9. What factors do you feel added to or detracted from the quality of your river trip? _____

_____

_____

_____

10. Please estimate the number of watercraft (other than your own party's) you saw on this river trip. _____

11. Which of the following best describes your feelings about the number of watercraft you saw?

    _____ Far too many watercraft
    _____ Somewhat too many watercraft
    _____ About the right number of watercraft
    _____ Somewhat too few watercraft
    _____ Far too few watercraft

12. Please estimate the number of people (other than your own group) you saw on this river trip. _____

13. Which of the following best describes your feelings about the number of people you saw?

    _____ Far too many people
    _____ Somewhat too many people
    _____ About the right number of people
    _____ Somewhat too few people
    _____ Far too few people

14. In your opinion, how would you rate the amount of physical impacts from *river running recreation* you saw.

_____ Extremely low

_____ Moderately low

_____ Currently acceptable

_____ Moderately high

_____ Extremely high

15. Please estimate your total expenditures for this river trip up to now. $ _____

16. What percent of that amount was spent *in Utah*? _____ %

17. What percent of that amount was spent *outside Utah*? _____ %

18. These expenditures are for _____ people.

For Non-Utah Residents Only:

19. When not on the river, are you staying overnight in Utah? ☐ No ☐ Yes ⟶ How many nights? _____

For Both Utah and Non-Utah Residents:

Also, we are conducting this survey to develop a list of river boaters that we will select from to receive a mail survey. The purpose of the survey is to develop a river management plan. If you would not mind being part of this mail survey, please fill out your name and address in the space provided below. ***This information is confidential and will only be used for purposes of this research.***

Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

If you have any comments about your trip or river management, please feel free to use the bottom of this sheet to write those comments. Please return this questionnaire to the field researcher who passed them out.

THANK YOU FOR YOUR HELP !!

May 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10 San Juan Upper Brown's Park	11 San Juan Upper Brown's Park	12 San Juan Lower White	13 San Juan Lower White	14	15 Brown's Park Colorado Daily
16 Brown's Park Colorado Daily	17	18	19 San Juan Upper Brown's Park	20 San Juan Upper Brown's Park	21 San Juan Lower White	22 San Juan Lower White
23	24 Colorado Daily White	25 Colorado Daily White	26	27	28 San Juan Upper Brown's Park	29 San Juan Upper Brown's Park
30 San Juan Lower White	31 San Juan Lower White					

June 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 Colorado Daily Labyrinth	3 Colorado Daily Labyrinth	4	5
6 San Juan Upper Colorado Daily	7 San Juan Upper Colorado Daily	8 San Juan Lower Westwater	9 San Juan Lower Westwater	10	11 Colorado Daily Labyrinth	12 Colorado Daily Labyrinth
13 Green Daily/ Desolation	14 San Juan Upper	15 San Juan Upper Green Daily/ Desolation	16 San Juan Lower Green Daily/ Desolation	17 San Juan Lower Green Daily/ Desolation	18 Colorado Daily Green Daily/ Desolation	19 Colorado Daily
20 Colorado Daily Green Daily/ Desolation	21 Green Daily/ Desolation	22	23 San Juan Upper	24 San Juan Upper Green Daily/ Desolation	25 San Juan Lower Green Daily/ Desolation	26 San Juan Lower Green Daily/ Desolation
27 Colorado Daily	28 Colorado Daily	29 Colorado Daily Green Daily/ Desolation	30 Green Daily/ Desolation			

July 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 San Juan Upper	2 San Juan Upper	3 San Juan Upper Green Daily/ Desolation
4 San Juan Lower Green Daily/ Desolation	5 San Juan Lower Green Daily/ Desolation	6 Green Daily/ Desolation	7 Colorado Daily	8 Brown's Park Colorado Daily	9 Brown's Park	10
11 San Juan Upper	12 San Juan Upper	13 San Juan Lower	14 San Juan Lower	15	16 San Juan Lower	17 San Juan Lower Brown's Park
18 Brown's Park Westwater	19 Brown's Park Westwater	20 Westwater	21 Brown's Park Westwater	22 Brown's Park Westwater	23 Westwater	24
25 Labyrinth	26 Brown's Park Labyrinth	27 Brown's Park	28 Labyrinth	29 Labyrinth	30 Labyrinth Westwater	31 Labyrinth Westwater

August 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Labyrinth Westwater	2 Westwater	3 Labyrinth	4 Labyrinth	5 Labyrinth	6 Labyrinth Westwater	7 Labyrinth Westwater
8 Labyrinth Westwater	9 Labyrinth Westwater	10 Colorado Daily Westwater	11 Westwater	12 Green Daily/ Desolation	13 Labyrinth Green Daily/ Desolation	14 Labyrinth Green Daily/Deso
15 Westwater	16 Westwater	17 Westwater Green Daily/ Desolation	18 Westwater Green Daily/ Desolation	19 Westwater Green Daily/ Desolation	20 Westwater Green Daily/ Desolation	21
22 Labyrinth Green Daily/ Desolation	23 Labyrinth Green Daily/ Desolation	24	25 Westwater	26 Labyrinth Green Daily/Deso	27 Labyrinth GreenDaily/Deso	28 Westwater GreenDaily/Deso
29 Westwater Green Daily/ Desolation	30	31 Labyrinth Green Daily/ Desolation				

September 1999

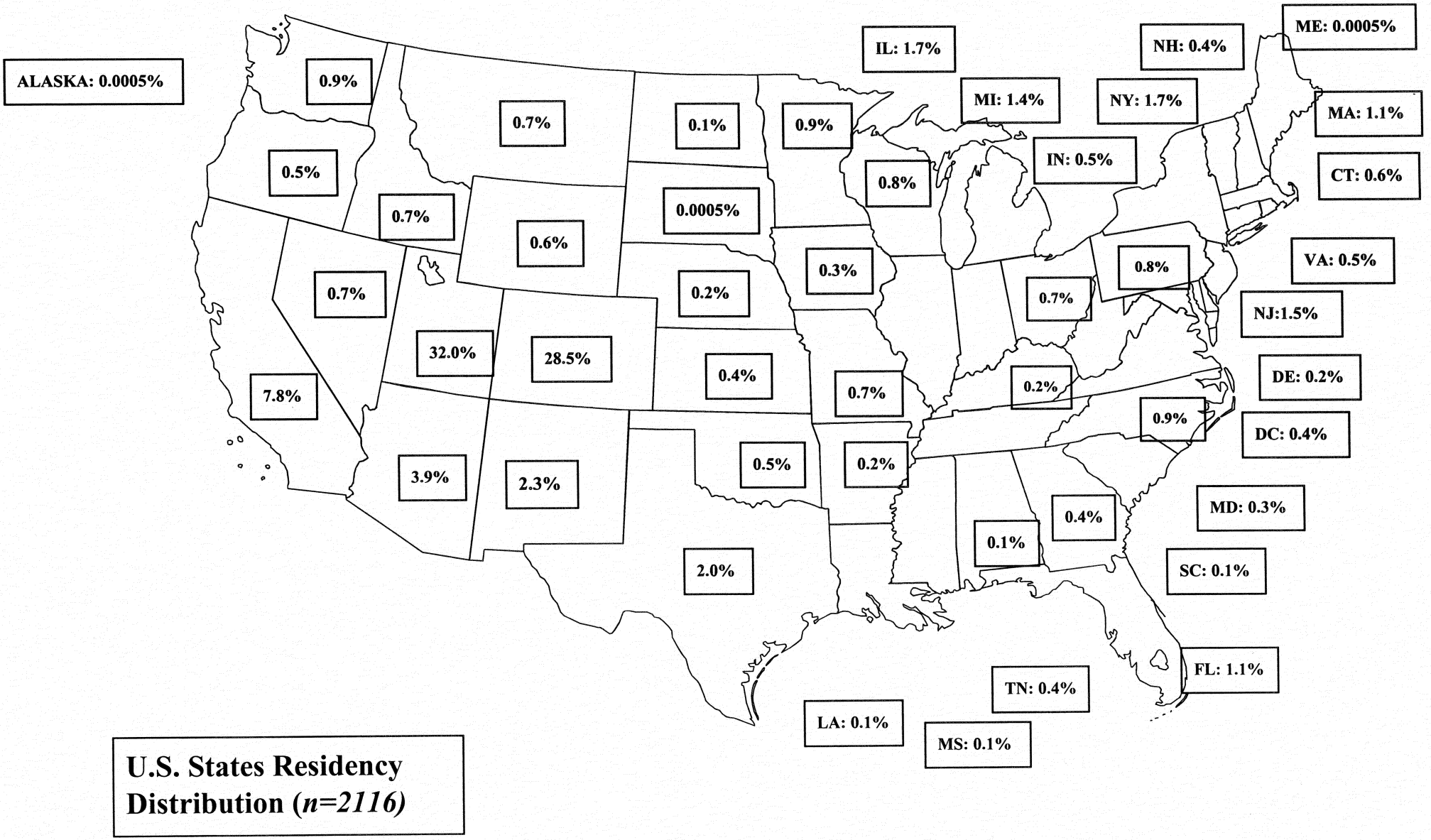
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Labyrinth Green Daily/ Desolation	2	3 Westwater Green Daily/ Desolation	4 Westwater Green Daily/Deso
5 Westwater Green Daily/ Desolation	6 Westwater Green Daily/ Desolation	7	8	9	10	11 Green Daily/ Desolation
12 Green Daily/ Desolation	13 Westwater	14 Colorado Daily Westwater	15	16	17	18
19	20	21 Westwater	22 Westwater	23	24 Colorado Daily	25 Colorado Daily
26 Colorado Daily	27 Colorado Daily	28	29	30 Westwater		

October 1999

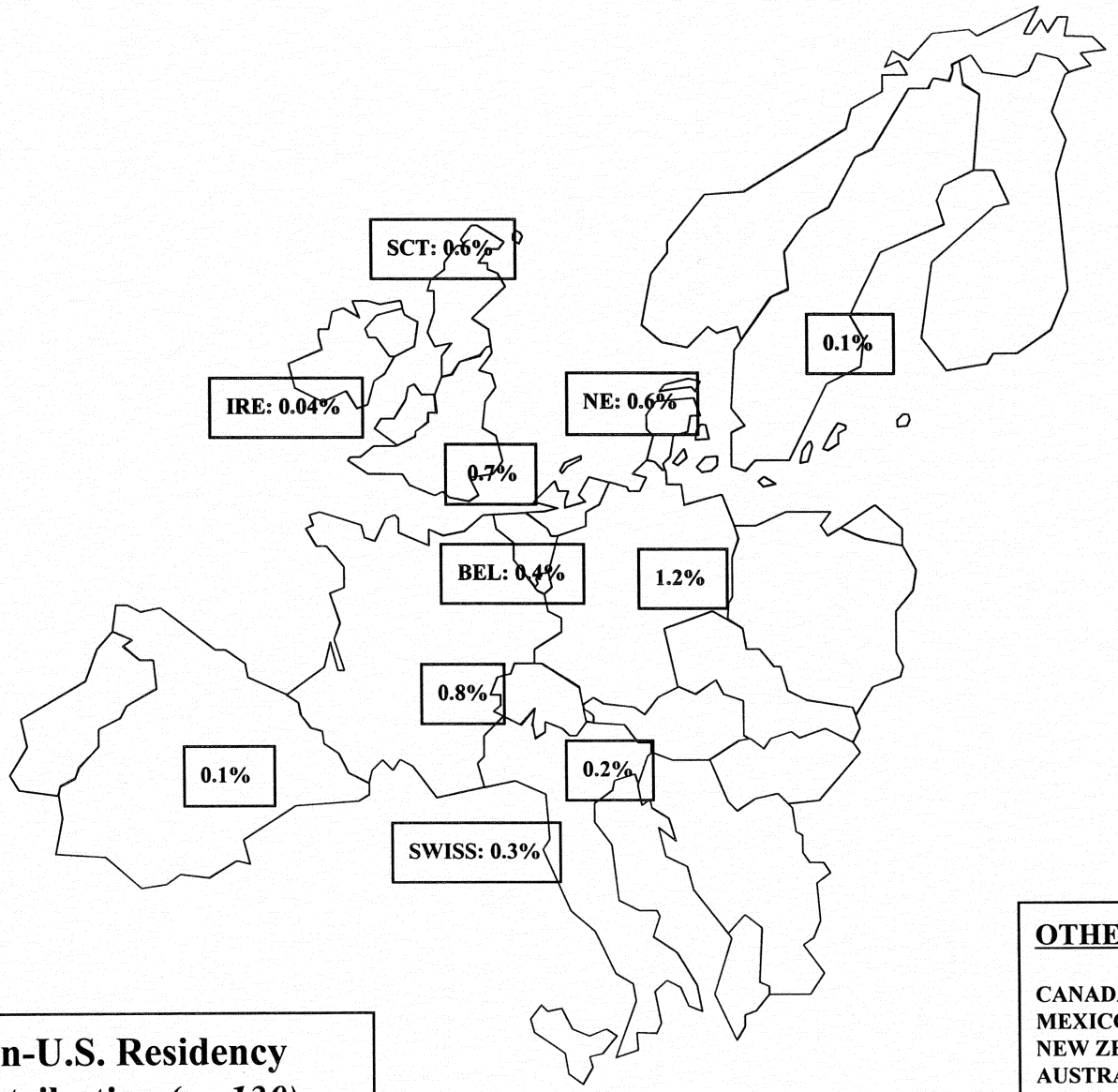
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Westwater	2 Westwater
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APPENDIX II-2

State and World Residency Maps, Utah Counties Residency



U.S. States Residency Distribution (*n=2116)*



Non-U.S. Residency Distribution (*n=130*)

OTHER COUNTRIES

CANADA: 0.5%
MEXICO: 0.1%
NEW ZEALAND: 0.04%
AUSTRALIA: 0.1%
JAPAN: 0.04%

Utah Counties Residency

San Juan Upper: n=26
- *San Juan County:* [19] (73.1%)
- *Iron County:* [5] (19.2%)
- *Box Elder County:* [1] (3.8%)
- *Salt Lake County:* [1] (3.8%)

San Juan Lower: n=23
- *Salt Lake County:* [10] (43.5%)
- *Summit County:* [7] (30.4%)
- *Grand County:* [4] (17.4%)
- *Davis County:* [1] (4.3%)
- *San Juan County:* [1] (4.3%)

White River: n=11
- *Salt Lake County:* [9] (81.8%)
- *Summit County:* [1] (9.1%)
- *Weber County:* [1] (9.1%)

Brown's Park: n=48
- *Salt Lake County:* [25] (52.1%)
- *Weber County:* [9] (18.8%)
- *Summit County:* [5] (10.4%)
- *Box Elder County:* [3] (6.3%)
- *Cache County:* [2] (4.2%)
- *Daggett County:* [1] (2.1%)
- *Uintah County:* [1] (2.1%)
- *Utah County:* [1] (2.1%)
- *Wasatch County:* [1] (2.1%)

Green Daily: n=108
- *Utah County:* [45] (41.7%)
- *Salt Lake County:* [33] (30.6%)
- *Carbon County:* [8] (7.4%)
- *Emery County:* [5] (4.6%)
- *Davis County:* [4] (3.7%)
- *Grand County:* [2] (1.9%)
- *Sevier County:* [2] (1.9%)
- *Washington County:* [2] (1.9%)
- *Weber County:* [2] (1.9%)
- *Sanpete County:* [1] (0.9%)
- *Summit County:* [1] (0.9%)

Labyrinth: n=37
- *Salt Lake County:* [20] (54.1%)
- *Utah County:* [12] (32.4%)
- *Davis County:* [2] (5.4%)
- *Grand County:* [2] (5.4%)
- *Washington County:* [1] (2.7%)

Desolation: n=57
- *Salt Lake County:* [21] (36.8%)
- *Davis County:* [8] (14.0%)
- *Grand County:* [7] (12.3%)
- *Summit County:* [6] (10.5%)
- *Utah County:* [5] (8.8%)
- *Cache County:* [3] (5.3%)
- *Carbon County:* [2] (3.5%)
- *Weber County:* [2] (3.5%)
- *Tooele County:* [1] (1.8%)
- *Uintah County:* [1] (1.8%)
- *Wayne County:* [1] (1.8%)

Colorado Daily: n=282
- *Utah County:* [76] (27.0%)
- *Salt Lake County:* [74] (26.2%)
- *Grand County:* [57] (20.2%)
- *Davis County:* [22] (7.8%)
- *Cache County:* [8] (2.8%)
- *Summit County:* [7] (2.5%)
- *Washington County:* [7] (2.5%)
- *Weber County:* [7] (2.5%)
- *Emery County:* [6] (2.1%)
- *Wasatch County:* [6] (2.1%)
- *Box Elder County:* [3] (1.1%)
- *Carbon County:* [3] (1.1%)
- *Iron County:* [2] (0.7%)
- *Beaver County:* [1] (0.4%)
- *Juab County:* [1] (0.4%)
- *Morgan County:* [1] (0.4%)
- *San Juan County:* [1] (0.4%)

Westwater: n=84
- *Salt Lake County:* [33] (39.3%)
- *Grand County:* [30] (35.7%)
- *Weber County:* [6] (7.1%)
- *Utah County:* [4] (4.8%)
- *Summit County:* [3] (3.6%)
- *Carbon County:* [2] (2.4%)
- *Wasatch County:* [2] (2.4%)
- *Emery County:* [1] (1.2%)
- *Iron County:* [1] (1.2%)
- *Morgan County:* [1] (1.2%)
- *Sevier County:* [1] (1.2%)

APPENDIX II-3

Detractions/Additions to Trip

NOTE: Responses were coded as positive (i.e. *added* to trip experience) or negative (i.e. *detracted* from trip experience). Numbers in brackets show the number of respondents who listed (generally speaking) the corresponding comment. The percentages listed in parenthesis are not computed using the total number of respondents, but the "added to" or "detracted from" totals. For example, on the following page (San Juan Upper), 'management: [15] (10.7%)' says that 15 rafters listed a comment about how river management *added* to their trip and that this 15 is 10.7% of the 140 rafters who listed a *positive* response(s).

Responses to question 9 on the Survey - San Juan Upper [n=188]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[140] (74.5%)**

Management: **[15] (10.7%)**
- in general
- facilities **[10] (7.1%)**
- policies **[4] (2.9%)**
- actions to take/suggestions **[1] (0.7%)**
- grazing/non-river issues

Ecology: **[8] (5.7%)**
- in general
- vegetation
- water
- bugs
- fisheries
- beaches
- wildlife **[8] (5.7%)**

Social: **[2] (1.4%)**
- in general
- conflicts **[2] (1.4%)**
- pollution/trash
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[115] (82.1%)**
- in general **[1] (0.7%)**
- scenery **[41] (29.3%)**
- weather **[7] (5.0%)**
- people **[37] (26.4%)**
- water level **[17] (12.1%)**
- trip **[7] (5.0%)**
- silly/inane comments **[3] (2.1%)**
- equipment/skill levels **[2] (1.4%)**

DETRACTED FROM EXPERIENCE: **[48] (25.5%)**

Management: **[17] (35.4%)**
- in general
- facilities **[2] (4.2%)**
- policies **[8] (16.7%)**
- actions to take/suggestions
- grazing/non-river issues **[7] (14.6%)]**

Ecology: **[6] (12.5%)**
- in general
- vegetation **[3] (6.3%)**
- water **[1] (2.1%)**
- bugs **[2] (4.2%)**
- fisheries
- beaches
- wildlife

Social: **[9] (18.8%)**
- in general
- conflicts
- pollution/trash **[6] (12.5%)**
- streamside **[3] (6.3%)**
- location

Particular Segments: **[1] (2.1%)**
- San Juan Upper **[1] (2.1%)**
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[15] (31.3%)**
- in general
- scenery
- weather **[4] (8.3%)**
- people **[1] (2.1%)**
- water level **[3] (6.3%)**
- trip **[3] (6.3%)**
- silly/inane comments **[2] (4.2%)**
- equipment/skill levels **[2] (4.2%)**

Responses to question 9 on the Survey - San Juan Lower [n=318]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: [165] (51.9%)

Management: **[63] (38.2%)**
- in general
- facilities **[26] (15.8%)**
- policies **[31] (18.8%)**
- actions to take/suggestions **[6] (3.6%)**
- grazing/non-river issues

Ecology: **[2] (1.2%)**
- in general
- vegetation
- water
- bugs
- fisheries
- beaches
- wildlife **[2] (1.2%)**

Social: **[8] (4.8%)**
- in general
- conflicts **[1] (0.6%)**
- pollution/trash **[7] (4.2%)**
- streamside
- location

Particular Segments: **[1] (0.6%)**
- San Juan Upper
- San Juan Lower **[1] (0.6%)**
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[91] (55.2%)**
- in general **[3] (1.8%)**
- scenery **[17] (10.3%)**
- weather **[18] (10.9%)**
- people **[22] (13.3%)**
- water level **[17] (10.3%)**
- trip **[4] (2.4%)**
- silly/inane comments **[8] (4.8%)**
- equipment/skill levels **[2] (1.2%)**

DETRACTED FROM EXPERIENCE: **[153] (48.1%)**

Management: **[60] (39.2%)**
- in general
- facilities **[31] (20.3%)**
- policies **[23] (15.0%)**
- actions to take/suggestions
- grazing/non-river issues **[6] (3.9%)**

Ecology: **[10] (6.5%)**
- in general
- vegetation **[3] (2.0%)**
- water **[6] (6.9%)**
- bugs **[1] (0.7%)**
- fisheries
- beaches
- wildlife

Social: **[39] (25.5%)**
- in general
- conflicts **[10] (6.5%)**
- pollution/trash **[29] (19.0%)**
- streamside
- location

Particular Segments: **[6] (3.9%)**
- San Juan Upper
- San Juan Lower **[6] (3.9%)**
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[38] (24.8%)**
- in general
- scenery
- weather **[18] (11.8%)**
- people **[1] (0.7%)**
- water level **[4] (2.6%)**
- trip **[1] (0.7%)**
- silly/inane comments **[11] (7.2%)**
- equipment/skill levels **[3] (2.0%)**

Responses to question 9 on the Survey - White River [n=67]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: [34] (50.7%)

Management: **[9] (26.5%)**
- in general
- facilities **[1] (2.9%)**
- policies **[8] (23.5%)**
- actions to take/suggestions
- grazing/non-river issues

Ecology: **[2] (5.9%)**
- in general
- vegetation
- water
- bugs
- fisheries
- beaches
- wildlife **[2] (5.9%)**

Social: **[7] (20.6%)**
- in general
- conflicts
- pollution/trash **[4] (11.8%)**
- streamside
- location **[3] (8.8%)**

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[16] (47.1%)**
- in general **[2] (5.9%)**
- scenery **[7] (20.6%)**
- weather **[3] (8.8%)**
- people **[2] (5.9%)**
- water level **[1] (2.9%)**
- trip
- silly/inane comments **[1] (2.9%)**
- equipment/skill levels

DETRACTED FROM EXPERIENCE: **[33] (49.3%)**

Management: **[5] (15.2%)**
- in general
- facilities
- policies
- actions to take/suggestions
- grazing/non-river issues **[5] (15.2%)**

Ecology: **[1] (3.0%)**
- in general
- vegetation **[1] (3.0%)**
- water
- bugs
- fisheries
- beaches
- wildlife

Social: **[5] (15.2%)**
- in general
- conflicts
- pollution/trash **[5] (15.2%)**
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[22] (66.7%)**
- in general
- scenery
- weather **[19] (57.6%)**
- people
- water level **[1] (3.0%)**
- trip **[1] (3.0%)**
- silly/inane comments **[1] (3.0%)**
- equipment/skill levels

Responses to question 9 on the Survey - Brown's Park [n=184]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[130] (70.7%)**

Management: **[27] (20.8%)**
- in general
- facilities **[11] (8.5%)**
- policies **[15] (11.5%)**
- actions to take/suggestions **[1] (0.8%)**
- grazing/non-river issues

Ecology: **[28] (21.5%)**
- in general **[1] (0.8%)**
- vegetation
- water **[5] (3.8%)**
- bugs **[1] (0.8%)**
- fisheries **[21] (16.2%)**
- beaches
- wildlife

Social: **[12] (9.2%)**
- in general
- conflicts **[2] (1.5%)**
- pollution/trash **[9] (6.9%)**
- streamside
- location **[1] (0.8%)**

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[63] (48.5%)**
- in general **[1] (0.8%)**
- scenery **[17] (13.1%)**
- weather **[14] (10.8%)**
- people **[20] (15.4%)**
- water level **[6] (4.6%)**
- trip
- silly/inane comments **[4] (3.1%)**
- equipment/skill levels **[1] (0.8%)**

DETRACTED FROM EXPERIENCE: **[54] (29.3%)**

Management: **[18] (33.3%)**
- in general
- facilities **[1] (1.9%)**
- policies **[17] (31.5%)**
- actions to take/suggestions
- grazing/non-river issues

Ecology: **[6] (11.1%)**
- in general
- vegetation **[1] (1.9%)**
- water **[2] (3.7%)**
- bugs **[1] (1.9%)**
- fisheries **[2] (3.7%)**
- beaches
- wildlife

Social: **[12] (22.2%)**
- in general
- conflicts **[9] (16.7%)**
- pollution/trash **[3] (5.6%)**
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[18] (33.3%)**
- in general
- scenery
- weather **[3] (5.6%)**
- people **[4] (7.4%)**
- water level **[9] (16.7%)**
- trip
- silly/inane comments **[2] (3.7%)**
- equipment/skill levels

Responses to question 9 on the Survey - Green Daily [n=197]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[146] (74.1%)**

Management: **[29] (19.9%)**
- in general
- facilities **[16] (11.0%)**
- policies **[13] (8.9%)**
- actions to take/suggestions
- grazing/non-river issues

Ecology: **[2] (1.4%)**
- in general
- vegetation
- water
- bugs
- fisheries
- beaches
- wildlife **[2] (1.4%)**

Social: **[8] (5.5%)**
- in general
- conflicts **[2] (1.4%)**
- pollution/trash **[6] (4.1%)**
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[107] (73.3%)**
- in general **[2] (1.4%)**
- scenery **[8] (5.5%)**
- weather **[19] (13.0%)**
- people **[38] (26.0%)**
- water level **[27] (18.5%)**
- trip **[5] (3.4%)**
- silly/inane comments **[5] (3.4%)**
- equipment/skill levels **[3] (2.1%)**

DETRACTED FROM EXPERIENCE: **[51] (25.9%)**

Management: **[17] (33.3%)**
- in general
- facilities **[14] (27.5%)**
- policies **[3] (5.9%)**
- actions to take/suggestions
- grazing/non-river issues

Ecology: **[8] (15.7%)**
- in general
- vegetation
- water **[4] (7.8%)**
- bugs **[4] (7.8%)**
- fisheries
- beaches
- wildlife

Social: **[4] (7.8%)**
- in general
- conflicts **[2] (3.9%)**
- pollution/trash **[2] (3.9%)**
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[22] (43.1%)**
- in general
- scenery
- weather **[4] (7.8%)**
- people **[3] (5.9%)**
- water level **[9] (17.6%)**
- trip **[2] (3.9%)**
- silly/inane comments **[1] (2.0%)**
- equipment/skill levels **[3] (5.9%)**

Responses to question 9 on the Survey - Labyrinth [n=260]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[125] (48.1%)**

Management: **[29] (23.2%)**
- in general
- facilities **[6] (4.8%)**
- policies **[19] (15.2%)**
- actions to take/suggestions **[4] (3.2%)**
- grazing/non-river issues

Ecology: **[5] (4.0%)**
- in general **[2] (1.6%)**
- vegetation
- water
- bugs **[1] (0.8%)**
- fisheries
- beaches **[2] (1.6%)**
- wildlife

Social: **[6] (4.8%)**
- in general
- conflicts **[1] (0.8%)**
- pollution/trash **[3] (2.4%)**
- streamside
- location **[2] (1.6%)**

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[85] (68.0%)**
- in general **[5] (4.0%)**
- scenery **[32] (25.6%)**
- weather **[11] (8.8%)**
- people **[13] (10.4%)**
- water level **[4] (3.2%)**
- trip **[10] (8.0%)**
- silly/inane comments **[8] (6.4%)**
- equipment/skill levels **[2] (1.6%)**

DETRACTED FROM EXPERIENCE: **[135] (51.9%)**

Management: **[8] (5.9%)**
- in general
- facilities **[6] (4.4%)**
- policies **[1] (0.7%)**
- actions to take/suggestions
- grazing/non-river issues **[1] (0.7%)**

Ecology: **[87] (64.4%)**
- in general
- vegetation **[16] (11.9%)**
- water **[7] (5.2%)**
- bugs **[63] (46.7%)**
- fisheries
- beaches **[1] (0.7%)**
- wildlife

Social: **[9] (6.7%)**
- in general
- conflicts **[4] (3.0%)**
- pollution/trash **[5] (3.7%)**
- streamside
- location

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[31] (23.0%)**
- in general
- scenery **[1] (0.7%)**
- weather **[20] (14.8%)**
- people
- water level **[3] (2.2%)**
- trip **[1] (0.7%)**
- silly/inane comments **[5] (3.7%)**
- equipment/skill levels **[1] (0.7%)**

Responses to question 9 on the Survey - Desolation [n=450]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[283] (62.9%)**

Management: **[97] (34.3%)**
- in general **[1] (0.4%)**
- facilities **[44] (15.5%)**
- policies **[47] (16.6%)**
- actions to take/suggestions **[5] (1.8%)**
- grazing/non-river issues

Ecology: **[20] (7.1%)**
- in general **[2] (0.7%)**
- vegetation
- water
- bugs
- fisheries
- beaches **[7] (2.5%)**
- wildlife **[11] (3.9%)**

Social: **[25] (8.8%)**
- in general
- conflicts **[1] (0.4%)**
- pollution/trash **[23] (8.1%)**
- streamside
- location **[1] (0.4%)**

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[141] (49.8%)**
- in general
- scenery **[25] (8.8%)**
- weather **[23] (8.1%)**
- people **[41] (14.5%)**
- water level **[28] (9.9%)**
- trip **[11] (3.9%)**
- silly/inane comments **[6] (2.1%)**
- equipment/skill levels **[7] (2.5%)**

DETRACTED FROM EXPERIENCE: **[167] (37.1%)**

Management: **[25] (15.0%)**
- in general
- facilities **[8] (4.8%)**
- policies **[13] (7.8%)**
- actions to take/suggestions
- grazing/non-river issues **[4] (2.4%)**

Ecology: **[73] (43.7%)**
- in general
- vegetation **[6] (3.6%)**
- water **[1] (0.6%)**
- bugs **[64] (38.3%)**
- fisheries
- beaches **[1] (0.6%)**
- wildlife **[1] (0.6%)**

Social: **[15] (9.0%)**
- in general
- conflicts **[8] (4.8%)**
- pollution/trash **[7] (4.2%)**
- streamside
- location

Particular Segments: **[2] (1.2%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation **[2] (1.2%)**
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[52] (31.3%)**
- in general
- scenery **[1] (0.6%)**
- weather **[30] (18.0%)**
- people **[2] (1.2%)**
- water level **[8] (4.8%)**
- trip **[2] (1.2%)**
- silly/inane comments **[5] (3.0%)**
- equipment/skill levels **[4] (2.4%)**

Responses to question 9 on the Survey - Colorado Daily [n=772]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: **[564] (73.1%)**

Management: **[36] (6.4%)**
- in general
- facilities **[6] (1.1%)**
- policies **[25] (4.4%)**
- actions to take/suggestions **[5] (0.9%)**
- grazing/non-river issues

Ecology: **[9] (1.6%)**
- in general **[1] (0.2%)**
- vegetation
- water
- bugs **[1] (0.2%)**
- fisheries **[1] (0.2%)**
- beaches **[3] (0.5%)**
- wildlife **[3] (0.5%)**

Social: **[19] (3.4%)**
- in general
- conflicts **[2] (0.4%)**
- pollution/trash **[11] (2.0%)**
- streamside **[4] (0.7%)**
- location **[2] (0.4%)**

Particular Segments: **[0] (0.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily

Scenery, weather, people, etc...: **[499] (88.6%)**
- in general **[11] (2.0%)**
- scenery **[103] (18.3%)**
- weather **[57] (10.1%)**
- people **[197] (34.9%)**
- water level **[74] (13.1%)**
- trip **[18] (3.2%)**
- silly/inane comments **[25] (4.4%)**
- equipment/skill levels **[14] (2.5%)**

DETRACTED FROM EXPERIENCE: **[208] (27.0%)**

Management: **[30] (14.4%)**
- in general
- facilities **[13] (6.3%)**
- policies **[16] (7.7%)**
- actions to take/suggestions **[1] (0.5%)**
- grazing/non-river issues

Ecology: **[7] (3.4%)**
- in general
- vegetation **[3] (1.4%)**
- water **[2] (1.0%)**
- bugs **[2] (1.0%)**
- fisheries
- beaches
- wildlife

Social: **[38] (18.3%)**
- in general
- conflicts **[8] (3.8%)**
- pollution/trash **[14] (6.7%)**
- streamside **[16] (7.7%)**
- location

Particular Segments: **[2] (1.0%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater
- Colorado Daily **[2] (1.0%)**

Scenery, weather, people, etc...: **[131] (63.0%)**
- in general
- scenery
- weather **[33] (15.9%)**
- people **[9] (4.3%)**
- water level **[68] (32.7%)**
- trip **[7] (3.4%)**
- silly/inane comments **[13] (3.4%)**
- equipment/skill levels **[1] (0.5%)**

Responses to question 9 on the Survey - Westwater [n=706]

"What factors do you feel added to or detracted from the quality of your river trip?"

ADDED TO EXPERIENCE: [567] (80.3%)

Management: **[96] (16.9%)**
- in general
- facilities **[32] (5.6%)**
- policies **[59] (10.4%)**
- actions to take/suggestions **[5] (0.9%)**
- grazing/non-river issues

Ecology: **[7] (1.2%)**
- in general
- vegetation
- water
- bugs
- fisheries
- beaches
- wildlife **[7] (1.2%)**

Social: **[31] (5.5%)**
- in general
- conflicts **[6] (1.1%)**
- pollution/trash **[20] (3.5%)**
- streamside **[3] (0.5%)**
- location **[2] (0.4%)**

Particular Segments: **[1] (0.2%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater **[1] (0.2%)**
- Colorado Daily

Scenery, weather, people, etc...: **[432] (76.2%)**
- in general **[21] (3.7%)**
- scenery **[66] (11.6%)**
- weather **[77] (13.6%)**
- people **[160] (28.2%)**
- water level **[70] (12.3%)**
- trip **[6] (1.1%)**
- silly/inane comments **[18] (3.2%)**
- equipment/skill levels **[14] (2.5%)**

DETRACTED FROM EXPERIENCE: **[139] (19.7%)**

Management: **[49] (35.3%)**
- in general
- facilities **[28] (20.1%)**
- policies **[19] (13.7%)**
- actions to take/suggestions **[2] (1.4%)**
- grazing/non-river issues

Ecology: **[5] (3.6%)**
- in general
- vegetation **[3] (2.2%)**
- water **[1] (0.7%)**
- bugs **[1] (0.7%)**
- fisheries
- beaches
- wildlife

Social: **[41] (29.5%)**
- in general
- conflicts **[26] (18.7%)**
- pollution/trash **[11] (7.9%)**
- streamside **[4] (2.9%)**
- location

Particular Segments: **[5] (3.6%)**
- San Juan Upper
- San Juan Lower
- Brown's Park
- Desolation
- Westwater **[5] (3.6%)**
- Colorado Daily

Scenery, weather, people, etc...: **[39] (28.1%)**
- in general
- scenery
- weather **[12] (8.6%)**
- people **[5] (3.6%)**
- water level **[13] (9.4%)**
- trip
- silly/inane comments **[4] (2.9%)**
- equipment/skill levels **[5] (3.6%)**

APPENDIX II-4

Campsites

APPENDIX II-4

Campsites

RIVER STUDY CAMPGROUND LIST

San Juan River

San Juan Upper: (n=82)

8 ft. ..... [1](1.2%)
Big Stick ..... [5](6.1%)
Bluff ..... [1](1.2%)
Butler Wash ..... [2](2.4%)
Chinle ..... [9](11.0%)
Comb Wash ..... [10](12.2%)
Desert ..... [1](1.2%)
Johns Canyon ..... [1](1.2%)
Ledge Rapid ..... [8](9.8%)
Legend ..... [1](1.2%)
Lust ..... [12](14.6%)
Lyme Creek ..... [1](1.2%)
Mexican Hat ..... [1](1.2%)
Mile 9 ..... [7](8.5%)
Mile 14 ..... [2](2.4%)
Mile 20 ..... [2](2.4%)
Mile 21 ..... [4](4.9%)
Perched Meander ..... [1](1.2%)
Prospector Loop ..... [10](12.2%)
River House Ruin ..... [1](1.2%)
San Juan Canyon ..... [1](1.2%)
Sand Island ..... [1](1.2%)

San Juan Lower: (n=373)

8 ft. ..... [10](2.7%)
Big Stick ..... [2](0.5%)
Bubblegum ..... [1](0.3%)
Chinle ..... [18](4.8%)
Clay Hills ..... [2](0.5%)
Cliff ..... [5](1.3%)
Comb Wash ..... [15](4.0%)
El Jado ..... [1](0.3%)
Gooseneck ..... [1](0.3%)
Government Rapids ..... [8](2.1%)
Grand Gulch ..... [11](2.9%)
Hanoker ..... [12](3.2%)
Johns Canyon ..... [18](4.8%)
Ledge Rapid ..... [8](2.1%)
Lust ..... [4](1.1%)
Lyme Creek ..... [7](1.9%)
Mendal Hall Loop ..... [7](1.9%)
Mexican Hat ..... [24](6.4%)
Mile 2 ..... [2](0.5%)
Mile 6 ..... [4](1.1%)
Mile 7 ..... [3](0.8%)
Mile 8 ..... [3](0.8%)
Mile 10 ..... [5](1.3%)
Mile 11 ..... [2](0.5%)
Mile 12 ..... [3](0.8%)
Mile 13 ..... [3](0.8%)
Mile 20 ..... [3](0.8%)
Mile 21 ..... [5](1.3%)
Mile 29 ..... [2](0.5%)
Mile 31 ..... [6](1.6%)
Mile 33 ..... [3](0.8%)
Mile 35 ..... [2](0.5%)
Mile 36 ..... [2](0.5%)
Mile 37 ..... [6](1.6%)
Mile 38 ..... [8](2.1%)
Mile 40 ..... [1](0.3%)
Mile 41 ..... [1](0.3%)
Mile 42 ..... [2](0.5%)
Mile 44 ..... [3](0.8%)
Mile 48 ..... [8](2.1%)
Mile 49 ..... [1](0.3%)
Mile 54 ..... [2](0.5%)
Mile 55 ..... [6](1.6%)
Mile 56 ..... [6](1.6%)
Mile 57 ..... [1](0.3%)
Mile 58 ..... [3](0.8%)
Mile 61 ..... [2](0.5%)
Mile 66 ..... [1](0.3%)
Mile 73 ..... [1](0.3%)
Moonlight Canyon ..... [7](1.9%)
Oljeto ..... [2](0.5%)
River House Ruin ..... [25](6.7%)
Ross Rapid ..... [2](0.5%)
San Juan Canyon ..... [1](0.3%)
Sand Island ..... [1](0.3%)
Sand Hills ..... [1](0.3%)
Slickhorn ..... [61](16.4%)

Steer Gulch . . . . . [9](2.4%)
Sulfur Springs . . . . . [5](1.3%)
Tabernacle . . . . . [1](0.3%)
Trimble . . . . . [4](1.1%)

White (n=49)

Bonanza Bridge . . . . . [3](6.1%)
Cottonwood Groves . . . . . [4](8.2%)
Cowboy Canyon . . . . . [4](8.2%)
Desperation Island . . . . . [3](6.1%)
Gilligan's Island . . . . . [2](4.1%)
Goblin Valley . . . . . [10](20.4%)
Gooseneck . . . . . [2](4.1%)
Mile 14 . . . . . [1](2.0%)
Mile 15 . . . . . [1](2.0%)
Mile 17 . . . . . [5](10.2%)
Mile 25 . . . . . [1](2.0%)
Mile 30 . . . . . [2](4.1%)
Mile 34 Island . . . . . [1](2.0%)
Mile 37 . . . . . [1](2.0%)
Mile 63 . . . . . [1](2.0%)
Woodstock Rock . . . . . [8](16.3%)

Green

Desolation/Gray: (n=343)

Best Water . . . . . [1](0.3%)
Butler Wash . . . . . [2](0.6%)
Calf Creek Canyon . . . . . [3](0.9%)
Cedar Ridge . . . . . [11](3.2%)
Chandler . . . . . [5](1.5%)
Curry . . . . . [2](0.6%)
Coal Creek Rapid . . . . . [2](0.6%)
Cold Creek . . . . . [3](0.9%)
Cow Swim . . . . . [9](2.6%)
Cow Sink . . . . . [1](0.3%)
Dripping Springs . . . . . [2](0.6%)
Duches . . . . . [1](0.3%)
Fire Water . . . . . [10](2.9%)
Flatwater Canyon . . . . . [4](1.2%)
Gold Hole . . . . . [3](0.9%)
Jack Creek . . . . . [27](7.9%)
Joe Hutch . . . . . [6](1.7%)
Lion Hollow . . . . . [8](2.3%)
Log Cabin . . . . . [7](2.0%)
McPherson . . . . . [2](0.6%)
Mile 25 . . . . . [1](0.3%)
Mile 3 . . . . . [1](0.3%)

Mile 42 ..... [2](0.6%)
Mile 48 ..... [1](0.3%)
Mile 54 ..... [1](0.3%)
Mile 56 ..... [3](0.9%)
Mile 60 ..... [1](0.3%)
Mile 62 ..... [9](2.6%)
Mile 69 ..... [2](0.6%)
Mile 74 ..... [3](0.9%)
Mile 75 ..... [2](0.6%)
Mile 79 ..... [3](0.9%)
Mile 81 ..... [7](2.0%)
Mile 96 ..... [4](1.2%)
Nefertiti ..... [7](2.0%)
Nutters Hole ..... [2](0.6%)
Poverty Flats ..... [1](0.3%)
Rabbit Run ..... [1](0.3%)
Rabbit Valley ..... [11](3.2%)
Rain Canyon ..... [1](0.3%)
Random ..... [2](0.6%)
Range Creek ..... [11](3.2%)
Rattle Snake ..... [14](4.1%)
Rock House ..... [21](6.1%)
Rock Creek ..... [57](16.6%)
Sand Wash ..... [9](2.6%)
Side Hike Canyon ..... [1](0.3%)
Snap Canyon ..... [2](0.6%)
Stampede Flats ..... [12](3.5%)
Steer Ridge ..... [10](2.9%)
Swaysey's ..... [6](1.7%)
Tabiago ..... [1](0.3%)
Trail Canyon ..... [5](1.5%)
Wild Horse ..... [6](1.7%)
Windy Beach ..... [3](0.9%)
Wire Fence ..... [7](2.0%)

Green Daily: (n=18)
Corral ..... [4](22.2%)
Nefertiti ..... [7](38.9%)
Range Creek ..... [1](5.6%)
Swaysey's ..... [6](33.3%)

Brown's Park: (n=59)
Big Pine ..... [10](16.9%)
Bootleg Camp ..... [2](3.4%)
Bridge Hollow ..... [1](1.7%)
Deer Run ..... [1](1.7%)
Dripping Springs ..... [3](5.1%)
Flaming Gorge Lodge ..... [6](10.2%)
Grasshopper ..... [13](22.0%)
Green Lake ..... [1](1.7%)
Indian Crossing ..... [4](6.8%)
Jackson Creek ..... [2](3.4%)
Little Hole ..... [4](6.8%)
Powell ..... [1](1.7%)
Red Canyon Lodge ..... [9](15.3%)
Sand Camp ..... [2](3.4%)

Labyrinth: (n=177)
Bow Knot ..... [3](1.7%)
Bull Bottom ..... [1](0.6%)
Crystal Geyser ..... [8](4.5%)
Dry Lakes ..... [2](1.1%)
Hey Joe Canyon ..... [8](4.5%)
Horseshoe Bend ..... [4](2.3%)
June's Bottom ..... [4](2.3%)
Ledge Canyon ..... [2](1.1%)
Mile 61 ..... [11](6.2%)
Mile 69 ..... [2](1.1%)
Mile 70 ..... [1](0.6%)
Mile 71 ..... [1](0.6%)
Mile 72 ..... [4](2.3%)
Mile 73 ..... [1](0.6%)
Mile 76 ..... [5](2.8%)
Mile 81 ..... [8](4.5%)
Mile 83 ..... [5](2.8%)
Mile 84 ..... [4](2.3%)
Mile 86 ..... [4](2.3%)
Mile 87 ..... [3](1.7%)
Mile 88 ..... [4](2.3%)
Mile 91 ..... [1](0.6%)
Mile 92 ..... [2](1.1%)
Mile 95 ..... [1](0.6%)
Mile 96 ..... [5](2.8%)
Mile 101 ..... [9](5.1%)
Mile 102 ..... [1](0.6%)
Mile 110 ..... [4](2.3%)
Mile 111 ..... [4](2.3%)
Mile 115 ..... [1](0.6%)

Oak Bottom ..... [9](5.1%)
Salt Wash ..... [6](3.4%)
Spring Canyon ..... [5](2.8%)
Ten Mile Canyon ..... [5](2.8%)
Three Canyon ..... [7](4.0%)
Trin Alcove ..... [14](7.9%)
Two Mile Canyon ..... [7](4.0%)
Windgate Ledge ..... [1](0.6%)
Wren Canyon ..... [9](5.1%)

Colorado

Colorado Daily: (n=38)
Big Bend ..... [10](26.3%)
Canyonland Rd. ..... [1](2.6%)
Entrada ..... [1](2.6%)
Fish Ford ..... [5](13.2%)
Hittle Bottoms ..... [7](18.4%)
Moonflower ..... [1](2.6%)
Onion Creek ..... [8](21.1%)
Slickrock ..... [2](5.3%)
Sulfer Springs ..... [1](2.6%)
Trading Post ..... [1](2.6%)
Mile 95 ..... [1](2.6%)

Westwater: (n=271)
A-B Camp ..... [4](1.5%)
Big Hole ..... [19](17.0%)
Big Horn ..... [13](4.8%)
Black Rocks ..... [30](11.1%)
Buckhorn ..... [5](1.8%)
Cougar ..... [15](5.5%)
Fish Ford ..... [2](0.8%)
Eagles Nest ..... [10](3.7%)
Hades ..... [11](4.1%)
Horsethief ..... [5](1.8%)
Little Hole ..... [10](3.7%)
Lower Little Hole ..... [41](15.1%)
Lower Dolores ..... [23](8.5%)
McDonald Creek ..... [2](0.8%)
Minors Cabin ..... [27](10.0%)
Ranger Station (Put-in) ..... [6](2.2%)
Ruby Ranch ..... [7](2.6%)
Upper Dolores ..... [36](13.3%)
Onion Creek ..... [1](0.4%)
Whitewater ..... [4](1.5%)