

Montana

Statewide Angling Pressure

Mail Survey

1999

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INTRODUCTION

The Montana Department of Fish, Wildlife and Parks has conducted statewide angling mail surveys in the past. Bishop (1959, 1960 & 1961) conducted the first recorded mail survey of fishing pressure on a statewide basis for Montana. He found that residents fished 1,323,129 angler days, nonresident season license holders fished 60,632 angler days, and nonresident 6-day permit holders fished 40,933 angler days for the 1958 season. In 1959 residents fished 1,345,000 angler days, nonresident season license holders fished 54,000 angler days, and nonresident 6-day permit holders fished 121,000 angler days. In 1960 the third annual survey was conducted and residents fished 1,356,000 angler days, nonresident season license holders fished 53,000 angler days, and nonresident 7-day permit holders fished 112,000 angler days.

In 1968 Holton (1970) again initiated the statewide angling pressure mail survey. He found residents had fished 1,519,126 angler days, nonresident season license holders fished 69,653 angler days, and nonresident 6-day permit holders fished 161,772 angler days. Holton (1971) conducted another statewide survey for the 1969 license year. No results were reported because it was felt they were too high due to sampling problems.

In 1975, Gaffney (unpublished data) conducted a statewide survey of angling pressure by mail. He found residents fished a total of 2,314,030 angler days and nonresidents 508,034 angler days for a statewide total of 2,822,093 angler days. An attempt was made to continue that statewide survey in 1976 using the 1975 mailing lists. This did not provide adequate samples for nonresidents, so only resident pressure was obtained.

Holton (1974) stated,

"The lack of up-to-date fishing pressure information on individual waters has been a handicap in fisheries management.

It is recommended that (the) evaluation of (a) mail survey to fill this need be accomplished as soon as feasible."

The surveys were started again in 1982 and run for four consecutive years (McFarland, 1989). The statewide angling pressure ranged from 2,197,402 to 2,723,713 angler days. In 1986 the surveys were again canceled for lack of funding.

In 1989, the Montana Legislature approved funding for an "Enhanced Survey of Angling Pressure". The funding was such that the survey was to be conducted every other year. In March 1989, the statewide angling use mail survey was again re-initiated. The statewide angling pressure was estimated at 2,336,085 angler days (McFarland, 1991). In 1991, 1993, 1995, and 1997 the statewide use was estimated at 2,300,880, 2,578,495, 2,504,855, and 2,880,925 angler days respectively (McFarland & Hughes, 1993, 1995; McFarland & Meredith 1997).

METHODS

The 1999 statewide angling mail pressure survey began in March of 1999 and was conducted for the license year ending in February 2000.

Samples were drawn from the Department's Sportsman's Database. There are six types of fishing licenses available to residents: a season license, a combo license, a sportsman's license, a "senior" license, a "youth" license and a disabled license. A season license is required for those resident anglers between the ages of 15 and 61 inclusive (a conservation license is required as a prerequisite to purchasing any fishing license). Residents between the ages of 12 and 14 inclusive are required to purchase a conservation license to fish. These were determined by using the date of birth on the Conservation license and were classified as "youth" license holders. The combo license combines a season fishing license and a conservation license. A sportsman's license provides a deer "A" tag, elk tag, bear tag, conservation license, a game bird stamp and a fishing license. Residents 62 years of age and older are entitled to fish by purchasing a conservation license. These were determined by using the date of birth on the Conservation license and were classified as "senior" license holders. Residents who are certified as permanently and substantially disabled may purchase a "Disabled Persons Conservation License". The "senior", "youth", and "disabled" licenses were combined for the "SYD" population.

Nonresidents 15 years of age and older must have a valid Montana fishing license to fish. Those nonresidents under the age of 15 may fish by buying a nonresident license or by being in the company of an adult with a valid Montana fishing license. If the latter, the combined limit may not exceed the limit for one adult. Nonresidents have five types of licenses available for fishing in Montana; a combo license, a seasonal license, a two-day permit, a deer combo license, and the big game combo. A nonresident conservation license is required as a prerequisite to purchasing any nonresident-fishing license. The combo license combines a nonresident conservation license and seasonal fishing license. The deer combo license includes a deer tag and a fishing license. The big game license includes a conservation license, an elk tag, a deer "A" tag, a black bear tag, a fishing license and an upland game bird license. A two-day permit enables the nonresident angler to fish for two consecutive days of their choice. Anglers may purchase as many two-day permits as they want.

A computer program was written in ORACLE to create three populations of anglers from which to draw samples. A resident population, a nonresident population and a "SYD" population were created each month. The resident population comprised the following license types: combo, season, and sportsman. The nonresident population comprised the following license types: nonresident combo and nonresident season. The "SYD" population

consisted of the following license types: senior (62 years of age and older), youth (between 12 and 14 years of age inclusive), and disabled.

Gaffney (1982) sampled the 17,000 nonresident big game license holders in 1980 and found that 29.6% had fished while in Montana. They averaged 3.9 days fishing per person which would account for nearly 20,000 man-days of use. This is less than 1% of the total pressure in the state. Due to budgetary constraints and the small amount of pressure, the big game license holders and deer combo license holders were not included in the nonresident sampling for 1999.

An ORACLE computer program was used to pull a random sample from each population. The amount pulled from each population was proportionally allocated to the angling pressure each population exerted from previous surveys. This proportion remained constant throughout all sampling periods.

Sampling was done on a stratified basis. Strata (waves) were monthly for the resident, seasonal nonresident, and SYD populations (Table 1).

The sample from each population was copied into a dBASE format structure and wave information and sequential serial numbers added.

A dBASE computer program was written to affix names and address as well as bar codes directly to each questionnaire. The questionnaire and a return envelope were stuffed into window envelopes and mailed (see appendix for examples).

Nonresident 2-day license holders could not be sampled directly, so nonresident conservation license holders were sampled and questions asked to ascertain if they were valid 2-day permit holders. These questionnaires were sent out at the beginning of March, 2000 since less than 0.2% (238) of the 2-day permits are remitted after this date. The questionnaire asked about their fishing in Montana for the entire license year.

Authorized private dealers sell fishing licenses throughout the state. In addition, the seven regional headquarters and the Helena office sell licenses. All licenses are to be remitted to the licensing bureau in Helena by the 10th of the following month of the sale. Each license is a five-part form. The original remains with the angler, the first copy was sent to Bozeman for use in the surveys, the second copy was retained in Helena, the third copy was sent to the area warden and the fourth copy was retained by the license dealer. The licenses usually arrived in Bozeman one week after they were remitted to Helena. Licenses are then keyed and entered into the Sportsman's Database. Samples for the previous month were then pulled and the questionnaires mailed around the 20th of the following month. For example, samples for August would be pulled and sent around the 20th of September.

Table 1. Period of time covered for waves for the 1999 statewide angling survey.	
Wave	Time Period covered
1	March '99
2	April
3	May
4	June
5	July
6	August
7	September
8	October
9	November
10	December
11	January '00
12	February
99	Nonresident 2-day

Past surveys indicated that residents provide approximately 80% of the pressure (Gaffney 1975, McFarland 1991, McFarland 1993, McFarland 1995, McFarland 1997), therefore sampling was done on a 80/20 split between residents and nonresidents (i.e. proportional allocation). Actual numbers sent varied slightly from wave to wave (Table 2). For the "summer" waves 10,000 residents and nonresidents were sampled. In the "winter" the rate dropped to 5,000 residents and nonresidents. Since waves 1 and 2 had fewer license holders from which to sample, these two waves were sampled at a less intense level.

Two survey questionnaires were used, one for residents and season nonresidents and the other for 2-day nonresidents. The resident/nonresident questionnaire (see appendix A for examples), included questions on: what water was fished; nearest landmark, town, or county; section of stream or river fished (taken from map on back of questionnaire); date fishing occurred; number of days fished; whether the water selected was their second choice because their first choice had whirling disease; and to rate their fishing experience on a scale of 1 = poor to 5 = excellent. The 2-day questionnaire was the same basic design but included questions to ascertain if the respondent was a valid 2-day fishing permit holder and how many permits they bought. The survey also asked about their entire year of fishing versus a single month.

To ease the sorting process different colored forms were used for each wave and also for initial and remail mailings.

Table 2. Number of questionnaires sent for each wave by residency for 1999

Wave	Mailed		Useable		Returns	
	Res	Nonres	Res	Nonres	Res	Nonres
1	325	26	310	24	191	13
2	4648	365	4437	236	2727	223
3	9269	730	8835	644	5083	428
4	9268	722	8780	649	5246	457
5	9269	727	8799	653	5129	461
6	9266	726	8737	644	5184	468
7	9270	719	8730	664	5127	450
8	9266	724	8671	649	5565	494
9	4630	356	4354	314	2782	246
10	4630	363	4313	327	2829	239
11	4634	360	4288	323	2924	253
12	4636	359	4318	313	2915	246
99		10022		8767		5234

Surveys were mailed first class for all the waves. This ended up saving money by not having to pay for the undeliverables to be returned when using bulk rate postage.

Remail questionnaires were mailed to those individuals who had not yet responded, from two to four weeks after the initial mailing. Returns for each wave were monitored and when they slowed down to a few each day the remail was sent. Included in the remail was an explanation, (see appendix A for examples), a duplicate questionnaire and a return envelope. Returns were grouped and counted according to type of license, wave and mailing (initial or remail).

Phone surveys were not done for this year because of time and budgetary constraints. Thus no comparison of non-response bias could be made. Using the exact same methodology in 1995, no nonresponse bias was detected.

The formula used was:

$$A_{ij} = R_{ij} + \frac{P_{ij}}{M_{ij}} [1 - R_{ij}]$$

where A_{ij} = Adjustment factor for non-response for the i^{th} wave and j^{th} residency

R_{ij} = Response rate for mail survey for i^{th} wave and j^{th} residency (response rate is the

total number of returns divided by the
total number of surveys mailed out minus
the number of undeliverable surveys)

P_{ij} = Phone rate of days fished per respondent for
 i^{th} wave and j^{th} residency

M_{ij} = Mail rate of days fished per respondent for
 i^{th} wave and j^{th} residency

Adjustment factors were set to 1.0 since the phoning was not done. After all questionnaires were received those that had fished in Montana during the period in question were separated from those who said "no". The "yes" respondents were then hand coded and assigned a numeric code for each water fished. They were visually edited for accuracy and completeness.

All data were then keypunched with each body of water fished for each questionnaire recorded as a single record. Edits were run to correct invalid water codes. FORTRAN computer programs were written to analyze the data, calculate fishing pressure and standard errors, and to calculate the angler satisfaction levels.

Estimates were made for individual waters based upon the formula:

$$P_j = \sum_{i=1}^n \left[\frac{E_{ij} * D_{ij}}{R_{ij}} \right] * A_{ij}$$

where P_j = Pressure for an individual water by the j^{th}
residency

E_{ij} = Number of eligible anglers for the i^{th} wave and
 j^{th} residency

D_{ij} = Days fished that particular water for the i^{th}
wave and j^{th} wave

R_{ij} = Number of respondents from the survey for the i^{th}
wave and j^{th} residency

A_{ij} = Adjustment factor for non-response for the i^{th}
wave and j^{th} residency

n = number of waves in the estimate year or season

j = number of residency types (resident, nonresident,
or total)

the variance was then calculated using

$$VAR(P_j) = \sum_{i=1}^n \left[\frac{E_{ij}^2 * VAR(D_{ij})}{R_{ij}} \right] * A_{ij}^2$$

Where P_j , E_{ij} , R_{ij} , D_{ij} , and A_{ij} are the same as above.

Pressure estimates between waves and residency were assumed to be independent so variances were summed to obtain total variances. The square root of the variance was taken and this number was reported as the error for fishing pressure.

RESULTS

1999 ANNUAL

Licensed anglers fishing on Montana waters exerted 3,183,106 angler days of pressure for the 1999 license year. Residents accounted for 2,390,595 angler days (75.1%) and nonresidents made up the remaining 792,511 angler days (24.9%). Individual water estimates sorted alphabetically are given in a separate report "Montana Statewide Angling Pressure 1999".

The pressure distributed between Fish, Wildlife and Parks regions (Figure 1) emphasizes the cold water fishery (Chart 1). Region 3 received the most angling pressure with 829,005 angler days (26.1%). Region 4 was next in order with 584,621 angler days (18.4%). Regions 1 and 2 were close with 512,078 (16.1%) and 503,775 (15.8%) angler days respectively. Region 5 had 422,977 angler days (13.3%). The warm water regions of 6 and 7 were the lowest in pressure with 214,966 (6.8%) and 103,790 (3.3%) angler days respectively.

Angling in Montana in 1999 was directed toward trout. Salmonid waters accounted for 86.6% (2,755,611 angler days) of the statewide pressure while nonsalmonid waters accounted for 11.3% (358,533 angler days) of the pressure and undesignated waters accounted for 2.1% (68,962 angler days) of the pressure (Chart 2). An undesignated water is one that did not have a unique code to assign, and therefore water type could not be determined. This water was assigned a generic code based on drainage and county so angling pressure could be estimated.

Within salmonid waters, the streams received more pressure than the lakes, 59.8% versus 40.2%. The nonsalmonid lakes received more pressure than the nonsalmonid streams, 61.7% versus 38.3% respectively.

Salmonid angling dominated the pressure in regions 1, 2, 3, 4, and 5. Regions 6 and 7 were predominately nonsalmonid angling (Chart 3, Table 3).

Table 3. Angling pressure in angler days by region by water type for the 1999 angling year.

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

REG	WATER TYPE	-----TOTALS-----		----RESIDENTS----		--NON-RESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
1	SALMONID STREAM	190066.	4381.	136585.	3198.	53481.	1183.
	SALMONID LAKE	291673.	6774.	211767.	5079.	79906.	1695.
	NONSALMONID STREAM	45.	1.	45.	1.	0.	0.
	NONSALMONID LAKE	21418.	454.	20369.	433.	1049.	21.
	UNDESIG STRM MGMT	2478.	62.	1127.	27.	1351.	35.
	UNDESIG LAKE MGMT	6398.	141.	4666.	103.	1732.	38.
	REGIONAL PRESSURE ESTIMATES:	512078.	11813.	374559.	8841.	137519.	2972.
2	SALMONID STREAM	375727.	8681.	256935.	6017.	118792.	2664.
	SALMONID LAKE	123151.	2768.	105730.	2362.	17421.	406.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	1681.	41.	1046.	24.	635.	17.
	UNDESIG LAKE MGMT	3216.	80.	2912.	72.	304.	8.
	REGIONAL PRESSURE ESTIMATES:	503775.	11570.	366623.	8475.	137152.	3095.
3	SALMONID STREAM	531448.	12160.	318388.	7359.	213060.	4801.
	SALMONID LAKE	287280.	6433.	222361.	4985.	64919.	1448.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	3885.	93.	1848.	47.	2037.	46.
	UNDESIG LAKE MGMT	6392.	162.	4016.	102.	2376.	60.
	REGIONAL PRESSURE ESTIMATES:	829005.	18848.	546613.	12493.	282392.	6355.
4	SALMONID STREAM	251368.	5981.	205206.	4928.	46162.	1053.
	SALMONID LAKE	248515.	5991.	233608.	5654.	14907.	337.
	NONSALMONID STREAM	36635.	891.	32109.	787.	4526.	104.
	NONSALMONID LAKE	28966.	606.	27200.	571.	1766.	35.
	UNDESIG STRM MGMT	4167.	89.	3523.	78.	644.	11.
	UNDESIG LAKE MGMT	14970.	351.	13140.	297.	1830.	54.
	REGIONAL PRESSURE ESTIMATES:	584621.	13909.	514786.	12315.	69835.	1594.

Table 3. Angling pressure in angler days by region by water type for the 1999 angling year (continued).

5	SALMONID STREAM	287807.	6508.	187316.	4196.	100491.	2312.
	SALMONID LAKE	109586.	2509.	94927.	2193.	14659.	316.
	NONSALMONID STREAM	18266.	431.	17250.	404.	1016.	27.
	NONSALMONID LAKE	2242.	61.	2052.	56.	190.	5.
	UNDESIG STRM MGMT	1306.	28.	850.	16.	456.	12.
	UNDESIG LAKE MGMT	3770.	96.	1944.	55.	1826.	41.
	REGIONAL PRESSURE ESTIMATES:	422977.	9633.	304339.	6920.	118638.	2713.
6	SALMONID STREAM	6135.	163.	5679.	152.	456.	11.
	SALMONID LAKE	39404.	934.	38643.	917.	761.	17.
	NONSALMONID STREAM	36415.	914.	34835.	872.	1580.	42.
	NONSALMONID LAKE	129507.	3165.	112998.	2772.	16509.	393.
	UNDESIG STRM MGMT	215.	6.	215.	6.	0.	0.
	UNDESIG LAKE MGMT	3290.	73.	3290.	73.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	214966.	5255.	195660.	4792.	19306.	463.
7	SALMONID STREAM	5784.	137.	3744.	95.	2040.	42.
	SALMONID LAKE	7667.	182.	7452.	179.	215.	3.
	NONSALMONID STREAM	46064.	1166.	40987.	1031.	5077.	135.
	NONSALMONID LAKE	38975.	957.	27637.	711.	11338.	246.
	UNDESIG STRM MGMT	430.	11.	392.	10.	38.	1.
	UNDESIG LAKE MGMT	4870.	119.	4332.	111.	538.	8.
	REGIONAL PRESSURE ESTIMATES:	103790.	2572.	84544.	2137.	19246.	435.
TOTAL	SALMONID STREAM	1648335.	38011.	1113853.	25945.	534482.	12066.
	SALMONID LAKE	1107276.	25591.	914488.	21369.	192788.	4222.
	NONSALMONID STREAM	137425.	3403.	125226.	3095.	12199.	308.
	NONSALMONID LAKE	221108.	5243.	190256.	4543.	30852.	700.
	UNDESIG STRM MGMT	26056.	627.	12472.	288.	13584.	339.
	UNDESIG LAKE MGMT	42906.	1022.	34300.	813.	8606.	209.
	STATEWIDE PRESSURE ESTIMATES:	3183106.	73897.	2390595.	56053.	792511.	17844.

Region 3 had the largest angling pressure for salmonid streams (531,448 angler days) and salmonid lakes (287,280 angler days). Nonsalmonid stream fishing pressure was largest in region 7 (46,064 angler days), while the nonsalmonid lake angling pressure was largest in region 6 (129,507 angling days).

Residents (Chart 4) exerted the majority of angling pressure in 1999 in all regions. The percent of angling pressure by residents for each region was: region 1 - 73.2%, region 2 - 72.8%,

region 3 - 65.9%, region 4 - 88.1%, region 5 - 72.0%, region 6 - 91.0%, and region 7 - 81.5%.

July (wave 5) was, overall, the peak fishing period, while March (wave 1) was the least fished period during the year (Table 4). Residents preferred to fish during July (wave 5) while nonresident season license holders preferred to fish during August. Residents fished the least in March and nonresident season license holders fished the least in December (wave 10). The 2-day license holders exerted the majority of the nonresident pressure (59.8%). Since these anglers were sampled once at the end of the license year the pressure could not be classified into waves although it can logically be assigned to the summer season.

Table 4. Pressure in angler days by wave for the 1999 survey year.

<u>WAVE</u>	<u>TOTAL</u>	<u>RESIDENT</u>	<u>NONRESIDENT</u>
1	66,582	61,664	4,918
2	151,732	140,020	11,711
3	272,835	255,358	17,477
4	394,590	367,013	27,577
5	499,177	432,734	66,444
6	488,925	402,775	86,150
7	276,882	223,616	53,266
8	172,790	145,039	27,752
9	89,593	82,855	6,738
10	84,636	80,867	3,769
11	95,489	91,646	3,843
12	116,361	107,349	9,012
99	474,045		474,045

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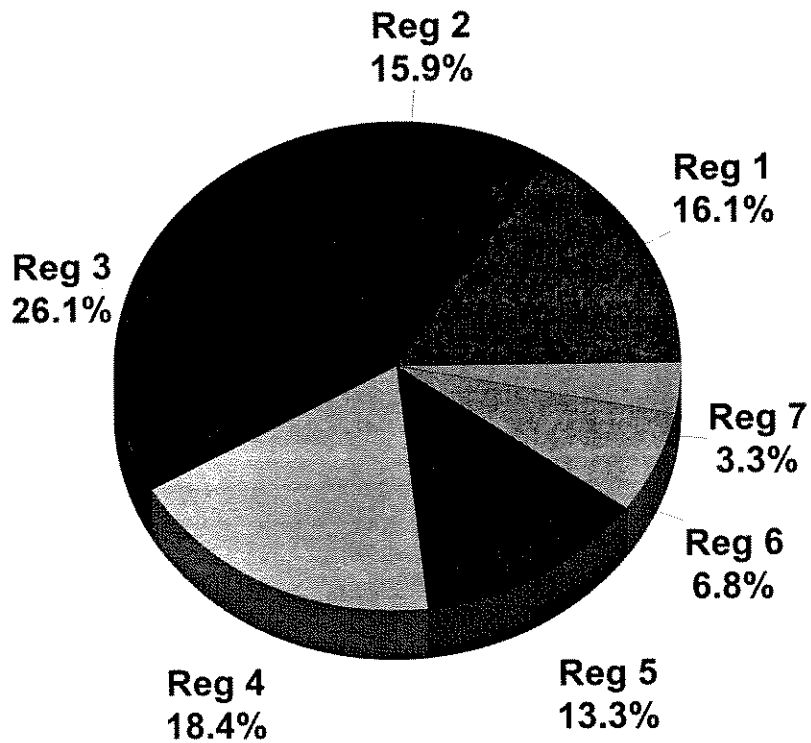


Chart 1. Percent of total statewide angling pressure by FWP region for 1999.

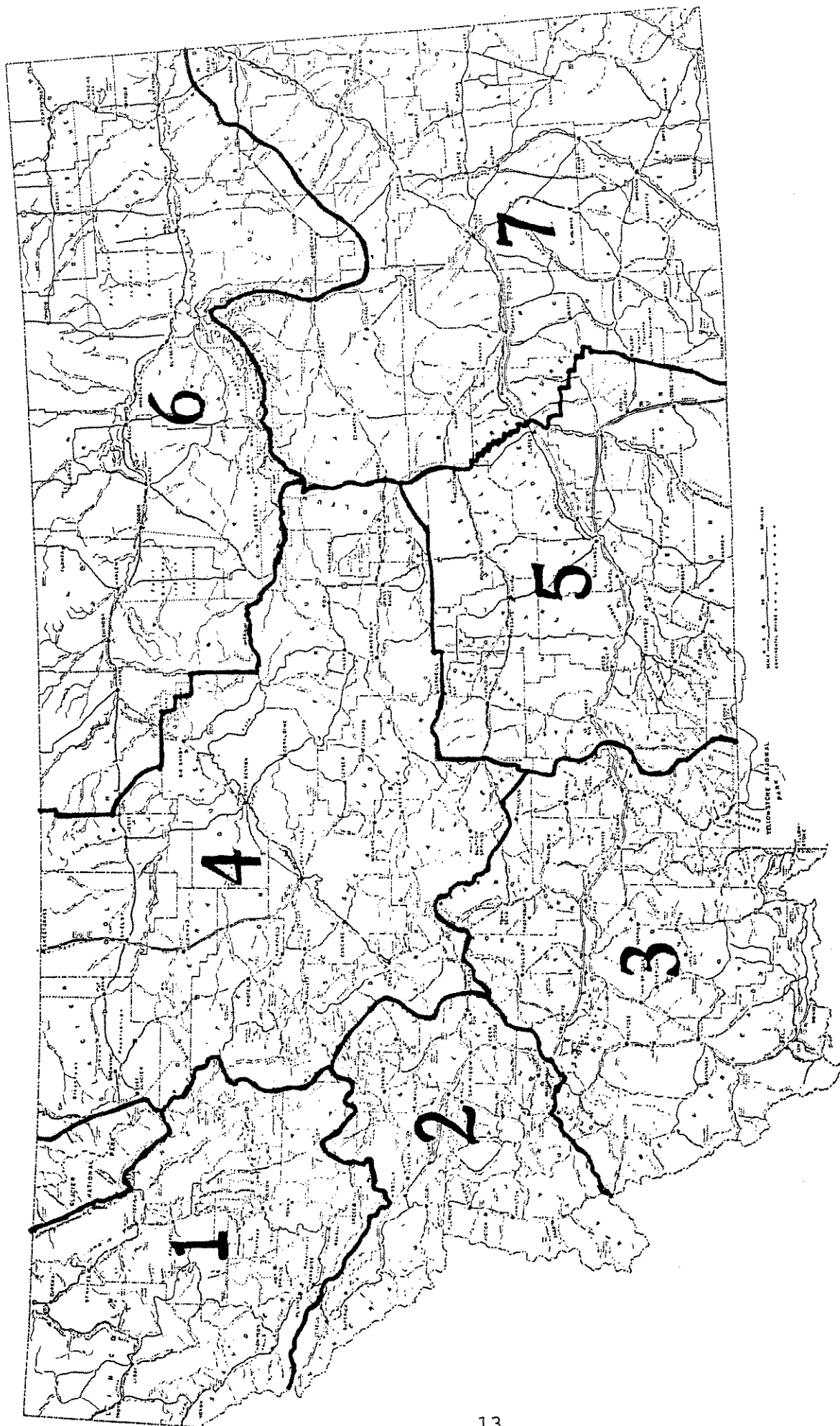


Figure 1. Map of the state of Montana showing the Fish, Wildlife & Parks regional boundaries.

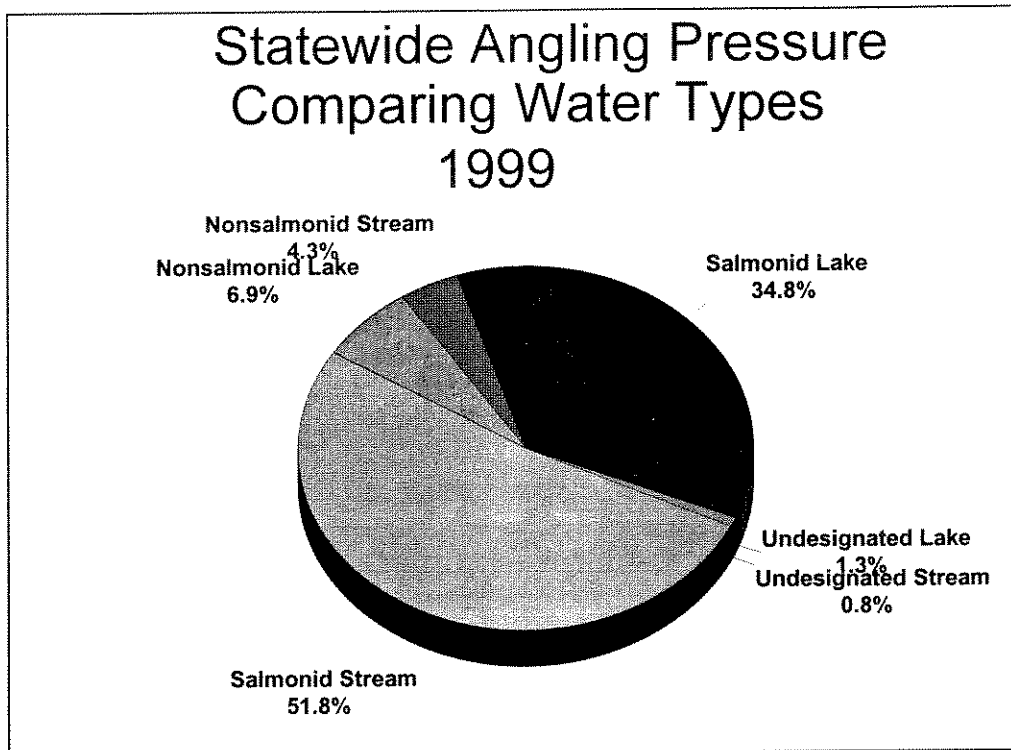


Chart 2. Angling Pressure and percentages by type of water for 1999.

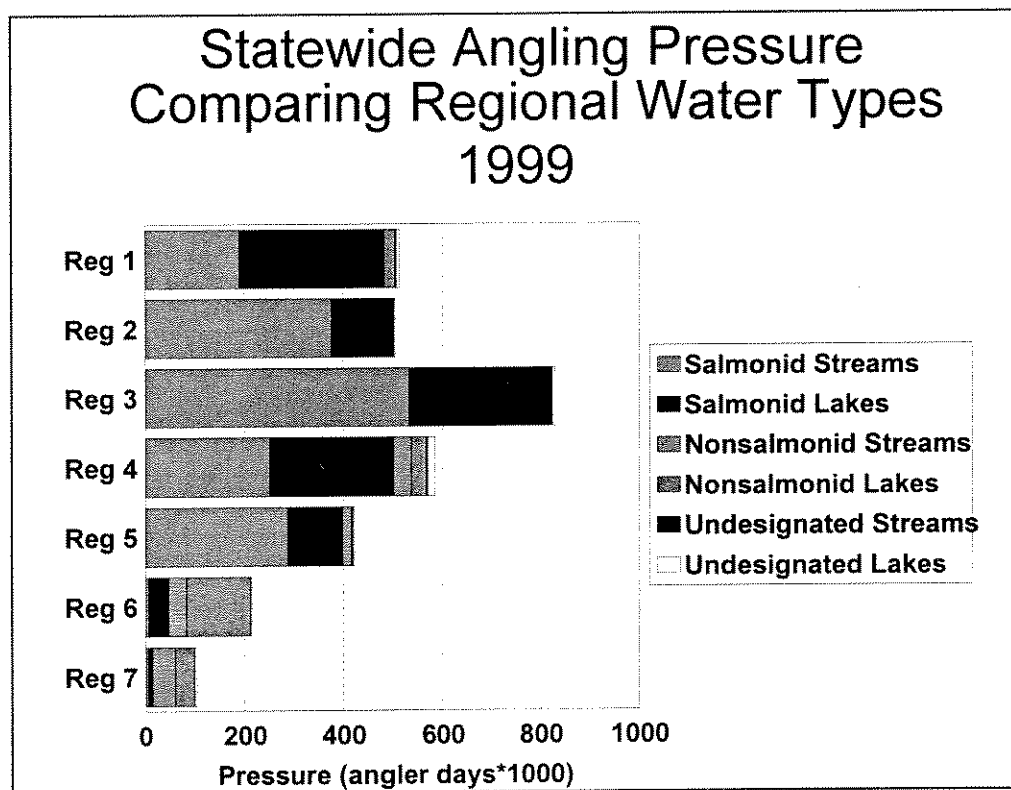


Chart 3. Angling pressure by region by water type for 1999.

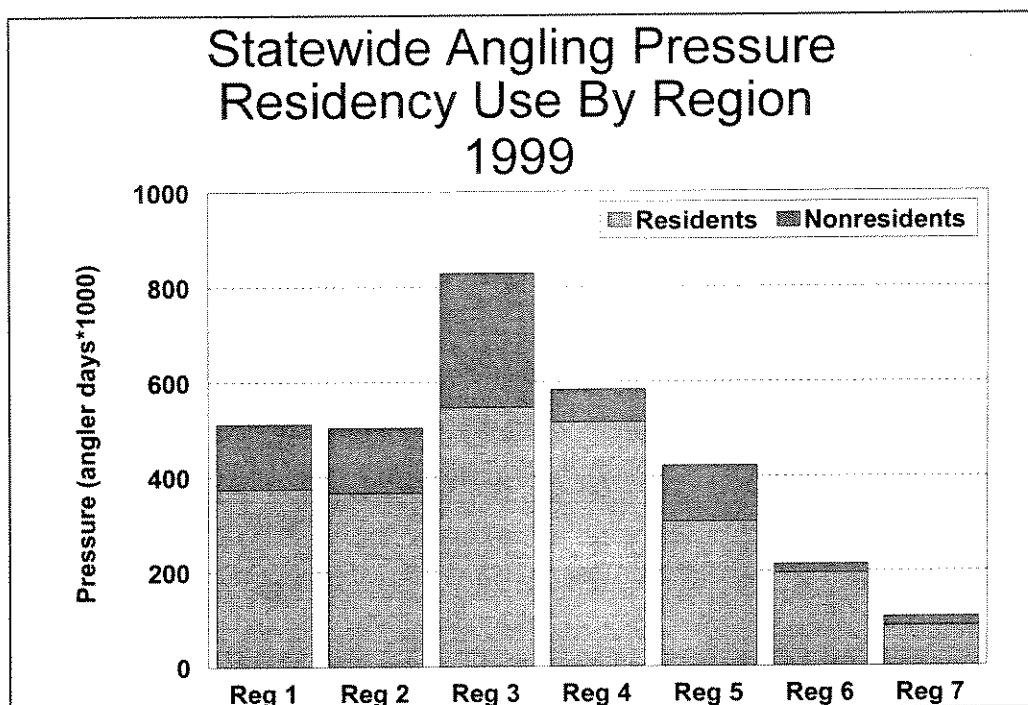


Chart 4. Angling pressure by region by residency for 1999.

Angling pressure was summarized by the 22 major drainages within the state (Table 5). The lower Clark Fork River drainage contains the angling pressure from all the streams and lakes below the Bitterroot River, excluding the pressure from those waters contained in other drainages listed (Flathead, Kootenai, and Bitterroot). The Upper Clark Fork River drainage, likewise, contains all the angling pressure for waters above the Bitterroot River drainage excluding the pressure for those drainages listed. The upper Flathead River drainage contains the South Fork Flathead River drainage and all waters above the confluence of the South Fork Flathead River. The lower Flathead River drainage includes those waters below the confluence of the South Fork Flathead River including Flathead Lake and those waters (where pressure was obtainable) on the Kootenai-Salish Indian reservation. The lower Missouri River drainage covers all waters below the confluence of the Marias River, while the upper Missouri River drainage incorporates the area above the Marias River, again excluding those drainages listed separately. The lower Yellowstone River drainage represents the area below the mouth of the Bighorn River while the upper Yellowstone River drainage covers the Bighorn River drainage and all waters above the confluence of the Bighorn River.

The pressure by drainage ranged from 519,977 angler days for the Upper Missouri River drainage to 2,248 angler days for the Little Missouri River drainage.

Table 5. Angling pressure in angler days by drainage by water type for the 1999 angling year
Mar '99 through Feb 2000

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

DRAIN	WATER TYPE	-----TOTALS-----		----RESIDENTS----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
BEAVERHEAD DR							
	SALMONID STREAM	67725.	1620.	31247.	772.	36478.	848.
	SALMONID LAKE	67647.	1437.	44356.	912.	23291.	525.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	114.	3.	0.	0.	114.	3.
	UNDESIG LAKE MGMT	849.	21.	355.	8.	494.	13.
DRAINAGE PRESSURE ESTIMATES:							
		136335.	3081.	75958.	1692.	60377.	1389.
BIG HOLE DR							
	SALMONID STREAM	93607.	2240.	58599.	1435.	35008.	805.
	SALMONID LAKE	6799.	166.	4596.	110.	2203.	56.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	266.	7.	0.	0.	266.	7.
	UNDESIG LAKE MGMT	320.	9.	282.	8.	38.	1.
DRAINAGE PRESSURE ESTIMATES:							
		100992.	2422.	63477.	1553.	37515.	869.
BITTERROOT DR							
	SALMONID STREAM	141716.	3238.	99032.	2296.	42684.	942.
	SALMONID LAKE	7934.	191.	6358.	157.	1576.	34.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	538.	13.	424.	10.	114.	3.
	UNDESIG LAKE MGMT	1134.	27.	1020.	24.	114.	3.
DRAINAGE PRESSURE ESTIMATES:							
		151322.	3469.	106834.	2487.	44488.	982.
BLACKFOOT DR							
	SALMONID STREAM	57665.	1333.	40157.	915.	17508.	418.
	SALMONID LAKE	38224.	940.	33514.	822.	4710.	118.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	282.	7.	179.	4.	103.	3.
	UNDESIG LAKE MGMT	906.	25.	906.	25.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		97077.	2305.	74756.	1766.	22321.	539.
LOWER CLARK FORK DR							
	SALMONID STREAM	113557.	2653.	78380.	1867.	35177.	786.
	SALMONID LAKE	44790.	1079.	38298.	938.	6492.	141.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	1026.	25.	760.	18.	266.	7.
	UNDESIG LAKE MGMT	1067.	25.	839.	19.	228.	6.
DRAINAGE PRESSURE ESTIMATES:							
		160440.	3782.	118277.	2842.	42163.	940.

Table 5. Angling pressure in angler days by drainage by water type for the 1999 angling year
Mar '99 through Feb 2000 (continued)

UPPER CLARK FORK DR -						
SALMONID STREAM	105819.	2463.	69232.	1652.	36587.	811.
SALMONID LAKE	74648.	1577.	63654.	1327.	10994.	250.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	388.	9.	122.	2.	266.	7.
UNDESIG LAKE MGMT	715.	19.	601.	16.	114.	3.
DRAINAGE PRESSURE ESTIMATES:						
	181570.	4068.	133609.	2997.	47961.	1071.
LOWER FLATHEAD DR						
SALMONID STREAM	65295.	1506.	49000.	1133.	16295.	373.
SALMONID LAKE	150033.	3532.	117703.	2839.	32330.	693.
NONSALMONID STREAM	45.	1.	45.	1.	0.	0.
NONSALMONID LAKE	20252.	421.	19355.	404.	897.	17.
UNDESIG STRM MGMT	578.	14.	388.	9.	190.	5.
UNDESIG LAKE MGMT	3824.	81.	3442.	71.	382.	10.
DRAINAGE PRESSURE ESTIMATES:						
	240027.	5555.	189933.	4457.	50094.	1098.
UPPER FLATHEAD DR						
SALMONID STREAM	30953.	732.	20184.	486.	10769.	246.
SALMONID LAKE	17204.	415.	15790.	377.	1414.	38.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	617.	15.	216.	5.	401.	10.
UNDESIG LAKE MGMT	1176.	29.	407.	11.	769.	18.
DRAINAGE PRESSURE ESTIMATES:						
	49950.	1191.	36597.	879.	13353.	312.
GALLATIN DR						
SALMONID STREAM	100876.	2236.	69882.	1564.	30994.	672.
SALMONID LAKE	16933.	381.	14273.	320.	2660.	61.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	1065.	24.	509.	12.	556.	12.
UNDESIG LAKE MGMT	2272.	60.	2006.	54.	266.	6.
DRAINAGE PRESSURE ESTIMATES:						
	121146.	2701.	86670.	1950.	34476.	751.
JEFFERSON DR						
SALMONID STREAM	26914.	619.	24750.	563.	2164.	56.
SALMONID LAKE	12603.	297.	12088.	284.	515.	13.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	453.	12.	187.	5.	266.	7.
UNDESIG LAKE MGMT	610.	13.	200.	4.	410.	9.
DRAINAGE PRESSURE ESTIMATES:						
	40580.	941.	37225.	856.	3355.	85.
KOOTENAI DR						
SALMONID STREAM	50878.	1139.	37625.	868.	13253.	271.
SALMONID LAKE	81908.	1806.	42097.	979.	39811.	827.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	1166.	33.	1014.	29.	152.	4.
UNDESIG STRM MGMT	308.	9.	118.	4.	190.	5.
UNDESIG LAKE MGMT	792.	15.	363.	9.	429.	6.
DRAINAGE PRESSURE ESTIMATES:						
	135052.	3002.	81217.	1889.	53835.	1113.

Table 5. Angling pressure in angler days by drainage by water type for the 1999 angling year
Mar '99 through Feb 2000 (continued)

LITTLE MISSOURI DR						
SALMONID STREAM	0.	0.	0.	0.	0.	0.
SALMONID LAKE	286.	6.	214.	5.	72.	1.
NONSALMONID STREAM	1281.	36.	1281.	36.	0.	0.
NONSALMONID LAKE	374.	10.	374.	10.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	307.	11.	307.	11.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	2248.	63.	2176.	62.	72.	1.
MADISON DR						
SALMONID STREAM	151449.	3385.	69676.	1544.	81773.	1841.
SALMONID LAKE	54547.	1239.	25719.	623.	28828.	616.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	993.	25.	624.	15.	369.	10.
UNDESIG LAKE MGMT	476.	11.	438.	10.	38.	1.
DRAINAGE PRESSURE ESTIMATES:						
	207465.	4660.	96457.	2192.	111008.	2468.
MARIAS DR						
SALMONID STREAM	5315.	125.	4727.	114.	588.	11.
SALMONID LAKE	37821.	894.	35427.	854.	2394.	40.
NONSALMONID STREAM	6639.	182.	6639.	182.	0.	0.
NONSALMONID LAKE	17439.	351.	16735.	336.	704.	15.
UNDESIG STRM MGMT	1892.	43.	1892.	43.	0.	0.
UNDESIG LAKE MGMT	2461.	47.	2307.	43.	154.	4.
DRAINAGE PRESSURE ESTIMATES:						
	71567.	1642.	67727.	1572.	3840.	70.
MILK DR						
SALMONID STREAM	3430.	93.	3316.	90.	114.	3.
SALMONID LAKE	31635.	767.	30950.	752.	685.	15.
NONSALMONID STREAM	7131.	181.	7055.	179.	76.	2.
NONSALMONID LAKE	15281.	323.	15074.	317.	207.	6.
UNDESIG STRM MGMT	123.	3.	123.	3.	0.	0.
UNDESIG LAKE MGMT	2573.	49.	2573.	49.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	60173.	1416.	59091.	1390.	1082.	26.
LOWER MISSOURI DR						
SALMONID STREAM	15162.	381.	12302.	311.	2860.	70.
SALMONID LAKE	26328.	614.	25242.	588.	1086.	26.
NONSALMONID STREAM	42625.	1066.	37857.	954.	4768.	112.
NONSALMONID LAKE	116600.	2899.	99989.	2504.	16611.	395.
UNDESIG STRM MGMT	476.	12.	400.	10.	76.	2.
UNDESIG LAKE MGMT	3384.	90.	3032.	81.	352.	9.
DRAINAGE PRESSURE ESTIMATES:						
	204575.	5062.	178822.	4448.	25753.	614.
UPPER MISSOURI DR						
SALMONID STREAM	229020.	5437.	189344.	4541.	39676.	896.
SALMONID LAKE	262343.	6213.	246541.	5831.	15802.	382.
NONSALMONID STREAM	16861.	381.	15599.	349.	1262.	32.
NONSALMONID LAKE	258.	8.	258.	8.	0.	0.
UNDESIG STRM MGMT	2513.	48.	1517.	33.	996.	15.
UNDESIG LAKE MGMT	8982.	218.	7774.	180.	1208.	38.
DRAINAGE PRESSURE ESTIMATES:						
	519977.	12305.	461033.	10942.	58944.	1363.

Table 5. Angling pressure in angler days by drainage by water type for the 1999 angling year
Mar '99 through Feb 2000 (continued)

MUSSELSHELL DR						
SALMONID STREAM	10180.	267.	9442.	247.	738.	20.
SALMONID LAKE	17117.	430.	15743.	402.	1374.	28.
NONSALMONID STREAM	92.	2.	92.	2.	0.	0.
NONSALMONID LAKE	8901.	191.	7953.	174.	948.	17.
UNDESIG STRM MGMT	694.	13.	694.	13.	0.	0.
UNDESIG LAKE MGMT	1488.	30.	839.	20.	649.	10.
DRAINAGE PRESSURE ESTIMATES:						
	38472.	933.	34763.	858.	3709.	75.
ST MARY DR						
SALMONID STREAM	216.	6.	140.	4.	76.	2.
SALMONID LAKE	10103.	240.	9583.	229.	520.	11.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	216.	5.	216.	5.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	83.	2.	83.	2.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	10618.	253.	10022.	240.	596.	13.
SUN DR						
SALMONID STREAM	14524.	357.	9557.	242.	4967.	115.
SALMONID LAKE	29325.	664.	28461.	641.	864.	23.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	201.	4.	201.	4.	0.	0.
UNDESIG STRM MGMT	198.	6.	198.	6.	0.	0.
UNDESIG LAKE MGMT	1121.	24.	1007.	21.	114.	3.
DRAINAGE PRESSURE ESTIMATES:						
	45369.	1055.	39424.	914.	5945.	141.
LOWER YELLOWSTONE DR						
SALMONID STREAM	5784.	137.	3744.	95.	2040.	42.
SALMONID LAKE	6938.	162.	6795.	160.	143.	2.
NONSALMONID STREAM	44485.	1123.	39408.	988.	5077.	135.
NONSALMONID LAKE	38439.	943.	27296.	702.	11143.	241.
UNDESIG STRM MGMT	306.	7.	268.	6.	38.	1.
UNDESIG LAKE MGMT	4253.	102.	3715.	94.	538.	8.
DRAINAGE PRESSURE ESTIMATES:						
	100205.	2474.	81226.	2045.	18979.	429.
UPPER YELLOWSTONE DR						
SALMONID STREAM	358250.	8044.	233517.	5206.	124733.	2838.
SALMONID LAKE	112110.	2541.	97086.	2219.	15024.	322.
NONSALMONID STREAM	18266.	431.	17250.	404.	1016.	27.
NONSALMONID LAKE	1981.	55.	1791.	50.	190.	5.
UNDESIG STRM MGMT	876.	23.	382.	10.	494.	13.
UNDESIG LAKE MGMT	4113.	114.	1804.	53.	2309.	61.
DRAINAGE PRESSURE ESTIMATES:						
	495596.	11208.	351830.	7942.	143766.	3266.
TOTAL						
SALMONID STREAM	1648335.	38011.	1113853.	25945.	534482.	12066.
SALMONID LAKE	1107276.	25591.	914488.	21369.	192788.	4222.
NONSALMONID STREAM	137425.	3403.	125226.	3095.	12199.	308.
NONSALMONID LAKE	221108.	5243.	190256.	4543.	30852.	700.
UNDESIG STRM MGMT	26056.	627.	12472.	288.	13584.	339.
UNDESIG LAKE MGMT	42906.	1022.	34300.	813.	8606.	209.
STATEWIDE PRESSURE ESTIMATES:						
	3183106.	73897.	2390595.	56053.	792511.	17844.

Angler Satisfaction Ratings

Licensed anglers fishing on Montana waters rated their fishing their fishing experience on a scale of 1 = poor to 5 = excellent for the 1999 license year. The average rating overall was 2.93 with residents and nonresidents rating their angling experience at 2.86 and 3.11 respectively (Table 6). Individual water satisfaction ratings are given in a separate report "Montana Angler Satisfaction Ratings 1999". Region 7 had the highest overall satisfaction rating of 3.05 while region 6 had the lowest satisfaction rating of 2.82. Nonresidents were always higher in their satisfaction ratings than residents for all the regions except region 6.

Table 6. Angler satisfaction ratings by region by water type for the 1999 angling year.

Reg	Water Type	TOTAL					RESIDENT					NONRESIDENT				
		Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's
1	SALMONID STREAM	2.90	291	296	462	258 232	2.86	204	200	311	174 145	2.98	87	96	151	84 87
	SALMONID LAKE	2.79	556	411	701	369 330	2.73	437	332	510	260 235	2.97	119	79	191	109 95
	NONSALMONID STREAM	3.00	0	0	1	0 0	3.00	0	0	1	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	2.80	47	24	46	26 29	2.81	44	21	44	26 26	2.73	3	3	2	0 3
	UNDESIG STRM MGMT	2.72	11	1	7	5 5	3.13	4	1	3	3 4	2.29	7	0	4	2 1
	UNDESIG LAKE MGMT	2.68	24	12	11	11 13	2.68	16	10	8	6 10	2.67	8	2	3	5 3
	Regional Ratings:	2.83	929	744	1228	669 609	2.78	705	564	877	469 420	2.96	224	180	351	200 189
2	SALMONID STREAM	3.00	492	578	1076	624 472	3.00	308	367	717	419 281	3.01	184	211	359	205 191
	SALMONID LAKE	2.63	316	191	266	174 126	2.62	276	156	234	144 109	2.67	40	35	32	30 17
	NONSALMONID STREAM	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	UNDESIG STRM MGMT	3.68	2	0	6	5 6	3.88	0	0	3	3 2	3.55	2	0	3	2 4
	UNDESIG LAKE MGMT	2.94	13	3	4	5 11	3.28	8	2	4	4 11	1.57	5	1	0	1 0
	Regional Ratings:	2.91	823	772	1352	808 615	2.89	592	525	958	570 403	2.96	231	247	394	238 212
3	SALMONID STREAM	3.14	676	822	1591	1136 870	3.12	374	455	909	615 457	3.16	302	367	682	521 413
	SALMONID LAKE	2.60	651	415	610	315 255	2.60	505	333	460	240 200	2.63	146	82	150	75 55
	NONSALMONID STREAM	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	UNDESIG STRM MGMT	3.29	5	5	12	11 8	3.23	2	4	7	5 4	3.37	3	1	5	6 4
	UNDESIG LAKE MGMT	3.91	5	8	12	8 37	3.85	2	5	7	1 18	3.97	3	3	5	7 19
	Regional Ratings:	2.98	1337	1250	2225	1470 1170	2.93	883	797	1383	861 679	3.08	454	453	842	609 491
4	SALMONID STREAM	3.15	331	336	622	474 423	3.09	279	292	525	373 318	3.41	52	44	97	101 105
	SALMONID LAKE	2.69	598	374	561	315 292	2.67	563	353	527	284 268	2.92	35	21	34	31 24
	NONSALMONID STREAM	2.50	80	81	106	33 23	2.50	69	75	99	29 19	2.50	11	6	7	4 4
	NONSALMONID LAKE	2.59	75	51	68	35 30	2.60	69	49	67	30 30	2.36	6	2	1	5 0
	UNDESIG STRM MGMT	3.32	5	3	8	7 8	3.20	5	3	6	4 7	3.83	0	0	2	3 1
	UNDESIG LAKE MGMT	3.42	13	26	24	24 41	3.32	11	26	21	21 31	4.06	2	0	3	3 10
	Regional Ratings:	2.89	1102	871	1389	888 817	2.84	996	798	1245	741 673	3.24	106	73	144	147 144
5	SALMONID STREAM	3.20	375	363	685	532 540	2.96	292	276	498	323 233	3.65	83	87	187	209 307
	SALMONID LAKE	2.71	259	206	304	159 130	2.66	235	180	248	136 103	3.02	24	26	56	23 27
	NONSALMONID STREAM	2.46	48	32	42	14 16	2.50	42	28	42	12 15	2.08	6	4	0	2 1
	NONSALMONID LAKE	2.85	5	5	9	3 4	2.82	4	5	7	3 3	3.00	1	0	2	0 1
	UNDESIG STRM MGMT	3.50	1	1	3	2 3	3.33	1	1	1	1 2	3.75	0	0	2	1 1
	UNDESIG LAKE MGMT	3.76	4	2	8	8 15	3.78	3	1	2	3 9	3.74	1	1	6	5 6
	Regional Ratings:	3.04	692	609	1051	718 708	2.84	577	491	798	478 365	3.54	115	118	253	240 343
6	SALMONID STREAM	2.94	12	7	22	15 6	2.95	11	6	19	15 5	2.83	1	1	3	0 1
	SALMONID LAKE	2.96	61	43	117	62 45	2.97	58	42	114	59 45	2.60	3	1	3	3 0
	NONSALMONID STREAM	2.89	51	41	83	52 31	2.92	46	38	77	50 30	2.47	5	3	6	2 1
	NONSALMONID LAKE	2.72	204	152	290	133 90	2.73	171	137	254	115 80	2.62	33	15	36	18 10
	UNDESIG STRM MGMT	1.50	1	1	0	0 0	1.50	1	1	0	0 0	.00	0	0	0	0 0
	UNDESIG LAKE MGMT	3.44	6	5	4	6 13	3.44	6	5	4	6 13	.00	0	0	0	0 0
	Regional Ratings:	2.82	335	249	516	268 185	2.84	293	229	468	245 173	2.61	42	20	48	23 12

Table 6. Angler satisfaction ratings by region by water type for the 1999 angling year (continued)																			
Reg	Water Type	TOTAL					Avg Rate	RESIDENT					Avg Rate	NONRESIDENT					Avg Rate
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's		poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	
7	SALMONID STREAM	3.19	5	4	18	8	7	3.27	3	3	13	5	6	3.00	2	1	5	3	1
	SALMONID LAKE	3.36	7	11	15	14	17	3.39	7	10	14	14	17	2.50	0	1	1	0	0
	NONSALMONID STREAM	2.91	72	62	99	66	54	2.78	67	59	78	56	36	3.58	5	3	21	10	18
	NONSALMONID LAKE	3.08	48	56	113	58	60	3.11	39	42	87	46	51	2.97	9	14	26	12	9
	UNDESIG STRM MGMT	3.29	0	1	4	1	1	3.00	0	1	4	1	0	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.35	5	4	9	6	10	3.31	5	4	8	6	9	4.00	0	0	1	0	1
	Regional Ratings:	3.05	137	138	258	153	149	3.01	121	119	204	128	119	3.24	16	19	54	25	30
Total	SALMONID STREAM	3.09	2182	2406	4476	3047	2550	3.03	1471	1599	2992	1924	1445	3.21	711	807	1484	1123	1105
	SALMONID LAKE	2.70	2448	1651	2574	1408	1195	2.68	2081	1406	2107	1137	977	2.83	367	245	467	271	218
	NONSALMONID STREAM	2.72	251	216	331	165	124	2.69	224	200	297	147	100	2.97	27	16	34	18	24
	NONSALMONID LAKE	2.78	379	288	526	255	213	2.79	327	254	459	220	190	2.73	52	34	67	35	23
	UNDESIG STRM MGMT	3.02	60	35	81	54	53	3.10	23	13	28	22	24	2.97	37	22	53	32	29
	UNDESIG LAKE MGMT	3.36	70	60	72	68	140	3.31	51	53	54	47	101	3.52	19	7	18	21	39
	Statewide Ratings:	2.93	5390	4656	8060	4997	4275	2.86	4177	3525	5937	3497	2837	3.11	1213	1131	2123	1500	1438

Angler satisfaction ratings were summarized by the twenty-two major drainages like those reported under the angling pressure section (Table 7). The ratings ranged from a high of 3.33 for the St. Mary drainage to a low of 2.62 for the Blackfoot drainage.

Table 7. Angler satisfaction ratings by drainage by water type for the 1999 angling year Mar '99 through Feb 2000																			
Drain- age	Water type	TOTAL					Avg Rate	RESIDENT					Avg Rate	NONRESIDENT					Avg Rate
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's		poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	
BEAVERHEAD DR	SALMONID STREAM	3.45	65	80	183	190	164	3.45	24	36	84	82	67	3.45	41	44	99	108	97
	SALMONID LAKE	2.56	133	88	136	67	41	2.63	82	63	89	47	32	2.41	51	25	47	20	9
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.00	0	0	1	0	0	.00	0	0	0	0	0	3.00	0	0	1	0	0
	UNDESIG LAKE MGMT	4.56	0	0	1	2	6	5.00	0	0	0	0	2	4.43	0	0	1	2	4
	Drainage Ratings:	3.10	198	168	321	259	211	3.03	106	99	173	129	101	3.18	92	69	148	130	110
BIG HOLE DR	SALMONID STREAM	3.12	130	143	320	198	161	3.07	81	79	193	107	86	3.19	49	64	127	91	75
	SALMONID LAKE	3.39	17	9	17	22	29	3.36	16	6	13	17	24	3.56	1	3	4	5	5
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	0	1	0	.00	0	0	0	0	0	4.00	0	0	0	1	0
	UNDESIG LAKE MGMT	4.00	0	0	2	0	2	4.33	0	0	1	0	2	3.00	0	0	1	0	0
	Drainage Ratings:	3.15	147	152	339	221	192	3.11	97	85	207	124	112	3.21	50	67	132	97	80

Table 7. Angler satisfaction ratings by drainage by water type for the 1999 angling year Mar '99 through Feb 2000 (continued)

Drainage	Water type	TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's
BITTERROOT DR	SALMONID STREAM	3.04	153	196	354	236	155	2.99	97	139	252	151	86	3.15	56	57	102	85	69
	SALMONID LAKE	2.51	31	21	15	12	13	2.61	25	15	12	10	13	2.06	6	6	3	2	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.83	0	0	2	3	1	3.50	0	0	2	2	0	4.50	0	0	0	1	1
	UNDESIG LAKE MGMT	2.88	3	1	0	2	2	3.40	1	1	0	1	2	2.00	2	0	0	1	0
	Drainage Ratings:	3.00	187	218	371	253	171	2.96	123	155	266	164	101	3.10	64	63	105	89	70
BLACKFOOT DR	SALMONID STREAM	2.81	125	121	201	97	79	2.83	80	73	128	72	47	2.78	45	48	73	25	32
	SALMONID LAKE	2.29	160	78	88	46	32	2.28	143	66	80	39	28	2.35	17	12	8	7	4
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.33	0	0	1	0	2	3.00	0	0	1	0	0	5.00	0	0	0	0	2
	UNDESIG LAKE MGMT	3.50	2	0	3	1	4	3.50	2	0	3	1	4	.00	0	0	0	0	0
	Drainage Ratings:	2.62	287	199	293	144	117	2.58	225	139	212	112	79	2.72	62	60	81	32	38
LOWER CLARK FORK DR	SALMONID STREAM	2.89	148	193	304	144	121	2.86	91	122	197	89	67	2.94	57	71	107	55	54
	SALMONID LAKE	2.60	115	88	110	58	47	2.61	99	77	95	51	41	2.56	16	11	15	7	6
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.75	1	0	5	1	5	4.50	0	0	1	1	4	3.00	1	0	4	0	1
	UNDESIG LAKE MGMT	3.00	3	2	1	2	3	3.38	1	2	1	1	3	2.00	2	0	0	1	0
	Drainage Ratings:	2.81	267	283	420	205	176	2.78	191	201	294	142	115	2.88	76	82	126	63	61
UPPER CLARK FORK DR	SALMONID STREAM	3.16	129	130	327	191	174	3.19	81	75	217	131	112	3.10	48	55	110	60	62
	SALMONID LAKE	2.87	118	85	157	112	69	2.85	101	69	137	91	56	2.97	17	16	20	21	13
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.00	2	0	1	2	1	3.50	0	0	1	1	0	2.75	2	0	0	1	1
	UNDESIG LAKE MGMT	2.69	6	1	1	1	4	3.10	4	0	1	1	4	1.33	2	1	0	0	0
	Drainage Ratings:	3.05	255	216	486	306	248	3.05	186	144	356	224	172	3.06	69	72	130	82	76
LOWER FLATHEAD DR	SALMONID STREAM	2.63	136	138	156	86	57	2.59	100	94	101	56	39	2.73	36	44	55	30	18
	SALMONID LAKE	2.74	307	238	390	186	165	2.73	236	196	296	147	126	2.76	71	42	94	39	39
	NONSALMONID STREAM	3.00	0	0	1	0	0	3.00	0	0	1	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.84	41	23	40	24	28	2.82	40	20	39	24	25	3.13	1	3	1	0	3
	UNDESIG STRM MGMT	2.90	3	1	1	4	1	3.17	1	1	1	2	1	2.50	2	0	0	2	0
	UNDESIG LAKE MGMT	2.47	15	9	5	4	7	2.47	12	7	5	2	6	2.50	3	2	0	2	1
	Drainage Ratings:	2.71	502	409	593	304	258	2.70	389	318	443	231	197	2.75	113	91	150	73	61
UPPER FLATHEAD DR	SALMONID STREAM	3.12	36	47	77	62	44	3.06	27	29	45	44	25	3.21	9	18	32	18	19
	SALMONID LAKE	2.55	55	26	33	16	25	2.60	47	21	28	14	24	2.19	8	5	5	2	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	1.57	5	0	2	0	0	1.67	2	0	1	0	0	1.50	3	0	1	0	0
	UNDESIG LAKE MGMT	2.78	7	2	1	4	4	2.78	3	2	0	2	2	2.78	4	0	1	2	2
	Drainage Ratings:	2.88	103	75	113	82	73	2.85	79	52	74	60	51	2.96	24	23	39	22	22

Table 7. Angler satisfaction ratings by drainage by water type for the 1999 angling year Mar '99 through Feb 2000 (continued)

Drainage Water type		TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's			
GALLATIN DR																			
SALMONID STREAM		3.10	105	162	287	210	125	3.17	59	89	204	135	84	2.97	46	73	83	75	41
SALMONID LAKE		2.67	55	32	42	27	27	2.69	43	26	34	24	21	2.57	12	6	8	3	6
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		3.31	3	1	2	3	4	3.40	1	1	0	1	2	3.25	2	0	2	2	2
UNDESIG LAKE MGMT		3.73	1	1	3	1	5	3.63	1	1	2	0	4	4.00	0	0	1	1	1
Drainage Ratings:		3.04	164	196	334	241	161	3.08	104	117	240	160	111	2.95	60	79	94	81	50
JEFFERSON DR																			
SALMONID STREAM		3.02	39	39	78	39	41	3.04	33	30	68	35	35	2.86	6	9	10	4	6
SALMONID LAKE		2.54	42	21	32	22	12	2.55	40	20	30	21	12	2.33	2	1	2	1	0
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		2.83	1	1	2	2	0	3.00	0	1	1	1	0	2.67	1	0	1	1	0
UNDESIG LAKE MGMT		3.60	2	1	1	1	5	4.33	0	0	1	0	2	3.29	2	1	0	1	3
Drainage Ratings:		2.87	84	62	113	64	58	2.87	73	51	100	57	49	2.84	11	11	13	7	9
KOOTENAI DR																			
SALMONID STREAM		3.14	57	49	119	67	74	3.16	37	35	86	51	50	3.10	20	14	31	16	24
SALMONID LAKE		3.15	86	66	174	112	105	2.98	62	44	96	51	56	3.38	24	22	78	61	49
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		2.44	6	1	6	2	1	2.62	4	1	5	2	1	1.67	2	0	1	0	0
UNDESIG STRM MGMT		2.60	2	0	2	0	1	3.00	1	0	0	0	1	2.33	1	0	2	0	0
UNDESIG LAKE MGMT		3.00	1	0	4	2	0	3.00	1	0	2	2	0	3.00	0	0	2	0	0
Drainage Ratings:		3.13	152	116	305	183	181	3.05	105	80	191	106	108	3.27	47	36	114	77	73
LITTLE MISSOURI DR																			
SALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
SALMONID LAKE		3.00	1	1	0	1	1	3.33	1	0	0	1	1	2.00	0	1	0	0	0
NONSALMONID STREAM		2.78	2	1	4	1	1	2.78	2	1	4	1	1	1.00	0	0	0	0	0
NONSALMONID LAKE		4.00	0	0	1	1	1	4.00	0	0	1	1	1	1.00	0	0	0	0	0
UNDESIG STRM MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG LAKE MGMT		4.00	0	0	0	1	0	4.00	0	0	0	1	0	.00	0	0	0	0	0
Drainage Ratings:		3.12	3	2	5	4	3	3.19	3	1	5	4	3	2.00	0	1	0	0	0
MADISON DR																			
SALMONID STREAM		3.08	206	226	428	301	223	3.07	91	99	183	130	98	3.08	115	127	245	171	125
SALMONID LAKE		2.80	109	76	124	69	67	2.78	59	37	56	33	37	2.81	50	39	68	36	30
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		3.30	1	1	3	4	1	3.33	1	0	2	2	1	3.25	0	1	1	2	0
UNDESIG LAKE MGMT		3.22	1	2	2	2	2	3.13	1	2	2	1	2	4.00	0	0	0	1	0
Drainage Ratings:		3.01	317	305	557	376	293	3.00	152	138	243	166	138	3.02	165	167	314	210	155
MARIAS DR																			
SALMONID STREAM		3.02	9	8	15	9	9	3.07	7	7	12	8	8	2.75	2	1	3	1	1
SALMONID LAKE		3.02	59	41	93	48	59	3.00	56	37	90	43	53	3.33	3	4	3	5	6
NONSALMONID STREAM		2.21	22	15	17	6	2	2.21	22	15	17	6	2	1.00	0	0	0	0	0
NONSALMONID LAKE		2.86	22	28	42	28	13	2.85	20	28	42	23	13	3.14	2	0	0	5	0
UNDESIG STRM MGMT		3.75	0	1	1	0	2	3.75	0	1	1	0	2	.00	0	0	0	0	0
UNDESIG LAKE MGMT		3.17	2	6	5	6	4	3.05	2	6	4	5	3	4.00	0	0	1	1	1
Drainage Ratings:		2.91	114	99	173	97	89	2.89	107	94	166	85	81	3.23	7	5	7	12	8

Table 7. Angler satisfaction ratings by drainage by water type for the 1999 angling year Mar '99 through Feb 2000 (continued)

Drain- age	Water type	TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	excellent 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	excellent 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	excellent 5's
MILK DR																			
	SALMONID STREAM	2.95	5	6	16	12	1	2.97	5	5	15	12	1	2.50	0	1	1	0	0
	SALMONID LAKE	2.99	47	37	101	50	39	3.00	44	36	99	47	39	2.56	3	1	2	3	0
	NONSALMONID STREAM	3.02	12	8	14	11	11	3.05	11	8	14	11	11	1.00	1	0	0	0	0
	NONSALMONID LAKE	2.55	26	25	22	15	9	2.57	24	25	21	15	9	1.67	2	0	1	0	0
	UNDESIG STRM MGMT	5.00	0	0	0	0	0	5.00	0	0	0	0	0	1.00	0	0	0	0	0
	UNDESIG LAKE MGMT	3.71	3	2	2	5	9	3.71	3	2	2	5	9	1.00	0	0	0	0	0
	Drainage Ratings:	2.94	93	78	155	93	70	2.96	87	76	151	90	70	2.27	6	2	4	3	0
LOWER MISSOURI DR																			
	SALMONID STREAM	3.03	25	17	44	29	21	3.01	22	13	34	26	16	3.12	3	4	10	3	5
	SALMONID LAKE	2.94	42	32	66	43	30	2.95	40	29	61	41	29	2.77	2	3	5	2	1
	NONSALMONID STREAM	2.74	65	64	110	51	30	2.77	54	57	101	47	26	2.51	11	7	9	4	4
	NONSALMONID LAKE	2.74	183	133	277	121	85	2.75	152	118	241	103	75	2.65	31	15	36	18	10
	UNDESIG STRM MGMT	2.80	1	2	0	1	1	2.50	1	2	0	0	1	4.00	0	0	0	1	0
	UNDESIG LAKE MGMT	3.09	9	8	8	8	11	3.13	7	8	6	7	10	2.83	2	0	2	1	1
	Drainage Ratings:	2.80	325	256	505	253	178	2.82	276	227	443	224	157	2.71	49	29	62	29	21
UPPER MISSOURI DR																			
	SALMONID STREAM	3.13	308	315	554	438	381	3.08	264	276	470	349	292	3.41	44	39	84	89	89
	SALMONID LAKE	2.44	668	409	521	246	183	2.43	616	392	479	220	170	2.54	52	17	42	26	13
	NONSALMONID STREAM	2.61	30	37	48	17	12	2.62	26	35	44	15	11	2.54	4	2	4	2	1
	NONSALMONID LAKE	4.00	0	1	1	1	3	4.00	0	1	1	1	3	1.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.16	4	3	8	5	5	2.89	4	3	6	3	3	4.00	0	0	2	2	2
	UNDESIG LAKE MGMT	3.45	6	15	12	9	24	3.23	6	15	12	8	16	4.89	0	0	0	1	8
	Drainage Ratings:	2.79	1016	780	1144	716	608	2.74	916	722	1012	596	495	3.17	100	58	132	120	113
MUSSELSHELL DR																			
	SALMONID STREAM	3.31	7	18	27	21	20	3.28	7	17	22	16	19	3.50	0	1	5	5	1
	SALMONID LAKE	2.90	44	41	45	29	40	2.88	40	41	43	27	36	3.17	4	0	2	2	4
	NONSALMONID STREAM	1.00	2	0	0	0	0	1.00	2	0	0	0	0	1.00	0	0	0	0	0
	NONSALMONID LAKE	2.01	47	17	15	3	9	2.06	43	15	15	3	9	1.33	4	2	0	0	0
	UNDESIG STRM MGMT	3.25	1	0	1	1	1	3.25	1	0	1	1	1	1.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.33	0	1	2	1	8	4.44	0	1	1	0	7	4.00	0	0	1	1	1
	Drainage Ratings:	2.83	101	77	90	55	78	2.81	93	74	82	47	72	3.03	8	3	8	8	6
ST MARY DR																			
	SALMONID STREAM	1.00	3	0	0	0	0	1.00	2	0	0	0	0	1.00	1	0	0	0	0
	SALMONID LAKE	3.39	10	12	22	17	24	3.39	9	11	21	13	23	3.38	1	1	1	4	1
	NONSALMONID STREAM	1.00	0	0	0	0	0	1.00	0	0	0	0	0	1.00	0	0	0	0	0
	NONSALMONID LAKE	3.00	1	0	0	0	1	3.00	1	0	0	0	1	1.00	0	0	0	0	0
	UNDESIG STRM MGMT	1.00	0	0	0	0	0	1.00	0	0	0	0	0	1.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.50	0	0	0	1	1	4.50	0	0	0	1	1	1.00	0	0	0	0	0
	Drainage Ratings:	3.33	14	12	22	18	26	3.35	12	11	21	14	25	3.11	2	1	1	4	1
SUN DR																			
	SALMONID STREAM	3.29	14	20	42	21	32	3.16	9	17	31	15	17	3.58	5	3	11	6	15
	SALMONID LAKE	2.82	77	39	84	53	43	2.81	75	36	81	51	40	3.08	2	3	3	2	3
	NONSALMONID STREAM	1.00	0	0	0	0	0	1.00	0	0	0	0	0	1.00	0	0	0	0	0
	NONSALMONID LAKE	2.25	1	1	2	0	0	2.25	1	1	2	0	0	1.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	1	2	1	4.00	0	0	1	2	1	1.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.36	0	1	1	2	7	4.30	0	1	1	2	6	5.00	0	0	0	0	1
	Drainage Ratings:	3.00	92	61	130	78	83	2.93	85	55	116	70	64	3.48	7	6	14	8	19

Table 7. Angler satisfaction ratings by drainage by water type for the 1999 angling year Mar '99 through Feb 2000 (continued)																						
Drain- age	Water type	TOTAL					Avg Rate	RESIDENT					Avg Rate	NONRESIDENT								
		Avg Rate	poor 1's	2's	3's	4's		5's	poor 1's	2's	3's	4's		5's	poor 1's	2's	3's	4's	5's			
LOWER YELLOWSTONE DR	SALMONID STREAM	3.19	5	4	18	8	7	3.27	3	3	13	5	6	3.00	2	1	5	3	1			
	SALMONID LAKE	3.38	6	9	14	12	15	3.38	6	9	13	12	15	3.00	0	0	1	0	0			
	NONSALMONID STREAM	2.91	70	59	95	65	52	2.78	65	56	74	55	34	3.58	5	3	21	10	18			
	NONSALMONID LAKE	3.08	47	55	111	57	60	3.12	38	41	85	45	51	2.97	9	14	26	12	9			
	UNDESIG STRM MGMT	3.50	0	0	3	0	1	3.00	0	0	3	0	0	5.00	0	0	0	0	1			
	UNDESIG LAKE MGMT	3.33	4	4	9	4	9	3.29	4	4	8	4	8	4.00	0	0	1	0	1			
	Drainage Ratings:	3.05	132	131	250	146	144	3.01	116	113	196	121	114	3.24	16	18	54	25	30			
UPPER YELLOWSTONE DR	SALMONID STREAM	3.17	477	494	926	688	661	2.96	351	361	635	410	290	3.53	126	133	291	278	371			
	SALMONID LAKE	2.70	266	202	310	160	129	2.65	241	175	254	137	101	3.01	25	27	56	23	28			
	NONSALMONID STREAM	2.46	48	32	42	14	16	2.50	42	28	42	12	15	2.08	6	4	0	2	1			
	NONSALMONID LAKE	2.79	5	4	9	3	3	2.75	4	4	7	3	2	3.00	1	0	2	0	1			
	UNDESIG STRM MGMT	3.33	1	2	4	2	3	2.86	1	2	2	1	1	4.00	0	0	2	1	2			
	UNDESIG LAKE MGMT	3.82	5	4	9	9	23	3.71	3	1	2	3	8	3.88	2	3	7	6	15			
	Drainage Ratings:	3.04	802	738	1300	876	835	2.86	642	571	942	566	417	3.47	160	167	358	310	418			
Total	SALMONID STREAM	3.09	2182	2406	4476	3047	2550	3.03	1471	1599	2992	1924	1445	3.21	711	807	1484	1123	1105			
	SALMONID LAKE	2.70	2448	1651	2574	1408	1195	2.68	2081	1406	2107	1137	977	2.83	367	245	467	271	218			
	NONSALMONID STREAM	2.72	251	216	331	165	124	2.69	224	200	297	147	100	2.97	27	16	34	18	24			
	NONSALMONID LAKE	2.78	379	288	526	255	213	2.79	327	254	459	220	190	2.73	52	34	67	35	23			
	UNDESIG STRM MGMT	3.02	60	35	81	54	53	3.10	23	13	28	22	24	2.97	37	22	53	32	29			
	UNDESIG LAKE MGMT	3.36	70	60	72	68	140	3.31	51	53	54	47	101	3.52	19	7	18	21	39			
	Statewide Ratings:	2.93	5390	4656	8060	4997	4275	2.86	4177	3525	5937	3497	2837	3.11	1213	1131	2123	1500	1438			

1999 SUMMER

The "summer" season for angling in Montana is considered that period of the year from the first of May through the end of September. In 1999 2,405,932 (75.6%) days of angling pressure occurred during this period (Table 8). Percentages of angling pressure within the regions for the summer period was very similar to the entire year ranging from 71.1% for region 4 to 80.0% for region 1.

Residents accounted for 69.9% of the "summer" angling pressure (1,681,172 angling days). Within the regions the residents comprised anywhere from as high as 88.8% of the "summer" angling pressure in region 6 to as low as 59.1% of the pressure in region 3.

Table 8. Angling pressure in angler days by region by water type for the "summer" season of May '99 through September '99

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

REG	WATER TYPE	-----TOTALS-----		----RESIDENTS----		--NON-RESIDENTS--	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
1	SALMONID STREAM	156857.	3824.	106871.	2686.	49986.	1138.
	SALMONID LAKE	235666.	5846.	160061.	4186.	75605.	1660.
	NONSALMONID STREAM	45.	1.	45.	1.	0.	0.
	NONSALMONID LAKE	11409.	325.	10645.	306.	764.	19.
	UNDESIG STRM MGMT	2168.	55.	817.	20.	1351.	35.
	UNDESIG LAKE MGMT	4418.	112.	2686.	74.	1732.	38.
REGIONAL PRESSURE ESTIMATES:		410563.	10163.	281125.	7273.	129438.	2890.
2	SALMONID STREAM	292681.	7179.	183658.	4709.	109023.	2470.
	SALMONID LAKE	94670.	2373.	77448.	1971.	17222.	402.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	1308.	33.	673.	16.	635.	17.
	UNDESIG LAKE MGMT	2720.	70.	2416.	62.	304.	8.
REGIONAL PRESSURE ESTIMATES:		391379.	9655.	264195.	6758.	127184.	2897.
3	SALMONID STREAM	418808.	10268.	223245.	5718.	195563.	4550.
	SALMONID LAKE	201131.	5137.	143426.	3783.	57705.	1354.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	3492.	83.	1455.	37.	2037.	46.
	UNDESIG LAKE MGMT	5825.	150.	3521.	91.	2304.	59.
REGIONAL PRESSURE ESTIMATES:		629256.	15638.	371647.	9629.	257609.	6009.
4	SALMONID STREAM	182090.	4687.	140979.	3720.	41111.	967.
	SALMONID LAKE	177907.	4709.	163818.	4379.	14089.	330.
	NONSALMONID STREAM	25429.	685.	21773.	593.	3656.	92.
	NONSALMONID LAKE	16119.	433.	14353.	398.	1766.	35.
	UNDESIG STRM MGMT	3422.	82.	3080.	73.	342.	9.
	UNDESIG LAKE MGMT	10913.	289.	9110.	236.	1803.	53.
REGIONAL PRESSURE ESTIMATES:		415880.	10885.	353113.	9399.	62767.	1486.
5	SALMONID STREAM	207948.	5260.	117624.	3090.	90324.	2170.
	SALMONID LAKE	80566.	2026.	68190.	1739.	12376.	287.
	NONSALMONID STREAM	11167.	308.	10151.	281.	1016.	27.
	NONSALMONID LAKE	2147.	58.	1957.	53.	190.	5.
	UNDESIG STRM MGMT	833.	22.	377.	10.	456.	12.
	UNDESIG LAKE MGMT	3738.	95.	1912.	54.	1826.	41.
REGIONAL PRESSURE ESTIMATES:		306399.	7769.	200211.	5227.	106188.	2542.

Table 8. Angling pressure in angler days by region by water type for the "summer" season of May '99 through September '99 (continued)

6	SALMONID STREAM	4830.	133.	4374.	122.	456.	11.
	SALMONID LAKE	28046.	759.	27438.	743.	608.	16.
	NONSALMONID STREAM	24805.	694.	23225.	652.	1580.	42.
	NONSALMONID LAKE	103588.	2749.	87949.	2368.	15639.	381.
	UNDESIG STRM MGMT	215.	6.	215.	6.	0.	0.
	UNDESIG LAKE MGMT	1794.	50.	1794.	50.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	163278.	4391.	144995.	3941.	18283.	450.
7	SALMONID STREAM	4487.	113.	3034.	81.	1453.	32.
	SALMONID LAKE	5105.	139.	4962.	137.	143.	2.
	NONSALMONID STREAM	35614.	967.	30858.	844.	4756.	123.
	NONSALMONID LAKE	29038.	781.	21098.	594.	7940.	187.
	UNDESIG STRM MGMT	430.	11.	392.	10.	38.	1.
	UNDESIG LAKE MGMT	3311.	90.	2773.	82.	538.	8.
	REGIONAL PRESSURE ESTIMATES:	77985.	2101.	63117.	1748.	14868.	353.
TOTAL	SALMONID STREAM	1267701.	31464.	779785.	20126.	487916.	11338.
	SALMONID LAKE	823091.	20989.	645343.	16938.	177748.	4051.
	NONSALMONID STREAM	97060.	2655.	86052.	2371.	11008.	284.
	NONSALMONID LAKE	162301.	4346.	136002.	3719.	26299.	627.
	UNDESIG STRM MGMT	23060.	576.	9778.	239.	13282.	337.
	UNDESIG LAKE MGMT	32719.	856.	24212.	649.	8507.	207.
	STATEWIDE PRESSURE ESTIMATES:	2405932.	60886.	1681172.	44042.	724760.	16844.

"Summer" angling pressure by drainage (Table 9) ranged from 366,186 angler days for the upper Missouri River drainage to 1,969 angler days for the Little Missouri River drainage.

Angling pressure for residents by drainage ranged from a low of 37.8% for the Madison River drainage to a high of 100% for the Little Missouri drainage.

Table 9. Angling pressure in angler days by drainage by water type for the 1999 "summer" angling season May '99 through September '99

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
BEAVERHEAD DR							
	SALMONID STREAM	58775.	1459.	24738.	651.	34037.	808.
	SALMONID LAKE	42270.	1078.	23192.	613.	19078.	465.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	114.	3.	0.	0.	114.	3.
	UNDESIG LAKE MGMT	849.	21.	355.	8.	494.	13.
DRAINAGE PRESSURE ESTIMATES:							
		102008.	2561.	48285.	1272.	53723.	1289.
BIG HOLE DR							
	SALMONID STREAM	80223.	2018.	47508.	1245.	32715.	773.
	SALMONID LAKE	6736.	164.	4533.	108.	2203.	56.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	266.	7.	0.	0.	266.	7.
	UNDESIG LAKE MGMT	320.	9.	282.	8.	38.	1.
DRAINAGE PRESSURE ESTIMATES:							
		87545.	2198.	52323.	1361.	35222.	837.
BITTERROOT DR							
	SALMONID STREAM	103533.	2531.	66075.	1689.	37458.	842.
	SALMONID LAKE	7200.	176.	5624.	142.	1576.	34.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	316.	8.	202.	5.	114.	3.
	UNDESIG LAKE MGMT	1046.	25.	932.	22.	114.	3.
DRAINAGE PRESSURE ESTIMATES:							
		112095.	2740.	72833.	1858.	39262.	882.
BLACKFOOT DR							
	SALMONID STREAM	47992.	1182.	30904.	778.	17088.	404.
	SALMONID LAKE	32045.	828.	27362.	711.	4683.	117.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	282.	7.	179.	4.	103.	3.
	UNDESIG LAKE MGMT	773.	22.	773.	22.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		81092.	2039.	59218.	1515.	21874.	524.
LOWER CLARK FORK DR							
	SALMONID STREAM	90772.	2253.	58984.	1519.	31788.	734.
	SALMONID LAKE	36017.	916.	29552.	776.	6465.	140.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	741.	18.	475.	11.	266.	7.
	UNDESIG LAKE MGMT	823.	21.	595.	15.	228.	6.
DRAINAGE PRESSURE ESTIMATES:							
		128353.	3208.	89606.	2321.	38747.	887.

Table 9. Angling pressure in angler days by drainage by water type for the 1999 "summer" angling season May '99 through September '99 (continued)

UPPER CLARK FORK DR						
SALMONID STREAM	85271.	2098.	51592.	1345.	33679.	753.
SALMONID LAKE	53290.	1314.	42441.	1066.	10849.	248.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	300.	8.	34.	1.	266.	7.
UNDESIG LAKE MGMT	620.	16.	506.	13.	114.	3.
DRAINAGE PRESSURE ESTIMATES:						
	139481.	3436.	94573.	2425.	44908.	1011.
LOWER FLATHEAD DR						
SALMONID STREAM	51678.	1258.	36265.	895.	15413.	363.
SALMONID LAKE	116604.	2964.	86856.	2293.	29748.	671.
NONSALMONID STREAM	45.	1.	45.	1.	0.	0.
NONSALMONID LAKE	10287.	293.	9675.	278.	612.	15.
UNDESIG STRM MGMT	534.	13.	344.	8.	190.	5.
UNDESIG LAKE MGMT	1908.	54.	1526.	44.	382.	10.
DRAINAGE PRESSURE ESTIMATES:						
	181056.	4583.	134711.	3519.	46345.	1064.
UPPER FLATHEAD DR						
SALMONID STREAM	29129.	689.	18360.	443.	10769.	246.
SALMONID LAKE	13922.	368.	12508.	330.	1414.	38.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	573.	14.	172.	4.	401.	10.
UNDESIG LAKE MGMT	1176.	29.	407.	11.	769.	18.
DRAINAGE PRESSURE ESTIMATES:						
	44800.	1100.	31447.	788.	13353.	312.
GALLATIN DR						
SALMONID STREAM	73300.	1769.	45754.	1150.	27546.	619.
SALMONID LAKE	11274.	290.	9095.	234.	2179.	56.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	1065.	24.	509.	12.	556.	12.
UNDESIG LAKE MGMT	2050.	55.	1784.	49.	266.	6.
DRAINAGE PRESSURE ESTIMATES:						
	87689.	2138.	57142.	1445.	30547.	693.
JEFFERSON DR						
SALMONID STREAM	18767.	477.	16676.	422.	2091.	55.
SALMONID LAKE	8231.	222.	7716.	209.	515.	13.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	453.	12.	187.	5.	266.	7.
UNDESIG LAKE MGMT	385.	9.	47.	1.	338.	8.
DRAINAGE PRESSURE ESTIMATES:						
	27836.	720.	24626.	637.	3210.	83.
KOOTENAI DR						
SALMONID STREAM	41253.	994.	28439.	728.	12814.	266.
SALMONID LAKE	71175.	1651.	33083.	837.	38092.	814.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	1122.	32.	970.	28.	152.	4.
UNDESIG STRM MGMT	308.	9.	118.	4.	190.	5.
UNDESIG LAKE MGMT	792.	15.	363.	9.	429.	6.
DRAINAGE PRESSURE ESTIMATES:						
	114650.	2701.	62973.	1606.	51677.	1095.

Table 9. Angling pressure in angler days by drainage by water type for the 1999 "summer" angling season May '99 through September '99 (continued)

LITTLE MISSOURI DR						
SALMONID STREAM	0.	0.	0.	0.	0.	0.
SALMONID LAKE	214.	5.	214.	5.	0.	0.
NONSALMONID STREAM	1074.	33.	1074.	33.	0.	0.
NONSALMONID LAKE	374.	10.	374.	10.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	307.	11.	307.	11.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	1969.	59.	1969.	59.	0.	0.
MADISON DR						
SALMONID STREAM	115987.	2820.	40824.	1074.	75163.	1746.
SALMONID LAKE	47234.	1125.	20563.	533.	26671.	592.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	752.	19.	383.	9.	369.	10.
UNDESIG LAKE MGMT	476.	11.	438.	10.	38.	1.
DRAINAGE PRESSURE ESTIMATES:						
	164449.	3975.	62208.	1626.	102241.	2349.
MARIAS DR						
SALMONID STREAM	4253.	110.	3665.	99.	588.	11.
SALMONID LAKE	28898.	764.	27268.	729.	1630.	35.
NONSALMONID STREAM	4926.	133.	4926.	133.	0.	0.
NONSALMONID LAKE	9460.	251.	8756.	236.	704.	15.
UNDESIG STRM MGMT	1892.	43.	1892.	43.	0.	0.
UNDESIG LAKE MGMT	1215.	30.	1061.	26.	154.	4.
DRAINAGE PRESSURE ESTIMATES:						
	50644.	1331.	47568.	1266.	3076.	65.
MILK DR						
SALMONID STREAM	2826.	77.	2712.	74.	114.	3.
SALMONID LAKE	23468.	631.	22936.	617.	532.	14.
NONSALMONID STREAM	5454.	145.	5378.	143.	76.	2.
NONSALMONID LAKE	8161.	225.	7954.	219.	207.	6.
UNDESIG STRM MGMT	123.	3.	123.	3.	0.	0.
UNDESIG LAKE MGMT	1216.	30.	1216.	30.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	41248.	1111.	40319.	1086.	929.	25.
LOWER MISSOURI DR						
SALMONID STREAM	11723.	316.	9016.	247.	2707.	69.
SALMONID LAKE	16936.	457.	15850.	431.	1086.	26.
NONSALMONID STREAM	29875.	825.	25977.	725.	3898.	100.
NONSALMONID LAKE	96938.	2568.	81197.	2185.	15741.	383.
UNDESIG STRM MGMT	476.	12.	400.	10.	76.	2.
UNDESIG LAKE MGMT	2675.	77.	2350.	69.	325.	8.
DRAINAGE PRESSURE ESTIMATES:						
	158623.	4255.	134790.	3667.	23833.	588.
UPPER MISSOURI DR						
SALMONID STREAM	163817.	4207.	128974.	3397.	34843.	810.
SALMONID LAKE	183232.	4856.	167629.	4478.	15603.	378.
NONSALMONID STREAM	10185.	281.	8923.	249.	1262.	32.
NONSALMONID LAKE	258.	8.	258.	8.	0.	0.
UNDESIG STRM MGMT	1616.	37.	922.	24.	694.	13.
UNDESIG LAKE MGMT	7078.	189.	5870.	151.	1208.	38.
DRAINAGE PRESSURE ESTIMATES:						
	366186.	9578.	312576.	8307.	53610.	1271.

Table 9. Angling pressure in angler days by drainage by water type for the 1999 "summer" angling season May '99 through September '99 (continued)

MUSSELSHELL DR						
SALMONID STREAM	8824.	231.	8139.	213.	685.	18.
SALMONID LAKE	13811.	361.	12437.	333.	1374.	28.
NONSALMONID STREAM	92.	2.	92.	2.	0.	0.
NONSALMONID LAKE	5018.	133.	4070.	116.	948.	17.
UNDESIG STRM MGMT	341.	9.	341.	9.	0.	0.
UNDESIG LAKE MGMT	1488.	30.	839.	20.	649.	10.
DRAINAGE PRESSURE ESTIMATES:						
	29574.	766.	25918.	693.	3656.	73.
ST MARY DR						
SALMONID STREAM	121.	3.	45.	1.	76.	2.
SALMONID LAKE	6384.	159.	5864.	148.	520.	11.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	216.	5.	216.	5.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	83.	2.	83.	2.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	6804.	169.	6208.	156.	596.	13.
SUN DR						
SALMONID STREAM	12264.	315.	7515.	203.	4749.	112.
SALMONID LAKE	17958.	485.	17094.	462.	864.	23.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	79.	2.	79.	2.	0.	0.
UNDESIG STRM MGMT	198.	6.	198.	6.	0.	0.
UNDESIG LAKE MGMT	603.	15.	489.	12.	114.	3.
DRAINAGE PRESSURE ESTIMATES:						
	31102.	823.	25375.	685.	5727.	138.
LOWER YELLOWSTONE DR						
SALMONID STREAM	4487.	113.	3034.	81.	1453.	32.
SALMONID LAKE	4448.	120.	4305.	118.	143.	2.
NONSALMONID STREAM	34242.	927.	29486.	804.	4756.	123.
NONSALMONID LAKE	28502.	767.	20757.	585.	7745.	182.
UNDESIG STRM MGMT	306.	7.	268.	6.	38.	1.
UNDESIG LAKE MGMT	2875.	75.	2337.	67.	538.	8.
DRAINAGE PRESSURE ESTIMATES:						
	74860.	2009.	60187.	1661.	14673.	348.
UPPER YELLOWSTONE DR						
SALMONID STREAM	262706.	6544.	150566.	3872.	112140.	2672.
SALMONID LAKE	81744.	2055.	69221.	1765.	12523.	290.
NONSALMONID STREAM	11167.	308.	10151.	281.	1016.	27.
NONSALMONID LAKE	1886.	52.	1696.	47.	190.	5.
UNDESIG STRM MGMT	756.	21.	262.	8.	494.	13.
UNDESIG LAKE MGMT	3961.	110.	1652.	49.	2309.	61.
DRAINAGE PRESSURE ESTIMATES:						
	362220.	9090.	233548.	6022.	128672.	3068.
TOTAL						
SALMONID STREAM	1267701.	31464.	779785.	20126.	487916.	11338.
SALMONID LAKE	823091.	20989.	645343.	16938.	177748.	4051.
NONSALMONID STREAM	97060.	2655.	86052.	2371.	11008.	284.
NONSALMONID LAKE	162301.	4346.	136002.	3719.	26299.	627.
UNDESIG STRM MGMT	23060.	576.	9778.	239.	13282.	337.
UNDESIG LAKE MGMT	32719.	856.	24212.	649.	8507.	207.
STATEWIDE PRESSURE ESTIMATES:						
	2405932.	60886.	1681172.	44042.	724760.	16844.

Angler Satisfaction Ratings - Summer

The average rating overall for summer was 2.94 with residents and nonresidents rating their angling experience at 2.86 and 3.11 respectively (Table 10). Individual water satisfaction ratings for the "summer" season are given in a separate report "Montana Angler Satisfaction Ratings 1999".

Region 7 had the highest overall satisfaction rating of 3.09 while regions 1 and 6 had the lowest satisfaction rating of 2.83. Nonresidents were higher or equal in their satisfaction ratings than residents for all the regions except region 6.

Table 10. Angler satisfaction ratings by region by water type for the 1999 "summer angling season of May '99 through September '99

Reg	Water Type	TOTAL					RESIDENT					NONRESIDENT				
		Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's
1	SALMONID STREAM	2.90	257	252	409	233 202	2.87	171	158	261	149 118	2.97	86	94	148	84 84
	SALMONID LAKE	2.78	462	345	586	305 269	2.71	345	266	402	199 175	2.97	117	79	184	106 94
	NONSALMONID STREAM	3.00	0	0	1	0 0	3.00	0	0	1	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	2.97	29	16	32	22 24	2.98	26	14	30	22 21	2.80	3	2	2	0 3
	UNDESIG STRM MGMT	2.60	10	1	6	5 3	3.00	3	1	2	3 2	2.29	7	0	4	2 1
	UNDESIG LAKE MGMT	2.69	20	9	9	9 11	2.70	12	7	6	4 8	2.67	8	2	3	5 3
	Regional Ratings:	2.83	778	623	1043	574 509	2.78	557	446	702	377 324	2.95	221	177	341	197 185
2	SALMONID STREAM	3.01	406	489	908	521 400	3.01	232	295	570	327 222	3.01	174	194	338	194 178
	SALMONID LAKE	2.61	267	162	224	145 102	2.60	227	129	193	115 85	2.68	40	33	31	30 17
	NONSALMONID STREAM	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	UNDESIG STRM MGMT	3.60	2	0	5	3 5	3.75	0	0	2	1 1	3.55	2	0	3	2 4
	UNDESIG LAKE MGMT	2.57	13	3	4	4 6	2.87	8	2	4	3 6	1.57	5	1	0	1 0
	Regional Ratings:	2.91	688	654	1141	673 513	2.88	467	426	769	446 314	2.96	221	228	372	227 199
3	SALMONID STREAM	3.14	598	690	1341	977 755	3.11	300	347	704	486 355	3.16	298	343	637	491 400
	SALMONID LAKE	2.61	520	329	464	258 209	2.60	380	254	324	188 155	2.63	140	75	140	70 54
	NONSALMONID STREAM	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	NONSALMONID LAKE	.00	0	0	0	0 0	.00	0	0	0	0 0	.00	0	0	0	0 0
	UNDESIG STRM MGMT	3.32	5	4	10	10 8	3.28	2	2	5	4 4	3.37	3	1	5	6 4
	UNDESIG LAKE MGMT	3.91	4	8	11	8 33	3.71	2	5	6	1 14	4.06	2	3	5	7 19
	Regional Ratings:	3.00	1127	1031	1826	1253 1005	2.93	684	609	1039	679 528	3.08	443	422	787	574 477
4	SALMONID STREAM	3.13	277	263	492	376 330	3.05	226	223	403	283 230	3.40	51	40	89	93 100
	SALMONID LAKE	2.67	472	283	425	243 224	2.65	438	260	393	212 200	2.93	34	21	32	31 24
	NONSALMONID STREAM	2.50	59	61	79	25 17	2.51	48	55	72	21 14	2.42	11	6	7	4 3
	NONSALMONID LAKE	2.61	54	35	46	29 21	2.63	48	33	45	24 21	2.36	6	2	1	5 0
	UNDESIG STRM MGMT	3.37	4	3	6	7 7	3.32	4	3	4	4 7	3.60	0	0	2	3 0
	UNDESIG LAKE MGMT	3.32	12	21	20	19 29	3.18	10	21	17	16 20	4.00	2	0	3	3 9
	Regional Ratings:	2.88	878	666	1068	699 628	2.82	774	597	934	560 492	3.23	104	69	134	139 136
5	SALMONID STREAM	3.23	281	291	546	432 444	2.94	201	209	377	239 150	3.66	80	82	169	193 294
	SALMONID LAKE	2.78	188	165	257	137 109	2.73	168	142	205	115 85	3.05	20	23	52	22 24
	NONSALMONID STREAM	2.37	39	22	27	11 10	2.41	33	18	27	9 9	2.08	6	4	0	2 1
	NONSALMONID LAKE	2.79	5	5	8	2 4	2.75	4	5	6	2 3	3.00	1	0	2	0 1
	UNDESIG STRM MGMT	3.29	1	0	3	2 1	2.67	1	0	1	1 0	3.75	0	0	2	1 1
	UNDESIG LAKE MGMT	3.75	4	2	8	7 15	3.76	3	1	2	2 9	3.74	1	1	6	5 6
	Regional Ratings:	3.08	518	485	849	591 583	2.84	410	375	618	368 256	3.55	108	110	231	223 327
6	SALMONID STREAM	2.96	9	6	16	14 4	2.98	8	5	13	14 3	2.83	1	1	3	0 1
	SALMONID LAKE	2.99	45	33	98	55 33	3.00	43	32	95	52 33	2.78	2	1	3	3 0
	NONSALMONID STREAM	2.90	36	32	63	42 21	2.94	31	29	57	40 20	2.47	5	3	6	2 1
	NONSALMONID LAKE	2.73	173	131	244	121 76	2.74	140	117	209	103 66	2.62	33	14	35	18 10
	UNDESIG STRM MGMT	1.50	1	1	0	0 0	1.50	1	1	0	0 0	.00	0	0	0	0 0
	UNDESIG LAKE MGMT	3.75	2	3	4	5 10	3.75	2	3	4	5 10	.00	0	0	0	0 0
	Regional Ratings:	2.83	266	206	425	237 144	2.86	225	187	378	214 132	2.62	41	19	47	23 12

Table 10. Angler satisfaction ratings by region by water type for the 1999 "summer angling season of May '99 through September '99 (continued)

Reg	Water Type	TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's
7	SALMONID STREAM	3.40	3	2	15	8	7	3.42	2	2	11	5	6	3.33	1	0	4	3	1
	SALMONID LAKE	3.35	6	6	14	9	13	3.36	6	6	13	9	13	3.00	0	0	1	0	0
	NONSALMONID STREAM	2.97	54	50	80	60	44	2.82	49	48	60	51	26	3.61	5	2	20	9	18
	NONSALMONID LAKE	3.10	35	48	93	50	48	3.12	29	37	73	40	41	3.02	6	11	20	10	7
	UNDESIG STRM MGMT	3.29	0	1	4	1	1	3.00	0	1	4	1	0	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.50	2	2	7	5	6	3.45	2	2	6	5	5	4.00	0	0	1	0	1
Regional Ratings:		3.09	100	109	213	133	119	3.04	88	96	167	111	91	3.34	12	13	46	22	28
Total	SALMONID STREAM	3.10	1831	1993	3727	2561	2142	3.02	1140	1239	2339	1503	1084	3.21	691	754	1388	1058	1058
	SALMONID LAKE	2.71	1960	1323	2068	1152	959	2.68	1607	1091	1625	890	746	2.83	353	232	443	262	213
	NONSALMONID STREAM	2.74	188	165	250	138	92	2.70	161	150	217	121	69	2.95	27	15	33	17	23
	NONSALMONID LAKE	2.81	296	235	423	224	173	2.82	247	206	363	191	152	2.73	49	29	60	33	21
	UNDESIG STRM MGMT	2.98	58	33	75	51	46	3.02	21	11	22	19	18	2.95	37	22	53	32	28
	UNDESIG LAKE MGMT	3.34	57	48	63	57	110	3.26	39	41	45	36	72	3.53	18	7	18	21	38
Statewide Ratings:		2.94	4390	3797	6606	4183	3522	2.86	3215	2738	4611	2760	2141	3.11	1175	1059	1995	1423	1381

Angler satisfaction ratings were summarized by the twenty-two major drainages like those reported under the angling pressure section (Table 11). The ratings ranged from a high of 3.33 for the Little Missouri drainage to a low of 2.45 for the Musselshell drainage.

Table 11. Angler satisfaction ratings by drainage by water type for the 1999 "summer angling season of May '99 through September '99

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor -----			excellent	Avg Rate	poor -----			excellent	Avg Rate	poor -----			excellent			
			1's	2's	3's	4's	5's		1's	2's	3's	4's	5's		1's	2's	3's	4's	5's
BEAVERHEAD DR																			
	SALMONID STREAM	3.47	61	68	165	174	153	3.48	20	29	70	72	58	3.46	41	39	95	102	95
	SALMONID LAKE	2.53	101	66	101	50	28	2.59	55	47	58	32	19	2.44	46	19	43	18	9
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.00	0	0	1	0	0	.00	0	0	0	0	0	3.00	0	0	1	0	0
	UNDESIG LAKE MGMT	4.56	0	0	1	2	6	5.00	0	0	0	0	2	4.43	0	0	1	2	4
Drainage Ratings:		3.15	162	134	268	226	187	3.08	75	76	128	104	79	3.21	87	58	140	122	108
BIG HOLE DR																			
	SALMONID STREAM	3.12	120	126	293	179	144	3.05	71	68	174	90	72	3.20	49	58	119	89	72
	SALMONID LAKE	3.40	17	9	16	22	29	3.36	16	6	12	17	24	3.56	1	3	4	5	5
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	0	1	0	.00	0	0	0	0	0	4.00	0	0	0	1	0
	UNDESIG LAKE MGMT	4.00	0	0	2	0	2	4.33	0	0	1	0	2	3.00	0	0	1	0	0
Drainage Ratings:		3.15	137	135	311	202	175	3.10	87	74	187	107	98	3.22	50	61	124	95	77

Table 11. Angler satisfaction ratings by drainage by water type for the 1999 "summer angling season of May '99 through September '99 (continued)

Drainage	Water type	TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's
BITTERROOT DR																			
	SALMONID STREAM	3.03	130	157	285	188	126	2.95	76	106	194	110	61	3.14	54	51	91	78	65
	SALMONID LAKE	2.49	28	19	15	12	10	2.60	22	13	12	10	10	2.06	6	6	3	2	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	1	2	1	3.50	0	0	1	1	0	4.50	0	0	0	1	1
	UNDESIG LAKE MGMT	2.17	3	1	0	2	0	2.33	1	1	0	1	0	2.00	2	0	0	1	0
Drainage Ratings:		2.98	161	177	301	204	137	2.91	99	120	207	122	71	3.09	62	57	94	82	66
BLACKFOOT DR																			
	SALMONID STREAM	2.86	99	110	176	92	71	2.90	58	64	106	67	39	2.82	41	46	70	25	32
	SALMONID LAKE	2.32	131	67	77	41	27	2.31	114	56	69	34	23	2.36	17	11	8	7	4
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.33	0	0	1	0	2	3.00	0	0	1	0	0	5.00	0	0	0	0	2
	UNDESIG LAKE MGMT	3.33	2	0	3	1	3	3.33	2	0	3	1	3	.00	0	0	0	0	0
Drainage Ratings:		2.67	232	177	257	134	103	2.63	174	120	179	102	65	2.75	58	57	78	32	38
LOWER CLARK FORK DR																			
	SALMONID STREAM	2.91	124	162	266	120	110	2.89	70	96	163	66	59	2.95	54	66	103	54	51
	SALMONID LAKE	2.63	97	68	93	48	42	2.64	81	58	78	41	36	2.57	16	10	15	7	6
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.56	1	0	4	1	3	4.67	0	0	0	1	2	3.00	1	0	4	0	1
	UNDESIG LAKE MGMT	2.89	3	1	1	2	2	3.33	1	1	1	1	2	2.00	2	0	0	1	0
Drainage Ratings:		2.83	225	231	364	171	157	2.80	152	155	242	109	99	2.89	73	76	122	62	58
UPPER CLARK FORK DR																			
	SALMONID STREAM	3.14	111	116	278	164	146	3.19	64	65	173	107	91	3.07	47	51	105	57	55
	SALMONID LAKE	2.82	101	71	127	88	53	2.79	84	55	108	67	40	2.97	17	16	19	21	13
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	2.80	2	0	1	1	1	3.00	0	0	1	0	0	2.75	2	0	0	1	1
	UNDESIG LAKE MGMT	2.36	6	1	1	0	3	2.75	4	0	1	0	3	1.33	2	1	0	0	0
Drainage Ratings:		3.02	220	188	407	253	203	3.02	152	120	283	174	134	3.03	68	68	124	79	69
LOWER FLATHEAD DR																			
	SALMONID STREAM	2.63	116	110	134	74	46	2.57	80	68	80	44	28	2.73	36	42	54	30	18
	SALMONID LAKE	2.70	253	201	315	145	125	2.68	182	159	224	106	86	2.76	71	42	91	39	39
	NONSALMONID STREAM	3.00	0	0	1	0	0	3.00	0	0	1	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	3.03	24	15	26	20	23	3.01	23	13	25	20	20	3.29	1	2	1	0	3
	UNDESIG STRM MGMT	2.67	3	1	1	4	0	2.80	1	1	1	2	0	2.50	2	0	0	2	0
	UNDESIG LAKE MGMT	2.39	11	7	3	2	5	2.35	8	5	3	0	4	2.50	3	2	0	2	1
Drainage Ratings:		2.70	407	334	480	245	199	2.67	294	246	334	172	138	2.75	113	88	146	73	61
UPPER FLATHEAD DR																			
	SALMONID STREAM	3.13	33	44	75	58	42	3.08	24	26	43	40	23	3.21	9	18	32	18	19
	SALMONID LAKE	2.58	49	22	29	16	23	2.65	41	17	24	14	22	2.19	8	5	5	2	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	1.67	4	0	2	0	0	2.00	1	0	1	0	0	1.50	3	0	1	0	0
	UNDESIG LAKE MGMT	2.78	7	2	1	4	4	2.78	3	2	0	2	2	2.78	4	0	1	2	2
Drainage Ratings:		2.91	93	68	107	78	69	2.88	69	45	68	56	47	2.96	24	23	39	22	22

Table 11. Angler satisfaction ratings by drainage by water type for the 1999 "summer angling season of May '99 through September '99 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's
GALLATIN DR	SALMONID STREAM	3.11	89	128	219	176	103	3.18	45	63	144	104	63	3.00	44	65	75	72	40
	SALMONID LAKE	2.59	49	25	30	23	20	2.63	37	19	23	22	14	2.47	12	6	7	1	6
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.31	3	1	2	3	4	3.40	1	1	0	1	2	3.25	2	0	2	2	2
	UNDESIG LAKE MGMT	3.60	1	1	3	1	4	3.43	1	1	2	0	3	4.00	0	0	1	1	1
	Drainage Ratings:	3.03	142	155	254	203	131	3.07	84	84	169	127	82	2.96	58	71	85	76	49
JEFFERSON DR	SALMONID STREAM	3.01	35	30	57	32	35	3.06	29	21	47	28	30	2.79	6	9	10	4	5
	SALMONID LAKE	2.61	31	13	22	18	10	2.63	29	12	20	17	10	2.33	2	1	2	1	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	2.83	1	1	2	2	0	3.00	0	1	1	1	0	2.67	1	0	1	1	0
	UNDESIG LAKE MGMT	3.86	1	1	0	1	4	5.00	0	0	0	0	1	3.67	1	1	0	1	3
	Drainage Ratings:	2.90	68	45	81	53	49	2.91	58	34	68	46	41	2.84	10	11	13	7	8
KOOTENAI DR	SALMONID STREAM	3.12	51	42	103	59	61	3.14	32	24	71	43	39	3.08	19	14	31	16	22
	SALMONID LAKE	3.17	70	59	154	99	91	2.98	48	37	80	41	43	3.39	22	22	74	58	48
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.53	5	1	6	2	1	2.75	3	1	1	0	1	1.67	2	0	1	0	0
	UNDESIG STRM MGMT	2.60	2	0	2	0	1	3.00	1	0	0	0	1	2.33	1	0	2	0	0
	UNDESIG LAKE MGMT	3.00	1	0	4	2	0	3.00	1	0	0	0	0	3.00	0	0	2	0	0
	Drainage Ratings:	3.13	129	102	269	162	154	3.04	85	64	114	98	84	3.27	44	36	110	74	70
LITTLE MISSOURI DR	SALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	SALMONID LAKE	3.33	1	0	0	1	1	3.33	1	0	0	1	1	1.00	0	0	0	0	0
	NONSALMONID STREAM	3.29	0	1	4	1	1	3.29	0	1	4	1	1	1.00	0	0	0	0	0
	NONSALMONID LAKE	4.00	0	0	1	1	1	4.00	0	0	1	1	1	1.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.00	0	0	0	1	0	4.00	0	0	0	1	0	.00	0	0	0	0	0
	Drainage Ratings:	3.50	1	1	5	4	3	3.50	1	1	5	4	3	.00	0	0	0	0	0
MADISON DR	SALMONID STREAM	3.06	177	198	357	250	184	3.04	64	74	10	90	64	3.07	113	124	230	160	120
	SALMONID LAKE	2.81	97	66	113	67	59	2.84	47	28	49	30	30	2.79	50	38	64	35	29
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.25	1	1	2	3	1	3.25	1	0	1	1	1	3.25	0	1	1	2	0
	UNDESIG LAKE MGMT	3.22	1	2	2	2	2	3.13	1	2	2	1	2	4.00	0	0	0	1	0
	Drainage Ratings:	3.00	276	267	474	322	246	2.98	113	104	179	124	97	3.01	163	163	295	198	149
MARIAS DR	SALMONID STREAM	3.04	8	7	15	7	9	3.11	6	6	12	6	8	2.75	2	1	3	1	1
	SALMONID LAKE	3.05	46	35	72	42	48	3.02	43	31	70	37	42	3.35	3	4	2	5	6
	NONSALMONID STREAM	2.23	15	12	11	4	2	2.23	15	12	11	4	2	.00	0	0	0	0	0
	NONSALMONID LAKE	2.91	16	18	31	23	9	2.89	14	18	31	18	9	3.14	2	0	0	5	0
	UNDESIG STRM MGMT	3.75	0	1	1	0	2	3.75	0	1	1	0	2	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	2.87	2	4	4	4	1	2.58	2	4	3	3	0	4.00	0	0	1	1	1
	Drainage Ratings:	2.94	87	77	134	80	71	2.91	80	72	128	68	63	3.24	7	5	6	12	8

Table 11. Angler satisfaction ratings by drainage by water type for the 1999 "summer angling season of May '99 through September '99 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's
MILK DR	SALMONID STREAM	3.03	4	5	11	12	1	3.06	4	4	10	12	1	2.50	0	1	1	0	0
	SALMONID LAKE	3.00	36	28	84	44	28	3.01	34	27	82	41	28	2.75	2	1	2	3	0
	NONSALMONID STREAM	3.02	8	7	13	10	7	3.07	7	7	13	10	7	1.00	1	0	0	0	0
	NONSALMONID LAKE	2.56	20	20	15	13	7	2.60	18	20	14	13	7	1.67	2	0	1	0	0
	UNDESIG STRM MGMT	5.00	0	0	0	0	1	5.00	0	0	0	0	1	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.15	0	1	2	4	6	4.15	0	1	2	4	6	.00	0	0	0	0	0
	Drainage Ratings:	2.96	68	61	125	83	50	2.99	63	59	121	80	50	2.36	5	2	4	3	0
LOWER MISSOURI DR	SALMONID STREAM	3.00	19	15	35	23	15	2.96	16	11	26	20	10	3.13	3	4	9	3	5
	SALMONID LAKE	2.95	34	23	52	35	24	2.97	32	20	47	33	23	2.77	2	3	5	2	1
	NONSALMONID STREAM	2.72	51	51	82	40	22	2.76	40	44	73	36	19	2.44	11	7	9	4	3
	NONSALMONID LAKE	2.75	156	114	235	111	73	2.77	125	100	200	93	63	2.65	31	14	35	18	10
	UNDESIG STRM MGMT	2.80	1	2	0	1	1	2.50	1	2	0	0	1	4.00	0	0	0	1	0
	UNDESIG LAKE MGMT	3.09	7	6	7	7	8	3.20	5	6	5	6	8	2.40	2	0	2	1	0
	Drainage Ratings:	2.80	268	211	411	217	143	2.83	219	183	351	188	124	2.68	49	28	60	29	19
UPPER MISSOURI DR	SALMONID STREAM	3.11	258	244	433	342	293	3.04	214	209	358	261	210	3.39	44	35	75	81	83
	SALMONID LAKE	2.41	527	314	385	184	137	2.40	477	297	344	158	124	2.56	50	17	41	26	13
	NONSALMONID STREAM	2.66	19	25	36	13	8	2.68	15	23	32	11	7	2.54	4	2	4	2	1
	NONSALMONID LAKE	4.00	0	1	1	1	3	4.00	0	1	1	1	3	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.26	3	2	5	5	4	3.07	3	2	3	3	3	3.80	0	0	2	2	1
	UNDESIG LAKE MGMT	3.40	6	13	10	8	20	3.13	6	13	10	7	12	4.89	0	0	0	1	8
	Drainage Ratings:	2.78	813	599	870	553	465	2.71	715	545	748	441	359	3.15	98	54	122	112	106
MUSSELSHELL DR	SALMONID STREAM	3.34	5	16	25	20	17	3.31	5	15	21	15	16	3.55	0	1	4	5	1
	SALMONID LAKE	2.91	37	29	41	25	32	2.89	33	29	39	23	28	3.17	4	0	2	2	4
	NONSALMONID STREAM	1.00	2	0	0	0	0	1.00	2	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	1.83	35	14	8	2	4	1.88	31	12	8	2	4	1.33	4	2	0	0	0
	UNDESIG STRM MGMT	2.67	1	0	1	1	0	2.67	1	0	1	1	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.33	0	1	2	1	8	4.44	0	1	1	0	7	4.00	0	0	1	1	1
	Drainage Ratings:	2.85	80	60	77	49	61	2.83	72	57	70	41	55	3.03	8	3	7	8	6
ST MARY DR	SALMONID STREAM	1.00	2	0	0	0	0	1.00	1	0	0	0	0	1.00	1	0	0	0	0
	SALMONID LAKE	3.39	8	8	10	11	17	3.39	7	7	9	7	16	3.38	1	1	1	4	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	3.00	1	0	0	0	1	3.00	1	0	0	0	1	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.50	0	0	0	1	1	4.50	0	0	0	1	1	.00	0	0	0	0	0
	Drainage Ratings:	3.33	11	8	10	12	19	3.37	9	7	9	8	18	3.11	2	1	1	4	1
SUN DR	SALMONID STREAM	3.29	13	18	36	20	29	3.12	9	15	25	14	14	3.64	4	3	11	6	15
	SALMONID LAKE	2.86	53	28	60	36	34	2.84	51	25	57	34	31	3.08	2	3	3	2	3
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.50	0	1	1	0	0	2.50	0	1	1	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	1	2	1	4.00	0	0	1	2	1	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.14	0	1	1	1	4	4.00	0	1	1	1	3	5.00	0	0	0	0	1
	Drainage Ratings:	3.04	66	48	99	59	68	2.95	60	42	85	51	49	3.53	6	6	14	8	19

Table 11. Angler satisfaction ratings by drainage by water type for the 1999 "summer angling season of May '99 through September '99 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's
LOWER YELLOWSTONE DR	SALMONID STREAM	3.40	3	2	15	8	7	3.42	2	2	11	5	6	3.33	1	0	4	3	1
	SALMONID LAKE	3.34	5	5	13	7	11	3.35	5	5	12	7	11	3.00	0	0	1	0	0
	NONSALMONID STREAM	2.96	54	47	76	59	42	2.80	49	45	56	50	24	3.61	5	2	20	9	18
	NONSALMONID LAKE	3.11	34	47	91	49	48	3.13	28	36	71	39	41	3.02	6	11	20	10	7
	UNDESIG STRM MGMT	3.50	0	0	3	0	1	3.00	0	0	3	0	0	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.58	1	2	7	3	6	3.53	1	2	6	3	5	4.00	0	0	1	0	1
	Drainage Ratings:	3.09	97	103	205	126	115	3.03	85	90	159	104	87	3.34	12	13	46	22	28
UPPER YELLOWSTONE DR	SALMONID STREAM	3.20	373	395	749	563	550	2.95	250	269	483	309	192	3.53	123	126	266	254	358
	SALMONID LAKE	2.78	189	167	259	138	110	2.73	168	143	208	116	85	3.04	21	24	51	22	25
	NONSALMONID STREAM	2.37	39	22	27	11	10	2.41	33	18	27	9	9	2.08	6	4	0	2	1
	NONSALMONID LAKE	2.73	5	4	8	2	3	2.67	4	4	6	2	2	3.00	1	0	2	0	1
	UNDESIG STRM MGMT	3.30	1	1	4	2	2	2.60	1	1	2	1	0	4.00	0	0	2	1	2
	UNDESIG LAKE MGMT	3.77	5	4	9	8	21	3.50	3	1	2	2	6	3.88	2	3	7	6	15
	Drainage Ratings:	3.08	612	593	1056	724	696	2.86	459	436	728	439	294	3.47	153	157	328	285	402
Total	SALMONID STREAM	3.10	1831	1993	3727	2561	2142	3.02	1140	1239	2339	1503	1084	3.21	691	754	1388	1058	1058
	SALMONID LAKE	2.71	1960	1323	2068	1152	959	2.68	1607	1091	1625	890	746	2.83	353	232	443	262	213
	NONSALMONID STREAM	2.74	188	165	250	138	92	2.70	161	150	217	121	69	2.95	27	15	33	17	23
	NONSALMONID LAKE	2.81	296	235	423	224	173	2.82	247	206	363	191	152	2.73	49	29	60	33	21
	UNDESIG STRM MGMT	2.98	58	33	75	51	46	3.02	21	11	22	19	18	2.95	37	22	53	32	28
	UNDESIG LAKE MGMT	3.34	57	48	63	57	110	3.26	39	41	45	36	72	3.53	18	7	18	21	38
	Statewide Ratings:	2.94	4390	3797	6606	4183	3522	2.86	3215	2738	4611	2760	2141	3.11	1175	1059	1995	1423	1381

1999 WINTER

The "winter" season for angling is from March through April and October through February of the following year. In 1999, 776,910 angler days (24.4%) of the annual fishing pressure occurred during this period (Table 12). Residents accounted for 91.3% of the total angling pressure for the "winter" season. Angling pressure was directed towards salmonid streams with 49.0% of the "winter" use. Salmonid lakes accounted for 36.6% of the use during this same time period.

The pressure from region to region ranged from a high of 199,745 angler days for Region 3 to a low of 25,802 angler days for Region 7. Angling pressure by residents for this period for each FWP region ranged from a low of 83.0% for region 7 to a high of 98.6% for region 6.

Winter angling pressure (Table 13) by drainage ranged from 153,791 angler days for the Upper Missouri River drainage to 280 angler days for the Little Missouri River drainage in Eastern Montana. Residents accounted for as low as 74.3% of the pressure in the Little Missouri River drainage to a high of 100% of the pressure in the upper Flathead River and St. Mary River drainages.

Table 12. Angling pressure in angler days by region by water type for the 1999 "winter" season of March '99 through April '99 and October '99 through February 2000.

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

REG	WATER TYPE	-----TOTALS-----		----RESIDENTS----		--NON-RESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
1	SALMONID STREAM	33208.	557.	29713.	512.	3495.	45.
	SALMONID LAKE	56011.	928.	51710.	893.	4301.	35.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	10010.	129.	9725.	127.	285.	2.
	UNDESIG STRM MGMT	310.	7.	310.	7.	0.	0.
	UNDESIG LAKE MGMT	1980.	29.	1980.	29.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	101519.	1650.	93438.	1568.	8081.	82.
2	SALMONID STREAM	83049.	1502.	73280.	1308.	9769.	194.
	SALMONID LAKE	28481.	395.	28282.	391.	199.	4.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	373.	8.	373.	8.	0.	0.
	UNDESIG LAKE MGMT	496.	10.	496.	10.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	112399.	1915.	102431.	1717.	9968.	198.
3	SALMONID STREAM	112633.	1892.	95138.	1641.	17495.	251.
	SALMONID LAKE	86150.	1296.	78938.	1202.	7212.	94.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	393.	10.	393.	10.	0.	0.
	UNDESIG LAKE MGMT	569.	12.	497.	11.	72.	1.
	REGIONAL PRESSURE ESTIMATES:	199745.	3210.	174966.	2864.	24779.	346.
4	SALMONID STREAM	69275.	1294.	64228.	1208.	5047.	86.
	SALMONID LAKE	70606.	1282.	69789.	1275.	817.	7.
	NONSALMONID STREAM	11207.	206.	10338.	194.	869.	12.
	NONSALMONID LAKE	12847.	173.	12847.	173.	0.	0.
	UNDESIG STRM MGMT	745.	7.	443.	5.	302.	2.
	UNDESIG LAKE MGMT	4055.	62.	4028.	61.	27.	1.
	REGIONAL PRESSURE ESTIMATES:	168735.	3024.	161673.	2916.	7062.	108.
5	SALMONID STREAM	79857.	1248.	69691.	1106.	10166.	142.
	SALMONID LAKE	28761.	480.	26480.	451.	2281.	29.
	NONSALMONID STREAM	7099.	123.	7099.	123.	0.	0.
	NONSALMONID LAKE	95.	3.	95.	3.	0.	0.
	UNDESIG STRM MGMT	473.	6.	473.	6.	0.	0.
	UNDESIG LAKE MGMT	32.	1.	32.	1.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	116317.	1861.	103870.	1690.	12447.	171.

Table 12. Angling pressure in angler days by region by water type for the 1999 "winter" season of March '99 through April '99 and October '99 through February 2000 (continued)

6	SALMONID STREAM	1304.	30.	1304.	30.	0.	0.
	SALMONID LAKE	11360.	175.	11207.	174.	153.	1.
	NONSALMONID STREAM	11610.	220.	11610.	220.	0.	0.
	NONSALMONID LAKE	25919.	416.	25050.	404.	869.	12.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	1497.	23.	1497.	23.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	51690.	864.	50668.	851.	1022.	13.
7	SALMONID STREAM	1297.	24.	710.	14.	587.	10.
	SALMONID LAKE	2562.	43.	2490.	42.	72.	1.
	NONSALMONID STREAM	10449.	199.	10128.	187.	321.	12.
	NONSALMONID LAKE	9936.	176.	6539.	117.	3397.	59.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	1558.	29.	1558.	29.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	25802.	471.	21425.	389.	4377.	82.
TOTAL	SALMONID STREAM	380623.	6547.	334064.	5819.	46559.	728.
	SALMONID LAKE	283931.	4599.	268896.	4428.	15035.	171.
	NONSALMONID STREAM	40365.	748.	39175.	724.	1190.	24.
	NONSALMONID LAKE	58807.	897.	54256.	824.	4551.	73.
	UNDESIG STRM MGMT	2997.	51.	2695.	49.	302.	2.
	UNDESIG LAKE MGMT	10187.	166.	10088.	164.	99.	2.
	STATEWIDE PRESSURE ESTIMATES:	776910.	13008.	709174.	12008.	67736.	1000.

Table 13. Angling pressure in angler days by drainage by water type for the 1999 "winter" angling season March '99 through April '99 and October '99 through February 2000

TOTAL PRESSURE ESTIMATES THROUGH SUMMATION

DRAIN	WATER TYPE	-----TOTALS-----		----RESIDENTS----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
BEAVERHEAD DR							
	SALMONID STREAM	8951.	161.	6511.	121.	2440.	40.
	SALMONID LAKE	25377.	359.	21164.	299.	4213.	60.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
	DRAINAGE PRESSURE ESTIMATES:	34328.	520.	27675.	420.	6653.	100.
BIG HOLE DR							
	SALMONID STREAM	13382.	222.	11089.	190.	2293.	32.
	SALMONID LAKE	64.	2.	64.	2.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
	DRAINAGE PRESSURE ESTIMATES:	13446.	224.	11153.	192.	2293.	32.

Table 13. Angling pressure in angler days by drainage by water type for the 1999 "winter" angling season March '99 through April '99 and October '99 through February 2000 (continued)

BITTERROOT DR						
SALMONID STREAM	38183.	707.	32957.	607.	5226.	100.
SALMONID LAKE	734.	15.	734.	15.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	222.	5.	222.	5.	0.	0.
UNDESIG LAKE MGMT	88.	2.	88.	2.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	39227.	729.	34001.	629.	5226.	100.
BLACKFOOT DR						
SALMONID STREAM	9672.	151.	9252.	137.	420.	14.
SALMONID LAKE	6179.	112.	6152.	111.	27.	1.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	133.	3.	133.	3.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	15984.	266.	15537.	251.	447.	15.
LOWER CLARK FORK DR						
SALMONID STREAM	22791.	400.	19403.	348.	3388.	52.
SALMONID LAKE	8772.	163.	8745.	162.	27.	1.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	285.	7.	285.	7.	0.	0.
UNDESIG LAKE MGMT	243.	4.	243.	4.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	32091.	574.	28676.	521.	3415.	53.
UPPER CLARK FORK DR						
SALMONID STREAM	20548.	365.	17639.	307.	2909.	58.
SALMONID LAKE	21358.	263.	21213.	261.	145.	2.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	88.	1.	88.	1.	0.	0.
UNDESIG LAKE MGMT	95.	3.	95.	3.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	42089.	632.	39035.	572.	3054.	60.
LOWER FLATHEAD DR						
SALMONID STREAM	13617.	248.	12736.	238.	881.	10.
SALMONID LAKE	33433.	568.	30852.	546.	2581.	22.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	9966.	128.	9681.	126.	285.	2.
UNDESIG STRM MGMT	44.	1.	44.	1.	0.	0.
UNDESIG LAKE MGMT	1917.	27.	1917.	27.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	58977.	972.	55230.	938.	3747.	34.
UPPER FLATHEAD DR						
SALMONID STREAM	1824.	43.	1824.	43.	0.	0.
SALMONID LAKE	3282.	47.	3282.	47.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	44.	1.	44.	1.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	5150.	91.	5150.	91.	0.	0.

Table 13. Angling pressure in angler days by drainage by water type for the 1999 "winter" angling season March '99 through April '99 and October '99 through February 2000 (continued)

GALLATIN DR						
SALMONID STREAM	27573.	467.	24122.	414.	3451.	53.
SALMONID LAKE	5659.	91.	5179.	86.	480.	5.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	222.	5.	222.	5.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	33454.	563.	29523.	505.	3931.	58.
JEFFERSON DR						
SALMONID STREAM	8145.	142.	8073.	141.	72.	1.
SALMONID LAKE	4373.	75.	4373.	75.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	226.	4.	154.	3.	72.	1.
DRAINAGE PRESSURE ESTIMATES:						
	12744.	221.	12600.	219.	144.	2.
KOOTENAI DR						
SALMONID STREAM	9622.	145.	9182.	140.	440.	5.
SALMONID LAKE	10734.	155.	9014.	142.	1720.	13.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	44.	1.	44.	1.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	20400.	301.	18240.	283.	2160.	18.
LITTLE MISSOURI DR						
SALMONID STREAM	0.	0.	0.	0.	0.	0.
SALMONID LAKE	72.	1.	0.	0.	72.	1.
NONSALMONID STREAM	208.	3.	208.	3.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	280.	4.	208.	3.	72.	1.
MADISON DR						
SALMONID STREAM	35459.	565.	28852.	470.	6607.	95.
SALMONID LAKE	7312.	114.	5155.	90.	2157.	24.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	241.	6.	241.	6.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	43012.	685.	34248.	566.	8764.	119.
MARIAS DR						
SALMONID STREAM	1062.	15.	1062.	15.	0.	0.
SALMONID LAKE	8921.	130.	8157.	125.	764.	5.
NONSALMONID STREAM	1714.	49.	1714.	49.	0.	0.
NONSALMONID LAKE	7979.	100.	7979.	100.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	1247.	17.	1247.	17.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	20923.	311.	20159.	306.	764.	5.

Table 13. Angling pressure in angler days by drainage by water type for the 1999 "winter" angling season March '99 through April '99 and October '99 through February 2000 (continued)

MILK DR						
SALMONID STREAM	603.	16.	603.	16.	0.	0.
SALMONID LAKE	8169.	136.	8016.	135.	153.	1.
NONSALMONID STREAM	1678.	36.	1678.	36.	0.	0.
NONSALMONID LAKE	7120.	98.	7120.	98.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	1358.	19.	1358.	19.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	18928.	305.	18775.	304.	153.	1.
LOWER MISSOURI DR						
SALMONID STREAM	3438.	65.	3285.	64.	153.	1.
SALMONID LAKE	9392.	157.	9392.	157.	0.	0.
NONSALMONID STREAM	12749.	241.	11880.	229.	869.	12.
NONSALMONID LAKE	19662.	331.	18793.	319.	869.	12.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	708.	13.	681.	12.	27.	1.
DRAINAGE PRESSURE ESTIMATES:						
	45949.	807.	44031.	781.	1918.	26.
UPPER MISSOURI DR						
SALMONID STREAM	65203.	1230.	60374.	1144.	4829.	86.
SALMONID LAKE	79113.	1357.	78915.	1353.	198.	4.
NONSALMONID STREAM	6676.	100.	6676.	100.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	897.	11.	595.	9.	302.	2.
UNDESIG LAKE MGMT	1902.	29.	1902.	29.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	153791.	2727.	148462.	2635.	5329.	92.
MUSSELSHELL DR						
SALMONID STREAM	1356.	36.	1303.	34.	53.	2.
SALMONID LAKE	3307.	69.	3307.	69.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	3883.	58.	3883.	58.	0.	0.
UNDESIG STRM MGMT	353.	4.	353.	4.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	8899.	167.	8846.	165.	53.	2.
ST MARY DR						
SALMONID STREAM	95.	3.	95.	3.	0.	0.
SALMONID LAKE	3718.	81.	3718.	81.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	3813.	84.	3813.	84.	0.	0.
SUN DR						
SALMONID STREAM	2259.	42.	2042.	39.	217.	3.
SALMONID LAKE	11366.	179.	11366.	179.	0.	0.
NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
NONSALMONID LAKE	122.	2.	122.	2.	0.	0.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	518.	9.	518.	9.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	14265.	232.	14048.	229.	217.	3.

Table 13. Angling pressure in angler days by drainage by water type for the 1999 "winter" angling season March '99 through April '99 and October '99 through February 2000 (continued)

LOWER YELLOWSTONE DR						
SALMONID STREAM	1297.	24.	710.	14.	587.	10.
SALMONID LAKE	2490.	42.	2490.	42.	0.	0.
NONSALMONID STREAM	10241.	196.	9920.	184.	321.	12.
NONSALMONID LAKE	9936.	176.	6539.	117.	3397.	59.
UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
UNDESIG LAKE MGMT	1377.	27.	1377.	27.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	25341.	465.	21036.	384.	4305.	81.
UPPER YELLOWSTONE DR						
SALMONID STREAM	95543.	1500.	82950.	1334.	12593.	166.
SALMONID LAKE	30106.	483.	27608.	451.	2498.	32.
NONSALMONID STREAM	7099.	123.	7099.	123.	0.	0.
NONSALMONID LAKE	95.	3.	95.	3.	0.	0.
UNDESIG STRM MGMT	120.	2.	120.	2.	0.	0.
UNDESIG LAKE MGMT	153.	4.	153.	4.	0.	0.
DRAINAGE PRESSURE ESTIMATES:						
	133116.	2115.	118025.	1917.	15091.	198.
TOTAL						
SALMONID STREAM	380623.	6547.	334064.	5819.	46559.	728.
SALMONID LAKE	283931.	4599.	268896.	4428.	15035.	171.
NONSALMONID STREAM	40365.	748.	39175.	724.	1190.	24.
NONSALMONID LAKE	58807.	897.	54256.	824.	4551.	73.
UNDESIG STRM MGMT	2997.	51.	2695.	49.	302.	2.
UNDESIG LAKE MGMT	10187.	166.	10088.	164.	99.	2.
STATEWIDE PRESSURE ESTIMATES:						
	776910.	13008.	709174.	12008.	67736.	1000.

Angler Satisfaction Ratings - Winter

The average rating overall for winter was 2.89 with residents and nonresidents rating their angling experience at 2.87 and 3.12 respectively (Table 14). Individual water satisfaction ratings for the "summer" season are given in a separate report "Montana Angler Satisfaction Ratings 1999".

Region 2 had the highest overall satisfaction rating of 2.93 while region 6 had the lowest satisfaction rating of 2.75. Nonresidents were always higher in their satisfaction ratings than residents for all regions except regions 6 and 7.

Table 14. Angler satisfaction ratings by region by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000

Reg	Water Type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's
1	SALMONID STREAM	2.85	34	44	53	25	30	2.84	33	42	50	25	27	3.22	1	2	3	0	3
	SALMONID LAKE	2.83	94	66	115	64	61	2.82	92	66	108	61	60	3.08	2	0	7	3	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.39	18	8	14	4	5	2.40	18	7	14	4	5	2.00	0	1	0	0	0
	UNDESIG STRM MGMT	3.50	1	0	1	0	2	3.50	1	0	1	0	2	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	2.62	4	3	2	2	2	2.62	4	3	2	2	2	.00	0	0	0	0	0
	Regional Ratings:	2.80	151	121	185	95	100	2.79	148	118	175	92	96	3.09	3	3	10	3	4
2	SALMONID STREAM	2.97	86	89	168	103	72	2.97	76	72	147	92	59	3.00	10	17	21	11	13
	SALMONID LAKE	2.71	49	29	42	29	24	2.72	49	27	41	29	24	2.33	0	2	1	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	1	2	1	4.00	0	0	1	2	1	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.83	0	0	0	1	5	4.83	0	0	0	1	5	.00	0	0	0	0	0
	Regional Ratings:	2.93	135	118	211	135	102	2.92	125	99	189	124	89	2.97	10	19	22	11	13
3	SALMONID STREAM	3.14	78	132	250	159	115	3.12	74	108	205	129	102	3.21	4	24	45	30	13
	SALMONID LAKE	2.57	131	86	146	57	46	2.57	125	79	136	52	45	2.59	6	7	10	5	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.00	0	1	2	1	0	3.00	0	1	2	1	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.00	1	0	1	0	4	4.60	0	0	1	0	4	1.00	1	0	0	0	0
	Regional Ratings:	2.92	210	219	399	217	165	2.90	199	188	344	182	151	3.07	11	31	55	35	14
4	SALMONID STREAM	3.23	54	73	130	98	93	3.22	53	69	122	90	88	3.46	1	4	8	8	5
	SALMONID LAKE	2.73	126	91	136	72	68	2.73	125	91	134	72	68	2.33	1	0	2	0	0
	NONSALMONID STREAM	2.49	21	20	27	8	6	2.46	21	20	27	8	5	5.00	0	0	0	0	1
	NONSALMONID LAKE	2.54	21	16	22	6	9	2.54	21	16	22	6	9	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.00	1	0	2	0	1	2.33	1	0	2	0	0	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.81	1	5	4	5	12	3.77	1	5	4	5	11	5.00	0	0	0	0	1
	Regional Ratings:	2.92	224	205	321	189	189	2.91	222	201	311	181	181	3.50	2	4	10	8	8
5	SALMONID STREAM	3.06	94	72	139	100	96	3.00	91	67	121	84	83	3.56	3	5	18	16	13
	SALMONID LAKE	2.41	71	41	47	22	21	2.39	67	38	43	21	18	2.73	4	3	4	1	3
	NONSALMONID STREAM	2.70	9	10	15	3	6	2.70	9	10	15	3	6	.00	0	0	0	0	0
	NONSALMONID LAKE	3.50	0	0	1	1	0	3.50	0	0	1	1	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	1	0	0	2	4.00	0	1	0	0	2	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.00	0	0	0	1	0	4.00	0	0	0	1	0	.00	0	0	0	0	0
	Regional Ratings:	2.87	174	124	202	127	125	2.82	167	116	180	110	109	3.39	7	8	22	17	16
6	SALMONID STREAM	2.85	3	1	6	1	2	2.85	3	1	6	1	2	.00	0	0	0	0	0
	SALMONID LAKE	2.83	16	10	19	7	12	2.86	15	10	19	7	12	1.00	1	0	0	0	0
	NONSALMONID STREAM	2.86	15	9	20	10	10	2.86	15	9	20	10	10	.00	0	0	0	0	0
	NONSALMONID LAKE	2.65	31	21	46	12	14	2.66	31	20	45	12	14	2.50	0	1	1	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	2.70	4	2	0	1	3	2.70	4	2	0	1	3	.00	0	0	0	0	0
	Regional Ratings:	2.75	69	43	91	31	41	2.76	68	42	90	31	41	2.00	1	1	1	0	0

Table 14. Angler satisfaction ratings by region by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000 (continued)

Reg	Water Type	TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's	Avg Rate	poor 1's	2's	3's	4's	excellent 5's
7	SALMONID STREAM	2.14	2	2	3	0	0	2.25	1	1	2	0	0	2.00	1	1	1	0	0
	SALMONID LAKE	3.38	1	5	1	5	4	3.47	1	4	1	5	4	2.00	0	1	0	0	0
	NONSALMONID STREAM	2.66	18	12	19	6	10	2.65	18	11	18	5	10	3.00	0	1	1	1	0
	NONSALMONID LAKE	2.97	13	8	20	8	12	3.02	10	5	14	6	10	2.81	3	3	6	2	2
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	3.08	3	2	2	1	4	3.08	3	2	2	1	4	.00	0	0	0	0	0
Regional Ratings:		2.86	37	29	45	20	30	2.88	33	23	37	17	28	2.70	4	6	8	3	2
Total	SALMONID STREAM	3.08	351	413	749	486	408	3.06	331	360	653	421	361	3.23	20	53	96	65	47
	SALMONID LAKE	2.68	488	328	506	256	236	2.68	474	315	482	247	231	2.66	14	13	24	9	5
	NONSALMONID STREAM	2.66	63	51	81	27	32	2.65	63	50	81	26	31	3.50	0	1	1	1	1
	NONSALMONID LAKE	2.65	83	53	103	31	40	2.65	80	48	96	29	38	2.74	3	5	7	2	2
	UNDESIG STRM MGMT	3.55	2	2	6	3	7	3.47	2	2	6	3	6	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.44	13	12	9	11	30	3.45	12	12	9	11	29	3.00	1	0	0	0	1
Statewide Ratings:		2.89	1000	859	1454	814	753	2.87	962	787	1211	737	696	3.12	38	72	128	77	57

Angler satisfaction ratings were summarized by the twenty-two major drainages like those reported under the angling pressure section (Table 15). The ratings ranged from a high of 3.31 for the St. Mary drainage to a low of 1.33 for the Little Missouri drainage.

Table 15. Angler satisfaction ratings by drainage by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's	Avg Rate	poor 1's	2's	3's	excellent 4's 5's			
BEAVERHEAD DR																			
	SALMONID STREAM	3.30	4	12	18	16	11	3.30	4	7	14	10	9	3.29	0	5	4	6	2
	SALMONID LAKE	2.64	32	22	35	17	13	2.72	27	16	31	15	13	2.18	5	6	4	2	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
Drainage Ratings:		2.86	36	34	53	33	24	2.89	31	23	45	25	22	2.74	5	11	8	8	2
BIG HOLE DR																			
	SALMONID STREAM	3.18	10	17	27	19	17	3.20	10	11	19	17	14	3.11	0	6	8	2	3
	SALMONID LAKE	3.00	0	0	1	0	0	3.00	0	0	1	0	0	.00	0	0	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
Drainage Ratings:		3.18	10	17	28	19	17	3.19	10	11	20	17	14	3.11	0	6	8	2	3

Table 15. Angler satisfaction ratings by drainage by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's	Avg Rate	poor 1's	2's	3's	4's	5's
BITTERROOT DR	SALMONID STREAM	3.10	23	39	69	48	29	3.09	21	33	58	41	25	3.17	2	6	11	7	4
	SALMONID LAKE	2.75	3	2	0	0	3	2.75	3	2	0	0	3	.00	0	0	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.50	0	0	1	1	0	3.50	0	0	1	1	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	5.00	0	0	0	0	2	5.00	0	0	0	0	2	.00	0	0	0	0	0
	Drainage Ratings:	3.11	26	41	70	49	34	3.10	24	35	59	42	30	3.17	2	6	11	7	4
BLACKFOOT DR	SALMONID STREAM	2.44	26	11	25	5	8	2.52	22	9	22	5	8	1.89	4	2	3	0	0
	SALMONID LAKE	2.11	29	11	11	5	5	2.12	29	10	11	5	5	2.00	0	1	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	5.00	0	0	0	0	1	5.00	0	0	0	0	1	.00	0	0	0	0	0
	Drainage Ratings:	2.31	55	22	36	10	14	2.35	51	19	33	10	14	1.90	4	3	3	0	0
LOWER CLARK FORK DR	SALMONID STREAM	2.74	24	31	38	24	11	2.74	21	26	34	23	8	2.75	3	5	4	1	3
	SALMONID LAKE	2.49	18	20	17	10	5	2.49	18	19	17	10	5	2.00	0	1	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.33	0	0	1	0	2	4.33	0	0	1	0	2	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	3.50	0	1	0	0	1	3.50	0	1	0	0	1	.00	0	0	0	0	0
	Drainage Ratings:	2.68	42	52	56	34	19	2.68	39	46	52	33	16	2.71	3	6	4	1	3
UPPER CLARK FORK DR	SALMONID STREAM	3.24	18	14	49	27	28	3.19	17	10	44	24	21	3.55	1	4	5	3	7
	SALMONID LAKE	3.08	17	14	30	24	16	3.08	17	14	29	24	16	3.00	0	0	1	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	4.00	0	0	0	1	0	4.00	0	0	0	1	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.50	0	0	0	1	1	4.50	0	0	0	1	1	.00	0	0	0	0	0
	Drainage Ratings:	3.19	35	28	79	53	45	3.16	34	24	73	50	38	3.52	1	4	6	3	7
LOWER FLATHEAD DR	SALMONID STREAM	2.63	20	28	22	12	11	2.64	20	26	21	12	11	2.33	0	2	1	0	0
	SALMONID LAKE	2.90	54	37	75	41	40	2.90	54	37	72	41	40	3.00	0	0	3	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.42	17	8	14	4	5	2.43	17	7	14	4	5	2.00	0	1	0	0	0
	UNDESIG STRM MGMT	5.00	0	0	0	0	1	5.00	0	0	0	0	1	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	2.67	4	2	2	2	2	2.67	4	2	2	2	2	.00	0	0	0	0	0
	Drainage Ratings:	2.78	95	75	113	59	59	2.78	95	72	109	59	59	2.57	0	3	4	0	0
UPPER FLATHEAD DR	SALMONID STREAM	2.93	3	3	2	4	2	2.93	3	3	2	4	2	.00	0	0	0	0	0
	SALMONID LAKE	2.25	6	4	4	0	2	2.25	6	4	4	0	2	.00	0	0	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	1.00	1	0	0	0	0	1.00	1	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	Drainage Ratings:	2.52	10	7	6	4	4	2.52	10	7	6	4	4	.00	0	0	0	0	0

Table 15. Angler satisfaction ratings by drainage by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	----- 2's	----- 3's	excellent 4's	5's	Avg Rate	poor 1's	----- 2's	----- 3's	excellent 4's	5's	Avg Rate	poor 1's	----- 2's	----- 3's	excellent 4's	5's
GALLATIN DR	SALMONID STREAM	3.07	16	34	68	34	22	3.13	14	26	60	31	21	2.68	2	8	8	3	1
	SALMONID LAKE	2.97	6	7	12	4	7	2.91	6	7	11	2	7	3.67	0	0	1	2	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	5.00	0	0	0	0	1	5.00	0	0	0	0	1	.00	0	0	0	0	0
	Drainage Ratings:	3.06	22	41	80	38	30	3.10	20	33	71	33	29	2.80	2	8	9	5	1
JEFFERSON DR	SALMONID STREAM	3.04	4	9	21	7	6	3.00	4	9	21	7	5	5.00	0	0	0	0	1
	SALMONID LAKE	2.37	11	8	10	4	2	2.37	11	8	10	4	2	.00	0	0	0	0	0
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	3.00	1	0	1	0	1	4.00	0	0	1	0	1	1.00	1	0	0	0	0
	Drainage Ratings:	2.76	16	17	32	11	9	2.76	15	17	32	11	8	3.00	1	0	0	0	1
KOOTENAI DR	SALMONID STREAM	3.30	6	7	16	8	13	3.28	5	7	16	8	11	3.67	1	0	0	0	2
	SALMONID LAKE	3.03	16	7	20	13	14	3.02	14	7	16	10	13	3.10	2	0	4	3	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	1.00	1	0	0	0	0	1.00	1	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	Drainage Ratings:	3.12	23	14	36	21	27	3.11	20	14	32	18	24	3.23	3	0	4	3	3
LITTLE MISSOURI DR	SALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	SALMONID LAKE	2.00	0	1	0	0	0	.00	0	0	0	0	0	2.00	0	1	0	0	0
	NONSALMONID STREAM	1.00	2	0	0	0	0	1.00	2	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	Drainage Ratings:	1.33	2	1	0	0	0	1.00	2	0	0	0	0	2.00	0	1	0	0	0
MADISON DR	SALMONID STREAM	3.20	29	28	71	51	39	3.16	27	25	56	40	34	3.39	2	3	15	11	5
	SALMONID LAKE	2.63	12	10	11	2	8	2.50	12	9	7	1	7	3.29	0	1	4	1	1
	NONSALMONID STREAM	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	NONSALMONID LAKE	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.50	0	0	1	1	0	3.50	0	0	1	1	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	Drainage Ratings:	3.11	41	38	83	54	47	3.05	39	34	64	42	41	3.37	2	4	19	12	6
MARIAS DR	SALMONID STREAM	2.75	1	1	0	2	0	2.75	1	1	0	2	0	.00	0	0	0	0	0
	SALMONID LAKE	2.93	13	6	21	6	11	2.93	13	6	20	6	11	3.00	0	0	1	0	0
	NONSALMONID STREAM	2.17	7	3	6	2	0	2.17	7	3	6	2	0	.00	0	0	0	0	0
	NONSALMONID LAKE	2.75	6	10	11	5	4	2.75	6	10	11	5	4	.00	0	0	0	0	0
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	3.75	0	2	1	2	3	3.75	0	2	1	2	3	.00	0	0	0	0	0
	Drainage Ratings:	2.81	27	22	39	17	18	2.81	27	22	38	17	18	3.00	0	0	1	0	0

Table 15. Angler satisfaction ratings by drainage by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000 (continued)

Drain- age Water type		TOTAL						RESIDENT						NONRESIDENT					
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's
MILK DR																			
SALMONID STREAM		2.57	1	1	5	0	0	2.57	1	1	5	0	0	.00	0	0	0	0	0
SALMONID LAKE		2.94	11	9	17	6	11	2.98	10	9	17	6	11	1.00	1	0	0	0	0
NONSALMONID STREAM		3.00	4	1	1	1	4	3.00	4	1	1	1	4	.00	0	0	0	0	0
NONSALMONID LAKE		2.50	6	5	7	2	2	2.50	6	5	7	2	2	.00	0	0	0	0	0
UNDESIG STRM MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG LAKE MGMT		3.00	3	1	0	1	3	3.00	3	1	0	1	3	.00	0	0	0	0	0
Drainage Ratings:		2.83	25	17	30	10	20	2.85	24	17	30	10	20	1.00	1	0	0	0	0
LOWER MISSOURI DR																			
SALMONID STREAM		3.14	6	2	9	6	6	3.14	6	2	8	6	6	3.00	0	0	1	0	0
SALMONID LAKE		2.89	8	9	14	8	6	2.89	8	9	14	8	6	.00	0	0	0	0	0
NONSALMONID STREAM		2.81	14	13	28	11	8	2.78	14	13	28	11	7	5.00	0	0	0	0	1
NONSALMONID LAKE		2.65	27	19	42	10	12	2.65	27	18	41	10	12	2.50	0	1	1	0	0
UNDESIG STRM MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG LAKE MGMT		3.11	2	2	1	1	3	2.88	2	2	1	1	2	5.00	0	0	0	0	1
Drainage Ratings:		2.80	57	45	94	36	35	2.79	57	44	92	36	33	3.60	0	1	2	0	2
UPPER MISSOURI DR																			
SALMONID STREAM		3.24	50	71	121	96	88	3.21	50	67	112	88	82	3.59	0	4	9	8	6
SALMONID LAKE		2.54	141	95	136	62	46	2.54	139	95	135	62	46	1.67	2	0	1	0	0
NONSALMONID STREAM		2.49	11	12	12	4	4	2.49	11	12	12	4	4	.00	0	0	0	0	0
NONSALMONID LAKE		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		2.83	1	1	3	0	1	2.40	1	1	3	0	0	5.00	0	0	0	0	1
UNDESIG LAKE MGMT		3.78	0	2	2	1	4	3.78	0	2	2	1	4	.00	0	0	0	0	0
Drainage Ratings:		2.86	203	181	274	163	143	2.84	201	177	264	155	136	3.45	2	4	10	8	7
MUSSELSHELL DR																			
SALMONID STREAM		3.10	2	2	2	1	3	3.11	2	2	1	1	3	3.00	0	0	1	0	0
SALMONID LAKE		2.83	7	12	4	4	8	2.83	7	12	4	4	8	.00	0	0	0	0	0
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		2.43	12	3	7	1	5	2.43	12	3	7	1	5	.00	0	0	0	0	0
UNDESIG STRM MGMT		5.00	0	0	0	0	1	5.00	0	0	0	0	1	.00	0	0	0	0	0
UNDESIG LAKE MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
Drainage Ratings:		2.74	21	17	13	6	17	2.74	21	17	12	6	17	3.00	0	0	1	0	0
ST MARY DR																			
SALMONID STREAM		1.00	1	0	0	0	0	1.00	1	0	0	0	0	.00	0	0	0	0	0
SALMONID LAKE		3.39	2	4	12	6	7	3.39	2	4	12	6	7	.00	0	0	0	0	0
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG LAKE MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
Drainage Ratings:		3.31	3	4	12	6	7	3.31	3	4	12	6	7	.00	0	0	0	0	0
SUN DR																			
SALMONID STREAM		3.23	1	2	6	1	3	3.42	0	2	6	1	3	1.00	1	0	0	0	0
SALMONID LAKE		2.72	24	11	24	17	9	2.72	24	11	24	17	9	.00	0	0	0	0	0
NONSALMONID STREAM		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
NONSALMONID LAKE		2.00	1	0	1	0	0	2.00	1	0	1	0	0	.00	0	0	0	0	0
UNDESIG STRM MGMT		.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
UNDESIG LAKE MGMT		4.75	0	0	0	1	3	4.75	0	0	0	1	3	.00	0	0	0	0	0
Drainage Ratings:		2.85	26	13	31	19	15	2.86	25	13	31	19	15	1.00	1	0	0	0	0

Table 15. Angler satisfaction ratings by drainage by water type for the 1999 "winter" angling angling season March '99 through April '99 and October '99 through February 2000 (continued)

Drain- age	Water type	TOTAL					RESIDENT					NONRESIDENT							
		Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's	Avg Rate	poor 1's	----- 2's	----- 3's	----- 4's	----- 5's
LOWER YELLOWSTONE DR	SALMONID STREAM	2.14	2	2	3	0	0	2.25	1	1	2	0	0	2.00	1	1	1	0	0
	SALMONID LAKE	3.47	1	4	1	5	4	3.47	1	4	1	5	4	.00	0	0	0	0	0
	NONSALMONID STREAM	2.71	16	12	19	6	10	2.70	16	11	18	5	10	3.00	0	1	1	1	0
	NONSALMONID LAKE	2.97	13	8	20	8	12	3.02	10	5	14	6	10	2.81	3	3	6	2	2
	UNDESIG STRM MGMT	.00	0	0	0	0	0	.00	0	0	0	0	0	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	2.91	3	2	2	1	3	2.91	3	2	2	1	3	.00	0	0	0	0	0
	Drainage Ratings:	2.87	35	28	45	20	29	2.90	31	23	37	17	27	2.73	4	5	8	3	2
UPPER YELLOWSTONE DR	SALMONID STREAM	3.06	104	99	177	125	111	3.01	101	92	152	101	98	3.51	3	7	25	24	13
	SALMONID LAKE	2.37	77	35	51	22	19	2.34	73	32	46	21	16	2.75	4	3	5	1	3
	NONSALMONID STREAM	2.70	9	10	15	3	6	2.70	9	10	15	3	6	.00	0	0	0	0	0
	NONSALMONID LAKE	3.50	0	0	1	1	0	3.50	0	0	1	1	0	.00	0	0	0	0	0
	UNDESIG STRM MGMT	3.50	0	1	0	0	1	3.50	0	1	0	0	1	.00	0	0	0	0	0
	UNDESIG LAKE MGMT	4.67	0	0	0	1	2	4.67	0	0	0	1	2	.00	0	0	0	0	0
	Drainage Ratings:	2.89	190	145	244	152	139	2.84	183	135	214	127	123	3.38	7	10	30	25	16
Total	SALMONID STREAM	3.08	351	413	749	486	408	3.06	331	360	653	421	361	3.23	20	53	96	65	47
	SALMONID LAKE	2.68	488	328	506	256	236	2.68	474	315	482	247	231	2.66	14	13	24	9	5
	NONSALMONID STREAM	2.66	63	51	81	27	32	2.65	63	50	80	26	31	3.50	0	1	1	1	1
	NONSALMONID LAKE	2.65	83	53	103	31	40	2.65	80	48	96	29	38	2.74	3	5	7	2	2
	UNDESIG STRM MGMT	3.55	2	2	6	3	7	3.47	2	2	6	3	6	5.00	0	0	0	0	1
	UNDESIG LAKE MGMT	3.44	13	12	9	11	30	3.45	12	12	9	11	29	3.00	1	0	0	0	1
	Statewide Ratings:	2.89	1000	859	1454	814	753	2.87	962	787	1326	737	696	3.12	38	72	128	77	57

DISCUSSION

SCOPE OF ANGLING PRESSURE

The statewide angling pressure survey was conducted from March, 1999 through February, 2000. Estimates of pressure by residents and nonresidents were for licensed anglers only. This would encompass anglers 12 years of age and older. Spence (1971) found that the unlicensed angler (ages 2- 14) comprised 9% of the pressure on Rock Creek near Missoula. Peterson (1970) found that the unlicensed angler accounted for 21% and 19% of the total number of anglers on Big Spring Creek near Lewistown during 1968 and 1969 respectively. On the Bighorn River near Hardin, Stevenson (1975) found that the unlicensed angler accounted for 14.2% and 15.8% of the total number of anglers during 1972 and 1973 respectively. Fredenberg (1984) found that 10% of the anglers on Bighorn Lake and 13% of the anglers on the Yellowtail Afterbay were unlicensed. The 1975 National Fishing and Hunting Survey showed that 23.8% of the anglers nationwide were between the ages of 9 and 17. It appears that the unlicensed angler makes up between 9% to 21% of the fishing pressure depending on the type of water being fished.

Some angling pressure was obtained on Indian reservations and National Parks within Montana. This pressure was incidental to other fishing trips and only included those anglers that had purchased a Montana fishing license. Since national parks and reservations require different licensing, a complete pressure estimate of waters within those regions was not obtained.

ACCURACY

SAMPLING

Samples were drawn and questionnaires sent to the selected anglers as soon as possible. This was usually 15-20 days after the wave being sampled had ended (see discussion under Methods for details). Since license dealers are not required to remit copies of licenses sold until the 10th of the following month, the samples may not contain all the eligible anglers for a given period. The months of April through September are most affected by this procedure, since license sales naturally curtail after September. This means of obtaining a sample may skew the pressure if license dealers from a given area don't remit their licenses in a timely manner. At the present time, there is no way to estimate the extent, if any, of this bias.

PRESSURE

No significant difference was found between the survey results and on-site creel census for rivers for the statewide angling mail surveys conducted from 1982 through 1985 (McFarland, 1989). When both surveys were conducted simultaneously on lakes and reservoirs, the results again agreed (McFarland, 1989). The same methodology was used in this survey as was used in those conducted from 1982

through 1985 and in 1989 (McFarland, 1991). At the time this report was written, no published results were available for creel census conducted during the same time frame so no direct comparisons could be made.

RETURN RATES

Return rates ($\#$ of respondents / [$\#$ of surveys sent - nondeliverables] * 100) were calculated for every wave by residency. The average total return rates for residents and nonresidents were 56.1% and 60.5% respectively (Table 16). Nonresident return rate for season license holders was 61.7% and was less for 2-day license buyers at 45.4%.

Table 16. Return rates for the 1999 state-wide angling survey year by wave by resident and nonresident.		
WAVE	Total Return Rates	
	Resident	Nonresident
1	56.8	45.8
2	56.7	80.9
3	52.7	53.1
4	54.3	59.2
5	53.0	59.1
6	53.3	60.0
7	52.6	59.5
8	57.3	64.6
9	57.6	65.0
10	58.2	62.1
11	60.1	66.9
12	60.1	64.5
99		45.4

NON-RESPONSE BIAS

Due to budgetary constraints and personnel problems telephone calls were not made and a statistical comparison was not done.

NUMBER OF LICENSED ANGLERS VS PRESSURE

The number of resident anglers has increased for the period 1982 to 1985 and then decreased until 1989 and then continued to steadily increase until 1997 when it dropped slightly for two years. In 1999 the number of resident anglers was up again. (Table 17). The number of nonresident anglers during this same period decreased initially and then increased so that overall, the total number of anglers remained fairly static until 1993. In 1994 there was a one-year bump of a 5.4% increase from the previous year in the total number of licensed anglers in Montana. From 1995 to 1997 the number of nonresident anglers remained fairly constant. In 1998 the number increased and remained at nearly the same level for 1999.

Table 17. Number of licensed anglers from 1982 through 1999 by residency.

Year	Resident Anglers	Nonresident Anglers
1982	216,689	119,293
1983	217,483	116,875
1984	232,485	102,843
1985	236,455	106,304
1986	235,403	100,456
1987	233,111	103,936
1988	219,299	108,471
1989	216,412	114,254
1990	217,370	119,611
1991	221,723	138,243
1992	222,186	134,212
1993	226,992	151,192
1994	233,630	164,841
1995	227,849	153,887
1996	227,282	150,881
1997	222,442	151,244
1998	222,329	162,067
1999	228,419	162,572

Comparing statewide angling use from the mail survey versus number of anglers shows some correlation for residents in the recent years (1989-1999), while nonresidents seem to have some association between number of anglers and the amount of use exerted (Charts 5 & 6) with the exception of 1991. In 1991 the number of nonresident anglers increased while the pressure exerted by nonresidents decreased. In 1997 the pressure exerted by nonresident anglers increased while the number of nonresident anglers remained fairly static. In 1999 the number of anglers and use exerted by those anglers were both up.

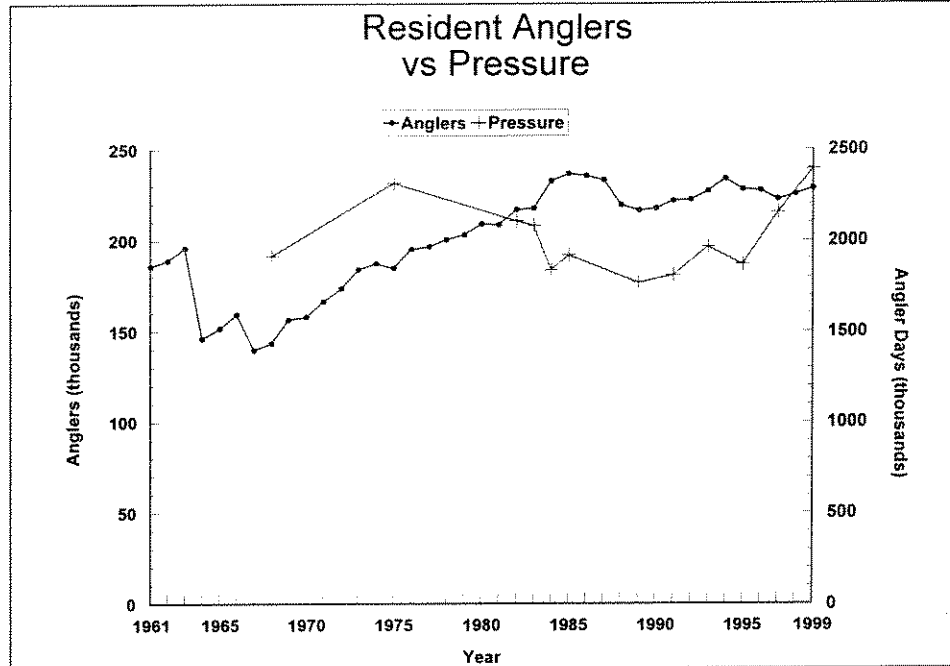


Chart 5. Angling pressure versus number of anglers for residents from 1961 to 1999.

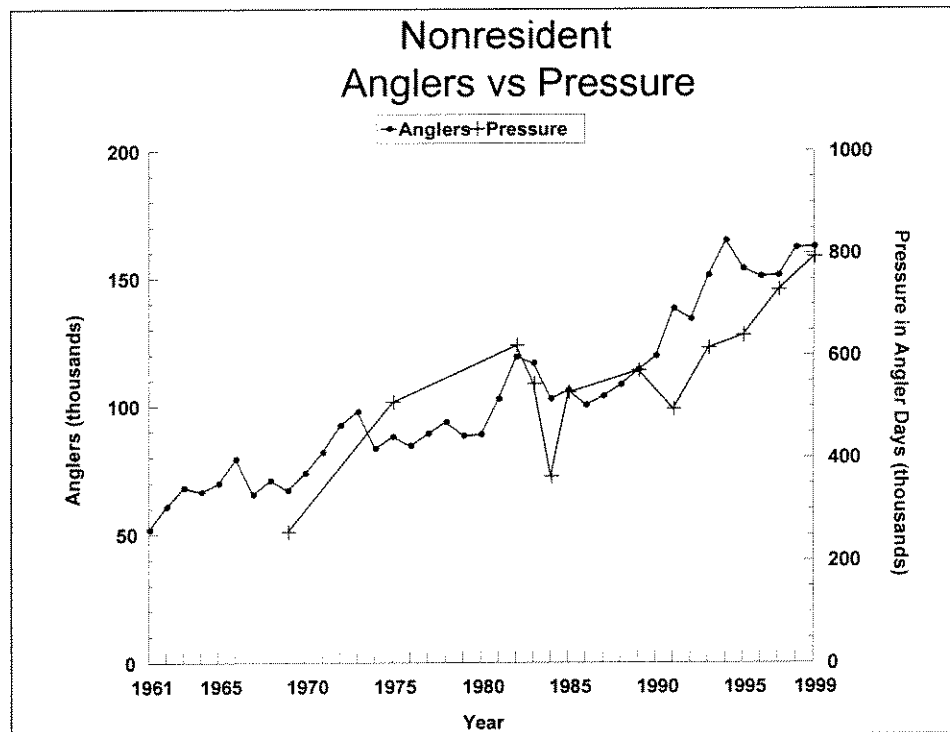


Chart 6. Angling pressure versus number of anglers for nonresidents from 1961 to 1999.

Whirling Disease

Anglers were asked if the water they fished was their second choice because their first choice had whirling disease. Only 0.9%(236) of the respondents stated that they had changed their fishing because of whirling disease. This accounted for 38,360 angling days of pressure or 1.2% of the total angling pressure for the year. Appendix C contains the angling use listed alphabetically by individual water.

Region 3 had most of the reallocated pressure from whirling disease with 11,158 angler days (Table 18). Region 7 had the least amount of redistributed angling use with 841 angler days of pressure. By drainage, the upper Yellowstone River drainage received the most of the redistributed pressure with 7,038 angler days (Table 19). The Little Missouri and St. Mary's drainages were the least with each receiving no reallocated angling use.

Table 18. Angling pressure in angler days by region by water type for those waters that were fished because the angler's first choice had whirling disease.

REG	WATER TYPE	-----TOTALS-----		----RESIDENTS----		--NON-RESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
1	SALMONID STREAM	2867.	75.	2101.	54.	766.	21.
	SALMONID LAKE	920.	23.	920.	23.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	570.	15.	0.	0.	570.	15.
	UNDESIG LAKE MGMT	152.	4.	0.	0.	152.	4.
	REGIONAL PRESSURE ESTIMATES:	4509.	117.	3021.	77.	1488.	40.
2	SALMONID STREAM	4655.	117.	4003.	99.	652.	18.
	SALMONID LAKE	955.	22.	879.	20.	76.	2.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
	REGIONAL PRESSURE ESTIMATES:	5610.	139.	4882.	119.	728.	20.
3	SALMONID STREAM	8618.	147.	6334.	90.	2284.	57.
	SALMONID LAKE	2464.	60.	1530.	39.	934.	21.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	76.	2.	0.	0.	76.	2.
	REGIONAL PRESSURE ESTIMATES:	11158.	209.	7864.	129.	3294.	80.

Table 18. Angling pressure in angler days by region by water type for those waters that were fished because the angler's first choice had whirling disease. (continued)

REG	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NON-RESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
4	SALMONID STREAM	2319.	56.	1749.	41.	570.	15.
	SALMONID LAKE	1815.	32.	1739.	30.	76.	2.
	NONSALMONID STREAM	907.	25.	793.	22.	114.	3.
	NONSALMONID LAKE	1805.	20.	1805.	20.	0.	0.
	UNDESIG STRM MGMT	214.	5.	214.	5.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
REGIONAL PRESSURE ESTIMATES:		7060.	138.	6300.	118.	760.	20.
5	SALMONID STREAM	5071.	105.	2461.	59.	2610.	46.
	SALMONID LAKE	727.	17.	689.	16.	38.	1.
	NONSALMONID STREAM	324.	10.	324.	10.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
REGIONAL PRESSURE ESTIMATES:		6122.	132.	3474.	85.	2648.	47.
6	SALMONID STREAM	390.	12.	390.	12.	0.	0.
	SALMONID LAKE	451.	14.	451.	14.	0.	0.
	NONSALMONID STREAM	639.	18.	639.	18.	0.	0.
	NONSALMONID LAKE	125.	3.	125.	3.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
REGIONAL PRESSURE ESTIMATES:		1605.	47.	1605.	47.	0.	0.
7	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	539.	6.	539.	6.	0.	0.
	NONSALMONID STREAM	170.	5.	170.	5.	0.	0.
	NONSALMONID LAKE	132.	4.	56.	2.	76.	2.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
REGIONAL PRESSURE ESTIMATES:		841.	15.	765.	13.	76.	2.
TOTAL	SALMONID STREAM	23920.	512.	17038.	355.	6882.	157.
	SALMONID LAKE	7871.	174.	6747.	148.	1124.	26.
	NONSALMONID STREAM	2040.	58.	1926.	55.	114.	3.
	NONSALMONID LAKE	2062.	27.	1986.	25.	76.	2.
	UNDESIG STRM MGMT	2239.	53.	1555.	35.	684.	18.
	UNDESIG LAKE MGMT	228.	6.	0.	0.	228.	6.
STATEWIDE PRESSURE ESTIMATES:		38360.	830.	29252.	618.	9108.	212.

Table 19. Angling pressure in angler days by drainage by water type for those waters that were fished because the angler's first choice had whirling disease.

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
BEAVERHEAD DR							
	SALMONID STREAM	681.	17.	301.	7.	380.	10.
	SALMONID LAKE	454.	8.	264.	3.	190.	5.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	76.	2.	0.	0.	76.	2.
DRAINAGE PRESSURE ESTIMATES:							
		1211.	27.	565.	10.	646.	17.
BIG HOLE DR							
	SALMONID STREAM	1950.	49.	768.	21.	1182.	28.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1950.	49.	768.	21.	1182.	28.
BITTERROOT DR							
	SALMONID STREAM	1941.	45.	1789.	41.	152.	4.
	SALMONID LAKE	141.	3.	141.	3.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		2082.	48.	1930.	44.	152.	4.
BLACKFOOT DR							
	SALMONID STREAM	550.	15.	322.	9.	228.	6.
	SALMONID LAKE	208.	5.	208.	5.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		758.	20.	530.	14.	228.	6.
LOWER CLARK FORK DR							
	SALMONID STREAM	1628.	49.	1274.	38.	354.	11.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1628.	49.	1274.	38.	354.	11.

Table 19. Angling pressure in angler days by drainage by water type for those waters that were fished because the angler's first choice had whirling disease. (continued)

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
UPPER CLARK FORK DR							
	SALMONID STREAM	1123.	28.	1009.	25.	114.	3.
	SALMONID LAKE	606.	14.	530.	12.	76.	2.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1729.	42.	1539.	37.	190.	5.
LOWER FLATHEAD DR							
	SALMONID STREAM	618.	17.	124.	4.	494.	13.
	SALMONID LAKE	920.	23.	920.	23.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1538.	40.	1044.	27.	494.	13.
UPPER FLATHEAD DR							
	SALMONID STREAM	110.	3.	34.	1.	76.	2.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	114.	3.	0.	0.	114.	3.
	UNDESIG LAKE MGMT	152.	4.	0.	0.	152.	4.
DRAINAGE PRESSURE ESTIMATES:							
		376.	10.	34.	1.	342.	9.
GALLATIN DR							
	SALMONID STREAM	443.	13.	443.	13.	0.	0.
	SALMONID LAKE	209.	5.	209.	5.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		652.	18.	652.	18.	0.	0.
JEFFERSON DR							
	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	125.	3.	125.	3.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		125.	3.	125.	3.	0.	0.

Table 19. Angling pressure in angler days by drainage by water type for those waters that were fished because the angler's first choice had whirling disease. (continued)

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
KOOTENAI DR							
	SALMONID STREAM	1552.	35.	1552.	35.	0.	0.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1552.	35.	1552.	35.	0.	0.
LITTLE MISSOURI DR							
	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		0.	0.	0.	0.	0.	0.
MADISON DR							
	SALMONID STREAM	4500.	42.	4234.	35.	266.	7.
	SALMONID LAKE	858.	20.	190.	6.	668.	14.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		5358.	62.	4424.	41.	934.	21.
MARIAS DR							
	SALMONID STREAM	222.	5.	222.	5.	0.	0.
	SALMONID LAKE	45.	1.	45.	1.	0.	0.
	NONSALMONID STREAM	539.	15.	539.	15.	0.	0.
	NONSALMONID LAKE	1805.	20.	1805.	20.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		2611.	41.	2611.	41.	0.	0.
MILK DR							
	SALMONID STREAM	390.	12.	390.	12.	0.	0.
	SALMONID LAKE	349.	11.	349.	11.	0.	0.
	NONSALMONID STREAM	226.	7.	226.	7.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	89.	2.	89.	2.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1054.	32.	1054.	32.	0.	0.

Table 19. Angling pressure in angler days by drainage by water type for those waters that were fished because the angler's first choice had whirling disease. (continued)

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		---NONRESIDENTS---	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
LOWER MISSOURI DR							
	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	102.	3.	102.	3.	0.	0.
	NONSALMONID STREAM	739.	20.	625.	17.	114.	3.
	NONSALMONID LAKE	125.	3.	125.	3.	0.	0.
	UNDESIG STRM MGMT	125.	3.	125.	3.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		1091.	29.	977.	26.	114.	3.
UPPER MISSOURI DR							
	SALMONID STREAM	2010.	49.	1478.	35.	532.	14.
	SALMONID LAKE	2198.	45.	2046.	41.	152.	4.
	NONSALMONID STREAM	42.	1.	42.	1.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		4250.	95.	3566.	77.	684.	18.
MUSSELSHELL DR							
	SALMONID STREAM	94.	2.	94.	2.	0.	0.
	SALMONID LAKE	172.	4.	134.	3.	38.	1.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		266.	6.	228.	5.	38.	1.
ST MARY DR							
	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	0.	0.	0.	0.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		0.	0.	0.	0.	0.	0.
SUN DR							
	SALMONID STREAM	38.	1.	0.	0.	38.	1.
	SALMONID LAKE	301.	8.	301.	8.	0.	0.
	NONSALMONID STREAM	0.	0.	0.	0.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		339.	9.	301.	8.	38.	1.

Table 19. Angling pressure in angler days by drainage by water type for those waters that were fished because the angler's first choice had whirling disease. (continued)

DRAIN	WATER TYPE	-----TOTALS-----		-----RESIDENTS-----		-----NONRESIDENTS-----	
		PRESSURE	TRIPS	PRESSURE	TRIPS	PRESSURE	TRIPS
LOWER YELLOWSTONE DR							
	SALMONID STREAM	0.	0.	0.	0.	0.	0.
	SALMONID LAKE	539.	6.	539.	6.	0.	0.
	NONSALMONID STREAM	170.	5.	170.	5.	0.	0.
	NONSALMONID LAKE	132.	4.	56.	2.	76.	2.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		841.	15.	765.	13.	76.	2.
UPPER YELLOWSTONE DR							
	SALMONID STREAM	6070.	130.	3004.	72.	3066.	58.
	SALMONID LAKE	644.	15.	644.	15.	0.	0.
	NONSALMONID STREAM	324.	10.	324.	10.	0.	0.
	NONSALMONID LAKE	0.	0.	0.	0.	0.	0.
	UNDESIG STRM MGMT	0.	0.	0.	0.	0.	0.
	UNDESIG LAKE MGMT	0.	0.	0.	0.	0.	0.
DRAINAGE PRESSURE ESTIMATES:							
		7038.	155.	3972.	97.	3066.	58.
TOTAL							
	SALMONID STREAM	23920.	512.	17038.	355.	6882.	157.
	SALMONID LAKE	7871.	174.	6747.	148.	1124.	26.
	NONSALMONID STREAM	2040.	58.	1926.	55.	114.	3.
	NONSALMONID LAKE	2062.	27.	1986.	25.	76.	2.
	UNDESIG STRM MGMT	2239.	53.	1555.	35.	684.	18.
	UNDESIG LAKE MGMT	228.	6.	0.	0.	228.	6.
STATEWIDE PRESSURE ESTIMATES:							
		38360.	830.	29252.	618.	9108.	212.

CONCLUSIONS AND RECOMMENDATIONS

The statewide angling pressure mail survey continues to provide invaluable data on individual bodies of water as well as statewide estimates.

The survey also provides a basis for angler satisfaction on individual water bodies. With time, this data can be an invaluable tool to aid fisheries managers in assessing the public perception on how well they are doing managing individual waters.

Nonresident big game license holders need to be sampled to see if the rate of fishing has changed within this segment of the angling public.

It is recommended that the survey continue to be conducted every other year. This will provide long-term trend data.

Phone surveys need to be conducted to ascertain the non-response bias if any.

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APPENDIX A

Examples of questionnaires

Montana Fish, Wildlife & Parks

Dear Angler,

please cut along dotted line and return bottom portion

We are conducting a monthly survey sent to a random sample of fishing license holders. This survey provides important data to help determine fishing pressure on the lakes and streams of Montana. By providing us with this vital information, you will be assisting us in properly managing Montana's fish population.

This survey requests only YOUR fishing activities. Include ALL waters fished during the month of OCTOBER, 1999. If you fished one of the streams on the back of this form, please include the section number to aid us in identifying the portion of the stream. We appreciate your cooperation in returning this survey.

****EVEN IF YOU DID NOT FISH OR CATCH ANY FISH, PLEASE FILL OUT AND RETURN THIS QUESTIONNAIRE.****

Did you fish in Montana during the month of **OCTOBER 1999?**

- ☐ Yes - If yes, total number of days fished _____. Please continue below.
- ☐ No - If no, stop here and return form.

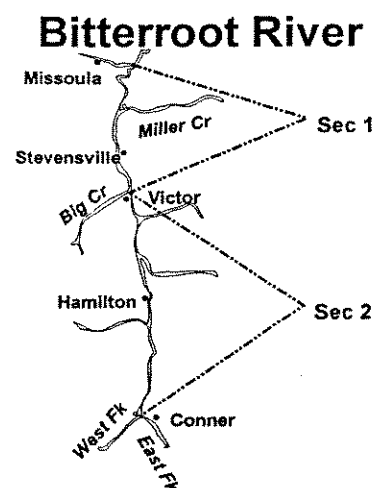
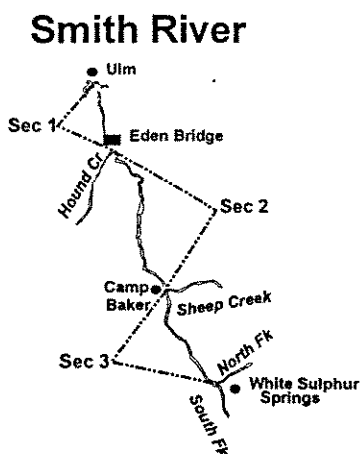
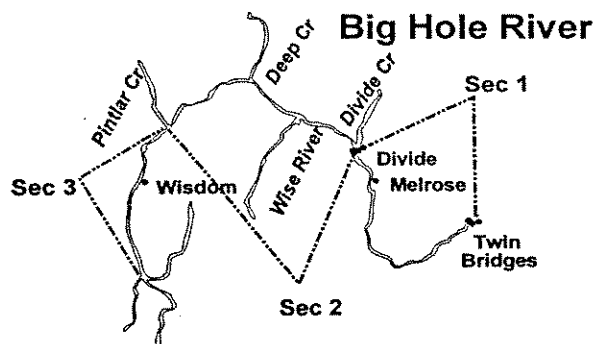
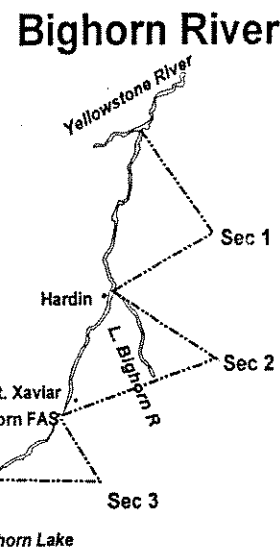
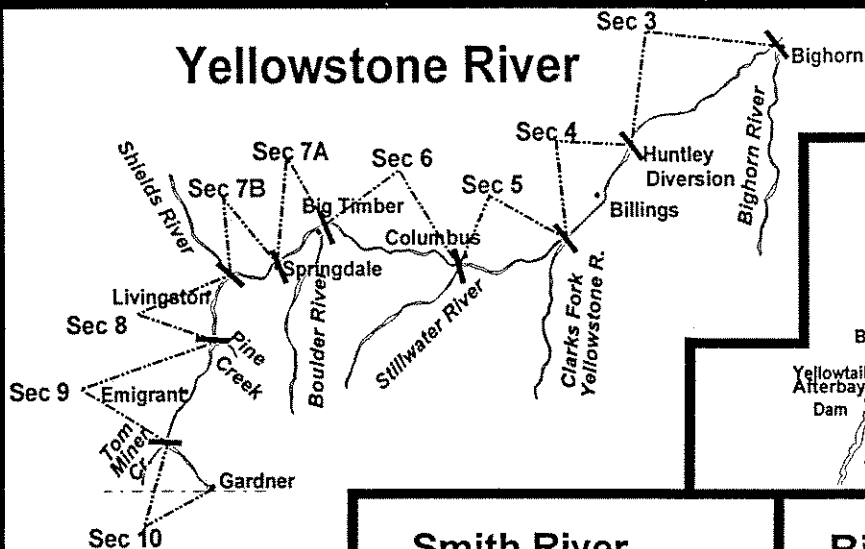
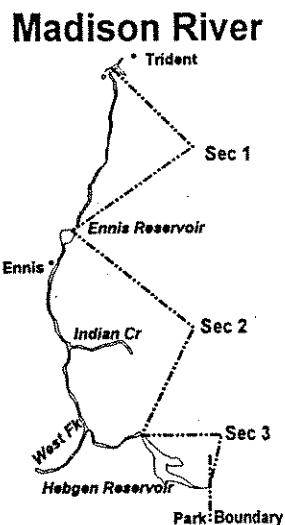
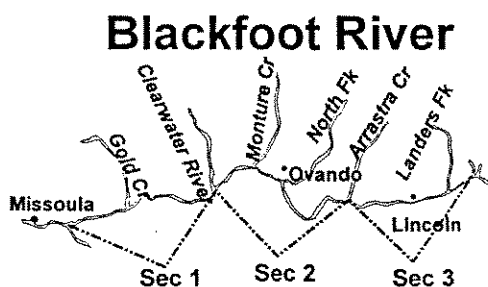
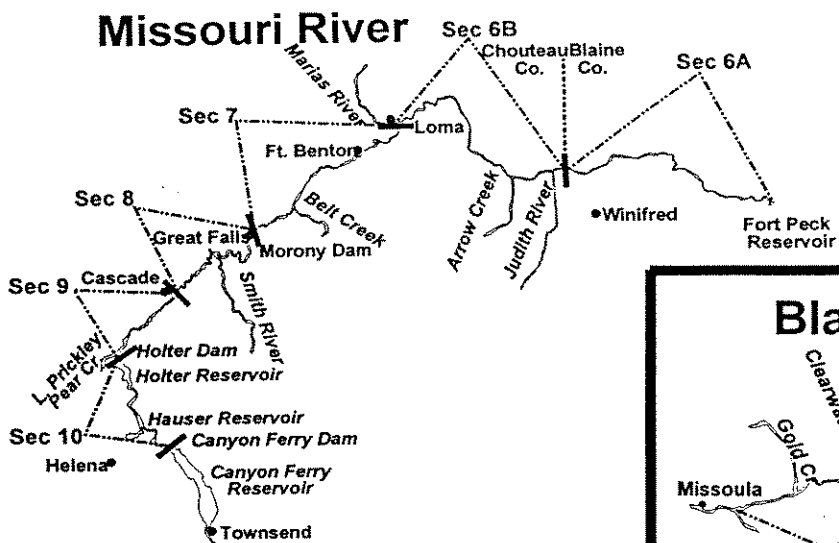
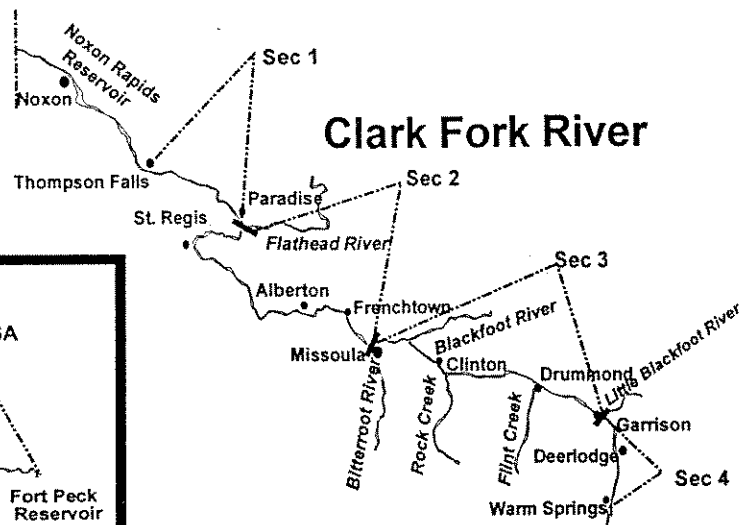
****PLEASE ENTER EACH WATER YOU FISHED. (YOUR fishing only)****

[illegible]

Thank you for your time.

WE NEED INFORMATION ON ALL WATERS FISHED IN MONTANA NOT JUST THE WATERS INCLUDED ON THIS PAGE.
SPECIFIC SECTIONS OF MONTANA WATERS THAT ARE DIFFICULT TO IDENTIFY

We need information on all waters fished in Montana, not just the waters included on this page. If you fished one of the rivers indicated on a map, please enter the specific section number in the appropriate space on the questionnaire form. For waters other than those indicated on a map, (this includes the Flathead, Milk River, eastern sections of the Missouri and Yellowstone, etc.) please be very specific as to the name of the lake, stream, or reservoir and the nearest town, point of access, or landmark to facilitate identification.



Montana Fish, Wildlife & Parks

Dear Angler,

please cut along dotted line and return bottom portion

We recently mailed you a request for information on your fishing in Montana. As you may recall, we are conducting a monthly survey sent to a random sample of fishing license holders. This survey provides important data to help determine fishing pressure on the lakes and streams of Montana. By providing us with this vital information, you will be assisting us in properly managing Montana's fish population.

This survey requests only YOUR fishing activities. Include ALL waters fished during the month of SEPTEMBER, 1999. If you fished one of the streams on the back of this form, please include the section number to aid us in identifying the portion of the stream. We appreciate your cooperation in returning this survey.

****EVEN IF YOU DID NOT FISH OR CATCH ANY FISH, PLEASE FILL OUT AND RETURN THIS QUESTIONNAIRE.****

Did you fish in Montana during the month of **SEPTEMBER 1999**?

- ☐ Yes - If yes, total number of days fished _____. Please continue below.
- ☐ No - If no, stop here and return form.

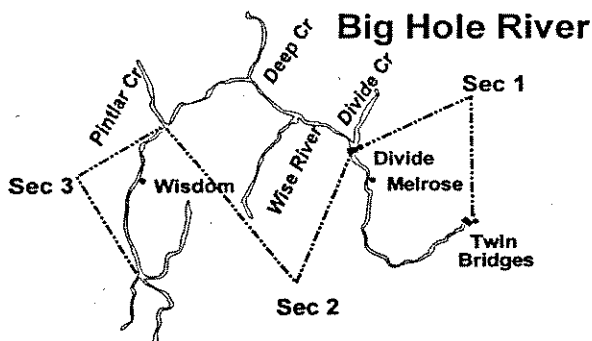
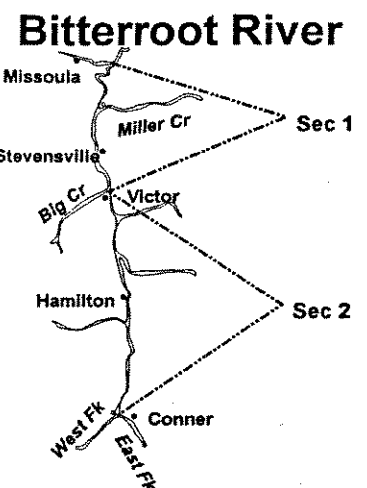
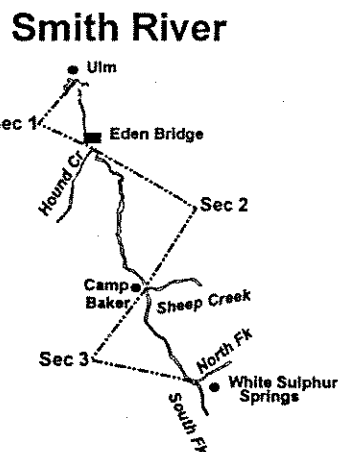
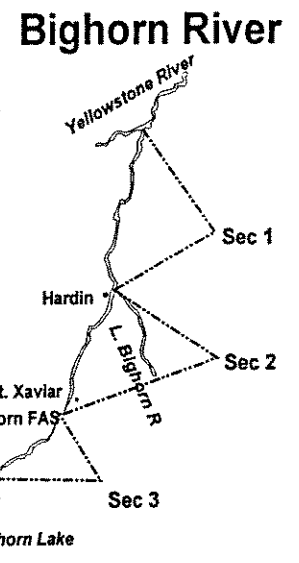
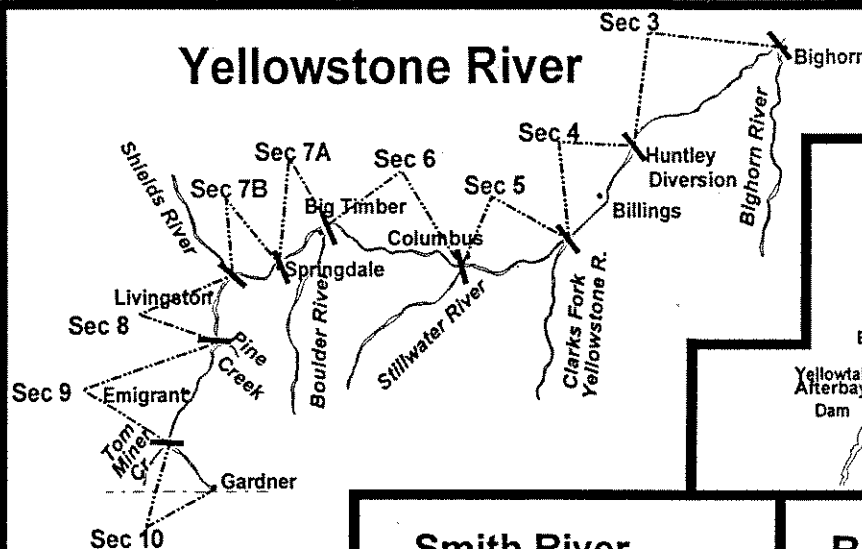
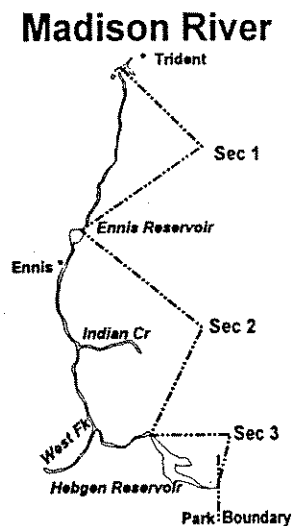
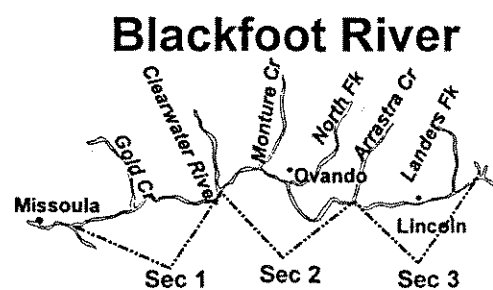
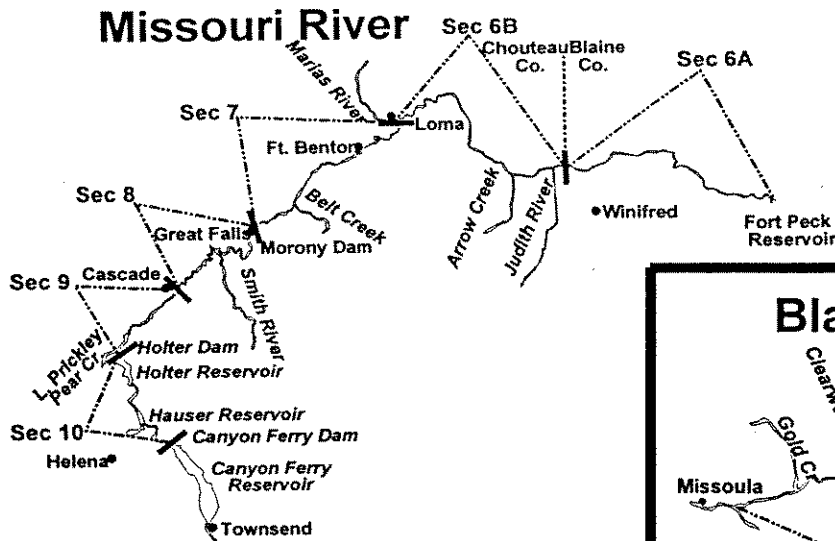
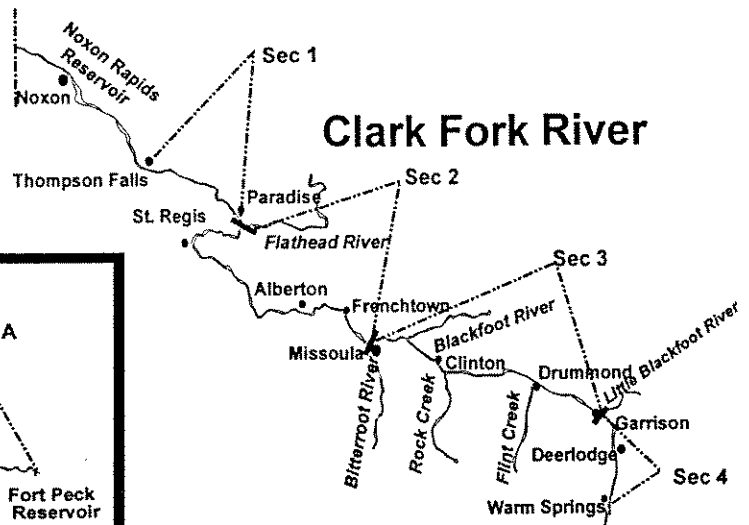
****PLEASE ENTER EACH WATER YOU FISHED. (YOUR fishing only)****

[illegible]

Thank you for your time.

**WE NEED INFORMATION ON ALL WATERS FISHED IN MONTANA NOT JUST THE WATERS INCLUDED ON THIS PAGE.
SPECIFIC SECTIONS OF MONTANA WATERS THAT ARE DIFFICULT TO IDENTIFY**

We need information on all waters fished in Montana, not just the waters included on this page. If you fished one of the rivers indicated on a map, please enter the specific section number in the appropriate space on the questionnaire form. For waters other than those indicated on a map, (this includes the Flathead, Milk River, eastern sections of the Missouri and Yellowstone, etc.) please be very specific as to the name of the lake, stream, or reservoir and the nearest town, point of access, or landmark to facilitate identification.



Montana Fish, Wildlife & Parks

please return bottom portion

Dear Angler,

We are conducting a monthly survey sent to a random sample of fishing license holders. This survey provides important data to help determine fishing pressure on the lakes and streams of Montana. By providing us with this vital information, you will be assisting us in properly managing Montana's fish population.

This survey requests only YOUR fishing activities. Include ALL waters fished in Montana for the time indicated. If you fished one of the streams on the back of this form, please include the section number to aid us in identifying the portion of the stream. All information you provide will be held in strict confidence. We appreciate your continued cooperation in returning this survey at your earliest convenience.

****EVEN IF YOU DID NOT FISH OR CATCH ANY FISH, PLEASE FILL OUT AND RETURN THIS QUESTIONNAIRE.****

Did you purchase a license to hunt in Montana between March 1, 1999 and February 29, 2000?

☐ Yes ☐ No

Did you purchase a license to fish in Montana between March 1, 1999 and February 29, 2000?

☐ Yes - If yes, total number of days fished _____

Type of license purchased: ☐ Non-Resident season

☐ 2-day. How many did you purchase for only your use? _____

Enter EACH WATER FISHED IN MONTANA during this time period on a separate line below.

☐ No - If no, stop here and return form

****ENTER EACH WATER FISHED ON A SEPARATE LINE (YOUR fishing only)**

Name of Lake or Stream Fished	Section # (See back)	Nearest Town or County	Number of Days Fished on each water during the year.	Was this water your 2nd choice because your 1st choice has Whirling Disease? (Y or N)	Rate your fishing on this water: 5 = excellent to 1 = poor	What one species did you primarily fish for?

Thank you for your time.

Montana Fish, Wildlife & Parks

please return bottom portion

Dear Angler,

We are conducting a monthly survey sent to a random sample of fishing license holders. This survey provides important data to help determine fishing pressure on the lakes and streams of Montana. By providing us with this vital information, you will be assisting us in properly managing Montana's fish population.

This survey requests only YOUR fishing activities. Include ALL waters fished in Montana for the time indicated. If you fished one of the streams on the back of this form, please include the section number to aid us in identifying the portion of the stream. All information you provide will be held in strict confidence. We appreciate your continued cooperation in returning this survey at your earliest convenience.

****EVEN IF YOU DID NOT FISH OR CATCH ANY FISH, PLEASE FILL OUT AND RETURN THIS QUESTIONNAIRE.****

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Did you purchase a license to fish in Montana between March 1, 1999 and February 29, 2000?

☐ Yes - If yes, total number of days fished _____

Type of license purchased: ☐ Non-Resident season

☐ 2-day: How many did you purchase for only your use? _____

Enter EACH WATER FISHED IN MONTANA during this time period on a separate line below.

☐ No - If no, stop here and return form.

****ENTER EACH WATER FISHED ON A SEPARATE LINE. (YOUR fishing only)**

Name of Lake or Stream Fished	Section # (See back)	Nearest Town or County	Number of Days Fished on each water during the year.	Was this water your 2nd choice because your 1st choice has Whirling Disease? (Y or N)	Rate your fishing on this water: 5 = excellent to 1 = poor	What one species did you primarily fish for?

Thank you for your time.

APPENDIX B

Boundaries of waters broken into sections

STREAM NAME	WATER CODE	DOWNSTREAM POINT	UPSTREAM POINT
BEAVER CREEK	SEC 01 SEC 02 SEC 03 SEC 04	15-0280 15-0320 15-0340 15-0360	MOUTH BEAVER CREEK RES BEAR PAW LAKE ROCKY BOY INDIAN RES
			HEADWATERS
BIG HOLE R.	SEC 01 SEC 02 SEC 03	02-0425 02-0450 02-0475	DIVIDE CREEK DIVIDE CREEK PINTLAR CREEK
			HEADWATERS
BIG SPRING CR.	SEC 01 SEC 02	16-0301 16-0310	JUDITH RIVER (MOUTH) COTTONWOOD CREEK
			HEADWATERS
BIGHORN RIVER	SEC 01 SEC 02 SEC 03	22-0490 22-0495 22-0496	MOUTH L.BIGHORN R (ACCESS CR.)BH-FAS
			LITTLE BIGHORN RIVER BIG HORN FAS(ACCESS CR) AFTERBAY
BITTERROOT R.	SEC 01 SEC 02	03-0475 03-0500	MOUTH BIG CREEK
			HEADWATERS
BLACKFOOT R.	SEC 01 SEC 02 SEC 03	04-0600 04-0630 04-0660	MOUTH CLEARWATER RIVER ARRASTRA CREEK
			HEADWATERS
BOULDER RIVER	SEC 01 SEC 02 SEC 03	22-0742 22-0756 22-0770	MOUTH NATURAL BRIDGE BRIDGE CREEK
			BOULDER FALLS (NAT BRDG) HEADWATERS HEADWATERS
CLARK FORK R.	SEC 01 SEC 02 SEC 03 SEC 04	05-1440 05-1456 06-1121 06-1140	IDAHO BORDER FLATHEAD RIVER BITTERROOT R BITTERROOT R LITTLE BLACKFOOT R
			HEADWATERS

STREAM NAME	WATER CODE	DOWNSTREAM POINT	UPSTREAM POINT
CLARKS FK YELLOWSTONE SEC 01	22-1162	MOUTH	BRIDGER
SEC 02	22-1176	BRIDGER	WYOMING BORDER
SEC 03	22-1190	WYOMING BORDER	HEADWATERS
CROW CREEK SEC 01	07-1000	MOUTH	LOWER CROW RESERVOIR
SEC 02	07-1020	LOWER CROW RESERVOIR	HEADWATERS
CUT BANK CREEK SEC 01	14-1080	MOUTH	CUT BANK
SEC 02	14-1120	CUT BANK	GLACIER PARK
FLATHEAD RIVER SEC 01	07-1540	MOUTH	FLATHEAD LAKE
SEC 02	07-1560	FLATHEAD LAKE	S FK FLATHEAD R
GALLATIN RIVER SEC 01	09-2090	MOUTH	E GALLATIN RIVER
SEC 02	09-6878	E GALLATIN RIVER	SPANISH CREEK
SEC 03	09-6916	SPANISH CREEK	HEADWATERS
HYALITE CREEK SEC 01	09-2546	MOUTH	HYALITE RESERVOIR
SEC 02	09-6802	HYALITE RESERVOIR	HYALITE LAKE
JUDITH RIVER SEC 01	16-1800	MOUTH	PLUM CREEK
SEC 02	16-1820	PLUM CREEK	HEADWATERS
LITTLE BIGHORN RIVER SEC 01	22-3654	MOUTH	LODGE GRASS CREEK
SEC 02	22-3668	LODGE GRASS CREEK	HEADWATERS
LITTLE BLACKFOOT R SEC 01	06-3772	MOUTH	ELLISTON
SEC 02	06-3591	ELLISTON	HEADWATERS

STREAM NAME		WATER CODE	DOWNSTREAM POINT	UPSTREAM POINT
MADISON RIVER	SEC 01	13-3400	MOUTH	ENNIS LAKE
	SEC 02	13-3440	ENNIS LAKE	HEBGEN DAM
	SEC 03	13-3520	HEBGEN LAKE	YELLOWSTONE PARK
MARIAS RIVER	SEC 01	14-3240	MOUTH	TIBER DAM
	SEC 02	14-3280	LAKE ELWELL	CUT BANK CREEK
MILK RIVER	SEC 01	15-2680	MOUTH	HINSDALE
	SEC 02	15-2720	HINSDALE	MALTA
	SEC 03	15-2760	MALTA	HAVRE
	SEC 04	15-2800	HAVRE	FRESNO DAM
	SEC 05	15-2840	FRESNO RESERVOIR	CANADA
	SEC 06	15-2880	CANADA	MIDDLE & SOUTH FORKS
MISSOURI RIVER	SEC 01	16-2420	N DAKOTA BORDER	MILK RIVER
	SEC 05	16-2500	MILK RIVER	FORT PECK DAM
	SEC 06A	16-2521	FT PECK RES	BLAIN/CHOUT CO LINE
	SEC 06B	16-2522	BLAIN/CHOUT CO LINE	MARIAS R
	SEC 07	17-4864	MARIAS RIVER	MORONY DAM
	SEC 08	17-4880	MORONY DAM	CASCADE BRIDGE
	SEC 09	17-4896	CASCADE BRIDGE	HOLTER DAM
	SEC 10A	17-4913	HOLTER LAKE	HAUSER DAM
	SEC 10B	17-4914	HAUSER LAKE	CANYON FERRY
			(This is considered the same as Hauser Lake)	
	SEC 11	17-4928	CANYON FERRY RES	TOSTON DAM
	SEC 12	17-4944	TOSTON DAM	HEADWATERS
MUSSELSHELL RIVER				
	SEC 01	18-4320	MOUTH	RT 3 BRIDGE NEAR LAVINA
	SEC 02	18-4350	RT 3 BRIDGE NEAR LAVINA	HEADWATERS
POPLAR RIVER	SEC 01	16-2820	MOUTH	E FK POPLAR RIVER
	SEC 02	16-2375	E FK POPLAR RIVER	CANADA

STREAM NAME		WATER CODE	DOWNSTREAM POINT	UPSTREAM POINT
PRYOR CREEK	SEC 01	22-4802	MOUTH	PRYOR
	SEC 02	22-4816	PRYOR	HEADWATERS
RED ROCK RIVER	SEC 01	01-6140	MOUTH	LIMA DAM
	SEC 02	01-6160	LIMA RESERVOIR	UPPER RED ROCK LK
ROCK CREEK	SEC 01	06-5263	MOUTH	HOGBACK CREEK
	SEC 02	06-5282	HOGBACK CREEK	HEADWATERS
ROCK CREEK	SEC 01	22-4928	MOUTH	W FK (CHROME CAMP)
	SEC 02	22-4956	W FK (CHROME CAMP)	HEADWATERS
RUBY RIVER	SEC 01	01-6360	MOUTH	RUBY RESERVOIR
	SEC 02	01-6380	RUBY RESERVOIR	HEADWATERS
SHIELDS RIVER	SEC 01	22-5334	MOUTH	CLYDE PARK
	SEC 02	22-5348	CLYDE PARK	WILSALL
	SEC 03	22-5362	WILSALL	HEADWATERS
SMITH RIVER	SEC 01	17-6816	MOUTH	HOUND CREEK
	SEC 02	17-6832	HOUND CREEK	CAMP BAKER
	SEC 03	17-6833	CAMP BAKER	HEADWATERS
STILLWATER R.	SEC 01	22-6104	MOUTH	NYE
	SEC 02	22-6118	W FK (NYE)	HEADWATERS
SUN RIVER	SEC 01	20-6050	MOUTH	MUDDY CREEK
	SEC 02	20-6100	MUDDY CREEK	GIBSON DAM
SWAN RIVER	SEC 01	07-4560	MOUTH	SWAN LAKE
	SEC 02	07-4580	SWAN LAKE	HEADWATERS
TETON RIVER	SEC 01	14-6000	MOUTH	CHOTEAU
	SEC 02	14-6040	CHOTEAU	HEADWATERS

STREAM NAME		WATER CODE	DOWNSTREAM POINT	UPSTREAM POINT
THOMPSON RIVER	SEC 01	05-7248	MOUTH	BEND RANGER STATION
	SEC 02	05-7264	BEND RANGER STATION	HEADWATERS
TONGUE RIVER	SEC 01	21-1150	MOUTH	BEAVER CREEK
	SEC 02	21-1200	BEAVER CREEK	TONGUE RIVER DAM
	SEC 03	21-1250	TONGUE RIVER RES	WYOMING BORDER
W FK STILLWATER R				
	SEC 01	22-6664	MOUTH	IRON CREEK
	SEC 02	22-6678	IRON CREEK	HEADWATERS
YAAK RIVER	SEC 01	11-7740	MOUTH	FALLS
	SEC 02	11-7760	FALLS	HEADWATERS
YELLOWSTONE R.	SEC 01	21-1350	N DAKOTA BORDER	POWDER RIVER
	SEC 02	21-1400	POWDER RIVER	BIGHORN RIVER
	SEC 03	22-7001	BIGHORN RIVER	HUNTLEY DIVERSION
	SEC 04	22-7015	HUNTLEY DIVERSION	CLARKS FORK R
	SEC 05	22-7028	CLARKS FORK R	STILLWATER R
	SEC 06	22-7043	STILLWATER R	BOULDER R
	SEC 07A	22-7057	BOULDER R	SPRINGDALE
	SEC 07B	22-7058	SPRINGDALE	SHIELDS R
	SEC 08	22-7071	SHIELDS R	PINE CREEK
	SEC 09	22-7072	PINE CREEK	TOM MINER CREEK
	SEC 10	22-7084	TOM MINER CREEK	GARDINER

APPENDIX C

Statewide angling use estimates for those bodies of water that were fished because the anglers first choice had whirling disease.

Montana Fish, Wildlife & Parks
Statewide Angling Pressure Estimates For Those Water Bodies That Were Fished
Because the Anglers First Choice Had Whirling Disease
March, 1999 through February, 2000

Stream Name	County	Water Code	Total			Resident			Non-Resident			State Reg	
			Pressure	Error	Trips	Pressure	Error	Trips	Pressure	Error	Trips	Rank	Reg Rank
BEAN LAKE	LEWIS & CLARK	4-178720-05	903	903	10	903	903	10	0	0	0	0	0
BEARDSLEY POND	CUSTER	7-211821-07	180	180	2	180	180	2	0	0	0	0	0
BEAVER CREEK RESERVOIR	HILL	6-154570-03	32	32	1	32	32	1	0	0	0	0	0
BEAVER CREEK SEC 01	HILL	6-150280-01	136	136	4	136	136	4	0	0	0	0	0
BEAVERHEAD RIVER	BEAVERHEAD/MADISON	3-010500-01	446	242	11	256	214	6	190	114	5	5	5
BEAVERHEAD RIVER DRAINAGE	BEAVERHEAD	3-018480-20	76	76	2	0	0	0	76	76	2	2	2
BIG HOLE RIVER SEC 01	BEAVERHEAD/MADISON/S	3-020425-01	1,168	527	30	637	454	18	531	268	12	12	12
BIG HOLE RIVER SEC 02	BEAVERHEAD/MADISON/S	3-020450-01	426	178	11	84	83	2	342	157	9	9	9
BIG HOLE RIVER SEC 03	BEAVERHEAD	3-020475-01	114	85	3	0	0	0	114	85	3	3	3
BIGHORN RIVER SEC 02	BIGHORN	5-220495-01	561	375	16	561	375	16	0	0	0	0	0
BIGHORN RIVER SEC 03	BIGHORN	5-220496-01	2,427	1,543	44	264	161	8	2,163	1,535	36	36	36
BITTERROOT RIVER SEC 01	MISSOULA/RAVALLI	2-030475-01	1,200	657	25	1,200	657	25	0	0	0	0	0
BITTERROOT RIVER SEC 02	RAVALLI	2-030500-01	647	287	18	495	266	14	152	108	4	4	4
BLACKFOOT RIVER SEC 01	MISSOULA	2-040600-01	470	212	13	280	162	8	190	137	5	5	5
BLACKFOOT RIVER SEC 02	MISSOULA/POWELL	2-040630-01	38	38	1	0	0	0	38	38	1	1	1
BLACKFOOT RIVER SEC 03	POWELL/LEWIS & CLARK	2-040660-01	42	42	1	42	42	1	0	0	0	0	0
BOULDER RIVER SEC 01	SWEET GRASS	5-220742-01	136	136	4	136	136	4	0	0	0	0	0
CANYON FERRY RESERVOIR	LEWIS & CLARK/BROADWAY	3-178832-05	818	586	24	742	581	22	76	76	2	2	2
CLARK CANYON RESERVOIR	BEAVERHEAD	3-018610-05	152	152	4	0	0	0	152	152	4	4	4
CLARK FORK RIVER SEC 01	SANDERS	1-051440-01	549	403	19	391	391	14	158	98	5	5	5
CLARK FORK RIVER SEC 02	SANDERS/MINERAL/MISSOULA	2-051456-01	1,003	615	28	883	608	24	120	90	4	4	4
CLARK FORK RIVER SEC 03	MISSOULA/GRANITE/POWELL	2-061121-01	547	453	13	547	453	13	0	0	0	0	0
CLARKS FK YELLOWSTONE SI	CARBON	5-221162-02	112	112	4	112	112	4	0	0	0	0	0
CLIFF LAKE	MADISON	3-137320-03	117	117	3	0	0	0	117	117	3	3	3
COONEY RESERVOIR	CARBON	5-227518-05	63	63	2	63	63	2	0	0	0	0	0
COTTONWOOD LAKE	MISSOULA	2-046390-03	83	83	2	83	83	2	0	0	0	0	0
CROSS CREEK	JUDITH BASIN	4-160980-19	125	125	3	125	125	3	0	0	0	0	0
CROW CREEK	BROADWATER	3-171888-01	45	45	1	45	45	1	0	0	0	0	0
DEADWANS BASIN RESERVOIR	WHEATLAND	5-187540-05	83	59	2	45	45	1	38	38	1	1	1
DEARBORN RIVER	LEWIS & CLARK/CASCADE	4-172064-01	260	230	7	32	32	1	228	228	6	6	6
DELMO LAKE	JEFFERSON	3-108600-05	125	125	3	125	125	3	0	0	0	0	0
DOG CREEK	POWELL	2-061691-01	209	209	5	209	209	5	0	0	0	0	0
ENNIS LAKE	MADISON	3-137560-05	190	190	6	190	190	6	0	0	0	0	0
FLAGSTAFF CREEK	MEAGHER	4-182580-01	94	94	2	94	94	2	0	0	0	0	0
FLATHEAD LAKE	FLATHEAD/LAKE	1-076400-03	199	119	5	199	119	5	0	0	0	0	0
FLATHEAD RIVER DRAINAGE	FLATHEAD	1-082765-10	114	114	3	0	0	0	114	114	3	3	3
FLATHEAD RIVER DRAINAGE	FLATHEAD	1-088555-20	152	152	4	0	0	0	152	152	4	4	4
FLATHEAD RIVER SEC 01	SANDERS/LAKE	1-071540-01	148	119	4	34	34	1	114	114	3	3	3
FLATHEAD RIVER SEC 02	FLATHEAD	1-071560-01	186	156	5	34	34	1	152	152	4	4	4

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FORT PECK LAKE	VALLEY/MCCONE	6-165140-06	125	125	3	125	125	3	0	0	0	0
FRESNO RESERVOIR	HILL	6-155240-05	317	317	10	317	317	10	0	0	0	0
GALLATIN RIVER SEC 01	GALLATIN	3-092090-01	28	28	1	28	28	1	0	0	0	0
GALLATIN RIVER SEC 02	GALLATIN	3-096878-01	84	62	3	84	62	3	0	0	0	0
GALLATIN RIVER SEC 03	GALLATIN	3-096916-01	218	158	6	218	158	6	0	0	0	0
GEORGETOWN LAKE	GRANITE/DEER LODGE	2-067961-05	606	458	14	530	455	12	76	54	2	2
HAUGHIAN RESERVOIR	CUSTER	7-213580-07	359	359	4	359	359	4	0	0	0	0
HAUSER LAKE	LEWIS & CLARK	4-179056-05	118	94	2	118	94	2	0	0	0	0
HEBGEN LAKE	GALLATIN	3-137720-05	434	364	8	0	0	0	434	364	8	8
HIGHWOOD CREEK	CHOUTEAU	4-173456-01	222	222	5	222	222	5	0	0	0	0
HOLTER LAKE	LEWIS & CLARK	4-179136-05	359	182	9	283	165	7	76	76	2	2
HYALITE RESERVOIR	GALLATIN	3-098512-05	209	209	5	209	209	5	0	0	0	0
KOOTENAI RIVER	LINCOLN	1-113500-01	1,552	1,395	35	1,552	1,395	35	0	0	0	0
LAKE BLAINE	FLATHEAD	1-075380-03	581	581	13	581	581	13	0	0	0	0
LAKE ELWELL	LIBERTY/TOOLE	4-149240-05	45	45	1	45	45	1	0	0	0	0
LAKE FRANCES	PONDERA	4-147440-06	1,805	1,805	20	1,805	1,805	20	0	0	0	0
LAMARCHE CREEK	DEER LODGE	3-023175-01	38	38	1	0	0	0	38	38	1	1
LITTLE BLACKFOOT R SEC 1	POWELL	2-063772-01	47	47	1	47	47	1	0	0	0	0
M FK FLATHEAD RIVER	FLATHEAD	1-084740-01	34	34	1	34	34	1	0	0	0	0
MADISON RIVER SEC 01	GALLATIN/MADISON	3-133400-01	245	155	7	245	155	7	0	0	0	0
MADISON RIVER SEC 02	MADISON	3-133440-01	655	281	17	427	248	11	228	132	6	6
MADISON RIVER SEC 03	GALLATIN	3-133520-01	3,562	3,468	17	3,562	3,468	17	0	0	0	0
MARIAS RIVER SEC 01	CHOUTEAU/HILL/LIBERTY	4-143240-02	539	387	15	539	387	15	0	0	0	0
MARIAS RIVER SEC 02	TOOLE	4-143280-01	222	222	5	222	222	5	0	0	0	0
MARTINDALE RESERVOIR	WHEATLAND/MEAGHER	4-188380-05	89	89	2	89	89	2	0	0	0	0
METCALF LAKE	LAKE	1-077820-03	140	140	5	140	140	5	0	0	0	0
MILK RIVER DRAINAGE	CHOUTEAU	4-150930-10	89	89	2	89	89	2	0	0	0	0
MILK RIVER SEC 03	PHILLIPS/BLAINE/HILL	6-152760-02	170	170	5	170	170	5	0	0	0	0
MILK RIVER SEC 04	HILL	6-152800-01	254	254	8	254	254	8	0	0	0	0
MISSOURI RIVER SEC 06A	PHILLIPS/FERGUS/BLAINE	6-162521-02	413	292	11	413	292	11	0	0	0	0
MISSOURI RIVER SEC 06B	CHOUTEAU	4-162522-02	326	152	9	212	126	6	114	85	3	3
MISSOURI RIVER SEC 07	CHOUTEAU/CASCADE	4-174864-02	42	42	1	42	42	1	0	0	0	0
MISSOURI RIVER SEC 08	CASCADE	4-174880-01	28	28	1	28	28	1	0	0	0	0
MISSOURI RIVER SEC 09	CASCADE/LEWIS & CLARK	4-174896-01	941	506	23	637	455	15	304	222	8	8
N FK LITTLE BELT CREEK	CASCADE	4-175380-01	222	222	5	222	222	5	0	0	0	0
NILAN RESERVOIR	LEWIS & CLARK	4-207900-05	89	89	2	89	89	2	0	0	0	0
PALISADE CREEK	DEER LODGE	3-024450-01	119	119	2	0	0	0	119	119	2	2
ROCK CREEK	VALLEY	6-153340-02	56	56	2	56	56	2	0	0	0	0
ROCK CREEK SEC 01	MISSOULA/GRANITE	2-065263-01	76	76	2	0	0	0	76	76	2	2

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			Pressure	Error	Trips	Pressure	Error	Trips	Pressure	Error	Trips	Rank	Reg Rank
ROCK CREEK SEC 02	GRANITE	2-065282-01	80	56	2	42	42	1	38	38	1	1	
ROCK CREEK SEC 02	CARBON	5-224956-01	279	279	10	279	279	10	0	0	0	0	
ROCKY CREEK	GALLATIN	3-094938-01	68	68	2	68	68	2	0	0	0	0	
RUBY RIVER RESERVOIR	MADISON	3-019440-05	302	266	4	264	264	3	38	38	1	1	
RUBY RIVER SEC 01	MADISON	3-016360-01	190	157	5	0	0	0	190	157	5	5	
S FK FLATHEAD RIVER	FLATHEAD/POWELL	1-086660-01	76	76	2	0	0	0	76	76	2	2	
SALMON LAKE	MISSOULA	2-047230-03	125	125	3	125	125	3	0	0	0	0	
SENTINEL RESERVOIR	PHILLIPS	6-168220-07	102	102	3	102	102	3	0	0	0	0	
SHORT CREEK	BEAVERHEAD	3-016880-01	45	45	1	45	45	1	0	0	0	0	
SLOUGH CREEK	PARK	5-225586-01	190	190	5	0	0	0	190	190	5	5	
SMITH RIVER SEC 02	CASCADE/MEAGHER	4-176832-01	42	42	1	42	42	1	0	0	0	0	
SMITH RIVER SEC 03	CASCADE	4-176833-01	28	28	1	28	28	1	0	0	0	0	
SPOTTED DOG CREEK	POWELL	2-066051-01	136	136	4	136	136	4	0	0	0	0	
ST REGIS RIVER	MINERAL	2-056064-01	38	38	1	0	0	0	38	38	1	1	
STILLWATER RIVER SEC 01	STILLWATER	5-226104-01	174	146	3	31	32	1	143	143	2	2	
SUN RIVER SEC 01	CASCADE	4-206050-01	38	38	1	0	0	0	38	38	1	1	
SWAN CREEK	GALLATIN	3-096118-01	45	45	1	45	45	1	0	0	0	0	
SWAN RIVER SEC 01	FLATHEAD/LAKE	1-074560-01	284	202	8	56	56	2	228	194	6	6	
THAIN CREEK	CHOUTEAU	4-177568-01	222	222	5	222	222	5	0	0	0	0	
THOMPSON RIVER SEC 01	SANDERS	1-057248-01	38	38	1	0	0	0	38	38	1	1	
TINCUP LAKE	RAVALLI	2-039400-03	141	141	3	141	141	3	0	0	0	0	
TONGUE RIVER RESERVOIR	BIG HORN	7-219000-06	132	94	4	56	56	2	76	76	2	2	
UNDESIGNATED WATERS	YELLOWSTONE PARK	0-000100-00	1,379	1,341	31	1,341	1,341	30	38	38	1	1	
UNDESIGNATED WATERS	CABINET MOUNTAINS WILLI	0-000600-00	76	76	2	0	0	0	76	76	2	2	
UNDESIGNATED WATERS R1	REGION 1	1-001000-00	456	456	12	0	0	0	456	456	12	12	
W FK BITTERROOT RIVER	RAVALLI	2-036800-01	94	94	2	94	94	2	0	0	0	0	
W FK MADISON RIVER	BEAVERHEAD/MADISON	3-136640-01	38	38	1	0	0	0	38	38	1	1	
WADE LAKE	MADISON	3-138920-03	117	117	3	0	0	0	117	117	3	3	
WARM SPRINGS CREEK	DEER LODGE	2-066859-01	28	28	1	28	28	1	0	0	0	0	
WEST BOULDER RIVER	SWEET GRASS/PARK	5-226552-01	114	114	3	0	0	0	114	114	3	3	
WEST ROSEBUD LAKE	STILLWATER	5-229744-03	492	492	11	492	492	11	0	0	0	0	
WILLOW CREEK RESERVOIR	LEWIS & CLARK	4-208500-05	212	175	6	212	175	6	0	0	0	0	
WISE RIVER	BEAVERHEAD	3-027025-01	85	61	2	47	47	1	38	38	1	1	
YELLOWSTONE RIVER SEC 01	RICHLAND/DAWSON/PRAIRI	7-211350-02	170	170	5	170	170	5	0	0	0	0	
YELLOWSTONE RIVER SEC 01	YELLOWSTONE	5-227001-02	212	133	6	212	133	6	0	0	0	0	
YELLOWSTONE RIVER SEC 01	STILLWATER/SWEET GRASS	5-227043-01	876	524	13	876	524	13	0	0	0	0	
YELLOWSTONE RIVER SEC 01	SWEET GRASS/PARK	5-227057-01	314	226	7	314	226	7	0	0	0	0	
YELLOWSTONE RIVER SEC 01	PARK	3-227058-01	396	324	9	396	324	9	0	0	0	0	
YELLOWSTONE RIVER SEC 01	PARK	3-227071-01	216	122	6	102	102	3	114	66	3	3	

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YELLOWSTONE RIVER SEC 01 PARK		3 -227072-01	121	70	3	45	45	1	76	54	2	2
YELLOWSTONE RIVER SEC 10 PARK		3 -227084-01	266	166	7	0	0	0	266	166	7	7
YELLOWTAIL AFTERBAY	BIG HORN	5 -229834-05	89	89	2	89	89	2	0	0	0	0