

YELLOWSTONE RIVER

COMPACT COMMISSION

FORTY-FIFTH ANNUAL REPORT

1996

YELLOWSTONE RIVER COMPACT COMMISSION
821 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58501

Honorable Jim Geringer
Governor of the State of Wyoming
Cheyenne, Wyoming 82002

Honorable Marc Racicot
Governor of the State of Montana
Helena, Montana 59620

Honorable Edward T. Schafer
Governor of the State of North Dakota
Bismarck, North Dakota 58501

Dear Sirs:

Pursuant to Article III of the Yellowstone River Compact (Compact), the Commission submits the following forty-fifth annual report of activities for the period ending September 30, 1996.

A meeting of the Yellowstone River Compact Commission was held by telephone conference call on June 10, 1996. The meeting was convened at 9:00 a.m. Commission members in attendance were Mr. William F. Horak, Chairman, and Federal Representative; Mr. Gordon W. Fassett, Wyoming State Engineer; and Mr. Gary Fritz, Administrator, Water Resources Division, Montana Department of Natural Resources and Conservation. Also in attendance were Ms. Sue Lowry, Wyoming State Engineer's Office; Mr. Keith Burron, Wyoming Attorney General's Office; Ms. Terri McLaughlin, Montana Department of Natural Resources and Conservation; and Mr. Robert E. Davis, U.S. Geological Survey.

The following agenda was accepted by all attendees:

1. Adoption of the Proposed "Rules for the Resolution of Disputes Over the Administration of the Yellowstone River Compact"
 - a. Public Advertisement Method and Results for Wyoming
 - b. Public Advertisement Method and Results for Montana
 - c. Motion to Adopt and Discussion
 - d. Vote on Adoption
2. Other Items
3. Adjourn

The public advertisement method used by Wyoming consisted of publishing a legal notice in the Cody Enterprise for the period April 8-22, 1996 and in the Sheridan Press on April 9, 16, and 23, 1996. The legal notice outlined the guidelines and stated that copies of the entire proposed rules were available upon request. Two requests were received for the entire proposed rules. No substantial comments were received regarding the proposed rules.

The public advertisement method used by Montana consisted of publication of the entire proposed rules in the Administrative Register of the Montana Secretary of State on April 25, 1996. No comments were received. Mr. Fritz stated that if the rules are adopted at this meeting, then an adoption notice will be published July 3, 1996 and the rules will become effective on July 4, 1996.

Both States agreed that procedures appropriate for adoption of the proposed rules by the Commission have been followed. Both States also agreed that the version of the proposed rules prepared by the Montana Department of Natural Resources and Conservation on December 19, 1995 was the version that was advertised and being considered in this meeting.

Mr. Fritz moved for a vote on adoption of the proposed "Rules for the Resolution of Disputes Over the Administration of the Yellowstone River Compact." Mr. Fassett seconded the motion. Mr. Fassett, Mr. Fritz, and Mr. Horak all voted for adoption of the proposed rules. Mr. Fritz stated that the Montana Department of Natural Resources and Conservation will provide multiple (at least three) originals of the adopted rules to the members of the Commission for their signature. Mr. Fritz and Mr. Fassett each agreed to provide documentation of the advertisement methods used for the proposed rules.

Both Mr. Fritz and Mr. Fassett commented that streamflow in the Yellowstone River basin in both Montana and Wyoming was high.

The next meeting of the Yellowstone River Compact Commission was tentatively scheduled for November 7, 1996 in Billings, Montana. The meeting probably will be held on the campus of Montana State University-Billings.

The meeting was adjourned at 9:25 a.m.

Members of the Yellowstone River Compact Commission convened their 45th Annual Meeting on November 7, 1996 at 8:45 a.m. in Billings, Montana. In attendance were Mr. William F. Horak, Chairman and Federal Representative; Mr. Gordon W. Fassett, Wyoming State Engineer; and Mr. Gary Fritz, Administrator, Water Resources Division, Montana Department of Natural Resources and Conservation. Also in attendance were Ms. Sue Lowry, Wyoming State Engineer's Office; Mr. Craig Cooper, Wyoming Board of Control, Water Division III; Mr. Mike Whitaker, Wyoming Board of Control, Water Division II; Mr. Keith Kerbel, Montana Department of Natural Resources and Conservation; Mr. Orrin Ferris, MSE-HKM Associates; and Mr. Robert E. Davis, U.S. Geological Survey.

Mr. Horak asked if the minutes from a meeting by teleconference on June 10, 1996 regarding resolution of disputes met with the approval of the Commission. All Commissioners approved the minutes, which are appended.

Mr. Davis presented information on budgets for current and future water years. The streamflow-gaging program for the Yellowstone River Compact Commission for fiscal year 1996 cost \$64,300, which included cost for relocating the Tongue River gage. The program is estimated to cost \$51,100 for fiscal year 1997, \$53,400 for fiscal year 1998, \$55,700 for fiscal year 1999, and \$58,200 for fiscal year 2000. The Commission accepted the proposed budget for fiscal year 1997. Estimates for fiscal years 1998-2000 met with general approval.

Mr. Horak reported that he has accepted a new position as District Chief of Colorado and will be relocating to the Denver area in January 1997. He asked for discussion concerning the designation of a new Federal Representative and recommended that the other Commissioners submit a letter to David J. Lystrom, Regional Hydrologist, Central Region, U.S. Geological Survey, requesting a replacement. The other Commissioners agreed to take the recommendation under consideration and asked Mr. Davis to keep them apprised of developments.

Mr. Davis reported that streamflow during water year 1996 was 147 percent of average for the Clarks Fork Yellowstone River, 126 percent of average for the Bighorn River, 107 percent of average for the Tongue River, and 119 percent of average for the Powder River. Boysen Reservoir, Anchor Reservoir, Pilot Butte Reservoir, and Buffalo Bill Reservoir had more water in storage at the end of water year 1996 than at the end of water year 1995. Bighorn Lake, Bull Lake, and Tongue River Reservoir had less water in storage. The total water in storage in the reservoirs decreased 23,327 acre-feet during water year 1996.

Mr. Horak asked if the newly adopted Rules for the Resolution of Disputes, which were formally adopted during the June 10, 1996 teleconference meeting, should be included in future Commission reports. Mr. Fassett and Mr. Fritz stated that the Rules should be included in all future reports. Mr. Horak agreed.

Mr. Fassett reported on the status of the Clarks Fork Wild and Scenic River water-right quantification. The Federal reserved water-right application from the U.S. Forest Service is in the final stages of processing by the State of Wyoming. The reserved water-right quantity will consist of base flow plus 85-100 percent of runoff flow, depending on streamflow conditions, at the downstream end of the Wild and Scenic River reach at the U.S. Forest Service boundary. The priority date for the water right will be 1990. The quantification will specifically allow for water-right claims for small amounts, such as for domestic and stock use, and the priority date of the Wild and Scenic right would be subordinate to these claims. The Federal reserved water right would not preclude all downstream development. Mr. Horak inquired about the average annual flow at the quantification point for the reserved water right. Mr. Fassett stated that the average annual flow is about 5,000-6,000 cubic feet per second and base flow is about 200 cubic feet per second. Mr. Fassett also stated that the State of Wyoming has an instream flow right for 200 cubic feet per second for 6 miles of the downstream part of the Wild and Scenic River reach.

Mr. Fassett reported on the status of the Wind River Indian Reservation settlement discussions. The discussions have not progressed significantly, primarily because of numerous personnel changes for all parties involved. However, interest has been expressed for continuing the discussions. In addition, processing of Walton Right claims has been elevated to the Wyoming District Court Judge. Quantification and approval of the Walton Right claims may aid future discussions with the Shoshone and Northern Arapahoe Tribes of the Reservation. Quantification of tribal water rights was determined by court decree in 1988. State water rights are still being adjudicated. Mr. Cooper reported that of approximately 4,200 original unadjudicated or partially adjudicated claims, only about 100 remain unresolved.

Mr. Fassett reported on the status of the Little Bighorn instream-flow water-right claim. The application was filed by the Wyoming Water Development Commission in 1989. Processing of the claim was delayed because of potential hydropower development in the basin. The instream-flow water right was recently issued for fisheries purposes for the mainstem of the Little Bighorn River from the confluence with Dry Fork to the U.S. Forest Service boundary a few miles from the Wyoming-Montana border. The amount of the water right is variable from about 45 to 60 cubic feet per second, depending on flow conditions. Plans for hydropower development currently are on hold. Mr. Fritz asked about the seniority of water rights if hydropower development occurred in the future. Mr. Fassett stated that any new water rights probably would be junior to the instream-flow water right.

Mr. Fritz reported on the status of the Montana statewide adjudication. The last Montana Legislature established a study group for the adjudication program to recommend refinements to the adjudication process. One recommendation was to require that objections to applications be filed at the first decree stage. Other recommendations were to increase the number of field investigations before the first decree to help mitigate objections, and to increase contact between the Montana Department of Natural Resources and Conservation and the claimant. Formal changes based on the recommendations will have to be approved by the State Legislature. However, Mr. Kerbel reported that increased field investigations and involvement have helped adjudications in the Clarks Fork basin and that examinations or investigations

have been conducted for 72 percent of the 216,000 claims statewide. Mr. Fritz estimated that the claims examination phase probably will take another twelve years to complete, and the court process would continue beyond that.

Mr. Kerbel reported that the water-rights negotiations with the Crow Tribe are in the initial stages. Current activities are focused in the Pryor Creek basin to determine soil types, land ownership, and water availability. The State of Montana is trying to develop procedures for the negotiations that are acceptable to all and progress appears to be favorable. The Montana Department of Natural Resources and Conservation is mapping lands irrigated prior to 1973. Mr. Ferris reported that MSE-HKM will be mapping potentially irrigable acreage.

Mr. Fritz reported that a recent Montana Supreme Court decision does not allow the State of Montana to issue surface water-right permits until all tribal water rights have been adjudicated.

Mr. Davis reported that a study of the Yellowstone River basin will begin as part of the National Water Quality Assessment Program of the U.S. Geological Survey. The study team will be based primarily in Cheyenne, Wyoming, and will collect and interpret water-quality data for the basin. Ms. Lowry recommended a status report from study-team members at the next Commission meeting. The Commissioners agreed with the recommendation.

Mr. Fritz reported on the Tongue River Dam rehabilitation. Although the project was originally scheduled for completion in 1998, rehabilitation now is expected to be completed by 1999, at which time water deliveries to the Northern Cheyenne Indian Reservation can begin. Road improvements, stockpiling of aggregate, and land acquisition are nearly complete. The next part of the project will be overlayment of the dam face and spillway. The project will increase storage in the reservoir by about 15,000 acre-feet.

Mr. Fassett reported on the enlargement of Twin Lakes for the Sheridan area water supply. Permits were issued in 1996. Construction has begun and will continue in 1997. The original design would have increased storage by about 3,000 acre-feet. However, the project was redesigned to increase storage in the upper reservoir by 1,000 acre-feet, decrease the size of the lower reservoir, and increase wetland area. The project is anticipated to adequately augment the water supply for Sheridan for about 30 years.

Mr. Fassett reported that the Tie Hack Municipal Reservoir project for the Buffalo water supply was permitted in 1996 and is presently under construction. The project is on a tributary of Clear Creek, 5-6 miles upstream from Buffalo, and will have a hydropower component. The dam will be constructed of roller-compacted concrete and the reservoir will have a storage capacity of about 2,500 acre-feet.

Mr. Fassett reported on the status of the proposed Greybull Valley Reservoir. Permitting for the project is in process and the EIS is being finalized. The project will be an offstream storage facility with a capacity of about 20,000 acre-feet primarily for agricultural use. Mr. Cooper stated that the reservoir will be located about 20 miles below the lower Sunshine Reservoir and most of the water supplying the reservoir will be diverted re-regulation water from Sunshine Reservoirs.

Mr. Fassett reported on the status of the Wyoming Water Planning process. The process is being redesigned to be continuous, basin by basin, on a rotational basis and will include involvement by various agencies and the public. Geographic information system technology will be applied. The new process is a joint effort by the Wyoming State Engineer's Office and the Wyoming Water Development Commission. Mr. Horak asked if a written description of the new process was available. Mr. Fassett stated that the description is in draft form and that copies of the draft would be provided to the Commissioners.

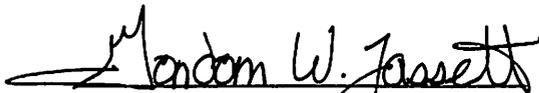
Mr. Kerbel described the Tolman pipeline, which diverts up to 5 gallons per minute and a maximum of 3.6 acre-feet per year from a diversion point in Montana for use in Wyoming. Mr. Kerbel asked if this diversion needs to be considered by the Commission. Mr. Horak stated that Section 5E of the Yellowstone River Compact exempts from consideration uses of water for domestic and stock purposes, provided the use is less than 20 acre-feet. The Commissioners agreed that the diversion is exempted from consideration under the provisions of the Compact and that the Commissioners will send a letter to Mr. Tolman explaining these exclusionary aspects. Mr. Fritz agreed to prepare a draft letter for review by the Commissioners.

Mr. Kerbel described a diversion by Amoco from Wyoming for potential use in both Montana and Wyoming. Mr. Cooper stated that the diversion is permitted by the State of Wyoming and agreed to provide a letter to the Montana water master describing that permit.

The Commissioners presented a plaque to Mr. Horak in recognition of his contributions to the Commission during the past eight years and thanked him for his service.

Arrangements for the 1997 meeting were discussed. Mr. Horak recommended deferring specific plans until his replacement is named. Ms. Lowry suggested a tour of the various major construction activities. Mr. Fassett suggested the meeting be held earlier in the year, perhaps September, if it is to include a tour. The Commissioners agreed to consider an earlier meeting in 1997.

The Commission adjourned at 11:00 a.m.


Gordon W. Fassett
Commissioner for Wyoming


Gary Fritz
Commissioner for Montana


William F. Horak
Federal Representative

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GENERAL REPORT

Cost of operation and budget

The work funded by the Yellowstone River Compact Commission, which to date has been primarily concerned with the collection of required hydrologic data, has been financed through cooperative arrangements whereby Montana and Wyoming each bear one-fourth of the cost and the remaining one-half is borne by the United States. The salaries and necessary expenses of the State and U.S. Geological Survey representatives, and the cost to other agencies of collecting hydrologic data, are not considered as expenses of the Commission.

The expense of the Commission during fiscal year 1996 was \$64,300, in accordance with the budget adopted for the year.

The budgets for fiscal years 1997, 1998, 1999, and 2000 were tentatively adopted subject to the availability of appropriations.

The budgets for the five fiscal years are summarized as follows:

October 1, 1995, to September 30, 1996 (fiscal year 1996):

Continuation of existing streamflow-gaging programs and relocation of Tongue River gage	\$64,300
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October 1, 1996, to September 30, 1997 (fiscal year 1997):

Estimate of continuation of existing streamflow-gaging programs	\$51,100
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October 1, 1997, to September 30, 1998 (fiscal year 1998):

Estimate of continuation of existing streamflow-gaging programs	\$53,400
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October 1, 1998, to September 30, 1999 (fiscal year 1999):

Estimate of continuation of existing streamflow-gaging programs	\$55,700
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October 1, 1999, to September 30, 2000 (fiscal year 2000):

Estimate of continuation of existing streamflow-gaging programs	\$58,200
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Streamflow-gaging station operation

Gaging stations at the measuring sites specified in the Yellowstone River Compact were continued in operation and satisfactory discharge records were collected at each station. Locations of streamflow-gaging and reservoir stations are shown on a map of the Yellowstone River Basin at the end of the report.

During water year 1996, annual streamflow was greater than normal¹ in two of the four tributaries of the Yellowstone River as given in the following table:

<u>Station number</u>	<u>Measurement site</u>	<u>Percent of average²</u>
06208500	Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to White Horse Canal	147
06294500	Bighorn River above Tullock Creek, near Bighorn, Mont., minus Little Bighorn River near Hardin, Mont. Adjusted for change in contents in Bighorn Lake	126 ³
06308500	Tongue River at Miles City, Mont.	107
06326500	Powder River near Locate, Mont.	119

¹The "normal" range is 80 to 120 percent of average.

²Average is based on period of record at station.

³Average is based on period since completion of Yellowtail Dam in 1967.

Tabulation of streamflow data for water year 1996 and graphical comparisons with average flows for the preceding year and for selected base periods are given in the section "Summary of discharge for Compact streamflow-gaging stations."

Diversions

No diversions were regulated by the Commission during the year. The Commissioners considered the need to develop procedures to administer water in accordance with the provisions of the Compact.

Storage in reservoirs

Reservoirs completed after January 1, 1950

Bighorn Lake, a Bureau of Reclamation project on the Bighorn River, and the largest storage project in the basin, contained 1,014,000 acre-feet at the beginning of the year and 978,100 acre-feet at the end of the year. Daily contents ranged from 759,200 acre-feet on May 5, 1996 to 1,017,000 acre-feet on October 2, 1995. Boysen Reservoir, located on the Wind River and operated by the Bureau of Reclamation, began the year with 610,600 acre-feet in storage and ended the year with 650,600 acre-feet. Storage figures are listed as usable contents, in acre-feet. Monthend and year-end contents and a description of these reservoirs are given in the section "Monthly summary of contents for Compact reservoirs completed after January 1, 1950." The Commission is cognizant of other reservoirs in the Yellowstone River basin and considers their aggregate effect to be insufficient to warrant the collection of storage data at this time.

Reservoirs existing on January 1, 1950

As a matter of record and general information, monthend contents are given later in the report for reservoirs in existence upstream from the points of measurement on January 1, 1950. These data are pertinent to allocation under Article V, Section C, Item 3 of the Compact.

SUMMARY OF DISCHARGE FOR COMPACT STREAMFLOW-GAGING STATIONS

06208500 Clarks Fork Yellowstone River at Edgar, Mont.

LOCATION.--Lat 45°27'58", long 108°50'35", in SE¹/₄SE¹/₄SE¹/₄ sec.23, T.4 S., R.23 E., Carbon County, Hydrologic Unit 10070006, on right bank 400 ft downstream from county bridge, 0.5 mi east of Edgar, 6 mi upstream from Rock Creek, and at river mile 22.1.

DRAINAGE AREA.--2,032 mi².

PERIOD OF RECORD.--July 1921 to September 1969, October 1986 to current year.

REVISED RECORDS.--WSP 1509: 1924, 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,460 ft above sea level, from topographic map. Prior to Aug. 31, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good except those for the estimated daily discharges, which are poor. Diversions for irrigation of about 41,500 acres, of which about 840 acres lies downstream from the station. In addition, about 6,300 acres of land upstream from the station are irrigated by diversions from the adjoining Rock Creek basin. Several observations of water temperature and specific conductance were made during the year. Figures of discharge given herein have the flow of White Horse Canal subtracted.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	569	e520	650	e550	e280	e400	399	701	3490	5360	1810	397
2	568	e500	715	e500	e250	e450	468	684	3510	5640	1710	440
3	560	e520	830	e450	e350	e500	518	746	3980	6180	1570	441
4	569	552	708	e400	e450	e450	464	712	5150	6390	1530	417
5	579	561	686	e350	e500	e350	424	680	6750	6370	1400	402
6	576	625	650	e450	e540	e300	401	651	7480	6350	1220	389
7	572	600	e600	e500	e560	e350	438	652	6970	5700	1100	390
8	591	582	e300	e540	e600	e400	591	668	7270	4930	942	382
9	590	603	e350	e500	e580	e450	777	660	8490	4320	810	359
10	573	615	e450	e500	e550	e500	1070	749	9780	4060	726	332
11	570	591	e500	e500	e480	e600	1320	921	10200	4070	731	304
12	570	601	e650	e500	e450	e800	1320	946	9960	4040	759	290
13	603	616	e620	e500	e440	e700	1100	1510	9510	3720	719	300
14	613	618	e600	e500	e440	597	921	2650	9640	3500	721	339
15	587	624	e600	e500	e440	455	807	3730	10400	3300	767	377
16	580	645	e600	e450	e450	447	798	4220	9730	3120	809	476
17	570	621	e600	e350	e450	450	917	5030	9630	3100	820	664
18	570	614	e580	e250	e430	399	997	4750	9340	2870	845	881
19	562	591	e560	e300	e430	373	907	4150	8730	2650	841	849
20	584	601	e540	e350	e420	351	814	3430	6700	2580	791	848
21	576	579	e580	e350	e420	364	777	2740	5630	2450	687	817
22	598	524	e600	e350	e420	409	715	2470	5880	2210	604	804
23	611	585	e600	e340	420	388	677	2520	6720	1990	552	768
24	584	565	e600	e330	387	e300	666	2930	6080	1890	506	761
25	544	545	e600	e320	388	e250	812	2690	5800	1880	496	761
26	602	581	e600	e320	e200	e300	926	2520	6510	1840	482	796
27	595	640	e600	e310	e210	e350	869	2740	6770	1800	443	815
28	590	583	e600	e300	e230	e350	840	2550	6570	1790	426	797
29	589	572	e600	e300	e250	360	765	2820	5760	1720	397	791
30	e560	595	e600	e300	---	400	725	3510	5260	1700	420	790
31	e540	---	e600	e300	---	386	---	3680	---	1860	416	---
TOTAL	17945	17569	18369	12460	12015	13179	23223	69410	217690	109380	26050	17177
MEAN	579	586	593	402	414	425	774	2239	7256	3528	840	573
MAX	613	645	830	550	600	800	1320	5030	10400	6390	1810	881
MIN	540	500	300	250	200	250	399	651	3490	1700	397	290
AC-FT	35590	34850	36430	24710	23830	26140	46060	137700	431800	217000	51670	34070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996, BY WATER YEAR (WY)*

	530	500	406	347	348	364	563	2104	4065	2046	616	484
MEAN	530	500	406	347	348	364	563	2104	4065	2046	616	484
MAX	1010	777	593	471	584	554	1398	5578	7256	4771	1541	1395
(WY)	1942	1928	1996	1951	1963	1943	1943	1928	1996	1943	1951	1941
MIN	298	310	217	200	180	220	123	757	1768	290	49.5	156
(WY)	1956	1936	1937	1922	1922	1924	1961	1968	1987	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1921 - 1996*
ANNUAL TOTAL	405523	554467	
ANNUAL MEAN	1111	1515	1032
HIGHEST ANNUAL MEAN			1558
LOWEST ANNUAL MEAN			668
HIGHEST DAILY MEAN	7810	Jun 7	10600
LOWEST DAILY MEAN	180	Feb 13	200
ANNUAL SEVEN-DAY MINIMUM	201	Jan 1	291
INSTANTANEOUS PEAK FLOW			11000
INSTANTANEOUS PEAK STAGE			9.19
INSTANTANEOUS LOW FLOW			36
ANNUAL RUNOFF (AC-FT)	804400	1100000	747900
10 PERCENT EXCEEDS	3460	4800	2850
50 PERCENT EXCEEDS	565	600	470
90 PERCENT EXCEEDS	289	350	271

*--During period of operation (water years 1921-69, 1987 to current year).
e--Estimated.

06208500 CLARKS FORK YELLOWSTONE RIVER AT EDGAR, MONT.
 (Minus diversions to White Horse Canal)

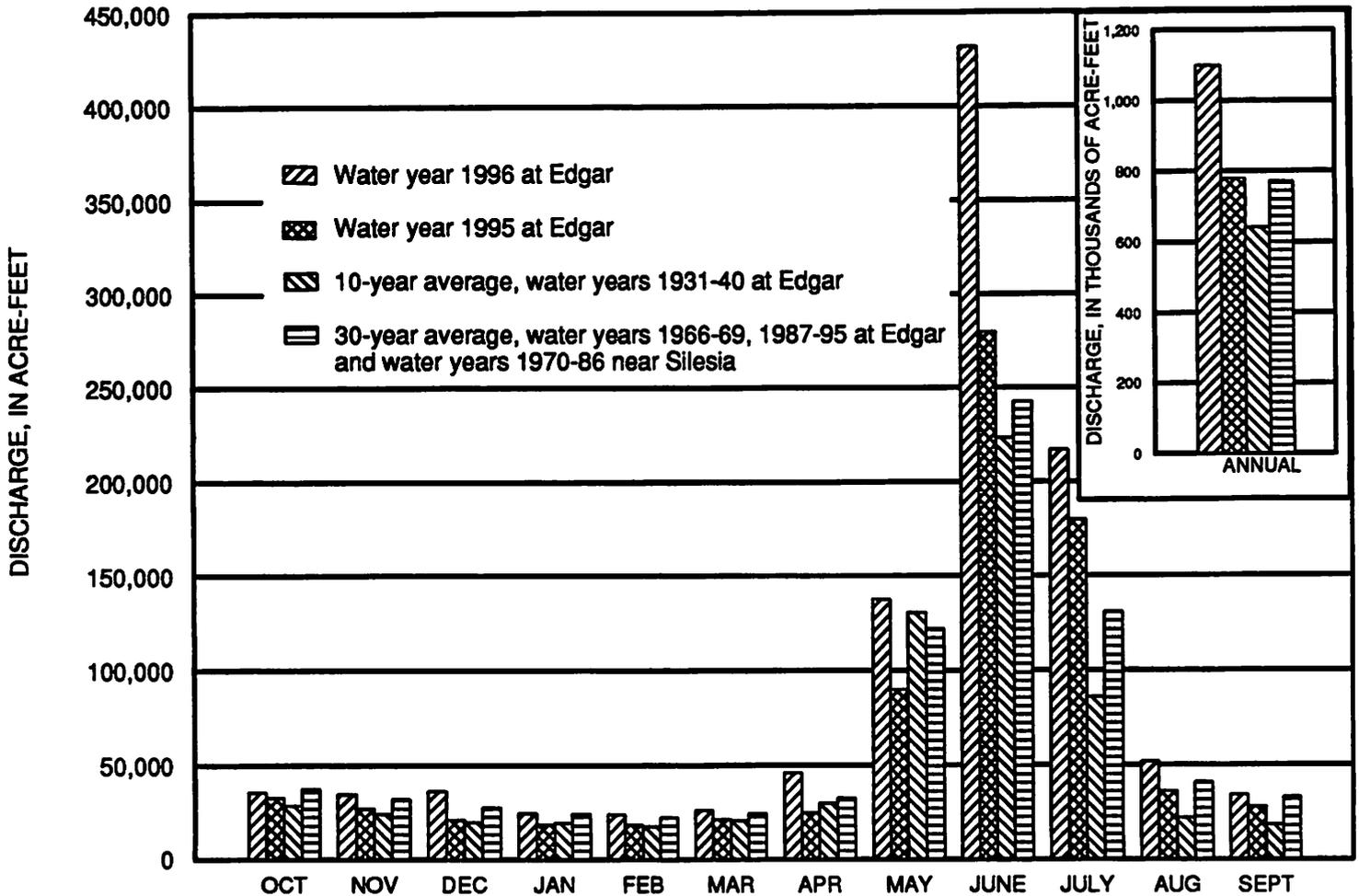


Figure 1. Comparison of discharge of the Clarks Fork Yellowstone River during water year 1996 with discharge during water year 1995 and with 10-year and 30-year average discharges.

SPD SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1946 - 1996	
ANNUAL TOTAL	1710270		1732130		3810	
ANNUAL MEAN	4686		4733		5501	1947
HIGHEST ANNUAL MEAN					1623	1961
LOWEST ANNUAL MEAN					50000	May 20 1978
HIGHEST DAILY MEAN	15100	Jul 17	8630	May 30	400	Apr 4 1967
LOWEST DAILY MEAN	1900	Feb 15	2130	Aug 21	528	May 6 1961
ANNUAL SEVEN-DAY MINIMUM	1940	Apr 19	2280	Aug 16	a59200	May 20 1978
INSTANTANEOUS PEAK FLOW			8900	May 29	b14.21	Apr 2 1965
INSTANTANEOUS PEAK STAGE			4.83	May 29	c275	Nov 15 1959
INSTANTANEOUS LOW FLOW					2760000	
ANNUAL RUNOFF (AC-FT)	3392000		3436000		7990	6270
10 PERCENT EXCEEDS	9880		7990		3940	3200
50 PERCENT EXCEEDS	3730		3940		2760	1800
90 PERCENT EXCEEDS	2000		2760			

SUMMARY STATISTICS	WATER YEARS 1946 - 1961*		WATER YEARS 1967 - 1996**	
ANNUAL MEAN	3358		3910	
HIGHEST ANNUAL MEAN	5501	1947	5415	1975
LOWEST ANNUAL MEAN	1623	1961	1999	1989
HIGHEST DAILY MEAN	25700	Jun 23 1947	50000	May 20 1978
LOWEST DAILY MEAN	462	May 12 1961	400	Apr 4 1967
ANNUAL SEVEN-DAY MINIMUM	528	May 6 1961	843	Nov 18 1977
INSTANTANEOUS PEAK FLOW	d26200	Jun 24 1947	59200	May 20 1978
INSTANTANEOUS PEAK STAGE	b10.65	Mar 20 1947	14.15	May 20 1978
INSTANTANEOUS LOW FLOW	c275	Nov 15 1959		
ANNUAL RUNOFF (AC-FT)	2578000		2833000	
10 PERCENT EXCEEDS	6200		6220	
50 PERCENT EXCEEDS	2810		3470	
90 PERCENT EXCEEDS	1500		2000	

*--Prior to construction of Yellowtail Dam.
 ***-After completion of Yellowtail Dam.
 a--Gage height 14.15 ft, at different site and datum.
 b--Backwater from ice.
 c--About, result of freezeup.
 d--Gage height, 8.79 ft, at different site and datum.
 e--Estimated.

06294500 BIGHORN RIVER ABOVE TULLOCK CREEK, NEAR BIGHORN, MONT.
 (Adjusted for change in contents in Bighorn Lake
 minus
 Little Bighorn River near Hardin, Mont.)

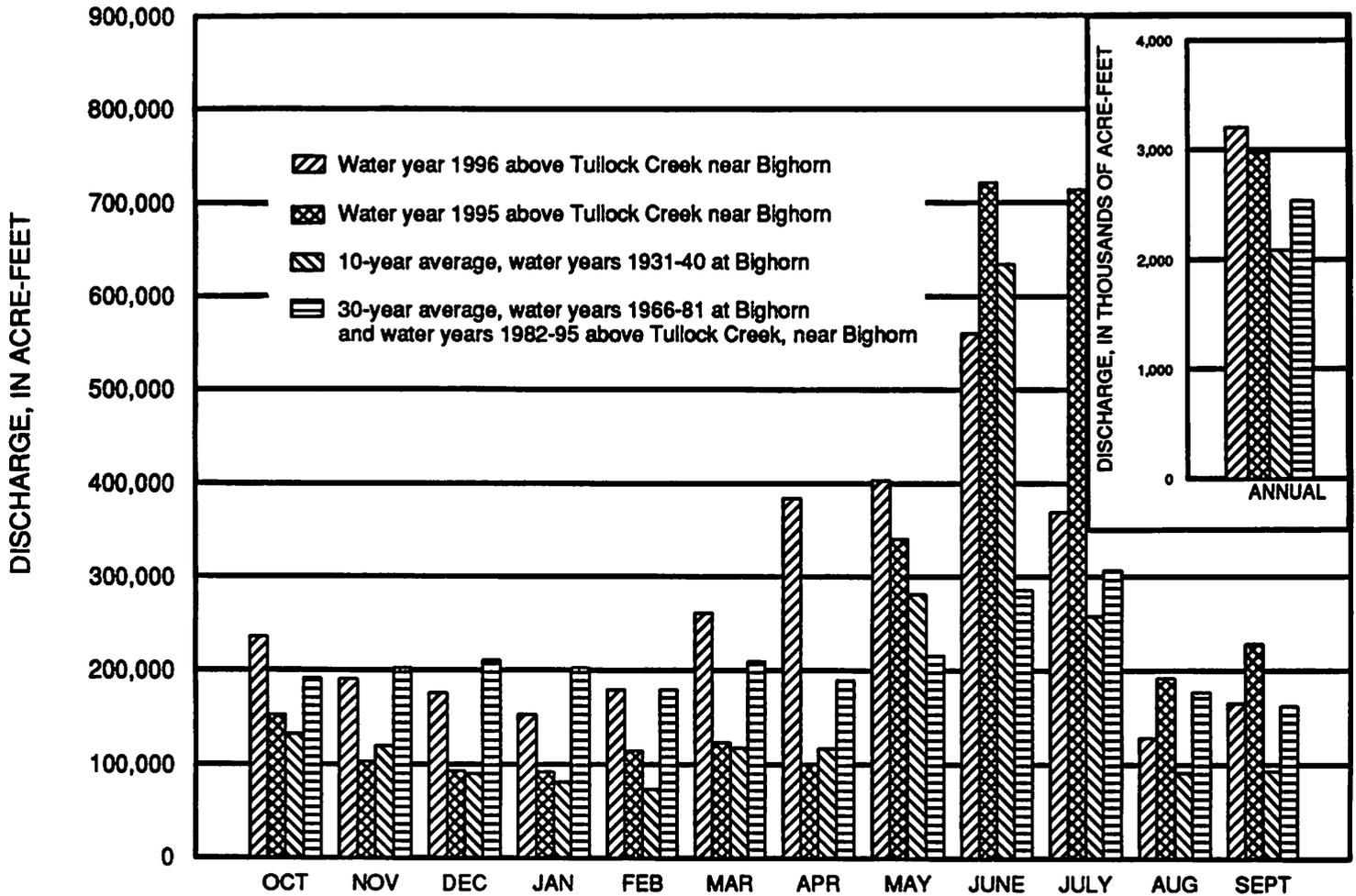


Figure 2. Comparison of discharge of the Bighorn River during water year 1996 with discharge during water year 1995 and with 10-year and 30-year average discharges.

06308500 TONGUE RIVER AT MILES CITY, MONT.

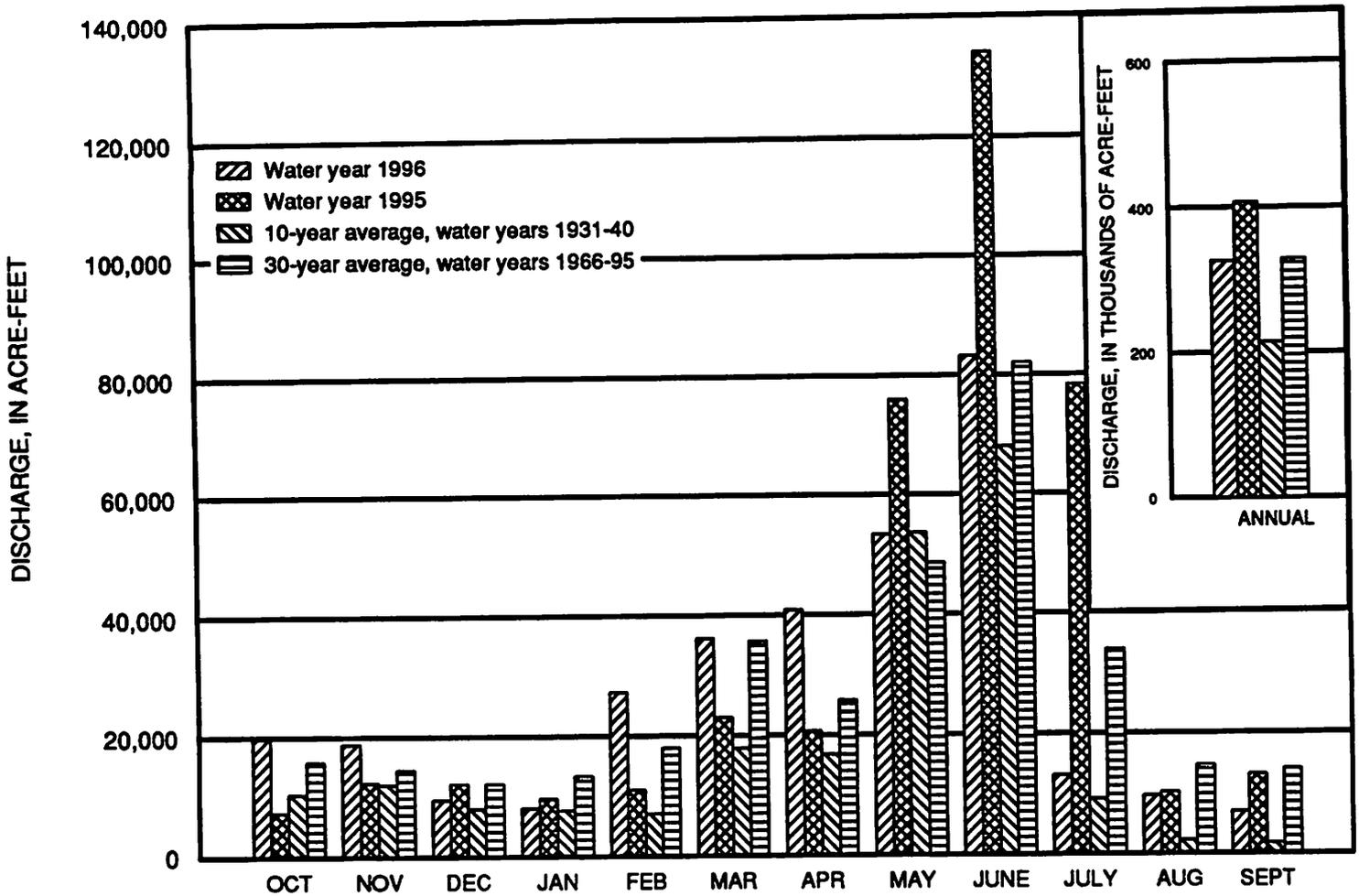


Figure 3. Comparison of discharge of the Tongue River during water year 1996 with discharge during water year 1995 and with 10-year and 30-year average discharges.

06326500 POWDER RIVER NEAR LOCATE, MONT.

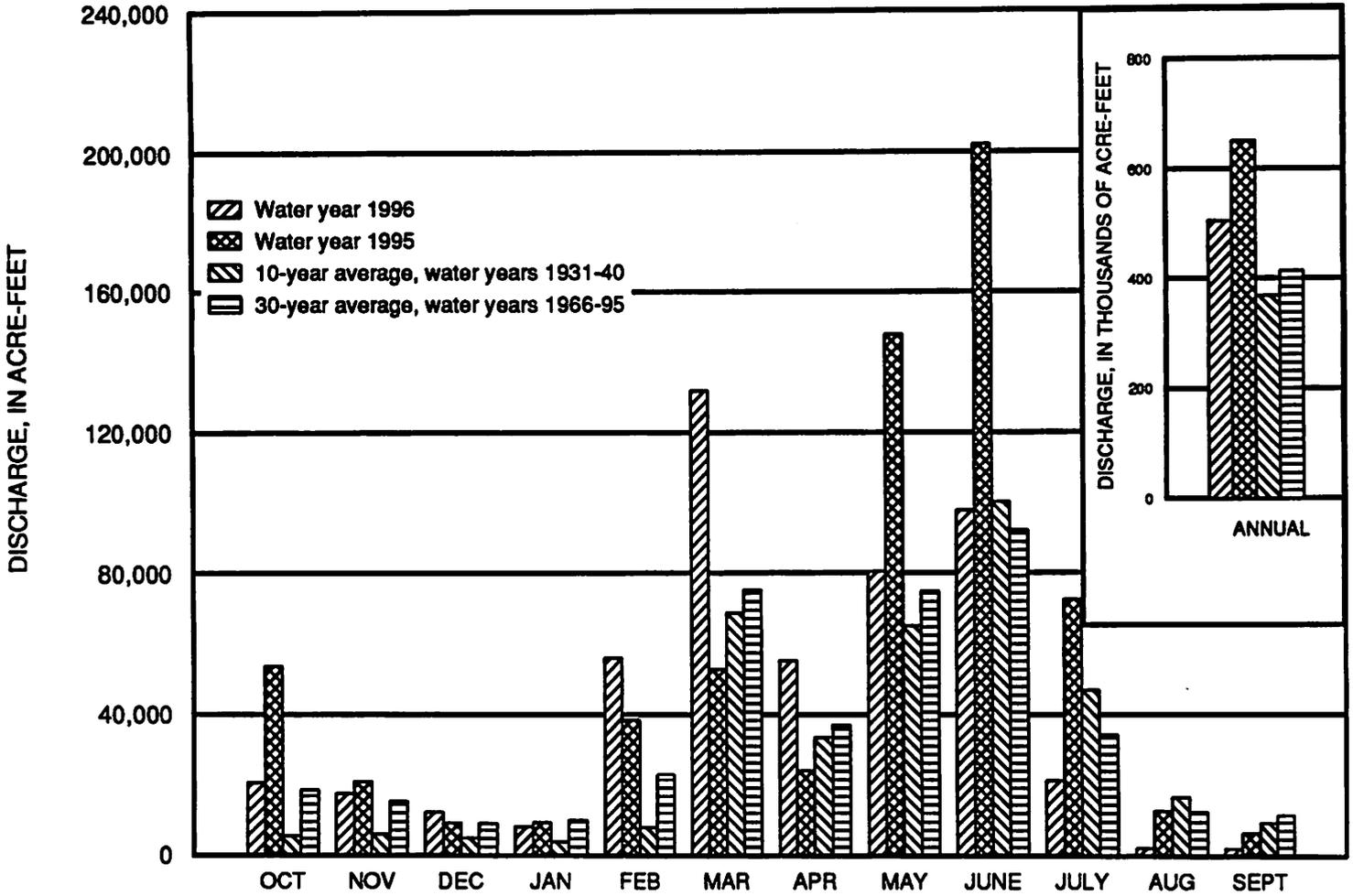


Figure 4. Comparison of discharge of the Powder River during water year 1996 with discharge during water year 1995 and with 10-year and 30-year average discharges.

**MONTHLY SUMMARY OF CONTENTS FOR COMPACT RESERVOIRS
COMPLETED AFTER JANUARY 1, 1950**

06258900 Boysen Reservoir, Wyo.

LOCATION.--Lat 43°25'00", long 108°10'37", in NW1/4 NW1/4 sec. 16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi north of Shoshoni, Wyoming.

DRAINAGE AREA.--7,700 mi².

PERIOD OF RECORD.--October 1951 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is feet above sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1951. Storage began Oct. 11, 1951. Usable capacity, 742,100 acre-ft between elevation 4,657.00 ft, invert of penstock pipe, and 4,725.00 ft, top of spillway gate. Dead storage, 59,880 acre-ft below elevation 4,657.00 ft. Prior to Jan. 1, 1966, usable capacity was 757,800 acre-ft and dead storage was 62,000 acre-ft at same elevations. Crest of dam is at elevation 4,758.00 ft. Figures given herein represent usable contents. Water used for irrigation, flood control, and power development.

COOPERATION.--Elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 862,500 acre-ft, July 6, 7, 1967, elevation, 4,730.83 ft; minimum daily contents since normal use of water started, 191,900 acre-ft, Mar. 18, 19, 1956, elevation, 4,684.18 ft, capacity table then in use.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 751,000 acre-ft, July 9, elevation, 4,725.45 ft; minimum daily contents, 414,100 acre-ft, May 14, elevation, 4,705.05 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 1995	4,717.85	610,600	---
October 31	4,717.49	604,400	-6,200
November 30	4,717.45	603,800	-600
December 31	4,716.53	588,100	-15,700
January 31, 1996	4,715.59	572,400	-15,700
February 29	4,714.46	553,900	-18,500
March 31	4,713.23	534,300	-19,600
April 30	4,707.84	453,200	-81,100
May 31	4,707.91	454,200	+1,000
June 30	4,723.80	718,900	+264,700
July 31	4,723.21	707,700	-11,200
August 31	4,720.66	660,400	-47,300
September 30, 1996	4,720.12	650,600	-9,800
1996 water year			+40,000

06260300 Anchor Reservoir, Wyo.

LOCATION.--Lat 43°39'50", long 108°49'27", in sec. 26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2 mi downstream from Middle Fork, 3 mi southeast of Anchor, and 32 mi west of Thermopolis.

DRAINAGE AREA.--131 mi².

PERIOD OF RECORD.--November 1960 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is feet above sea level (Bureau of Reclamation benchmark).

REMARKS.--Reservoir is formed by concrete arch dam completed in 1960. Usable capacity, 17,160 acre-ft between elevation 6,343.75 ft, invert of river outlet, and 6,441.00 ft, spillway crest, including 68 acre-ft below elevation 6,343.75 ft. Prior to Oct. 1, 1971, usable capacity was 17,280 acre-ft, including 149 acre-ft below the invert. Figures given herein represent usable contents. Water is used for irrigation of land in Owl Creek basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 9,250 acre-ft, July 4, 1967, elevation, 6,418.52 ft; no usable storage on many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,550 acre-ft, June 28, elevation, 6,378.20 ft; minimum daily contents, 59 acre-ft, Feb. 20-28, elevation, 6,343.00 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 1995	6,350.50	159	---
October 31	6,352.30	197	+38
November 30	6,351.00	170	-27
December 31	6,345.00	77	-93
January 31, 1996	6,345.00	77	0
February 29	6,343.50	64	-13
March 31	6,347.80	117	+53
April 30	6,358.20	352	+235
May 31	6,357.80	339	-13
June 30	6,376.60	1,410	+1,071
July 31	6,353.40	220	-1,190
August 31	6,352.50	202	-18
September 30, 1996	6,353.00	212	+10
1996 water year			+53

06286400 Bighorn Lake near St. Xavier, Mont.

LOCATION.--Lat 45°18'27", long 107°57'26", in SW1/4 SE1/4 sec. 18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi upstream from Grapevine Creek, 15.5 mi southeast of St. Xavier, and at river mile 86.6.

DRAINAGE AREA.--19,626 mi².

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir."

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is feet above sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,312,000 acre-ft, revised, between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spill-way crest, 3,593.00 ft. Normal maximum operating level, 1,097,000 acre-ft, elevation, 3,640.00 ft. Minimum operating level, 483,400 acre-ft, elevation 3,547.00 ft. Dead storage, 16,010 acre-ft below elevation 3,296.50 ft. Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum daily contents since first filling, 641,900 acre-ft, Apr. 14, 1989, elevation, 3,583.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,017,000 acre-ft, Oct. 2, elevation, 3,636.95 ft; minimum daily contents, 759,200 acre-ft, May 5, elevation, 3,605.39 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 1995	3,636.72	1,014,000	---
October 31	3,632.64	969,800	-44,200
November 30	3,630.80	951,200	-18,600
December 31	3,624.77	896,200	-55,000
January 31, 1996	3,618.86	848,900	-47,300
February 29	3,615.10	821,400	-27,500
March 31	3,609.37	783,300	-38,100
April 30	3,606.73	767,100	-16,200
May 31	3,615.49	824,100	+57,000
June 30	3,631.41	957,300	+133,200
July 31	3,634.70	991,700	+34,400
August 31	3,632.54	968,800	-22,900
September 30, 1996	3,633.43	978,100	+9,300
1996 water year			-35,900

MONTHLY SUMMARY OF CONTENTS FOR COMPACT RESERVOIRS EXISTING ON JANUARY 1, 1950

The extent, if any, of the use of reservoirs in this section which may be subject to Compact allocations was not determined. As a matter of hydrologic interest the monthend usable contents in acre-feet of four reservoirs are given. The first three reservoirs are in the Bighorn River basin, Wyoming, and data on contents were furnished by the Bureau of Reclamation. The Tongue River Reservoir in Montana is operated under the supervision of the Water Resources Division of the Montana Department of Natural Resources and Conservation, which furnished the water level data.

Month	Usable contents, in acre-feet			
	06224500 Bull Lake	Pilot Butte Reservoir	06281500 Buffalo Bill Reservoir	06307000 Tongue River Reservoir
September 30, 1995	104,300	11,730	525,200	23,470
October 31	101,300	18,300	517,700	18,030
November 30	99,350	21,780	525,500	20,050
December 31	99,570	21,820	528,600	21,910
January 31, 1996	99,110	21,910	521,800	22,180
February 29	98,460	21,970	507,400	34,200
March 31	98,080	22,100	472,600	39,980
April 30	96,790	24,740	371,200	27,350
May 31	86,040	19,230	346,800	42,670
June 30	147,500	28,250	616,700	54,700
July 31	150,400	21,230	646,500	42,580
August 31	119,200	14,860	587,600	21,130
September 30, 1996	77,810	15,110	526,600	17,700
Change in contents during water year	-26,490	+3,380	+1,400	-5,770

RULES AND REGULATIONS FOR ADMINISTRATION OF THE YELLOWSTONE RIVER COMPACT

A compact, known as the Yellowstone River Compact, between the States of Wyoming, Montana, and North Dakota, having become effective on October 30, 1951, upon approval of the Congress of the United States, which apportions the waters of certain interstate tributaries of the Yellowstone River which are available after the appropriative rights existing in the States of Wyoming and Montana on January 1, 1950 are supplied, and after appropriative rights to the use of necessary supplemental water are also supplied as specified in the Compact, is administered under the following rules and regulations subject to the provisions for amendment revision or abrogation as provided herein.

Article I. Collection of Water Records

A. It shall be the joint and equal responsibility of the members of the States of Wyoming and Montana to collect, cause to be collected, or otherwise furnish records of tributary streamflow at the points of measurement specified in Article V (B) of the Compact, or as near thereto as is physically or economically feasible or justified.

1. Clarks Fork

The gaging station known as Clarks Fork near Silesia, Montana and located in NW1/4 SE1/4 sec. 1, T. 4 S., R. 23 E., shall be the point of measurement for the Clarks Fork.

2. Bighorn River (exclusive of Little Bighorn River)

The gaging station known as the Bighorn River above Tullock Creek, near Bighorn, Montana, and located in SE1/4 SE1/4 NE1/4 sec. 3, T. 4 N., R. 34 E., shall temporarily be the designated point of measurement on that stream. The flow of the Little Bighorn River as measured at the gaging station near Hardin, Montana, and located in SE1/4 NE1/4 NE1/4 sec. 19, T. 1 S., R. 34 E., shall be considered the point of measurement for that stream, except that if or when satisfactory records are not available, the records for the nearest upstream station with practical corrections for intervening inflow or diversion shall be used.

3. Tongue River

The gaging station known as the Tongue River at Miles City, Montana, and located in NE1/4 NE1/4 SE1/4 sec. 23, T. 7 N., R. 47 E., shall temporarily be the point of measurement for that stream.

4. Powder River

The gaging station known as the Powder River near Locate, Montana, and located in NW1/4 SW1/4 sec. 14, T. 8 N., R. 51 E., shall temporarily be the designated point of measurement for that stream.

- B. Records of total annual diversion in acre-feet above the points of measurement designated in the Compact for irrigation, municipal, and industrial uses developed after January 1, 1950, shall be furnished by the members of the Commission for their respective States, at such time as the Commission deems necessary for interstate administration as provided by the terms of the Compact. Providing that if it be acceptable to the Commission, reasonable estimates thereof may be substituted.
- C. Annual records of the net change in storage in all reservoirs, not excluded under Article V (E) of the Compact, above the point of measurement specified in the Compact and completed after January 1, 1950, and the annual net change in reservoirs existing prior to January 1, 1950, which is used for irrigation, municipal, and industrial purposes developed after January 1, 1950, shall be the primary responsibility of the member of the Commission in whose State such works are located; providing such data are not furnished by Federal agencies under the provisions of Article III (D) of the Compact, or collected by the Commission.

Article II. Office and Officers

- A. The office of the Commission shall be located at the office of the Chairman of the Commission.
- B. The Chairman of the Commission shall be the Federal representative as provided in the Compact.
- C. The Secretary of the Commission shall be as provided for in Article III of these rules.
- D. The credentials of each member of the Commission shall be placed on file in the office of the Commission.

Article III. Secretary

- A. The Commission, subject to the approval of the Director of the United States Geological Survey, shall enter into cooperative agreements with the U.S. Geological Survey for such engineering and clerical services as may reasonably be necessary for the administration of the Compact. Said agreements shall provide that the Geological Survey shall:

1. Maintain and operate gaging stations at or near the points of measurement specified in Article V (A) of the Compact.
 2. Assemble factual information on stream flow, diversion, and reservoir storage for the preparation of an annual report to the Governors of the signatory States.
 3. Make such investigations and reports as may be requested by the Commission in aid of its administration of the Compact.
- B. The Geological Survey shall act as Secretary to the Commission.

Article IV. Budget

- A. At the annual meeting of each even-numbered year or prior thereto, the Commission shall adopt a budget for operation during the ensuing biennium beginning July first. Such budget shall set forth the total cost of construction, maintenance and operation of gaging stations, the cost of engineering and clerical aid, and other necessary expenses excepting the salaries and personal expenses of the Commissioners. On odd-numbered years revisions of the budget shall be considered.
- B. It shall be the obligation of the Commissioners of the States of Montana and Wyoming to endeavor to secure from the Legislature of their respective States sufficient funds with which to meet the obligations of this Compact, except insofar as provided by the Federal government.

Article V. Meetings

An annual meeting of the Commission shall be held each November at some mutually agreeable point in the Yellowstone River Basin for consideration of the annual report for the water year ending the preceding September 30th, and for the transaction of such other business consistent with its authority; provided that by unanimous consent of the Commission the date and place of the annual meeting may be changed. Other meetings as may be deemed necessary shall be held at a time and place set by mutual agreement, for the transaction of any business consistent with its authority.

No action of the Commission shall be effective until approval by the Commissioners for the States of Wyoming and Montana.

Article VI. Amendments, Revisions and Abrogations.

The Rules and Regulations of the Commission may be amended or revised by a unanimous vote at any meeting of the Commission.



Gary Fritz
Commissioner for Montana



George L. Christopoulos
Commissioner for Wyoming

ATTESTED:



L. Grady Moore
Federal Representative

Adopted November 17, 1953
Amended December 16, 1986

**RULES FOR THE RESOLUTION OF DISPUTES
OVER THE ADMINISTRATION OF THE
YELLOWSTONE RIVER COMPACT**

December 19, 1995

Section I. General Framework

According to Article III(F) of the Yellowstone River Compact.

"In case of the failure of the representatives of Wyoming and Montana to unanimously agree on any matter necessary to the proper administration of this compact, then the member selected by the director of the United States Geological Survey shall have the right to vote upon the matters in disagreement and such points of disagreement shall then be decided by a majority vote of the representatives of the states of Wyoming and Montana and said member selected by the director of the United States geological survey, each being entitled to one vote."

Section II. Purpose and Goal

- A. The purpose of these rules is to clarify and more fully develop the dispute resolution process outlined in Section I.
- B. The goal of the dispute resolution process outlined in these rules is to encourage joint problem solving and consensus building. It consists of three phases -- unassisted negotiation, facilitation, and voting.
- C. Any agreement reached through this process is binding on Montana, Wyoming, and the United States Geological Survey (USGS).
- D. Either state can initiate the dispute resolution process defined in Sections IV, V, and VI, and the other state is obligated to participate in good faith. The states agree that the issues pursued under this dispute resolution process shall be both substantive and require timely resolution.

Section III. Consensus

- A. In the process of administering the Yellowstone River Compact, the representatives from Montana and Wyoming agree to seek consensus.
- B. For purposes of this rule, consensus is defined as an agreement that is reached by identifying the interests of Montana and Wyoming and then building an integrative solution that maximizes the satisfaction of as many of the interests as possible. The process of seeking consensus does not involve voting, but a synthesis and blending of alternative solutions.

Section IV. Unassisted Negotiation

- A. In all situations, the representatives from Montana and Wyoming shall first attempt to seek consensus through unassisted negotiation. The federal representative will not serve as chairperson in the unassisted negotiation process.
- B. During a negotiation process, the representatives from Montana and Wyoming shall identify issues about which they differ, educate each other about their needs and interests, generate possible resolution options, and collaboratively seek a mutually acceptable solution.
- C. To help facilitate negotiations, the representatives from Montana and Wyoming in cooperation with the USGS agree to share technical information and develop joint data bases. Other data sources may also be used.
- D. The USGS shall serve as technical advisor in the two-state negotiations.

Section V. Facilitation

- A. If the representatives from Montana and Wyoming are not able to reach consensus through unassisted negotiation, they shall each identify, articulate, and exchange, in writing, the unresolved issues.
- B. The representatives from Montana and Wyoming shall then jointly appoint a facilitator to assist in resolving the outstanding dispute. If the representatives from Montana and Wyoming cannot identify a mutually acceptable facilitator, the representative appointed by the USGS shall appoint a facilitator.
- C. A facilitator, for purposes of this rule, is defined as a neutral third party that shall help the representatives from Montana and Wyoming communicate, negotiate, and reach agreements voluntarily. The facilitator is not empowered to vote or render a decision.
- D. The facilitator shall assist the representatives from Montana and Wyoming in developing appropriate ground rules for each facilitated session including establishing a deadline for completion of the facilitation process, setting an appropriate agenda, identifying issues, collecting and analyzing technical information, developing options, packaging agreements, and preparing a written agreement. The facilitator reserves the right to meet privately with each representative during the facilitation process.

Section VI. Voting

- A. If, and only if, the representatives from Montana and Wyoming are unable to reach consensus with the assistance of a facilitator, then a dispute may be settled by voting.
- B. The representatives from Montana and Wyoming, along with the representative appointed by the director of the USGS, are each entitled to one vote.
- C. If the USGS representative does not vote in accordance with Article III, then the director of the USGS will select, with concurrence from Wyoming and Montana, a neutral third party to vote.

D. If the representative appointed by the director of the USGS is not involved in the steps outlined in Sections IV and V, each state shall have the opportunity to present appropriate information to that representative. This information may be presented through both oral presentations and written documents. All information will be shared with the other state.

The representative of the USGS may also consult the facilitator referenced in Section V in an attempt to resolve any disputes.

E. The USGS shall pay the expenses of the representative appointed by the director of the USGS.

F. Points of disagreement shall be resolved by a majority vote.

Section VII. Funding

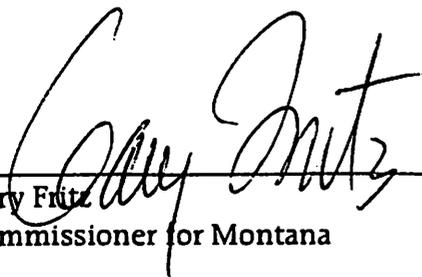
A. The USGS will pay one-half and the states of Montana and Wyoming shall each pay one-quarter of the expenses of the facilitator, which shall not exceed \$10,000, unless agreed to by both states and the USGS.

Section VIII. Amendments

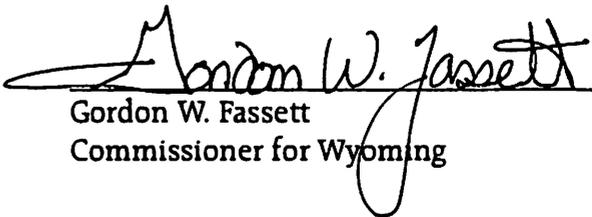
A. These rules may be amended or revised by a unanimous vote of the Commission.

Section IX. Execution

These rules for the resolution of disputes over the administration of the Yellowstone River Compact are hereby executed on the date indicated below.



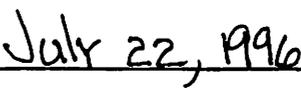
Gary Fritz
Commissioner for Montana



Gordon W. Fassett
Commissioner for Wyoming



William F. Horak
Federal Representative



Date

RULES FOR ADJUDICATING WATER RIGHTS ON INTERSTATE DITCHES

Article I. Purpose

The purpose of this rule is to determine and adjudicate, in accordance with the laws of Montana and Wyoming, those pre-Compact (January 1, 1950) water rights diverting from the Powder, Tongue, Bighorn and Clarks Fork Rivers and their tributaries where the point of diversion is in one State and the place of use is in the other State which have not yet been adjudicated.

Article II. Authority

In accordance with the Yellowstone River Compact, the State of Montana and the State of Wyoming, being moved by consideration of interstate comity, desire to remove all causes of present and future controversy between the States and between persons in one State and persons in another State with respect to these interstate ditches. Article III (E) of the Compact provides the Yellowstone River Compact Commission with the authority "...to formulate rules and regulations and to perform any act which they may find necessary to carry out the provisions of this Compact...."

Article III. Definitions

The terms defined in the Yellowstone River Compact apply as well as the following definitions:

1. "Acre-feet" means the volume of water that would cover 1 acre of land to a depth of 1 foot.
2. "Cfs" means a flow of water equivalent to a volume of 1 cubic foot that passes a point in 1 second of time and is equal to 40 miners inches in Montana.
3. "Interstate Ditches" shall include ditches and canals which convey waters of the Bighorn, Tongue, Powder, and Clarks Fork Rivers and their tributaries across the Wyoming-Montana State line where the water is diverted in one State and the place of use is in the other State.
4. "Department of Natural Resources and Conservation," hereafter called the "Department," means the administrative agency and Department of the Executive Branch of the Government of Montana created under Title II, Chapter 15, MCA which has the responsibility for water administration in that State.

5. "Water Court" means a Montana District Court presided over by a water judge, as provided for in Title III, Chapter 7, MCA.
6. "State Engineer" shall be the current holder of the position created by the Wyoming Constitution as Chief Water Administration Official for the State of Wyoming.
7. "Board of Control," hereinafter called the "Board," is defined as the constitutionally created water management agency in Wyoming composed of the four Water Division Superintendents and the State Engineer.
8. "Superintendent" is the member of the Board who is the water administration official for the Water Division where the interstate ditch is located. (The two Water Divisions in the Yellowstone River drainage are Water Division Numbers Two and Three.)
9. "Date of Priority" shall mean the earliest date of actual beneficial use of water, unless evidence and circumstances pertaining to a particular claim establish an earlier date.
10. "Point of Diversion" is defined to be the legal land description by legal subdivision, section, township, and range of the location of the diversion structure for an interstate ditch from a natural stream channel.
11. "Place of Use" is defined to be the legal land description (legal subdivision, section, township, and range) of the lands irrigated by an interstate ditch.
12. "Person" is defined as an individual, a partnership, a corporation, a municipality or any other legal entity, public or private.
13. "Claimant" is defined as any person claiming the use of water from an interstate ditch as herein defined.

Article IV. Procedures

The procedures for determining and adjudicating water rights associated with interstate ditches shall be categorized as follows: (A) Where the point of diversion is in Wyoming and place of use in Montana, and (B) Where the point of diversion is in Montana and place of use in Wyoming.

A. Wyoming Procedure

1. The Yellowstone River Compact Commission will provide a claim form to be completed by the claimant that will describe the location and point of diversion and land being irrigated, the priority date claimed, method of irrigation and such other information required to describe the claim. (A sample form for this purpose is attached.)
2. The Yellowstone River Compact Commission will send the claim form to water users on the interstate ditches.
3. Water users will complete the claim form and file it with the Yellowstone Compact Commission, which, when found to be correct and complete, will be forwarded to the Board for verification.
4. Upon receipt of the form, the Board shall forward it to the appropriate Superintendent, who, in cooperation with the Department, will validate the information including the use that has been made of the water, the number of acres and location of lands being irrigated, the priority date, and all other relevant information. The Superintendent and the Department will utilize aerial photography and other information to have prepared a reproducible map showing the location of the ditch system, lands irrigated, point of diversion, etc., of the claim.
5. After the validation procedure, the Superintendent will hold a hearing, after appropriate notice and advertisement, at which time the claimant shall describe, in detail, the use that has been made of the water and the lands that are being irrigated, establish a priority date, etc. Costs incurred in advertising shall be paid by the claimant. If a single hearing is held to consider several claims, the costs of advertising shall be shared equally among the claimants. Anyone who opposes the claim shall appear and state the reasons, if any, for opposition to the claim. If there is no opposition to the claim, cost incurred in holding the hearing shall be paid by the claimant. If protestants do appear and oppose the claim, hearing costs will be paid 50 percent by the claimant and 50 percent by the protestant, or if there is more than one protestant, the remaining 50 percent shall be shared equally among the protestants.
6. At the conclusion of the hearing, the Superintendent shall forward the record to the Yellowstone River Compact Commission with his findings and recommendations. The Yellowstone River Compact Commission will make the

determination of the amount of the right, the location, and the priority date, and then send the record to the Board.

7. The Board shall review the record and integrate it into its water rights system. Upon entry of the record by the Board, the information shall be forwarded to the Department and the Chairman of the Yellowstone River Compact Commission.
8. Upon the entry of the right into the Board's records, it will have the following attributes:
 - a. The right will be a Wyoming water right with a priority date as established by this procedure.
 - b. The amount of the right will be determined as provided by Wyoming law.

B. Montana Procedure

1. The Yellowstone River Compact Commission will provide a claim form to be completed by the claimant that will describe the location and point of diversion and land being irrigated, the priority date claimed, method of irrigation and such other information required to describe the claim.
2. The Commission will send the claim form to water users on the interstate ditches.
3. Water users will complete the claim form and file it with the Yellowstone River Compact Commission, which, when found to be correct and complete, will be forwarded to the Department for verification.
4. Upon receipt of the form, the Department, in cooperation with the Wyoming State Engineer's Office, will validate the information, including the use that has been made of the water, the number of acres and location of lands being irrigated, the priority date, and all other relevant information. The appropriate Superintendent and the Department will utilize aerial photographs and other information to have prepared a reproducible map showing the location of the ditch system, land irrigated, point of diversion, etc., of the claim.

5. The Department will then forward the record to the Yellowstone River Compact Commission with its findings and recommendations. Upon approval by the Commission, the record shall be submitted to the Montana Water Court for adjudication. A duplicate record will be forwarded to the Wyoming State Engineer's Office, the Board, and the Chairman of the Yellowstone River Compact Commission upon adjudication.
6. Upon adjudication of the right by the Montana Water Court, it will have the following attributes:
 - a) The right will be a Montana water right with a priority date as established by this procedure.
 - b) The amount of the right will be determined as provided by Montana law.

Article V. Exclusions

- A. These rules recognize the limitation in Article VI of the Yellowstone River Compact regarding Indian water rights.
- B. These rules shall not be construed to determine or interpret the rights of the States of Wyoming and Montana to the waters of the Little Bighorn River.

Article VI. Claim Form Submission Period

All claims must be submitted to the Yellowstone River Compact Commission, c/o District Chief, United States Geological Survey, 821 E. Interstate, Bismarck, ND 58501, within 90 calendar days after the claimant has received the claim form from the Commission. The blank claim form will be sent certified mail to the water user and the submission period of 90 calendar days will begin with the next day following receipt of the form, as evidenced by the certified mail receipt card. For good cause shown in writing, an extension of time beyond the 90 days for submittal may be obtained from the Commission.

YELLOWSTONE RIVER COMPACT COMMISSION

WYOMING

GORDON W. FASSETT
STATE ENGINEER
HERSCHLER BUILDING
4TH FLOOR EAST
CHEYENNE, WYOMING 82002
(307) 777-354

UNITED STATES

WILLIAM F. HORAK
CHAIRMAN
U.S. GEOLOGICAL SURVEY
821 E. INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58501
(701) 250-4601

MONTANA

GARY FRITZ
ADMINISTRATOR, WATER RESOURCES DIVISION
DEPT. OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE
HELENA, MONTANA 59620
(406) 444-6603

YELLOWSTONE RIVER COMPACT COMMISSION

CLAIM FORM FOR INTERSTATE DITCHES

1. Name of ditch or canal: _____
2. Source of water supply: _____
Tributary of _____
3. Name of claimant: _____
Address _____
City _____ State _____ Zip Code _____
Home Phone No. _____ Business Phone No. _____
4. Person completing form: _____
Address _____
City _____ State _____ Zip Code _____
Home Phone No. _____ Business Phone No. _____
5. Method of irrigation: _____
6. Point of diversion: County _____ State _____
Headgate located in the $\frac{1}{4}$ $\frac{1}{4}$, Section _____, T. _____ R. _____

(a) Description of headgate: (Briefly describe the materials and general features, date constructed or last known work, general condition.) _____

9. Describe any additional uses of water claimed from the ditch:

10. Date of first beneficial use of water (priority date) on lands described above for _____ Ditch is _____
(mo/day/yr)
and shall be the same for all lands claimed on this form.
11. Has irrigation water been diverted onto all lands shown in the above tabulation each year since completion of works?__
If not, state exceptions and reasons therefore: _____

12. Attach documentary evidence or affidavits showing your ownership or control of the above lands, as well as the historic use of water on these lands. _____

13. What permit or claim numbers have been assigned to known records filed with either the Wyoming State Engineer's Office or the Montana Department (DNRC) for irrigating the above lands? _____

14. Have personnel in the Wyoming State Engineer's Office or the Montana Department (DNRC) been contacted to obtain the information given in No. 13? () Yes () No
15. Describe any flumes or pipelines in the ditch conveyance system: _____

CONVERSION TABLE

<u>Multiply inch-pound units</u>	<u>By</u>	<u>To obtain SI units</u>
<i>Length</i>		
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
<i>Area</i>		
acres	4,047	square meters (m ²)
	0.4047	*hectares (ha)
	0.4047	square hectometer (hm ²)
	0.004047	square kilometers (km ²)
square miles (mi ²)	2.590	square kilometers (km ²)
<i>Volume</i>		
cfs-day or second-foot day (ft ³ /s-day)	2,447	cubic meters (m ³)
	0.002447	cubic hectometers (hm ³)
cubic feet	0.02832	cubic meters
acre-feet (acre-ft)	1,233	cubic meters (m ³)
	0.001233	cubic hectometers (hm ³)
	0.000001233	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	28.32	liters per second (L/s)
	28.32	cubic decimeters per second (dm ³ /s)
	0.02832	cubic meters per second (m ³ /s)
acre-feet per year (acre-ft/yr)	1,233	cubic meters per year (m ³ /yr)
	0.001233	cubic hectometers per year (hm ³ /yr)
	0.000001233	cubic kilometers per year (km ³ /yr)

*The unit hectare is approved for use with the International System (SI) for a limited time. See National Bureau of Standards Special Bulletin 330, p. 12, 1977 edition.

